Mr. Shaun Spainhower
PCS Nitrogen Ohio, L.P.
2200 Fort Amanda Rd.
Lima, OH 45804

Facility ID: 0302020370
Permit Number: P0137785
County: Allen

RE: **DRAFT AIR POLLUTION TITLE V PERMIT**
Permit Type:Renewal

Dear Permit Holder:

A draft of the OAC Chapter 3745-77 Title V permit for the referenced facility has been issued. The purpose of this draft is to solicit public comments. A public notice will appear in the Ohio Environmental Protection Agency (EPA) Weekly Review and Public Notices website, ***Weekly Review and Public Notices | Ohio Environmental Protection Agency***. A copy of the public notice, the Statement of Basis, and the draft permit are enclosed. This permit can be accessed electronically on the Ohio EPA document search website here: ***eDocument Search | Ohio Environmental Protection Agency***. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

and

Ohio EPA DAPC, Northwest District Office
347 North Dunbridge Rd.
Bowling Green, OH 43402

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published on the Ohio EPA Weekly Review and Public Notices website, ***https://epa.ohio.gov/about/media-center/public-notices***. You will be notified if a public hearing is scheduled. A decision on processing the Title V permit will be made after consideration of comments received and oral testimony if a public hearing is conducted. You will then be provided with a Preliminary Proposed Title V permit and another opportunity to comment prior to the 45-day Proposed Title V permit submittal to U.S. EPA Region 5. The permit will be issued final after U.S. EPA review is completed and no objections to the final issuance have been received. If you have any questions, please contact Ohio EPA DAPC, Northwest District Office at (419)352-8461.

Sincerely,

Robert Hodanbosi
Chief, Division of Air Pollution Control
cc: U.S. EPA Region 5 - *Via E-Mail Notification*Ohio EPA-NWDO; Indiana

Public Notice

The following matters are the subject of this public notice by the Ohio Environmental Protection Agency. The complete public notice, including any additional instructions for submitting comments, requesting information, a public hearing, or filing an appeal may be obtained at: ***Weekly Review and Public Notices | Ohio Environmental Protection Agency*** or Hearing Clerk, Ohio EPA, 50 W. Town St., Columbus, Ohio 43215. Phone: 614-644-2129 Email: ***HClerk@epa.ohio.gov***

Draft Title V Permit Renewal

PCS Nitrogen Ohio, L.P.
Fort Amanda & Adgate Roads
None
Lima, OH 45804

ID#: P0137785
Date of Action: 07/23/2025
Permit Desc: TV Permit Renewal for Nitrogenous Fertilizers Facility

Statement of Basis* For Air Pollution Title V Permit

***As defined in OAC rule 3745-77-01(MM): "Statement of basis" or "SOB" means a statement that sets forth the legal and factual basis for the draft [Title V] permit conditions (including references to the applicable statutory or regulatory provisions)."**

Completing this form is intended to satisfy those requirements.

Facility ID:	0302020370
Facility Name:	PCS Nitrogen Ohio, L.P.
Facility Description:	Nitrogenous Fertilizers
Facility Address:	Fort Amanda & Adgate Roads, Lima, OH 45804
Permit #:	P0137785 – TV renewal
This facility is subject to Title V because it is major for: ☐Lead ☐Sulfur Dioxide☒ Carbon Monoxide☒ Volatile Organic Compounds☒ Nitrogen Oxides ☒Particulate Matter ≤ 10 microns☒ Single Hazardous Air Pollutant☐ Combined Hazardous Air Pollutants ☐GHG And/or subject to: ☒Maximum Available Control Technology Standard(s) ☐GACT standard(s) that requires a Title V permit☐Title IV ☐Opt-In source	

A. Permit Background

1. Has each insignificant emissions unit been reviewed to confirm it meets the definition in OAC rule 3745-77-01(V)?		
Yes X	No	Comments:

2. Discuss any **common control determinations** (this includes revisions to previous determinations), include justification, factors, and facts which led to the final decision.	
Discussion:	
3. 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). This includes identifying conditions from previous permits that are not included in the new permit.	
PTI No.: 1. P0136819 2. P0137450	Affected EUs: 1. B503, P520 2. P559, T549, T620, T621, T626, T629, T632, T636
Discussion of changes from the previous Title V:	
4. 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 **minor modification** per OAC rules 3745-77-08(C)(1) or (2)	
PTI No.	Affected EUs:
Minor Modification Description: Administrative modification to update the transition language and add monitoring, recordkeeping and reporting requirements associated with the plan for quantifying NOx emissions during startup and shutdown.	
5. 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)	
PTI No.:	Affected EUs:
Significant Modification Description:	
6. 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)	
PTI No.:	Affected EUs:
Reopening for Cause for Description:	
7. Please identify the affected emissions unit(s) and pollutant(s) for which a **Compliance Assurance Monitoring (CAM)** Plan is required per 40 CFR 64. Provide more emissions unit specific detail in Section C.	
Affected EUs: P524, P531, P546, P547, P560, P572, P573, P577: PE	
8. Please identify any federal **Consent Decree (CD)** that resulted in the addition of Title V T&Cs – include the CD Number, the CD Public Notice date (if known) and Ohio EPA Permit Number (if applicable, along with final permit issuance date) that incorporates the CD requirements.	

CD No.	Public Notice Date:	PTI No.	PTI Issuance Date:

9. Please identify any **complex or unusual rule applicability determination** that is not readily apparent in the permit T&Cs and warrants additional explanation in the Statement of Basis. If the discussion is included in a PTI Permit Strategy Write Up cite the Permit Number and copy/paste or summarize the determination here.

PTI No.	Discussion:

10. Please identify any **streamlining determinations** within the permit. Include an identification of the subsumed limit(s) and explanation of how the resulting limit is equivalent to or more stringent than those subsumed. If the discussion exists in a PTI Permit Strategy Write Up, cite the Permit Number and summarize the determination here. This would also be noted for specific emissions units identified in C.

PTI No.	Discussion:

11. Please identify any current **enforcement actions** to address violations at the facility resulting in a compliance plan and schedule.

Director's Final Findings and Orders; AGO Consent Decree; or U.S. EPA Consent Decree Date:	List the Order/Injunctive Relief number from the associated enforcement document and provide a description:

B. Facility-Wide Terms and Conditions

Term and Condition (paragraph)	Basis		Comments
	SIP (3745-)	Other	
B.1	Y	N	There are no state only facility-wide terms and conditions.
B.2	N	Y	Applicability of 40 CFR, Part 60, Subpart JJJJ for insignificant emissions units, including incorporation by reference
B.3	N	Y	Applicability of 40 CFR, Part 63, Subpart ZZZZ for insignificant emissions units, including incorporation by reference

B.4	N	Y	Applicability of 40 CFR, Part 63, Subpart DDDDD for insignificant emissions units, including incorporation by reference
B.5	N	Y	Applicability of 40 CFR, Part 63, Subpart FFFF for insignificant emissions units, including incorporation by reference
B.6	N	Y	Applicability of 40 CFR, Part 64, Compliance Assurance Monitoring
B.7 and B.8	N	Y	Record keeping and reporting requirements for $PM_{2.5}$, NOx, CO and VOC, in tons per year, for several emissions units to ensure that emissions from the ammonia and urea expansion project does not trigger a major modification for these pollutants.
B.9	N	Y	Applicability of 40 CFR Part 60 Subpart Db for B509
B.10	N	Y	Applicability of 40 CFR Part 63 Subpart A and 40 CFR Part 63 Subpart DDDDD for B509
B.11	N	Y	Applicability of 40 CFR Part 63 Subpart FFFF for P526, P563, and P564
B.12	N	Y	Federally enforceable emissions limitations, monitoring, record keeping and reporting requirements for CO and VOC emissions, in tons per rolling, 12-month period, for start-up and shutdown events occurring at P520, P521 and P522.
B.13 and B.14	N	Y	Record keeping and reporting requirements for NOx and PE, in tons per year, for several emissions units to ensure that emissions from the 2020 turnaround project does not trigger a major modification for this pollutant.
B.15	Y	N	List of insignificant emissions units subject to one or more requirements in OAC rule 3745-17, 3745-18, 3745-21, and 3745-31, and/or 40 CFR Part 60 or 63.
B.16	N	Y	Record keeping and reporting requirements for NOx, in tons per year, for units B503 and P520 to ensure that emissions from the 2024 reformer project does not trigger a major modification for this pollutant.
B.17	N	Y	Emissions limitations, monitoring, recordkeeping, and testing requirements for B503 and P520 prior to commencing operation after the 2024 reformer project.

C. Emissions Unit Terms and Conditions

Key:	

EU = emissions unit ID	R = record keeping requirements
ND = negative declaration (i.e., term that indicates that a particular rule(s) is (are) not applicable to a specific emissions unit)	Rp = reporting requirements
OR = operational restriction	ET = emission testing requirements (not including compliance method terms)
M = monitoring requirements	Misc = miscellaneous requirements
ENF = did noncompliance issues drive the monitoring requirements?	

Emissions Unit Table

EU(s)	Limitation	Basis	ND	OR	M	R	Rp	ET	ENF	Misc	Comments
Section C.1: B502, Ammonia Production Unit: Boiler #2											
	0.020 lb PE/mmBtu	OAC rule 3745-17-10(B)(1)	N	Y	Y	Y	Y	N	N	N	ET- M/R/Rp for inherently clean fuel are sufficient to demonstrate compliance without requiring formal testing
	Visible PE shall not exceed 20% opacity as a 6-minute average	OAC rule 3745-17-07(A)	N	Y	Y	Y	Y	N	N	N	ET- M/R/Rp for inherently clean fuel are sufficient to demonstrate compliance without requiring formal testing
	None	40 CFR, Part 63, Subpart DDDDD	N	Y	Y	Y	Y	N	N	N	ET- None required by rule, M/R/Rp requirements are sufficient to demonstrate compliance without requiring formal testing (work practice standards)
	1.27 lbs SO2/mmBtu of actual heat input	OAC rule 3745-18-08(D)(1)	N	N	N	N	N	N	N	N	ET- M/R/Rp for inherently clean fuel are sufficient to demonstrate compliance without requiring formal testing
Section C.2: B503, Ammonia Production Unit: Primary Reformer											
	0.020 lb PE/mmBtu	OAC rule 3745-17-10(B)(1)	N	Y	Y	Y	Y	N	N	N	ET- M/R/Rp for inherently clean fuel are sufficient to demonstrate compliance without requiring formal testing

	Visible PE shall not exceed 20% opacity as a 6-minute average	OAC rule 3745-17-07(A)	N	Y	Y	Y	Y	N	N	N	ET- M/R/Rp for inherently clean fuel are sufficient to demonstrate compliance without requiring formal testing
	1.27 lbs SO2/mmBtu of actual heat input	OAC rule 3745-18-08(D)(2)	N	N	N	N	N	N	N	N	ET- M/R/Rp for inherently clean fuel are sufficient to demonstrate compliance without requiring formal testing
	1,179.12 tons NOx/rolling, 12-month period	OAC rule 3745-31-05(D) ORC 3704.03(T) PTI #P0130953	N	Y	Y	Y	Y	N	N	N	ET- M/R/Rp are sufficient to demonstrate compliance to demonstrate compliance without requiring formal testing (emissions tracking calculations)
	7.60 lbs PE/PM10/PM2.5/hr and 33.29 tons of PE/PM10/PM2.5/yr 0.60 lb SO2/hr and 2.63 tons of SO2/yr 552.36 lbs of NOx/hr 6.71 lbs of CO/hr and 29.38 tons of CO/yr 5.50 lbs of VOC/hr and 24.09 tons of VOC/yr	OAC rule 3745-31-05(D) ORC 3704.03(T) PTI #P0130953	N	Y	Y	Y	Y	N	Y	N	ET- M/R/Rp for inherently clean fuel are sufficient to demonstrate compliance without requiring formal testing and emission limits represent PTE
Section C.3: B504, Ammonia Production Unit: Converter Start-up Heater											
	0.020 lb PE/mmBtu	OAC rule 3745-17-10(B)(1)	N	Y	Y	Y	Y	N	N	N	ET- M/R/Rp for inherently clean fuel are sufficient to demonstrate compliance without requiring formal testing
	Visible PE shall not exceed 20% opacity	OAC rule 3745-17-07(A)	N	Y	Y	Y	Y	N	N	N	ET- M/R/Rp for inherently clean fuel are sufficient to demonstrate compliance without requiring formal testing

	as a 6-minute average										
	None	40 CFR, Part 63, Subpart DDDDD	N	Y	Y	Y	Y	N	N	N	ET- None required by rule, M/R/Rp requirements are sufficient to demonstrate compliance without requiring formal testing (work practice standards)
	Maximum Annual Heat Input Restrictions	OAC rule 3745-31-05(D) PTI P0136819	N	Y	Y	Y	Y	N	N	N	ET- None required by rule, M/R/Rp requirements are sufficient to demonstrate compliance without requiring formal testing (fuel usage records)
Section C.4: B506, Ammonia Production Unit: Gas Turbine											
	0.020 lb PE/mmBtu	OAC rule 3745-17-10(B)(1)	N	Y	Y	Y	Y	N	N	N	ET- M/R/Rp for inherently clean fuel are sufficient to demonstrate compliance without requiring formal testing
	Visible PE shall not exceed 20% opacity as a 6-minute average	OAC rule 3745-17-07(A)	N	Y	Y	Y	Y	N	N	N	ET- M/R/Rp for inherently clean fuel are sufficient to demonstrate compliance without requiring formal testing
Section C.5: B507, Ammonia Load Heater											
	3.92 lbs NOx/hr and 17.18 tons NOx/yr	OAC rule 3745-31-05(D) ORC 3704.03(T) PTI #P0117742	N	Y	Y	Y	Y	N	Y	N	ET- M/R/Rp for inherently clean fuel are sufficient to demonstrate compliance without requiring formal testing and emission limits represent PTE
	0.082 lb CO/mmBtu	ORC 3704.03(T) PTI #P0117742	N	Y	Y	Y	Y	N	Y	N	ET- M/R/Rp for inherently clean fuel are sufficient to demonstrate compliance without requiring formal testing and emission limit represents PTE
	0.020 lb PE/mmBtu	OAC rule 3745-17-10(B)(1)	N	Y	Y	Y	Y	N	N	N	ET- M/R/Rp for inherently clean fuel are sufficient to demonstrate compliance without requiring formal testing
	Visible PE shall not exceed 20% opacity as a 6-minute average	OAC rule 3745-17-07(A)	N	Y	Y	Y	Y	N	N	N	ET- M/R/Rp for inherently clean fuel are sufficient to demonstrate compliance without requiring formal testing

	None	40 CFR, Part 63, Subpart DDDDD	N	Y	Y	Y	Y	N	N	N	ET- None required by rule, M/R/Rp requirements are sufficient to demonstrate compliance without requiring formal testing (work practice standards)
Section C.6: B509, Ammonia Production Unit: Boiler #3											
	1.69 lbs PE/PM10/PM2.5/hr and 7.41 tons of PE/PM10/PM2.5/yr 0.13 lb SO2/hr and 0.58 ton of SO2/yr 18.69 lbs CO/hr and 81.88 tons of CO/yr 1.22 lbs VOC/hr and 5.36 tons of VOC/yr	OAC rule 3745-31-05(D) ORC 3704.03(T) PTI #P0117742	N	Y	Y	Y	Y	N	N	N	ET- M/R/Rp for inherently clean fuel are sufficient to demonstrate compliance without requiring formal testing and emission limits represent PTE
	22.70 lbs NOx/hr and 99.43 tons of NOx/yr	OAC rule 3745-31-05(D) ORC 3704.03(T) PTI #P0117742	N	Y	Y	Y	Y	Y	N	N	
	0.020 lb PE/mmBtu	OAC rule 3745-17-10(B)(1)	N	Y	Y	Y	Y	N	N	N	ET- M/R/Rp for inherently clean fuel are sufficient to demonstrate compliance without requiring formal testing
	Visible PE shall not exceed 20% opacity as a 6-minute average	OAC rule 3745-17-07(A)	N	Y	Y	Y	Y	N	N	N	ET- M/R/Rp for inherently clean fuel are sufficient to demonstrate compliance without requiring formal testing
	None	40 CFR, Part 63, Subpart DDDDD	N	Y	Y	Y	Y	N	N	N	ET- None required by rule, M/R/Rp requirements are sufficient to demonstrate compliance without requiring formal testing (work practice standards)
	0.20 lb NOx/mmBtu of	40 CFR, Part 60,	N	N	Y	Y	Y	Y	N	N	

	actual heat input on a 30-day rolling average basis	Subpart Db									
Section C.8: P520, Ammonia Production Unit: Reforming											
	9.36 lbs CO/hr and 41.00 tons CO/yr during normal production mode of operation 0.86 lbs VOC/hr and 3.75 tons VOC/yr during normal production mode of operation	OAC rule 3745-31-05(D) OAC rule 3745-31-05(A)(3) ORC 3704.03(T) PTI #P0130593	N	N	N	N	N	N	N	N	M/R/Rp/ET-Emission limits represent PTE and compliance was demonstrated based on the most recent stack testing results ET – Per Engineering Guide #16, most recent stack test was sufficient to demonstrate compliance, and no further testing required at this time
Section C.9: P521, Ammonia Production Unit: Purification											
	2.99 lbs CO/hr and 13.07 tons CO/yr during normal production mode of operation 0.42 lb VOC/hr and 1.85 tons VOC/yr during normal production mode of operation	OAC rule 3745-31-05(D) OAC rule 3745-31-05(A)(3) ORC 3704.03(T) PTI #P0130593	N	N	N	N	N	N	N	N	M/R/Rp/ET-Emission limits represent PTE and compliance was demonstrated based on the most recent stack testing results ET – Per Engineering Guide #16, most recent stack test was sufficient to demonstrate compliance, and no further testing required at this time
Section C.10: P522, Ammonia Production Unit: Synthesis											
	Emissions from the flare: No visible emissions except for periods not to exceed a total of five minutes during any 2	OAC rule 3745-31-05(D) PTI #P0130593	N	Y	Y	Y	Y	N	N	N	ET- M/R/Rp are sufficient to demonstrate compliance to demonstrate compliance without requiring formal testing (pilot flame monitoring)

	consecutive hours										
	Emissions from the flare: 5.56 tons NOx per rolling, 12-month period during combustion of Purge/Tail and Flash Gases during HRU/Cryo (B503) downtime 30.18 tons CO per rolling, 12-month period during normal operations and the combustion of Purge/Tail and Flash Gases during HRU (B503) downtime	OAC rule 3745-31-05(D) ORC 3704.03(T) PTI #P0130593	N	Y	Y	Y	Y	N	N	N	ET- M/R/Rp are sufficient to demonstrate compliance to demonstrate compliance without requiring formal testing (emissions tracking calculations)
	Emissions from the flare: 22.06 lbs of NOx/hr during combustion of Purge/Tail and Flash Gases during HRU (B503) downtime 2.74 lbs of CO/hr during normal production mode of operation	OAC rule 3745-31-05(D) ORC 3704.03(T) PTI #P0130593	N	N	N	N	N	N	N	N	M/R/Rp/ET-Emission limits represent PTE and compliance was demonstrated based on the most recent stack testing results ET – Per Engineering Guide #16, most recent stack test was sufficient to demonstrate compliance, and no further testing required at this time

	74.85 lbs of CO/hr during combustion of Purge/Tail and Flash Gases during HRU (B503) downtime, combined										
Section C.11: P523, Ammonia Production Unit: Carbon Dioxide (CO2) Stripper											
	275.90 tons VOC per rolling, 12-month period	OAC rule 3745-31-05(D) ORC 3704.03(T) PTI #P0130593	N	Y	Y	Y	Y	N	N	N	ET- M/R/Rp are sufficient to demonstrate compliance to demonstrate compliance without requiring formal testing (emissions tracking calculations)
	1.17 lbs CO/hr and 5.13 tons CO/yr 220.87 tons VOC/yr	OAC rule 3745-31-05(D) PTI #P0130593	N	N	N	N	N	N	N	N	M/R/Rp/ET-Emission limits represent PTE and compliance was demonstrated based on an adjustment made to an AP-42 emission factor
Section C.12: P524, Urea Prilling Section: Cyclone											
	3.34 lbs PE/hr; 14.62 tons of PE/yr (filterable) 2.00 lbs PM10/hr; 8.77 tons of PM10/yr (filterable) 1.43 lbs PM2.5/hr; 6.28 tons of PM2.5/yr (filterable) Visible PE shall not exceed 10% opacity as a six-minute	OAC rule 3745-31-05(D) PTI #P0108792	N	Y	Y	Y	Y	N	N	N	ET- M/R/Rp requirements are sufficient to demonstrate compliance without requiring formal testing (scrubber operating parameters recorded each shift) CAM is applicable and the performance indicators will be record scrubber blower amps and water flow rates recorded each shift and a visual inspection and maintenance program

	average. See b)(2)a. and c)(1)										
	Actual Annual PE, PM10/PM2.5, SO2, NOx, CO and VOC Emissions Requirements	OAC rule 3745-31-05(D) PTI #P0108792	N	N	Y	Y	Y	N	N	N	ET- M/R/Rp are sufficient to demonstrate compliance to demonstrate compliance without requiring formal testing (emissions tracking calculations)
	LDAR Requirements	40 CFR, Part 63, Subpart FFFF	N	N	Y	Y	Y	N	N	N	ET- None required by rule, M/R/Rp requirements are sufficient to demonstrate compliance without requiring formal testing (LDAR monitoring and SSMP requirements)
Section C.13: P526, Urea Production Section: Synthesis											
	Emissions from Urea Unit Flare: Visible PE from the flare shall not exceed 5% opacity, as a 6-minute average during emissions unit start-up periods when start-up venting is taking place	OAC rule 3745-31-05(D) PTI #P0136172	N	Y	Y	Y	Y	N	N	N	ET- M/R/Rp are sufficient to demonstrate compliance to demonstrate compliance without requiring formal testing (daily visible emissions checks)
	Emissions from Urea Unit Flare: 187.5 NOx/hr and 0.75 ton NOx/yr during emissions unit start-up periods when start-up	OAC rule 3745-31-05(D) PTI #P0136172	N	N	Y	Y	Y	N	N	N	ET- M/R/Rp are sufficient to demonstrate compliance to demonstrate compliance without requiring formal testing (emissions tracking calculations)

	venting is taking place										
	Emissions from Urea Plant Synthesis process equipment: 2.85 lbs VOC/hr and 12.50 tons VOC/yr during normal production mode of operation	OAC rule 3745-31-05(D) PTI #P0136172	N	N	N	N	N	N	N	N	M/R/Rp/ET-Emission limits represent PTE and compliance was demonstrated based on the most recent stack testing results
	LDAR Requirements	40 CFR, Part 63, Subpart FFFF	N	N	Y	Y	Y	N	N	N	ET- None required by rule, M/R/Rp requirements are sufficient to demonstrate compliance without requiring formal testing (LDAR monitoring and SSMP requirements)
Section C.14: P531, Ammonium Nitrate Neutralizer System											
	Visible PE shall not exceed 20% opacity as a 6-minute average	OAC rule 3745-17-07(A)	N	N	Y	Y	Y	N	N	N	ET- M/R/Rp are sufficient to demonstrate compliance without requiring formal testing CAM is applicable and the performance indicators will be the scrubber pressure drop and water circulation flow rate recorded each shift and a visual inspection and maintenance program
	15.4 lbs PE/hr	OAC rule 3745-17-11(B)(1)	N	N	Y	Y	Y	N	N	N	ET- M/R/Rp are sufficient to demonstrate compliance without requiring formal testing CAM is applicable and the performance indicators will be the scrubber pressure drop and water circulation flow rate recorded each shift and a visual inspection and maintenance program
Section C.15: P536, Urea Prilling Section: West Warehouse/Bagging											
	0.58 lb PM10/hr and 2.53 tons PM10/yr from urea prill bagging operations	OAC rule 3745-31-05(D) PTI #P0133229	N	Y	Y	Y	Y	N	N	N	ET- M/R/Rp are sufficient to demonstrate compliance without requiring formal testing (daily VE and scrubber pressure drop and liquid flow checks)

	(stack emissions) No visible fugitive emissions from the warehouse building containing the urea prill bagging operations										
	2.87 tons PM10/yr from bulk loadout operations (fugitive emissions) 0.022 tons PM10/yr from urea prill storage/handling operations (fugitive emissions) Visible fugitive PE from the bulk loadout operations and the urea prill storage/handling operations shall not exceed 20% opacity, as a three-minute average	OAC rule 3745-31-05(D) PTI #P0133229	N	Y	Y	Y	Y	N	Y	N	ET- M/R/Rp are sufficient to demonstrate compliance without requiring formal testing (daily VE checks) and emission limits represent PTE
	Visible PE from the stack shall not exceed 20% opacity, as a six-minute average, except as provided by rule.	OAC rule 3745-17-07(A)	N	Y	Y	Y	Y	N	N	N	ET- M/R/Rp are sufficient to demonstrate compliance without requiring formal testing (daily VE and scrubber pressure drop and liquid flow checks)

Section C.17: P558, AN Sol'n Truck/Railcar Loadout											
Section C.16: P556, NH3 Aqua Truck/Railcar Load											
	Scrubber Control Requirements	OAC rule 3745-31-05(E) PTI #P0122148	N	Y	Y	Y	Y	N	N	N	ET- M/R/Rp are sufficient to demonstrate compliance without requiring formal testing (scrubber pressure drop and liquid flow checks once per shift)
Section C.18: P560, Urea Prilling Section: Prill Tower											
	Visible PE shall not exceed 20% opacity as a 6-minute average	OAC rule 3745-17-07(A)	N	N	Y	Y	Y	N	N	N	ET- M/R/Rp are sufficient to demonstrate compliance without requiring formal testing CAM is applicable and the performance indicator will be the scrubber pressure drop recorded each shift and a visual inspection and maintenance program
	50.0 lbs PE/hr	OAC rule 3745-17-11(B)(1)	N	N	Y	Y	Y	N	N	N	ET- M/R/Rp are sufficient to demonstrate compliance without requiring formal testing CAM is applicable and the performance indicators will be the scrubber pressure drop recorded each shift and a visual inspection and maintenance program
Section C.19: P563, Urea Plant - Reactor Feed											
	0.36 lb VOC/hr and 1.58 tons VOC/yr	OAC rule 3745-31-05(D) PTI #P0117742									M/R/Rp/ET-Emission limits represent PTE and compliance was demonstrated based on the most recent stack testing results
	LDAR Requirements	OAC rule 3745-21-09(DD)	N	N	Y	Y	Y	N	N	N	ET- None required by rule, M/R/Rp requirements are sufficient to demonstrate compliance without requiring formal testing (LDAR requirements)
	LDAR Requirements	40 CFR, Part 63, Subpart FFFF	N	N	Y	Y	Y	N	N	N	ET- None required by rule, M/R/Rp requirements are sufficient to demonstrate compliance without requiring formal testing (LDAR monitoring and SSMP requirements)
Section C.20: P564, Urea Production Section: UTI Hotwell											
	0.02 lb PE/PM10/PM2.5/hr and 0.09 ton of PE/PM10/PM2.5/yr	OAC rule 3745-31-05(D) PTI #P0117742	N	N	Y	Y	Y	N	N	N	M/R/Rp/ET-Emission limits represent PTE and compliance was demonstrated based on the most recent stack testing results

	0.69 lb of CO/hr and 3.01 tons of CO/yr 2.06 lbs of volatile organic compounds (VOC)/hr and 9.01 tons of VOC/yr										
	Visible PE shall not exceed 20% opacity, as a 6-minute average.	OAC rule 3745-31-05(D) PTI #P0117742	N	Y	Y	Y	Y	N	N	N	ET- M/R/Rp are sufficient to demonstrate compliance to demonstrate compliance without requiring formal testing (daily visible emissions checks)
	LDAR Requirements	40 CFR, Part 63, Subpart FFFF	N	N	Y	Y	Y	N	N	N	ET- None required by rule, M/R/Rp requirements are sufficient to demonstrate compliance without requiring formal testing (LDAR monitoring and SSMP requirements)
Section C.21: P570, Nitric Acid Plant											
	1.40 lbs NOx/ton acid (100% nitric acid) produced except during periods of startup and shutdown	OAC rule 3745-31-05(A)(3) ORC 3704.03(T) PTI #P0130337 40 CFR, Part 60, Subpart G	N	N	Y	Y	Y	Y	N	N	
	92.36 tons NOx per rolling, 365-day period (including emissions from startups and shutdowns)	OAC rule 3745-31-05(D) PTI #P0130337	N	Y	Y	Y	N	N	N	N	ET- M/R/Rp are sufficient to demonstrate compliance to demonstrate compliance without requiring formal testing (daily emissions records based on CEM)
	3.885 tons CO per month averaged over a rolling, 12-month	OAC rule 3745-31-05(A)(3) ORC 3704.03(T)	N	N	Y	Y	Y	N	N	N	ET- M/R/Rp are sufficient to demonstrate compliance to demonstrate compliance without requiring formal testing (emissions tracking calculations)

	period (including emissions from startups and shutdowns)	PTI #P0130337									
	Gases discharged to the atmosphere (except during startups and shutdowns) shall not exceed 3.0 lb NOx (expressed as NO2)/ton acid produced (expressed as 100% nitric acid)	OAC rule 3745-31-05(A)(3) PTI #P0130337 40 CFR, Part 60, Subpart G	N	N	Y	Y	Y	Y	N	N	
	Gases discharged to the atmosphere (except during startups and shutdowns) shall not exhibit 10% opacity or greater	OAC rule 3745-31-05(A)(3) PTI #P0130337 40 CFR, Part 60, Subpart G	N	N	Y	Y	Y	N	N	N	ET- M/R/Rp are sufficient to demonstrate compliance to demonstrate compliance without requiring formal testing (daily visible emissions checks)
Section C.22: P572, #2 Cooling Tower – NH3 & Demin **Section C.23: P573, #3 Cooling Tower – NA** **Section C.24: P577, #4 Cooling Tower – Urea Unit**											
P572	2.97 lbs PM10/hr; 13.03 tons PM10/yr Installation of a high efficiency drift eliminator designed to meet an outlet	OAC rule 3745-31-05(D) ORC 3704.03(T) PTI #P0118384	N	Y	Y	Y	Y	N	N	N	ET- M/R/Rp are sufficient to demonstrate compliance without requiring formal testing CAM is applicable and the performance indicators will be the daily total dissolves solids (TDS) testing and an inspection and maintenance program

	drift factor of 0.0012 gal drift/1000-gal circulation water flow										
P573	0.07 lb PM10/hr; 0.29 ton PM10/yr	OAC rule 3745-31-05(D) PTI #P0117040	N	Y	Y	Y	Y	N	N	N	ET- M/R/Rp are sufficient to demonstrate compliance without requiring formal testing CAM is applicable and the performance indicators will be the daily total dissolves solids (TDS) testing and an inspection and maintenance program
P577	0.32 lb PM10/hr; 1.42 tons PM10/yr	OAC rule 3745-31-05(D) PTI #P0110310	N	Y	Y	Y	Y	N	N	N	ET- M/R/Rp are sufficient to demonstrate compliance without requiring formal testing CAM is applicable and the performance indicators will be the daily total dissolves solids (TDS) testing and an inspection and maintenance program
P572 P573 P577	Visible PE shall not exceed 20% opacity as a 6-minute average	17-07(A)	N	N	Y	Y	Y	N	N	N	ET- M/R/Rp requirements are sufficient to demonstrate compliance without requiring formal testing (monitoring of TDS in cooling water and PM10 calculations) CAM is applicable and the performance indicators will be the daily total dissolves solids (TDS) testing and an inspection and maintenance program
Section C.26: P801, Fugitive Leaks											
	LDAR Requirements	40 CFR, Part 63, Subpart FFFF ORC 3704.03(T) PTI #P0118344	N	N	Y	Y	Y	N	N	N	ET- None required by rule, M/R/Rp requirements are sufficient to demonstrate compliance without requiring formal testing (LDAR monitoring and SSMP requirements)
	LDAR Requirements	40 CFR, Part 60, Subpart VV	N	N	Y	Y	Y	N	N	N	ET- None required by rule, M/R/Rp requirements are sufficient to demonstrate compliance without requiring formal testing (LDAR monitoring and SSMP requirements)
	LDAR Requirements	OAC rule 3745-21-09(DD)	N	N	Y	Y	Y	N	N	N	ET- None required by rule, M/R/Rp requirements are sufficient to demonstrate compliance without requiring formal testing (LDAR monitoring requirements)
	None	OAC rule 3745-31-	N	N	N	N	N	N	N	N	

		05(A)(3)(a)(ii)									
Section C.28: RMP Significant EUs (MACT FFFF): P525, P527, P528											
	None	OAC rule 3745-104	N	N	N	N	N	N	N	N	M/R/Rp/ET- Emissions units are considered significant since they are subject to Section 112(r) of the Clean Air Act. The Risk Management Plans requirements are outlined in Standard Term and Condition A.4.
	Leak Detection and Repair (LDAR) Requirements	40 CFR, Part 63, Subpart FFFF	N	N	Y	Y	Y	N	N	N	ET- None required by rule, M/R/Rp requirements are sufficient to demonstrate compliance without requiring formal testing (LDAR and SSMP requirements)
Section C. 29: Emissions Unit Group – Urea Granulation P546, P547											
	Emissions from P546 and P547, combined 33.05 lbs PE/hr and 144.77 tons PE per rolling, 12-month period 17.72 lbs PM10/hr and 77.60 tons PM10 per rolling, 12-month period 9.06 lbs PM2.5/hr and 39.66 tons PM2.5 per rolling, 12-month period. 0.11 lb VOC/hr; 0.48 ton VOC per rolling, 12-month period	OAC rule 3745-31-05(D) ORC 3704.03(T) PTI #P0130000	N	Y	Y	Y	Y	Y	N	N	CAM is applicable and the performance indicators will be the scrubber pressure drop and water recirculation flow rate recorded each shift and a visual inspection and maintenance program

	Visible PE shall not exceed 10% opacity, as a six-minute average from the duct scrubber stack serving these emissions units										
	LDAR Requirements	40 CFR, Part 63, Subpart FFFF	N	N	Y	Y	Y	N	N	N	ET- None required by rule, M/R/Rp requirements are sufficient to demonstrate compliance without requiring formal testing (LDAR monitoring and SSMP requirements)
Section C. 27 RMP Significant units: P554, P555, T632											
	None	OAC rule 3745-104	N	N	N	N	N	N	N	N	M/R/Rp/ET- Emissions units are considered significant since they are subject to Section 112(r) of the Clean Air Act. The Risk Management Plans requirements are outlined in Standard Term and Condition A.4.
Section C. 30 Emissions Unit Group: UAN Storage Tanks T626, T629											
	None	OAC rule 3745-104	N	N	N	N	N	N	N	N	M/R/Rp/ET- Emissions units are considered significant since they are subject to Section 112(r) of the Clean Air Act. The Risk Management Plans requirements are outlined in Standard Term and Condition A.4.

Ohio Environmental Protection Agency

DRAFT

Division of Air Pollution Control
Title V Permit
for
PCS Nitrogen Ohio, L.P.

Facility ID: 0302020370
Permit Number: P0137785
Permit Type: Renewal
Issued: 07/23/2025
Effective: To be entered upon final issuance
Expiration: To be entered upon final issuance

Ohio Environmental Protection Agency

Division of Air Pollution Control
Title V Permit
for
PCS Nitrogen Ohio, L.P.

Table of Contents

30. Emissions Unit Group – UAN Storage Tanks: T626, T629263

Authorization

Facility ID:	0302020370
Facility Description:	Nitrogenous Fertilizers
Application Number(s):	A0078900, A0079152
Permit Number:	P0137785
Permit Description:	TV Permit Renewal for Nitrogenous Fertilizers Facility
Permit Type:	Renewal
Issue Date:	
Effective Date:	To be entered upon final issuance
Expiration Date:	To be entered upon final issuance
Superseded Permit Number:	P0136171

This document constitutes issuance of an OAC Chapter 3745-77 Title V permit to:

PCS Nitrogen Ohio, L.P.
Fort Amanda & Adgate Roads
None
Lima, OH 45804

Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northwest District Office
347 North Dunbridge Rd.
Bowling Green, OH 43402
(419)352-8461

The above-named entity is hereby granted a Title V permit pursuant to Chapter 3745-77 of the Ohio Administrative Code. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. You will be sent a notice approximately 18 months prior to the expiration date regarding the renewal of this permit. If you do not receive a notice, please contact the Ohio EPA DAPC, Northwest District Office. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, if a timely renewal application is submitted. A renewal application will be considered timely if it is submitted no earlier than 18 months and no later than 6 months prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

John Logue
Director

List of Commonly Used Abbreviations

AP-42 = U.S. EPA's Compilation of Air Pollution Emissions Factors	HVLP = high volume, low pressure	PER = Permit Evaluation Report
ASTM = American Society for Testing and Materials	LAER = lowest achievable emission rate	PM = particulate matter
BACT = Best Available Control Technology	lb(s)/hr = pound(s) per hour	PM_{10} = particulate matter with an aerodynamic diameter less than or equal to 10 microns
BAT = Best Available Technology	LDAR = leak detection and repair	$PM_{2.5}$ = particulate matter with an aerodynamic diameter less than or equal to 2.5 microns
CAA = Clean Air Act	LPG = liquefied petroleum gas/propane	ppb = parts per billion
CAM = compliance assurance monitoring	MACT = maximum achievable control technology	ppm = parts per million
CEMS = continuous emissions monitoring system	MAGLC = maximum acceptable ground level concentration	PSD = Prevention of Significant Deterioration
CFC = chlorofluorocarbon	mg/m3 = milligrams per cubic meter	psi = pounds per square inch
CFR = Code of Federal Regulations	MM = million	psia = pounds per square inch absolute
CH_4 = methane	MMBtu = million British Thermal Units	PTE = potential-to-emit
CI = compression ignition	MSDS = material safety data sheet	PTI = Permit-to-Install
CO = carbon monoxide	MSW = municipal solid waste	PTIO = Permit-to-Install and Operate
CO_2 = carbon dioxide	NAAQS = National Ambient Air Quality Standard	PTO = Permit-to-Operate
COM = continuous opacity monitor	NESHAP = National Emission Standard for Hazardous Air Pollutants	PWR = process weight rate
DAPC = Division of Air Pollution Control	NG = natural gas	RACM = reasonably available control measures
DO/LAA = District Office/Local Air Agency	ng/m3 = nanograms per cubic meter	RACT = reasonably available control technology
dscf = dry standard cubic foot	NH_3 = ammonia	RATA = relative accuracy test audit
EAC = emissions activity category	NMHC = non-methane hydrocarbons	RTO = regenerative thermal oxidizer
eDocs = electronic documents database	NMOC = non-methane organic compound	SB265 = Senate Bill 265
ERAC = Environmental Review Appeals Commission	NO = nitrogen oxide	scfm = standard cubic feet per minute
ESP = electrostatic precipitator	NO_2 = nitrogen dioxide	SI = spark ignition
EU = emissions unit	NO_x = nitrogen oxides	SIP = State Implementation Plan
FEPTIO = Federally Enforceable Permit-to-Install and Operate	NSPS = New Source Performance Standard	SO_2 = sulfur dioxide
FER = Fee Emissions Report	NSR = New Source Review	SSMP = startup, shutdown, and malfunction plan
FR = Federal Register	NTV = Non-Title V	TDS = total dissolved solids
GACT = generally achievable control technology	O&M = operation and maintenance	TLV = threshold limit value
GHG = greenhouse gases	OAC = Ohio Administrative Code	TO = thermal oxidizer
gr/dscf = grains per dry standard cubic foot	OC = organic compound	TPH = ton(s) per hour
H_2S = hydrogen sulfide	Ohio EPA = Ohio Environmental Protection Agency	TPY = ton(s) per year
H_2SO_4 = sulfuric acid	ORC = Ohio Revised Code	TSP = total suspended particulates
HAP = hazardous air pollutant	Pb = lead	VE = visible emissions
HCl = hydrogen chloride	PBR = Permit-By-Rule	VMT = vehicle miles traveled
HF = hydrogen fluoride	PCB = polychlorinated biphenyl	VOC = volatile organic compound
Hg = mercury	PE = particulate emissions	WPP = work practice plan
hp = horsepower	PEMS = predictive emissions monitoring system	µg/m3 = micrograms per cubic meter

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under state law only:

(1) Standard Term and Condition A. 21., Air Pollution Nuisance

(2) Standard Term and Condition A. 24., Reporting Requirements Related to Monitoring and Record Keeping Requirements of State-Only Enforceable Permit Terms and Conditions

(3) Standard Term and Condition A. 25., Records Retention Requirements for State-Only Enforceable Permit Terms and Conditions

(4) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting for State-Only Requirements

(5) Standard Term and Condition A. 29., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(6) Standard Term and Condition A. 30., Submitting Documents Required by this Permit

[Authority for term: ORC 3704.036(A)]

2. Monitoring and Related Record Keeping and Reporting Requirements

a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit), the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

(1) The date, place (as defined in the permit), and time of sampling or measurements.

(2) The date(s) analyses were performed.

(3) The company or entity that performed the analyses.

(4) The analytical techniques or methods used.

(5) The results of such analyses.

(6) The operating conditions existing at the time of sampling or measurement.

[Authority for term: OAC rule 3745-77-07(A)(3)(b)(i)

b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

[Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii)]

c) The permittee shall submit required reports in the following manner:

(1) All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:

Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each

malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted by January 31, April 30, July 31, and October 31 of each year in accordance with Standard Term and Condition A.2.c)(2) below; and each report shall cover the previous calendar quarter. An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the owner or operator of the affected air contaminant source or air pollution control equipment complies with the requirements of OAC rule 3745-17-07(A)(3)(c).

In accordance with OAC rule 3745-15-06, a malfunction reportable under OAC rule 3745-15-06(B) is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any submitted scheduled maintenance requests, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.

[(Authority for term: OAC rule 3745-77-07(A)(3)(c)]

(2) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit or, in some cases, in section B. Facility-Wide Terms and Conditions of this Title V permit), all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be submitted promptly to the Ohio EPA DAPC, Northwest District Office. Except as provided below, the written reports shall be submitted by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.

These written deviation reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. Full compliance with OAC rule 3745-77-07(A)(3)(c)

requires reporting of all other deviations of the federally enforceable requirements specified in the permit as required by such rule.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement satisfies the reporting requirements specified in this Standard Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy (for the deviations so reported) the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this Standard Term and Condition.

See A.29 below if no deviations occurred during the quarter.

[(Authority for term: OAC rule 3745-77-07(A)(3)(c)]

(3) All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with Standard Term and Condition A.2.c)(2) above shall be submitted in the following manner:

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; Standard Terms and Conditions: A.3, A.4, A.5, A.7.e), A.8, A.13, A.15, A.20, and A.23 of this Title V permit, as well as any deviations from the requirements in section C. Emissions Unit Terms and Conditions of this Title V permit, and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with Standard Term and Condition A.2.c)(2) above shall be submitted to the Ohio EPA DAPC, Northwest District Office by January 31 and July 31 of each year; and each report shall cover the previous six calendar months. Unless otherwise specified by rule, all other deviations from federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally enforceable requirements not specifically addressed by permit or rule for the insignificant activities or emissions levels (IEU) identified in section B. Facility-Wide Terms and Conditions of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

In identifying each deviation, the permittee shall specify the federally enforceable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation.

These semi-annual and annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with Standard Term and Condition A.2.c)(2) above.

If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such deviations occurred during that period.

[(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii) and OAC rule 3745-77-07(A)(13)(b)]

(4) Each written report shall be signed by a Responsible Official certifying that, "based on information and belief formed after reasonable inquiry, the statements and information in the report (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete." Signature by the Responsible Official may be represented by entry of the personal identification number (PIN) by the Responsible Official as part of the electronic submission process or by the scanned attestation document signed by the Responsible Official that is attached to the electronically submitted written report.

[Authority for term: OAC rule 3745-77-07(A)(3)(c)(v)]

(5) Consistent with A.2.c.1. above, reports of any required monitoring and/or record keeping information required to be submitted to Ohio EPA shall be submitted to Ohio EPA DAPC, Northwest District Office unless otherwise specified.

[Authority for term: OAC rule 3745-77-07(A)(3)(c)]

3. Reporting of Any Exceedance of a Federally Enforceable Emission Limitation or Control Requirement Resulting from Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in Standard Term and Condition A.2.c)(1) above.

[Authority for term: OAC rule 3745-77-07(A)(3)(c)]

4. Risk Management Plans

If applicable, the permittee shall develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq. ("Act"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

a) A compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or

b) As part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

[Authority for term: OAC rule 3745-77-07(A)(4)]

5. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

[Authority for term: OAC rule 3745-77-07(A)(5)]

6. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

[Authority for term: OAC rule 3745-77-07(A)(6)]

7. General Requirements

a) Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.

b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit except as provided pursuant to A.16 below.

c) This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.11 below. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d) This permit does not convey any property rights of any sort, or any exclusive privilege.

e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

f) Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable when:

(1) The permittee submits an approved facility-wide potential to emit analysis supporting a claim that the facility no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01 based on the permanent shutdown and removal of one or more emissions units identified in this permit; or

(2) The permittee no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01 based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable; or

(3) A combination of (1) and (2) above.

The permittee shall continue to comply with all applicable OAC Chapter 3745-31 requirements for all regulated air contaminant sources once this permit ceases to be enforceable. The permittee shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.

[Authority for term: OAC rule 3745-77-01, OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77-07(A)(7)]

8. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78.

[Authority for term: OAC rule 3745-77-07(A)(8)]

9. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

[Authority for term: OAC rule 3745-77-07(A)(9)]

10. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these standard terms and conditions shall apply to all operating scenarios authorized in this permit.

[Authority for term: OAC rule 3745-77-07(A)(10)]

11. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

a) Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.

b) This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit and shall not require a reopening of this permit.

c) The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.

d) The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

[Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D)]

12. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the state, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under state law only.

[Authority for term: OAC rule 3745-77-07(B)]

13. Compliance Requirements

a) Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a Responsible Official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

(1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.

(3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

(4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

c) The permittee shall submit progress reports to the Ohio EPA DAPC, Northwest District Office concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

(1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

(2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

d) Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the Ohio EPA DAPC, Northwest District Office) and the Administrator of the U.S. EPA in the following manner and with the following content:

(1) Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.

(2) Compliance certifications shall include the following:

a. Identification of each term or condition that is the basis of the certification. The identification may include a statement by the Responsible Official that every term and condition that is federally enforceable has been reviewed, and such terms and conditions with which there has been continuous compliance throughout the year are not separately identified.

b. The permittee's current compliance status.

c. Whether compliance was continuous or intermittent consistent with A.13.d)(2)a. above.

d. The method(s) used for determining the compliance status of the source currently and over the required reporting period consistent with A.13.d)(2)a. above.

e. Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.

(3) Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

[Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L)]

14. Permit Shield

a) Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.

b) This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

[Authority for term: OAC rule 3745-77-07(F)]

15. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [defined as "Title I modification" in OAC rule 3745-77-01], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the Ohio EPA DAPC, Northwest District Office with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days' notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the Ohio EPA DAPC, Northwest District Office as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

[Authority for term: OAC rules 3745-77-07(H)(1) and (2)]

16. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

[Authority for term: OAC rule 3745-77-07(G)]

17. Off-Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

a) The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.

b) The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as

"insignificant activities and emissions levels" as defined in OAC rule 3745-77-01. Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.

c) The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).

d) The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e) The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit-to-install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

[Authority for term: OAC rule 3745-77-07(I)]

18. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Federal Register 8314, Feb. 24, 1997), in the context of any future proceeding.

(This term is provided for informational purposes only.)

19. Insignificant Activities or Emissions Levels

Each IEU that is subject to one or more applicable requirements shall comply with those applicable requirements.

[Authority for term: OAC rule 3745-77-07(A)(1)]

20. Permit-to-Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit-to-install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

[Authority for term: OAC rule 3745-77-07(A)(1)]

21. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

[Authority for term: OAC rule 3745-77-07(A)(1)]

22. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification from the Responsible Official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the Responsible Official that the emissions unit was permanently shut down.

After the date on which an emissions unit is permanently shut down (i.e., that has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31 and therefore ceases to meet the definition of an "emissions unit" as defined in OAC rule 3745-77-01), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any Title V permit requirements applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

Unless otherwise exempted, no emissions unit identified in this permit that has been certified by the Responsible Official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.

[Authority for term: OAC rule 3745-77-01]

23. Title VI Provisions

If applicable, the permittee shall comply with the standards for recycling and reducing emissions of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

a) Persons operating appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.

b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.

c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

[Authority for term: OAC rule 3745-77-01(H)(11)]

24. Reporting Requirements Related to Monitoring and Record Keeping Requirements Under State Law Only

The permittee shall submit required reports in the following manner:

a) Reports of any required monitoring and/or record keeping information shall be submitted to the Ohio EPA DAPC, Northwest District Office.

b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Northwest District Office. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

25. Records Retention Requirements Under State Law Only

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

26. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable state air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

[Authority for term: OAC rule 3745-77-07(C)]

27. Scheduled Maintenance/Malfunction Reporting for State-Only Requirements

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the Ohio EPA DAPC, Northwest District Office in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

28. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The Ohio EPA DAPC, Northwest District Office must be notified in writing of any transfer of this permit.

[Authority for term: OAC rule 3745-77-01(C)]

29. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

a) Where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in Standard Term and Condition A.2.c)(2); or

b) Where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potential to emit; or

c) Where the company's Responsible Official has certified that an emissions unit has been permanently shut down.

30. Submitting Documents Required by this Permit

All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the Ohio EPA DAPC, Northwest District Office, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the Responsible Official may be represented as provided through procedures established in Air Services.

B. Facility-Wide Terms and Conditions

1. **All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.**

   a) None.

2. **The following insignificant emissions units contained in this permit are subject to 40 CFR, Part 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines: P576 and P578. The complete NSPS requirements, including the NSPS 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 Ohio EPA, Northwest District Office.**

   These emissions units are emergency spark ignition (SI) internal combustion engines (ICE). These ICE must meet the definition of an emergency stationary ICE in section 60.4248, which includes operating according to the provisions specified in section 60.4243(d).

   The permittee shall comply with all applicable requirements of 40 CFR, Part 60, Subpart JJJJ, and shall also comply with all applicable requirements of 40 CFR, Part 60, Subpart A (General Provisions). Compliance with all applicable requirements shall be achieved by the dates set forth in 40 CFR, Part 60, Subpart JJJJ, and Subpart A.

   a) The following terms are applicable for insignificant emissions units P576 and P578:

      (1) The permittee shall comply with the applicable standards in 40 CFR, Part 60, Subpart JJJJ, including the following sections:

60.4230(a), 60.4243(b), 60.4246, 60.4248 and Table 3	Subpart Applicability, General Requirements, Definitions and General Provisions
60.4233(e), 60.4234, 60.4243(b) and Table 1	Emissions Standards for Owner and Operators
60.4237(b)	Install a non-resettable hour meter
60.4243(d)	Emergency Engine Provisions
60.4243(e)	Natural Gas Engine Provisions
60.4243(g)	Air-to-Fuel Ratio Requirements
60.4245(a) and (b)	Recordkeeping Requirements
60.4245(a) and (e)	Notification and Reporting Requirements

   [OAC rule 3745-77-07(C)(1) and 40 CFR Part 60 Subpart JJJJ]

3. **The following insignificant emissions unit contained in this permit is subject to 40 CFR, Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines: P575. The complete NESHAP requirements, including the NESHAP 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 Ohio EPA, Northwest District Office.**

This emissions unit is an emergency compression ignition (CI) reciprocating internal combustion engine (RICE) located at a major source for HAPs. This RICE must meet the definition of an emergency stationary RICE in section 63.6675, which includes operating according to the provisions specified in section 63.6640(f).

The permittee shall comply with all applicable requirements of 40 CFR, Part 63, Subpart ZZZZ, and shall also comply with all applicable requirements of 40 CFR, Part 63, Subpart A (General Provisions). Compliance with all applicable requirements shall be achieved by the dates set forth in 40 CFR, Part 63, Subpart ZZZZ, and Subpart A.

a) The following terms are applicable for insignificant emissions unit P575:

(1) The permittee shall comply with the applicable standards in 40 CFR, Part 63, Subpart ZZZZ, including the following sections:

63.6585, 63.6590, 63.6605, 63.6665, 63.6675 and Table 8	Subpart Applicability, General Requirements, Definitions and General Provisions
63.6602, 63.6625(i) and Table 2c	Maintenance requirements and oil analysis option
63.6625(e)(2), (h), 63.6640(a), 63.6640(f) and Table 6	Work Practice Standards and Emergency Engine Provisions
63.6625(f)	Install a non-resettable hour meter
63.6655(a), (d), (e) and (f) and 63.6660	Records of maintenance and hours of operation
63.6640(b) and (e)	Reporting requirements
63.6670	Implementation and Enforcement

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 63 Subpart ZZZZ]

4. The following insignificant emissions unit contained in this permit is subject to 40 CFR, Part 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters: B510. The complete NESHAP requirements, including the NESHAP 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 Ohio EPA, Northwest District Office.

The permittee shall comply with all applicable requirements of 40 CFR, Part 63, Subpart DDDDD. The permittee shall also comply with all applicable requirements of 40 CFR, Part 63, Subpart A (General Provisions). Compliance with all applicable requirements shall be achieved by the dates set forth in 40 CFR, Part 63, Subpart DDDDD, and Subpart A.

a) The permittee shall comply with the applicable standards in 40 CFR, Part 63, Subpart DDDDD, including the following sections:

63.7485, 63.7490, 63.7499, 63.7565, 63.7575 and Table 10	Applicability, Affected Sources, Subcategories*, General Provisions and Definitions
63.7500 and Table 3	Work Practice Standards
63.7505(a)	General Compliance Requirements
63.7500(e), 63.7515(d), 63.7540(a)(10)(i) though (vi), 63.7540(a)(11), 63.7540(a)(12) and 63.7540(a)(13)	Five-year Tune-up Requirements

63.7555(a) and 63.7560	Recordkeeping Requirements
63.7550(a), (b), (c), (h) and Table 9	Reporting Requirements

*This emissions unit is a process heater or boiler with heat input capacity less than or equal to 5 mmBtu/hr combusting natural gas.

[OAC rule 3745-77-07(C)(1) and 40 CFR Part 63 Subpart DDDDD]

5. **The following insignificant emissions units contained in this permit are subject to 40 CFR, Part 63, Subpart FFFF, National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing: P529, P557, and T560. Each of these emissions units is an existing affected source per 40 CFR, 63.2440. The complete NESHAP requirements, including the NESHAP 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 Ohio EPA, Northwest District Office.**

The permittee shall comply with all applicable requirements of 40 CFR, Part 63, Subpart FFFF including the following sections. The permittee shall also comply with all applicable requirements of 40 CFR, Part 63, Subpart A (General Provisions). Compliance with all applicable requirements shall be achieved by the dates set forth in 40 CFR, Part 63, Subpart FFFF, and Subpart A.

63.2445(b)	If you have an existing source on November 10, 2003, you must comply with the requirements from existing sources in this subpart no later than May 10, 2008.
63.2445(c)	Meet the notification requirements in 63.2515 according to the dates specified in that section and in Subpart A of this part 63.
63.2445(d)	If you have a Group 2 emission point that becomes a Group 1 emission point after the compliance date from your affected source you must comply with the Group 1 requirements beginning on the date the switch occurs. An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs.
63.2450	Emission Limitations, Work Practice Standards and Compliance Requirements -- What are my general requirements for complying with this subpart?
63.2450(a)	You must be in compliance with the emission limits and work practice standards in tables 1 through 7* to this subpart at all times, except during periods of startup, shutdown, and malfunction (SSM), and you must meet the requirements specified in 63.2455 through 63.2490 (or the alternative means of compliance in 63.2495, 63.2500, or 63.2505), except as specified in paragraphs (b) through (s) of this section. You must meet the notification, reporting, and recordkeeping requirements specified in 63.2515, 63.2520, and 63.2525. *Only the work practice standards listed in Table 6 are applicable
63.2450(m)	Reporting The compliance report must include the information specified in 63.2520(e), as well as the information specified in referenced subparts. When there are conflicts between this subpart and referenced subparts for the due dates of reports required by this subpart, reports must be submitted according to the due dates presented in this subpart. Excused excursions, as defined in subparts G and SS of this part 63, are not allowed.
63.2450(p)	Opening a safety device, as defined in 63.2550, is allowed at any time conditions require it to avoid unsafe conditions

63.2455	Emission Limitations, Work Practice Standards and Compliance Requirements – What requirements must I meet for continuous process vents?
63.2455(a)	You must meet each emission limit in Table 1 to this subpart that applies to your continuous process vents, and you must meet each applicable requirement specified in paragraphs (b) through (c) of this section. [Note: There are no emission limits and/or work practice standards in Table 1 that are applicable.]
63.2455(b)	For each continuous process vent, you must either designate the vent as a Group 1 continuous process vent or determine the total resource effectiveness (TRE) index value as specified in 63.115(d), except as specified in paragraphs (b)(1) through (3) of this section.
63.2480	Emission Limitations, Work Practice Standards and Compliance Requirements – What requirements must I meet for equipment leaks?
63.2480(a)	You must meet each requirement in Table 6 to this subpart that applies to your equipment leaks, except as specified in paragraphs (b) through (d) of this section. [See Table 6 below for requirements.]
63.2480(b)	If you comply with either subpart H or subpart UU of this part 63, you may elect to comply with the provisions in paragraphs (b)(1) through (5) of this section as an alternative to the referenced provisions in subpart H or subpart UU of this part.
63.2515	Notifications, Reports and Records – What notifications must I submit and when?
63.2515(a)	You must submit all of the notifications in 63.6(h)(4) and (5), 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified.
63.2515(b)	Initial notification* *The company submitted the initial notification in 2004
63.2520	Notifications, Reports and Records – What reports must I submit and when?
63.2520(a)	You must submit each report in Table 11 to this subpart that applies to you.
63.2520(b)	Unless the Administrator has approved a different schedule for submission of reports under 63.10(a), you must submit each report by the date in Table 11 to this subpart and according to paragraphs (b)(1) through (5) of this section.
63.2520(d)	Notification of compliance status report
63.2520(e)	Compliance report
63.2525	Notifications, Reports and Records – What records must I keep?
63.2525(a)	Each applicable record required by subpart A of this part 63 and in referenced subparts F, G, SS, UU, WW, and GGG of this part 63 and in referenced subpart F of 40 CFR part 65.
63.2525(b)	Records of each operating scenario as specified in paragraphs (b)(1) through (8) of this section.
63.2525(f)	A record of each time a safety device is opened to avoid unsafe conditions in accordance with 63.2450(s).
63.2525(j)	In the SSMP required by 63.6(e)(3), you are not required to include Group 2 emission points, unless those emission points are used in an emissions average. For equipment leaks, the SSMP requirement is limited to control devices and is optional for other equipment.
63.2535	Other Requirements and Information – What compliance options do I have if part of my plant is subject to both this subpart and another subpart?
63.2535(k)	Compliance with 40 CFR, part 60, subpart VV and 40 CFR, Part 61, Subpart V

63.2540	Other Requirements and Information – What parts of the General Provisions apply to me?
Table 6	Requirements for Equipment Leaks
Table 11	Requirements for Reports
Table 12	Applicability of General Provisions to Subpart FFFF

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 63, Subpart FFFF]

6. **Pursuant to 40 CFR, Part 64, the permittee has submitted, and the Ohio EPA has approved a compliance assurance monitoring plan for emissions units P524, P531, P546, P560, P572, P573 and P577 at this facility. The permittee shall comply with the provisions of the plan during any operation of the aforementioned emissions units.**

   [40 CFR, Part 64]

7. **The permittee shall maintain the following records for emission units B502, B503, B507, B509, B510, J001, J002, P520, P521, P522, P523, P526, P529, P554, P555, P563, P564, T518, T537, T551, T622, T623 and T625 as described in Permit to Install Application No. M0005595 submitted on May 14, 2019 in order to demonstrate that the ammonia and urea units' expansion project does not trigger a major modification for $PM_{10}/PM_{2.5}$ and/or CO:**

   a) The following projected actual annual emissions, in tons per year, are from the ammonia and urea units' expansion project as presented in PTI application No. M0005595 submitted on May 14, 2019:

      (1) 40.28 tons $PM_{10}/PM_{2.5}$; and

      (2) 722.62 tons CO; and

   b) The total actual annual emissions for $PM_{10}/PM_{2.5}$ and CO [calculated using the approach presented in PTI application No. M0005595 submitted on May 14, 2019], in tons per year, from emission units B502, B503, B507, B509, B510, J001, J002, P520, P521, P522, P523, P526, P529, P554, P555, P563, P564, T518, T537, T551, T622, T623, and T625, combined, for ten calendar years after commencing operation of the ammonia and urea units' expansion project.

   [PTI #P0135174, PTI #P0136172, PTI #P0117742, and PTI #P0130953]

8. **The permittee shall notify the Northwest District Office in writing if annual emissions from all emissions units in the ammonia and urea expansion project, as specified in facility-wide term and condition B.7.b), result in a significant PM10/PM2.5 and/or CO emissions increase and exceed the projected actual PM10/PM2.5 and/or CO emissions contained in PTI application numbers A0047234, submitted July 10, 2013, M0003967 submitted on June 2, 2016, M0005595 submitted on May 14, 2019, and M0007511 submitted 11/17/23. This notification shall identify the cause for the significant emissions increase and the estimated PM10/PM2.5 and/or CO emissions. This notification shall be submitted to the Northwest District Office within 120 days after the end of such year.**

   [PTI #P0135174, PTI #P0136172, PTI #P0117742, and PTI #P0130953]

9. **The following emissions unit contained in this permit is subject to 40 CFR, Part 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units: B509. The complete NSPS requirements, including the NSPS 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 Ohio EPA, Northwest District Office.**

   The permittee shall comply with all applicable requirements of 40 CFR, Part 60, Subpart Db. The permittee shall also comply with all applicable requirements of 40 CFR, Part 60, Subpart A (General

Provisions). Compliance with all applicable requirements shall be achieved by the dates set forth in 40 CFR, Part 60, Subpart Db, and Subpart A.

[OAC rule 3745-77-07(A) and 40 CFR, Part 60, Subpart Db]

10. **The following emissions unit contained in this permit is subject to 40 CFR, Part 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters: B509. The complete NESHAPS requirements, including the NESHAPS 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 Ohio EPA, Northwest District Office.**

    The permittee shall comply with all applicable requirements of 40 CFR, Part 63, Subpart DDDDD. The permittee shall also comply with all applicable requirements of 40 CFR, Part 63, Subpart A (General Provisions). Compliance with all applicable requirements shall be achieved by the dates set forth in 40 CFR, Part 63, Subpart DDDDD, and Subpart A.

    [OAC rule 3745-77-07(A) and 40 CFR, Part 63, Subpart DDDDD]

11. **The following emissions units contained in this permit are subject to 40 CFR, Part 63, Subpart FFFF, National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing: P526, P563 and P564. The complete NESHAPS requirements, including the NESHAPS 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 Ohio EPA, Northwest District Office.**

    The permittee shall comply with all applicable requirements of 40 CFR, Part 63, Subpart FFFF. The permittee shall also comply with all applicable requirements of 40 CFR, Part 63, Subpart A (General Provisions). Compliance with all applicable requirements shall be achieved by the dates set forth in 40 CFR, Part 63, Subpart FFFF, and Subpart A.

    [OAC rule 3745-77-07(A) and 40 CFR, Part 63, Subpart FFFF]

12. **The following facility-wide terms and conditions are for purposes of establishing federally enforceable requirements for the purpose of representing the PTE of NO_x emissions from start-ups and shutdowns and CO and VOC emissions from start-ups associated with emissions units P520, P521 and P522. The federally enforceable restrictions are being established for purposes of representing the PTE:**

    a) The following operational restriction limits the emissions of NO_x from startup and shutdown, and CO and VOC from startup operations at the facility. The maximum rolling 12-month quantity of NO_x emissions from start-up and shutdowns and CO and VOC emissions from start-up operations associated with emissions units P520, P521 and P522, combined are limited by the following equation:

    Start-up and shutdown for the ammonia reforming unit, purification unit and synthesis unit, combined is limited by the following:

$$\sum_{M=1}^{12}\sum_{n} CO_n \leq 477.84 \; and \sum_{n} NOx_n \leq 0.88 \; and \sum_{n} VOC_n \leq \; 8.79$$

    where:

    M = the increment of the rolling, 12-month period;

n = type and total period of each operation (i.e. start-up, shutdown*);

CO_n = calculated emissions of carbon monoxide in tons;

NOx_n = calculated emissions of nitrogen oxides in tons; and

VOC_n = calculated emissions of volatile organic compounds in tons; and

*It should be noted that these emissions units do not generate CO and/or VOC emissions during shutdown events.

b) To ensure federal enforceability during the first 12 calendar months of operation under the provisions of this permit, emissions from start-ups and shutdowns associated with emissions units P520, P521 and P522, combined are limited by the following:

Allowable Operation Limitations

Month(s)	$\sum_n CO_n \leq$	$\sum_n NOx_n \leq$	$VOC_n \leq$
1-1	100.00	0.20	2.00
1-2	200.00	0.40	4.00
1-3	300.00	0.60	6.00
1-4	400.00	0.80	8.00
1-12	477.84	0.88	8.79

After the first 12 calendar months of operation under the provisions of this permit, compliance with the allowable operation limitations shall be based upon a rolling 12-month summation.

c) The permittee shall collect and record the following information each month:

(1) Type and time period of each operation (startup, shutdown);

(2) The calculated NO_x, CO and VOC emissions [calculated using the approach in B.12.e)(1), B.12.e)(2) and B.12.e)(3), respectively], in tons, associated with each type of operation, based on a detailed review of startup and shutdown operations.

(3) The total NO_x, CO and VOC emission rates, in tons, from all operation types [summation of B.12.c)(2) for startup and shutdown operations];

(4) For the first 12 calendar months of operation under the provisions of this permit, the cumulative monthly NO_x, CO and VOC emissions, in tons; and

(5) After the first 12 months of operation under the provisions of this permit, the rolling, 12-month NO_x, CO and VOC emissions, in tons.

d) The permittee shall submit quarterly deviation (excursion) reports that identify:

(1) all exceedances of the rolling, 12-month operational restriction specified in B.12.a); and

(2) all exceedances of the allowable operational limitations for the first 12 months of operation as specified in B.12.b).

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

e) Applicable Compliance Methods:

(1) The annual NO_x emission limitation is based on the following:

emissions unit(s) start-up periods: (2.70 lbs of NO_x/hr)(8 "long" main plant outage events/yr)(37.5 startup hours/event)/(2,000 lbs/ton) + (8.47 lbs of NO_x/hr)(12 synloop only outage events/yr)(6 startup hours/event)/(2,000 lbs/ton) = 0.710 tons of NOx/yr; and

emissions unit(s) shutdown periods: (5.525 lbs of NO_x/shutdown hour)(8 "long" main plant outage events/yr + 12 synloop only outage events/yr)(3 shutdown hours/event)/(2,000 lbs/ton) = 0.166 tons of NO_x/yr.

(2) The annual CO emission limitation is based on emissions unit(s) start-up periods: (3,030 lbs of CO/hr)(8 "long" main plant outage events/yr)(37.5 startup hours/event)/(2,000 lbs/ton) + (648.3 lbs of CO/hr)(12 synloop only outage events/yr)(6 startup hours/event)/(2,000 lbs/ton) = 477.84 tons of CO/yr.

(3) The annual VOC emission limitation is based on emissions unit(s) start-up periods: (46.06 lbs of VOC/hr)(8 "long" main plant outage events/yr)(37.5 startup hours/event)/(2,000 lbs/ton) + (52.28 lbs of VOC/hr)(12 synloop only outage events/yr)(6 startup hours/event)/(2,000 lbs/ton) = 8.79 tons of VOC/yr.

[PTI P0135174]

13. The permittee shall maintain the following records for emissions units B502, B503, B506, B509, F001, P520, P521, P522, P523, P524, P525, P526, P527, P528, P536, P545, P546, P547, P560, P563, P564, T560 and T631 as described in Permit to Install (PTI) Application No. A0064514 submitted on October 3, 2019, PTI Application No. A0065493 submitted on January 17, 2020 and PTI Application No. M0006625 submitted on March 29, 2021 in order to demonstrate that the 2020 turnaround project does not trigger a major modification for NOx and PE:

a) The following projected actual annual emissions, in tons per year, are from the 2020 turnaround project as presented in PTI application No. A0064514 submitted on October 3, 2019 and PTI Application No. A0065493 submitted on January 17, 2020 and PTI Application No. M0006625 submitted on March 29, 2021:

(1) 1511.58 tons NOx; and

(2) 273.53 tons PE.

b) The total actual annual emissions for NOx and PE [calculated using the approach presented in PTI application No. A0064514 submitted on October 3, 2019 and PTI Application No. A0065493 submitted on January 17, 2020 and PTI Application No. M0006625 submitted on March 29, 2021], in tons per year, from emissions units B502, B503, B506, B509, F001, P520, P521, P522, P523, P524, P525, P526, P527, P528, P536, P545, P546, P547, P560, P563, P564, T560 and T631, combined, for ten calendar years after commencing operation of the 2020 turnaround project.

[PTI #P0127318 and PTI #P130000]

14. The permittee shall notify the Northwest District Office in writing if annual emissions from all emissions units in the 2020 turnaround project, as specified in facility-wide term and condition

B.13.b), result in a significant NOx or PE emissions increase and exceed the projected actual NOx or PE emissions contained in PTI Application No. A0064514, submitted October 3, 2019 and PTI Application No. A0065493 submitted on January 17, 2020 and PTI Application No. M0006625 submitted on March 29, 2021. This notification shall identify the cause for the significant emissions increase and the estimated NOx or PE emissions. This notification shall be submitted to the Northwest District Office within 60 days after the end of such year.

[PTI #P0127318 and PTI #P130000]

15. **The insignificant emissions units listed below are subject to requirements contained in a permit-to-install, subject to a requirement in the SIP approved versions of OAC Chapters 3745-17, 3745-18, 3745-21, and 3745-31, subject to a federal rule requirement, or otherwise subject to an Applicable Requirement, as defined in OAC Rule 3745-77-01:**

B510	Natural Gas Feed Heater (3 mmBtu/hr - Natural Gas)
F001	Paved Roadways and Parking Areas (PTI #P0123711)
J002	Diesel Exhaust Fluid (DEF), Urea Water Solution Truck/Railcar Loading (PTI #P0136172)
P529	Urea Prilling Section: - Concentrator (Rinsing spilled Prill off the floor)
P545	Urea Granulation Section - East Warehouse (PTI #P0127318, issued on 1/22/20)
P557	Urea Water Solution Truck/Railcar Loading
P559	Urea Ammonium Nitrate Truck/Railcar Loadout (PTI #P0137450)
P574	Nitric Acid Truck and Railcar Loadout with Two Wet Scrubbers for Control (PTI #P0122184)
P575	Fire Water Pump - 350 hp (≈260 kW) - diesel-fired - emergency - south side of fire water pond
P576	Emergency Generator - 228 hp (170 kW) - natural gas-fired - 4-stroke rich-burn - emergency - west side of T5/T6 dike area (PBR07757)
P578	Emergency Generator - 454 hp (300 kW) - natural gas-fired - 4-stroke rich-burn - emergency - southwest corner of materials warehouse parking lot (PBR11155)
P579	Abrasive Blasting Operation (alum oxide)
T560	Urea Formaldehyde (UF-85) Storage Tank (PTI 03-968, issued on 10/2/80)
T621	Urea Ammonium Nitrate Blending/Storage Tank D-13 (PTI #P0137450)
T622	Diesel Exhaust Fluid (DEF) Urea Water 50% Storage/Blend Tank (PTI #P0117742)
T623	50% Urea Liquor Storage Tank (PTI #P0117742)
T628	UAN Storage Sphere S-4
T636	UAN Storage Tank STK-005 (PTI #P0137450)

[OAC rule 3745-77-07(A)(13)]

16. **The permittee shall maintain the following records for emissions units B503 and P520 as described in permit-to-install (PTI) Application No. A0077601 submitted on September 5, 2024 in order to demonstrate that the reformer modification project does not trigger a major modification for NOx:**

a) The following projected actual annual emissions, in tons per year, are from reformer modification project as presented in PTI application No. A0077601 submitted on September 5, 2024:

(1) 976.64 tons NOx; and

b) The total actual annual emissions for NOx [calculated using the approach presented in PTI application No. A0077601 submitted on September 5, 2024, in tons per year, from emissions units B503 and P520, combined, for five calendar years after commencing operation of the reformer modification project. Emissions unit P520 has no NOx emissions but is included in the above record keeping requirement since this emissions unit is being modified as part of this project.

[PTI P0136819]

17. **The permittee shall notify the Northwest District Office in writing if annual emissions from all emissions units in the reformer modification, as specified in facility-wide term and condition B.16.b), result in a significant NOx emissions increase and/or exceed the projected actual NOx emissions contained in PTI application number A0077601 submitted on September 5, 2024. This notification shall identify the cause for the significant emissions increase and the estimated NOx emissions. This notification shall be submitted to the Northwest District Office within 120 days after the end of such year.**

[PTI P0136819]

C. Emissions Unit Terms and Conditions

1. B502, NH3 Unit - Boiler #2

Operations, Property and/or Equipment Description:

Ammonia Production Unit - Boiler #2 (227 mmBtu/hr - Natural Gas)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
b.	OAC rule 3745-17-10(B)(1)	0.020 lb PE/mmBtu of actual heat input
c.	OAC rule 3745-18-08(D)(1)	1.27 lbs sulfur dioxide (SO2)/mmBtu of actual heat input
d.	40 CFR, Part 63, Subpart DDDDD (40 CFR 63.7480-7575) [In accordance with 63.7575, this emissions unit is a gaseous fuel 1 subcategory existing boiler located at a major source of HAP emissions and subject to the applicable requirements specified in this section.]	See c)(2), c)(3) and e)(2) 63.7500(a) Table 3 requirements
e.	40 CFR, Part 63, Subpart A [40 CFR 63.1 – 63.15]	Table 10 to 40 CFR, Part 63, Subpart DDDDD – Applicability of General Provisions to Subpart DDDDD shows which parts of the General Provisions in 40 CFR 63.1 - 63.15 apply.

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) The permittee shall burn only natural gas as fuel in this emissions unit.

[OAC rule 3745-77-07(A)(1)]

(2) Pursuant to 40 CFR 63.7540(a)(10), because this emissions unit is a process heater or boiler with heat input capacity greater than 10 mmBtu/hr combusting natural gas, the permittee shall conduct a tune-up of the boiler or process heater annually as specified in 40 CFR 63.7540(a)(10)(i) through 63.7540(a)(10)(vi).

[OAC rule 3745-77-07(A)(1) and 40 CFR, Part 63, Subpart DDDDD]

(3) Pursuant to 40 CFR 63.7540(a)(13), if the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.

[OAC rule 3745-77-07(A)(1) and 40 CFR, Part 63, Subpart DDDDD]

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

[OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[OAC rule 3745-77-07(C)(1)]

(2) The permittee shall submit, to the Ohio EPA, Northwest District Office, the following notifications in accordance with the applicable requirements of 40 CFR 63.7545, 40 CFR 63.7(b) and (c), 40 CFR 63.8(e) and (f)(4) and (6), and 40 CFR 63.9(b) through (h):

a. Annual compliance reports containing the information identified in 40 CFR 63.7550.

[OAC rule 3745-77-07(C)(1); 40 CFR 63.7545; 40 CFR 63.7530(e), (f), and (g); and 40 CFR 63.9(b) through (h)]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emissions Limitation</u>

Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

<u>Applicable Compliance Method</u>

If required, compliance with the visible emissions limitation above shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

[OAC rule 3745-77-07(C)(1)]

b. <u>Emissions Limitation</u>

0.020 lb PE/mmBtu of actual heat input

Applicable Compliance Method

The permittee shall demonstrate compliance with this limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 1.9 lbs PE (filterable)/mm cu. ft, and then dividing by the maximum heat input capacity of the boiler (mmBtu/hr).

If required, compliance with the lb/mmBtu limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(9).

[OAC rule 3745-77-07(C)(1)]

c. Emissions Limitation

1.27 lbs SO2/mmBtu of actual heat input

Applicable Compliance Method

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel.

If required, compliance with the limitation above shall be determined in accordance with Methods 1-4 and 6 of 40 CFR, Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

2. B503, NH3 Unit - Primary Reformer

Operations, Property and/or Equipment Description:

Ammonia Production Unit - Primary Reformer (1,200 million Btu/hr - Natural Gas, Flash, Purge and Regeneration Fuel Gas Fired)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)h., d)(5) through d)(9) and e)(3).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (Established as a synthetic minor limitation) [PTI # P0136819, issued 01/22/25]	1,179.12 tons of NOx per rolling, 12-month period See b)(2)c. and b)(2)g.
b.	OAC rule 3745-31-05(D) (Established as federally enforceable requirements to represent the PTE) [PTI # P0136819, issued 01/22/25]	7.60 lbs of particulate emissions/ particulate matter less than or equal to 10 microns in diameter/particulate matter less than or equal to 2.5 microns in diameter (PE/PM10/PM2.5)/hr and 33.29 tons of PE/PM10/PM2.5/yr 0.60 lb of sulfur dioxide (SO2)/hr and 2.63 tons of SO2/yr 552.36 lbs of NOx/hr 6.71 lbs of CO/hr and 29.38 tons of CO/yr 5.50 lbs of VOC/hr and 24.09 tons of VOC/yr See b)(2)a., b)(2)b. and b)(2)g.
c.	ORC 3704.03(T) OAC rule 3745-31-05(A)(3) [PTI # P0136819, issued 01/22/25]	See b)(2)d.

d.	OAC rule 3745-17-07(A)	Visible PE shall not exceed 20% opacity as a six-minute average, except as provided by rule
e.	OAC rule 3745-17-10(B)(1)	0.020 lb of PE/mmBtu of actual heat input [See b)(2)e.]
f.	OAC rule 3745-18-08(D)(2)	1.27 lb of SO2/mmBtu of actual heat input [See b)(2)f.]
g.	OAC rule 3745-31-05(A)(3)(a)(ii) [PTI # P0136819, issued 01/22/25]	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the SO2 emissions from this air contaminant source since the PTE is less than 10 tons/yr, taking into account the federally enforceable requirements in b)(1)b.
h.	ORC 3704.03(F) OAC rule 3745-114-01	See d)(5) through d)(9) and e)(3).

(2) Additional Terms and Conditions

a. The federally enforceable mass emission rate limitations for PE/PM10/PM2.5, SO2, CO and VOC and for the hourly NOx limitation in b)(1)b. above represent the potentials to emit (PTE), defined as the maximum capacity to emit an air pollutant under its physical and operational design. Therefore, no monitoring, recordkeeping, or reporting requirements are necessary to ensure compliance with these emission limitations. See f)(1)a., f)(1)b., f)(1)c., f)(1)e., and f)(1)f. for details regarding the PTEs.

b. It is assumed that all PE are equivalent to both PM_{10} and $PM_{2.5}$.

It should be noted that the PE/PM10/PM2.5 emission limitations are inclusive of both condensable and filterable particulate emissions.

c. The federally enforceable limitation of 1,179.12 tons of NO_x per rolling, 12-month period is based on the operational restrictions in c)(2) and c)(3).

d. BAT requirements for PE/PM10/PM2.5, NO_x, CO and VOC emissions under ORC 3704.03(T)/OAC rule 3745-31-05(A)(3) have been determined to be compliance with the annual emission limitations for PE/PM10/PM2.5, NO_x, CO and VOC established pursuant to OAC rule 3745-31-05(D).

e. The emission limitation of 0.020 lb of PE per million Btu of actual heat input specified by OAC 3745-17-10(B)(1) is less stringent than the PE limitation established pursuant to OAC rule 3745-31-05(D).

f. The emission limitation of 1.27 lb of SO_2 per million Btu of actual heat input specified by OAC rule 3745-18-08(D)(2) is less stringent than the SO_2 limitation established pursuant to OAC rule 3745-31-05(D).

g. The Hydrogen Recovery Unit (HRU) P1 & P2 operations associated with this emissions unit are integral to the process equipment as product recovery operations. Thus, there is no parametric monitoring necessary.

h. The permittee shall comply with applicable emissions limitations/control measures, operational restrictions, monitoring and recordkeeping requirements, reporting requirements, testing requirements, and additional term and conditions requirements in Section B. of PTI #P0136819, issued 1/22/25 until the emissions unit commences operation under modification authorized by PTI #P0136819, issued 1/22/25, Section C.1 as incorporated in this Title V permit. The requirements of PTI #P0136819 Section B. shall cease to be enforceable after commencing operation under the terms specified in Section C. of said PTI, as incorporated into this Title V permit.

c) Operational Restrictions

(1) The permittee shall burn only natural gas, flash gas, purge gas, and/or regeneration fuel gas in this emissions unit.

[OAC rule 3745-77-07(A)(1) and PTI #P0136819]

(2) Emissions from normal operations and during reduced HRU efficiency* for the ammonia unit – primary reformer are limited by the following:

$$\sum_{M=1}^{12}\sum_{n} NOx_n \leq 1{,}179.12\ tons$$

where:

M = the increment of the rolling, 12-month period;

n = type of operation (i.e. normal and HRU P1 and/or HRU P2 reduced efficiency*) during the period; and

NOx_n = calculated emissions of nitrogen oxides in tons.

*Reduced HRU efficiency is when gas entering HRU P1 (flash gas) and/or HRU P2 (purge gas) is not scrubbed. Unscrubbed HRU P1 (flash gas) can be sent to the Primary Reformer (B503) or the South Stripper Stack Flare (P522). Unscrubbed HRU P2 (purge gas) can only be sent to the South Stripper Stack Flare (P522).

[OAC rule 3745-77-07(A)(1) and PTI #P0136819]

(3) All purge gas stream shall be vented to the south stripper stack flare** whenever HRU P2 is not scrubbing purge gas for product recovery.

**All operational restrictions, monitoring, record keeping, reporting and testing requirements for the flare are established in the terms and conditions for emissions unit P522 and are also applicable to emissions unit B503 when purge gas is vented to the South Stripper Stack Flare (P522).

[OAC rule 3745-77-07(A)(1) and PTI #P0136819]

(4) The maximum heat input shall not exceed 1,020 mmBtu/hr and is limited by the following maximum fuel usages for this emissions unit:

a. 885,653 ft3 per hour of natural gas; and

b. 848,200 ft3 per hour of purge and flash gas, combined.

The high heating value (HHV) for natural gas is assumed to be 1,050 Btu/scf. The HHV for purge and flash gas, combined is assumed to be 338 Btu/scf.

[OAC rule 3745-77-07(A)(1) and PTI #P0136819]

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than natural gas, flash, purge or regen. fuel gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

[OAC rule 3745-77-07(C)(1) and PTI #P0136819]

(2) The permittee shall collect and record the following information each month:

a. Type and time period of each operation (normal operations and HRU P1 and/or HRU P2 reduced efficiency);

b. The calculated NOx emissions [calculated using the approach in f)(2)d.], in tons, associated with each type of operation, based on a detailed review of normal operations and reduced HRU efficiency;

c. The total NOx emission rates, in tons, from all operation types [summation of d)(2)b. for normal operations and reduced HRU efficiency]; and

d. The rolling, 12-month NOx emissions, in tons.

[OAC rule 3745-77-07(C)(1) and PTI #P0136819]

(3) The permittee shall maintain records that document any time periods when the purge gas stream is not vented to the south stripper stack flare while HRU P2 is not scrubbing purge gas for product recovery.

[OAC rule 3745-77-07(C)(1) and PTI #P0136819]

(4) The permittee shall record all instances when the fuel usage exceeds any of the following:

a. 885,653 ft3 per hour of natural gas; and

b. 848,200 ft3 per hour of purge and flash gas, combined.

[OAC rule 3745-77-07(C)(1) and PTI #P0136819]

(5) The PTI application for these emissions units, B503 and P520, was evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to these emissions units for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant emitted at over one ton per year using an air dispersion model such as AERSCREEN or AERMOD or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

a. The exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions units, (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

   i. Threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or

   ii. STEL (short term exposure limit) or the ceiling value from the ACGIH "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

   This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions units, i.e., "**X**" hours per day and "**Y**" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the MAGLC:

   TLV/10 x 8/X x 5/Y = 4 TLV/XY = MAGLC

c. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year):

   Toxic Contaminant: Ammonia

   TLV (mg/m^3): 17.41 (From ACGIH's "2024 TLVs and BEIs" Book)

   Increased Hourly Emission Rate (lbs/hr): 6.94

   Predicted 1-Hour Maximum Ground-Level Concentration ($\mu g/m^3$): 4.09

   MAGLC ($\mu g/m^3$): 414.59

The permittee has demonstrated that emissions of Ammonia from emission units B503 and P520, are calculated to be less than eighty per cent of the MAGLC; any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

[PTI #P0136819]

(6) Prior to making any physical changes to or changes in the method of operation of the emissions units, that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

a. Changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower TLV than the lowest TLV previously modeled;

b. Changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and

c. Physical changes to the emissions units or their exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[PTI #P0136819]

(7) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

a. A description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

b. The MAGLC for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);

c. A copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions units to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

d. The documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions units or the materials applied.

[PTI #P0136819]

(8) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level

concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

[PTI #P0136819]

(9) Modeling to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F)(4)(b), was not necessary for toxic air contaminants other than ammonia because the change to the EU's maximum annual emissions for other toxic air contaminants, as defined in OAC rule 3745-114-01, will each be less than one TPY. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified PTI prior to making a modification as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes, in the composition of the materials or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above one TPY may require the permittee to apply for and obtain a new PTI.

[PTI #P0136819]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas, flash, purge or regeneration fuel gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[OAC rule 3745-77-07(C)(1) and PTI #P0136819]

(2) The permittee shall submit quarterly deviation (excursion) reports that identify:

a. all exceedances of the rolling, 12-month operational restriction specified in c)(2);

b. any period of time (start time and date, and end time and date) when the HRU P2 is not scrubbing gas for product recovery and the unscrubbed purge gas stream emissions were not vented to the south stripper stack flare; and

c. all exceedances of the maximum fuel usages specified in c)(4) above.

[OAC rule 3745-77-07(C)(1) and PTI #P0136819]

(3) The permittee shall submit annual reports that include any changes to any parameter or value used in the dispersion model used to demonstrate compliance with the "Toxic Air Contaminate Statute", ORC 3704.03(F), through the predicted 1-hour maximum concentration. The report should include:

a. The original model input;

b. The updated model input;

c. The reason for the change(s) to the input parameter(s);

d. A summary of the results of the updated modeling, including the input changes; and

e. A statement that the model results indicate that the 1-hour maximum ground-level concentration is less than 80% of the MAGLC.

If no changes to the emissions, emissions units, or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

[OAC rule 3745-77-07(C)(1) and PTI #P0136819]

f) Testing Requirements

(1) The permittee shall conduct, or have conducted, emissions testing for this EU per the following requirements:

a. The emission testing shall be conducted within three months after start-up of the modified emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the allowable hourly mass emissions rate of 552.36 lbs/hr for NOx.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emissions rate(s):

d. Methods 1-4 and 7 of 40 CFR, Part 60, Appendix B.

e. During the emissions testing, the EU shall be operated under operational conditions approved in advance by the appropriate Ohio DO/LAA. Operational conditions that may need to be approved include, but are not limited to, the production rate, the type of material processed, material make-up (solvent content, etc.) or control equipment operational limitations (burner temperature, precipitator voltage, etc.). In general, testing shall be done under *worst case* conditions expected during the life of the permit. As part of the information provided in the Intent to Test (ITT) notification form described below, the permittee shall provide a description of the EU operational conditions they will meet during the emissions testing and describe why they believe *worst case* operating conditions will be met. Prior to conducting the test(s), the permittee shall confirm with the appropriate Ohio EPA DO/LAA that the proposed operating conditions constitute *worst case*. Failure to test under the approved conditions may result in Ohio EPA not accepting the test results as a demonstration of compliance.

f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an ITT notification to the appropriate Ohio EPA DO/LAA. The ITT notification shall describe in detail the proposed test methods and procedures, the EU operating parameters, the time(s) and date(s) of the test(s) and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA DO/LAA's refusal to accept the results of the emission test(s).

g. Personnel from the appropriate Ohio EPA DO/LAA shall be permitted to witness the test(s), examine the testing equipment and acquire data and information necessary to ensure that the operation of the EU and the testing procedures provide a valid characterization of the emissions from the EU and/or the performance of the control equipment.

h. A comprehensive written report on the results of the emissions test(s) shall be signed by the person(s) responsible for the tests and submitted to the appropriate Ohio EPA DO/LAA within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA DO/LAA.

[OAC rule 3745-77-07(C)(1) and PTI #P0136819]

(2) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitations

7.60 lbs of PE/PM_{10}/$PM_{2.5}$/hr and 33.29 tons of PE/PM_{10}/$PM_{2.5}$/yr

Applicable Compliance Method

The hourly PE/PM10/PM2.5 emission limitation above was developed by using the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th edition, section 1.4 (7/98) of 7.6 lbs PE/10^6 scf for natural gas* and dividing by a conversion factor of 1,020 BTU/scf, then multiplying by a maximum input rate of 1,020 MMBtu/hr.

*The natural gas emission factor is a conservative estimate and is inclusive of purge gas, flash gas, and regen. fuel gas emissions.

Compliance is demonstrated by only using natural gas, flash gas, purge gas or regeneration fuel gas, as required in c)(1).

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Methods 1 through 4 of 40 CFR, Part 60, Appendix A and Methods 201, 201A and 202 of 40 CFR, Part 51, Appendix M. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0136819]

b. Emissions Limitations

0.60 lb of SO_2/hr and 2.63 tons of SO_2/yr

Applicable Compliance Method

The hourly SO2 emission limitation above was developed by using the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th edition, section 1.4 (7/98) of 0.6 lbs SO2/10^6 scf for natural gas* and dividing by a conversion factor of 1,020 BTU/scf, then multiplying by a maximum input rate of 1,020 MMBtu/hr.

*The natural gas emission factor is a conservative estimate and is inclusive of purge gas, flash gas, and regen. fuel gas emissions.

Compliance is demonstrated by only using natural gas, flash gas, purge gas or regen. fuel gas, as required in c)(1).

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 6 of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0136819]

c. Emissions Limitation

552.36 lbs of NO_x/hr

Applicable Compliance Method

The hourly NOx emissions limitation for combustion of fuel gases was developed by using the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th edition, section 1.4 (7/98) of 280 lbs NOx/10^6 scf for natural gas* and dividing by a conversion factor of 1,020 BTU/scf, then multiplying by a maximum input rate of 1,020 MMBtu/hr, then applying a vendor guaranteed 10% reduction = 252 lbs NOx/hr.

*The natural gas emission factor is a conservative estimate and is inclusive of purge gas, flash gas, and regen. fuel gas emissions.

The hourly NOx emissions limitation for combustion of ammonia introduced into the Primary Reformer from flash gas was developed by multiplying the NOx emission factor from vendor information: (0.286 lb/lb ammonia combusted) by an adjusted ammonia introduction rate into the Reformer (HRU P1 reduced efficiency) of (1,050.223 lb ammonia/hour) = 300.36 lbs NOx/hr

Total NOx emissions = 252 + 300.36 = 552.36 lbs/hr

The permittee shall demonstrate compliance with the hourly emissions limitation by testing in accordance with the requirements in f)(1) above.

[OAC rule 3745-77-07(C)(1) and PTI #P0136819]

d. Emissions Limitation

1,179.12 tons of NOx per rolling, 12-month period

Applicable Compliance Method

Compliance with the annual NOx emission limitation shall be demonstrated by the record keeping requirements specified in d)(2) of this permit.

[OAC rule 3745-77-07(C)(1) and PTI #P0136819]

e. Emissions Limitations

6.71 lbs of CO/hr and 29.38 tons of CO/yr

Applicable Compliance Method

The hourly CO emission limitation above was developed from previous stack test data, and adjusted to remove turbine emissions, plus a margin of 15 percent.

Compliance is demonstrated by only using natural gas, flash, purge or regeneration fuel gas, as required in c)(1).

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 10 of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0136819]

f. Emission Limitations

5.50 lbs of VOC/hr and 24.09 tons of VOC/yr

Applicable Compliance Method

The hourly VOC emission limitation above was developed by using the emission factor from AP-42, "Compilation of Air Pollutant Emission Factors", 5th edition, section 1.4 (7/98) of 5.5 lbs VOC/10^6 scf for natural gas* and dividing by a conversion factor of 1,020 BTU/scf, then multiplying by a maximum input rate of 1,020 MMBtu/hr.

*The natural gas emission factor is a conservative estimate and is inclusive of purge gas, flash gas, and regeneration fuel gas emissions.

Compliance is demonstrated by only using natural gas, flash gas, purge gas or regen. fuel gas, as required in c)(1).

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 18, 25, or 25A, as applicable, of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0136819]

g. Emissions Limitation

Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method

If required, the permittee shall demonstrate compliance with the visible particulate emission limitation above in accordance with the methods and procedures specified

in Method 9 of 40 CFR, Part 60, Appendix A, and the requirements specified in OAC rule 3745-17-03(B)(1).

[OAC rule 3745-77-07(C)(1) and PTI #P0136819]

g) Miscellaneous Requirements

(1) None.

3. B504, NH3 Unit - Converter Heater

Operations, Property and/or Equipment Description:

Ammonia Production Unit - Converter Start-Up Heater (37 mmBtu/hr - Natural Gas)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) [PTI #P0119508, issued 11/13/2015] [Restriction to qualify as a "limited use process heater" per 40 CFR Part 63, Subpart DDDDD]	See c)(1) and e)(2)
b.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
c.	OAC rule 3745-17-10(B)(1)	0.020 lb PE/mmBtu of actual heat input
d.	OAC rule 3745-18-06(E)	See b)(2)a.
e.	40 CFR, Part 63, Subpart DDDDD (40 CFR 63.7480-7575) [In accordance with 40 CFR 63.7500(c) this emissions unit is a Limited-use process heater located at a major source of HAP emissions and is subject to the tune-up requirements specified in this section.]	Tune-up requirements specified in Table 3 [40 CFR 63.7540]. See b)(2)b., b)(2)c., d)(2) and e)(3)
f.	40 CFR, Part 63, Subpart A [40 CFR 63.1 – 63.15]	Table 10 to 40 CFR, Part 63, Subpart DDDDD – Applicability of General Provisions to Subpart DDDDD shows which parts of the General Provisions in 40 CFR 63.1 - 63.15 apply.

(2) Additional Terms and Conditions

a. This emissions unit is exempt from the requirements of OAC rule 3745-18-06(E) in accordance with OAC rule 3745-18-06(C).

b. The permittee shall comply with the requirements and limits of 40 CFR Part 63, Subpart DDDDD for the facility's new (commenced construction after 6/4/10) boilers and process heaters by January 31, 2013, or upon startup, whichever is later; and the facility's existing boilers and process heaters shall be in compliance with this NESHAP no later than January 31, 2016.

i. This emissions unit is identified as a limited-use process heater and is not subject to the emission limits in Table 2 of the subpart or the energy assessment requirements in Table 3 of the subpart or the operating limits in Table 4 of the subpart.

c. The permittee shall comply with the tune-up requirements specified in 40 CFR Part 63.7540(a)(10)(i) through (vi):

i. The limited-use process heater is subject to 5-year tune-up requirements, conducted in accordance with 40 CFR 63.7540(a)(10)(i) through (vi) and Table 3 to the subpart: Each limited-use process heater identified above shall have a federally enforceable average annual capacity factor of no more than 10%.

c) Operational Restrictions

(1) The maximum annual heat input for this emissions unit shall not exceed 31.77 million standard cubic feet (mmscf) (32,412 mmBtu) per calendar year. The permittee has sufficient records to demonstrate compliance with the annual heat input limitation upon permit issuance in order to qualify as a "limited use process heater" per 40 CFR, Part 63, Subpart DDDDD.

[OAC rule 3745-77-07(A)(1) and PTI #P0119508 and 40 CFR, Part 63, Subpart DDDDD]

(2) The permittee shall burn only natural gas as fuel in this emissions unit.

[OAC rule 3745-77-07(A)(1) and PTI #P0119508]

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

[OAC rule 3745-77-07(C)(1)]

(2) The permittee shall maintain fuel use records for the days the emissions unit was operating.

[OAC rule 3745-77-07(C)(1) and PTI #P0119508 and 40 CFR, Part 63, Subpart DDDDD]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[OAC rule 3745-77-07(C)(1) and PTI #P0119508]

(2) The permittee shall submit annual reports that summarize the annual heat input for this emissions unit. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

[OAC rule 3745-77-07(C)(1) and PTI #P0119508]

(3) The permittee shall submit, to the Ohio EPA, Northwest District Office, the following notifications in accordance with the applicable requirements of 40 CFR 63.7545, 40 CFR 63.7(b) and (c), 40 CFR 63.8(e) and (f)(4) and (6), and 40 CFR 63.9(b) through (h):

a. Five-year compliance reports containing the information identified in 40 CFR 63.7550.

[OAC rule 3745-77-07(C)(1); 40 CFR 63.7545; 40 CFR 63.7530(e), (f), and (g); and 40 CFR 63.9(b) through (h)]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitation

Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method

If required, compliance with the visible emissions limitation above shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

[OAC rule 3745-77-07(C)(1) and PTI #P0119508]

b. Emissions Limitation

0.020 lb PE/mmBtu of actual heat input

Applicable Compliance Method

The permittee shall demonstrate compliance with this limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 1.9 lbs PE (filterable)/mm cu. ft, and then dividing by the maximum heat input capacity of the heater (mmBtu/hr).

If required, compliance with the lb/mmBtu limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(9).

[OAC rule 3745-77-07(C)(1) and PTI #P0119508]

g) Miscellaneous Requirements

(1) None.

4. B506, NH3 Unit - Gas Turbine

Operations, Property and/or Equipment Description:

Ammonia Production Unit - Gas Turbine (240 mmBtu/hr - Natural Gas)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
b.	OAC rule 3745-17-11(B)(4)	0.040 lb PE/mmBtu of actual heat input
c.	OAC rule 3745-18-06(E)	See b)(2)a.

(2) Additional Terms and Conditions

a. This emissions unit is exempt from the requirements of OAC rule 3745-18-06(E) in accordance with OAC rule 3745-18-06(C).

c) Operational Restrictions

(1) The permittee shall burn only natural gas as fuel in this emissions unit.

[OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

[OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitation

Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method

If required, compliance with the visible emissions limitation above shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

[OAC rule 3745-77-07(C)(1)]

b. Emissions Limitation

0.040 lb PE/mmBtu of actual heat input

Applicable Compliance Method

The permittee shall demonstrate compliance with this limitation by multiplying the maximum hourly natural gas consumption rate (mm cu. ft/hr) by the emission factor from AP-42, Table 1.4-2 (revised 7/98) of 1.9 lbs PE (filterable)/mm cu. ft, and then dividing by the maximum heat input capacity of the turbine (mmBtu/hr).

If required, compliance with the lb/mmBtu limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

[OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

5. B507, NH3 Load Heater

Operations, Property and/or Equipment Description:

Ammonia Load Heater (product area) (40 mmBtu/hr - Natural Gas)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)f. and d)(2).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	ORC 3704.03(T) [PTI #P0117742, issued 10/15/14]	0.082 lb of CO/million Btu See b)(2)a. and b)(2)b.
b.	OAC rule 3745-31-05(D) [PTI #P0117742, issued 10/15/14]	3.92 lbs of NOx/hr and 17.18 tons of NOx/yr See b)(2)b.
c.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
d.	OAC rule 3745-17-10(B)(1)	0.020 lb PE/mmBtu of actual heat input
e.	OAC rule 3745-18-06(E)	See b)(2)c.
f.	ORC 3704.03(F) and OAC rule 3745-114-01	See d)(2)
g.	40 CFR, Part 63, Subpart DDDDD (40 CFR 63.7480-7575) [In accordance with 63.7575, this emissions unit is a gaseous fuel 1 subcategory existing process heater located at a major source of HAP emissions and subject to the applicable requirements specified in this section.]	See c)(2), c)(3) and e)(2) 63.7500(a) Table 3 requirements
h.	40 CFR, Part 63, Subpart A [40 CFR 63.1 – 63.15]	Table 10 to 40 CFR, Part 63, Subpart DDDDD – Applicability of General Provisions to Subpart DDDDD shows which parts of the General Provisions in 40 CFR 63.1 - 63.15 apply.

(2) Additional Terms and Conditions

a. The CO emissions limitation was previously established in permit-to-install No. P0105861, issued on 5/21/10. Best Available Technology (BAT) requirements for NOx emissions under ORC 3704.03(T) have been determined to be compliance with the annual NOx emission limitation as established pursuant to OAC rule 3745-31-05(D).

b. The mass emission rate limitations in b)(1)a. and b)(1)b. above represent the PTE, defined as the maximum capacity to emit an air pollutant under the physical and operational design.

Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with these emission limitations. See f)(1)a. and f)(1)b. for details regarding the PTE.

Emissions from the ammonia load heater are associated with the combustion of natural gas and include: particulate emissions (PE), particulate matter 10 microns or less in size (PM10), particulate matter 2.5 microns or less in size (PM2.5), organic compounds (OC), VOC, and sulfur dioxide (SO2).

The uncontrolled potential emissions of PE, PM10, PM2.5, OC, VOC, and SO2 are of negligible quantities for criteria pollutants and, therefore, have not been addressed within this permit.

c. This emissions unit is exempt from the requirements of OAC rule 3745-18-06(E) in accordance with OAC rule 3745-18-06(C).

c) Operational Restrictions

(1) The permittee shall burn only natural gas as fuel in this emissions unit.

[OAC rule 3745-77-07(A)(1) and PTI #P0117742]

(2) Pursuant to 40 CFR 63.7540(a)(10), because this emissions unit is a process heater or boiler with heat input capacity greater than 10 mmBtu/hr combusting natural gas, the permittee shall conduct a tune-up of the boiler or process heater annually as specified in 40 CFR 63.7540(a)(10)(i) through 63.7540(a)(10)(vi).

[OAC rule 3745-77-07(A)(1) and 40 CFR, Part 63, Subpart DDDDD]

(3) Pursuant to 40 CFR 63.7540(a)(13), if the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.

[OAC rule 3745-77-07(A)(1) and 40 CFR, Part 63, Subpart DDDDD]

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

[OAC rule 3745-77-07(C)(1) and PTI #P0117742]

(2) Modeling to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary for this permit action because actual emissions of the toxic air contaminant ammonia (NH3), as specified in OAC rule 3745-114-01, resulted in an actual decrease. Other than NH3, the maximum annual emissions for each toxic air contaminant (as specified in OAC rule 3745-114-01) that is not subject to MACT and/or

NESHAP regulations will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01.

The permittee is hereby advised that changes in the composition of the materials, or use of new materials, etc. that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

[PTI #P0117742]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[OAC rule 3745-77-07(C)(1) and PTI #P0117742]

(2) The permittee shall submit, to the Ohio EPA, Northwest District Office, the following notifications in accordance with the applicable requirements of 40 CFR 63.7545, 40 CFR 63.7(b) and (c), 40 CFR 63.8(e) and (f)(4) and (6), and 40 CFR 63.9(b) through (h):

a. Annual compliance reports containing the information identified in 40 CFR 63.7550.

[OAC rule 3745-77-07(C)(1); 40 CFR 63.7545; 40 CFR 63.7530(e), (f), and (g); and 40 CFR 63.9(b) through (h)]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitation

0.082 lb of CO/million Btu

Applicable Compliance Method

The emission limitation represents the PTE (defined as the maximum capacity to emit an air pollutant under the physical and operational design). The PTE is based on a heat content of 1,020 Btu/scf and a CO emission factor of 84 lbs/million scf (AP-42, Table 1.4-1 [7/98]).

If required, the permittee shall demonstrate compliance with this emission limitation pursuant to Methods 1 through 4, and 10 of 40 CFR, Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI #P0117742]

b. Emissions Limitation

3.92 lbs of NOx/hr and 17.18 tons of NOx/yr

Applicable Compliance Method

The emission limitation represents the PTE (defined as the maximum capacity to emit an air pollutant under the physical and operational design). The PTE is based on a heat content of 1,020 Btu/scf and a NOx emission factor of 100 lbs/million scf (AP-42, Table 1.4-1 [7/98]).

If required, the permittee shall demonstrate compliance with this emission limitation pursuant to Methods 1 through 4, and 7 of 40 CFR, Part 60, Appendix A.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0117742]

c. Emissions Limitation

Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method

If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods and procedures specified in Method 9 of 40 CFR, Part 60, Appendix A, and the requirements specified in OAC rule 3745-17-03(B)(1).

[OAC rule 3745-77-07(C)(1) and PTI #P0117742]

d. Emissions Limitation

0.020 lb PE/million Btu of actual heat input

Applicable Compliance Method

The permittee shall demonstrate compliance with the PE limitation above by multiplying the maximum hourly natural gas consumption rate (0.0392 million scf/hr) by an AP-42 emission factor of 1.9 lbs PE (filterable)/million scf (AP-42, Table 1.4-2 [7/98]), and then dividing by the maximum heat input capacity of the heater (40 million Btu/hr).

If required, compliance with the lb/million Btu PE limitation above shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(9).

[OAC rule 3745-77-07(C)(1) and PTI #P0117742]

g) Miscellaneous Requirements

(1) None.

6. B509, NH3 Unit - Boiler #3

Operations, Property and/or Equipment Description:

Ammonia Unit - Boiler #3 (227 mmBtu/hr - Natural Gas)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)h. and d)(3).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) [PTI # P0135110, issued 11/14/23]	1.69 lbs of particulate emissions/ particulate matter less than or equal to 10 microns in diameter/particulate matter less than or equal to 2.5 microns in diameter ($PE/PM_{10}/PM_{2.5}$)/hr and 7.41 tons of $PE/PM_{10}/PM_{2.5}$/yr 0.13 lb of sulfur dioxide (SO2)/hr and 0.58 ton of SO2/yr 22.70 lbs of NOx/hr and 99.43 tons of NOx/yr 18.69 lbs of CO/hr and 81.88 tons of CO/yr 1.22 lbs of VOC/hr and 5.36 tons of VOC/yr See b)(2)a. through b)(2)c.
b.	ORC 3704.03(T) [PTI # P0135110, issued 11/14/23]	See b)(2)d.
c.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
d.	OAC rule 3745-17-10(B)(1)	0.020 lb of PE/mmBtu of actual heat input [See b)(2)e.]
e.	OAC rule 3745-18-06(E)	Exempt, see b)(2)f.
f.	40 CFR, Part 63, Subpart DDDDD (40 CFR 63.7480-7575) [In accordance with 63.7575, this emissions unit is a gaseous fuel 1	See c)(2), c)(3) and e)(3) 63.7500(a) Table 3 requirements

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	subcategory new process heater located at a major source of HAP emissions and subject to the applicable requirements specified in this section.]	
g.	OAC rule 3745-110	See b)(2)g.
h.	ORC 3704.03(F) and OAC rule 3745-114	See d)(3)
i.	40 CFR, Part 60, Subpart Db 40 CFR 60.40b - 60.49b	0.20 lb of NOx (expressed as NO_2)/mmBtu of actual heat input on a 30-day rolling average basis [See b)(2)h., d)(2) and e)(2)]

(2) Additional Terms and Conditions

a. The mass emission rate limitations in b)(1)a. above represent the PTE, defined as the maximum capacity to emit an air pollutant under the physical and operational design. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with these emission limitations. See f)(1)a., b, c., d., and e. for details regarding the PTE.

b. It is assumed that all PE are equivalent to both PM_{10} and $PM_{2.5.}$

c. The federally enforceable emission limitations in b)(1)a. were established for the purpose of representing the potentials to emit of this emissions unit.

d. Best Available Technology (BAT) requirements for NOx and CO emissions under ORC 3704.03(T) have been determined to be compliance with the annual emission limitations for NOx and CO as established pursuant to OAC rule 3745-31-05(D).

e. The emission limitation of 0.020 lb of particulate emissions (PE) per million Btu of actual heat input specified by OAC 3745-17-10(B)(1) is less stringent than the PE limitation specified pursuant to OAC rule 3745-31-05(D).

f. This emissions unit is exempt from the requirements of OAC rule 3745-18-06(E) in accordance with OAC rule 3745-18-06(C).

g. Pursuant to OAC rule 3745-110-01(B)(19), this emissions unit is a new large boiler. The emissions limitations for NOx in OAC rule 3745-110-03(C) are as stringent as the NOx emission limitation established pursuant to OAC rule 3745-31-05(D).

h. The emission limitation of 0.20 lb of NOx (expressed as NO2)/mmBtu of actual heat input on a 30-day rolling average basis specified by 40 CFR 60.44b(i) and (l)(1) for a boiler with "high heat release rate" is less stringent than the NOx limitation specified pursuant to OAC rule 3745-31-05(D).

c) Operational Restrictions

(1) The permittee shall burn only natural gas in this emissions unit.

[OAC rule 3745-77-07(A)(1) and PTI #P0135110]

(2) Pursuant to 40 CFR 63.7540(a)(12), because this emissions unit is a process heater or boiler in the Gas 1 subcategory with a continuous oxygen trim system that maintains an optimum air to fuel ratio, the permittee shall conduct a tune-up of the boiler or process heater every 5 years as specified in 40 CFR 63.7540(a)(10)(i) through 63.7540(a)(10)(vi). The permittee may delay the burner inspection specified in paragraph 63.7540(a)(10)(i) until the next scheduled or unscheduled unit shutdown, but the permittee must inspect each burner at least once every 72 months.

[OAC rule 3745-77-07(A)(1) and PTI #P0135110 and 40 CFR Part 63 Subpart DDDDD]

(3) Pursuant to 40 CFR 63.7540(a)(13), if the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.

[OAC rule 3745-77-07(A)(1) and PTI #P0135110 and 40 CFR Part 63 Subpart DDDDD]

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

[OAC rule 3745-77-07(C)(1) and PTI #P0135110]

(2) The permittee shall perform the following monitoring and record keeping requirements contained in 40 CFR, Part 60, Subpart Db for purposes of demonstrating compliance with the 0.20 lb of NOx (expressed as NO2)/mmBtu of actual heat input on a 30-day rolling average basis emission limitation:

a. The permittee shall install, calibrate, maintain, and operate CEMS for measuring NOx and O2 (or CO2) emissions discharged to the atmosphere, and shall record the output of the system. [40 CFR 60.48b(b)(1)]

b. The CEMS shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. [40 CFR 60.48b(c)]

c. The 1-hour average NOx emission rates measured by the continuous NOx monitor required under 40 CFR 60.13(h) shall be expressed in ng/J or lb/mmBtu heat input and shall be used to calculate the average emission rates. The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(h)(2). [40 CFR 60.48b(d)]

d. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems. The span value for NOx is determined using the procedures in 40 CFR 60.48b(e)(2)(i) and/or 40 CFR 60.48b(e)(2)(ii). [40 CFR 60.48b(e)(2)]

e. When NOx emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7 of appendix A of this part, Method 7A of appendix A of this part, or other approved reference methods to provide emission data for a minimum of 75% of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. [40 CFR 60.48b(f)]

f. The permittee shall record and maintain records of the amount of natural gas combusted during each day and calculate the annual capacity factor for natural gas

for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. [40 CFR 60.49b(d)(1)]

g. The permittee shall maintain records of the following information for each steam generating unit operating day: [40 CFR 60.49b(g)]

i. Calendar date;

ii. The average hourly NOx emission rates (expressed as NO2) (ng/J or lb/mmBtu heat input) measured or predicted;

iii. The 30-day average NOx emission rates (ng/J or lb/mmBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly NOx emission rates for the preceding 30 steam generating unit operating days;

iv. Identification of the steam generating unit operating days when the calculated 30-day average NOx emission rates are in excess of the NOx emission limitation (specified above in b)(1)l.), with the reasons for such excess emissions as well as a description of corrective actions taken;

v. Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;

vi. Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;

vii. Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;

viii. Identification of the times when the pollutant concentration exceeded full span of the CEMS;

ix. Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and

x. Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 or under appendix B of this part, whichever is applicable.

h. All records required under this section shall be maintained by the permittee for a period of 2 years following the date of such record. [40 CFR 60.49b(o)]

[OAC rule 3745-77-07(C)(1) and PTI #P0135110 and 40 CFR Part 60 Subpart Db]

(3) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary for this permit action because actual emissions of the toxic air contaminant ammonia (NH3), as specified in OAC rule 3745-114-01, resulted in an actual decrease. Other than NH3, the maximum annual emissions for each toxic air contaminant (as specified in OAC rule 3745-114-01) that is not subject to MACT and/or NESHAP regulations will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01.

The permittee is hereby advised that changes in the composition of the materials, or use of new materials, etc. that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

[PTI #P0135110]

e) Reporting Requirements

(1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

[OAC rule 3745-77-07(C)(1) and PTI #P0135110]

(2) The permittee shall perform the following reporting requirements contained in 40 CFR, Part 60, Subpart Db:

a. The permittee shall submit notification of the date of initial startup, as provided by 40 CFR 60.7. This notification shall include: [40 CFR 60.49b(a)]

i. The design heat input capacity of the affected facility and identification of the fuels to be combusted in the affected facility; and [40 CFR 60.49b(a)(1)]

ii. The annual capacity factor at which the owner or operator anticipates operating the facility based on all fuels fired and based on each individual fuel fired. [40 CFR 60.49b(a)(3)]

b. The permittee shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in appendix B of 40 CFR, Part 60. [40 CFR 60.49b(b)]

c. The permittee shall submit excess emission reports for any excess emissions that occurred during the reporting period. Excess emissions are defined as any calculated 30-day rolling average NOx emission rate that exceeds the applicable emission limit. [40 CFR 60.49b(h)]

d. The permittee shall submit reports containing the information recorded under the recordkeeping requirements in d)(3)g. [40 CFR 60.49b(i)]

e. The permittee may submit electronic quarterly reports for NOx in lieu of submitting the written reports required under 40 CFR 60.49b(h) or (i). The format of each quarterly electronic report shall be coordinated with the permitting authority.

The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the permittee, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the permittee shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format. [40 CFR 60.49b(v)]

f. The reporting period for the reports required under this subpart is each 6 month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period. [40 CFR 60.49b(w)]

[OAC rule 3745-77-07(C)(1) and PTI #P0135110 and 40 CFR Part 60 Subpart Db]

(3) The permittee shall submit, to the Ohio EPA, Northwest District Office, the following notifications in accordance with the applicable requirements of 40 CFR 63.7545, 40 CFR 63.7(b) and (c), 40 CFR 63.8(e) and (f)(4) and (6) and 40 CFR 63.9(b) through (h):

a. Annual compliance reports containing the information identified in 40 CFR 63.7550.

[OAC rule 3745-77-07(C)(1); 40 CFR 63.7545; 40 CFR 63.7530(e), (f), and (g); and 40 CFR 63.9(b) through (h)]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitations

1.69 lbs of PE/PM_{10}/$PM_{2.5}$/hr and 7.41 tons of PE/PM_{10}/$PM_{2.5}$/yr

Applicable Compliance Method

The hourly PE/PM_{10}/$PM_{2.5}$ emission limitation above was developed by multiplying the PE/PM_{10}/$PM_{2.5}$ emission factor from AP-42, Table 1.4-2 (dated 7/98) (7.6 lbs/million scf) by the maximum heat input of 227 million Btu/hr, then dividing by the natural gas heat content of 1,020 Btu/scf. Compliance is presumed by only using natural gas as required in (c)(1).

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Methods 1 through 4 of 40 CFR, Part 60, Appendix A and Methods 201, 201A and 202 of 40 CFR, Part 51, Appendix M. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0135110]

b. Emissions Limitations

0.13 lb of SO2/hr and 0.58 ton of SO2/yr

Applicable Compliance Method

The hourly SO2 emission limitation above was developed by multiplying the SO2 emission factor from AP-42, Table 1.4-2 (dated 7/98) (0.6 lb/million scf) by the maximum heat input of 227 million Btu/hr, then dividing by the natural gas heat content of 1,020 Btu/scf. Compliance is presumed by only using natural gas as required in (c)(1).

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 6 of 40 CFR, Part 60, Appendix A.

Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0135110]

c. Emissions Limitations

22.70 lbs of NOx/hr and 99.43 tons of NOx/yr

Applicable Compliance Method

The hourly NOx emission limitation above was developed by multiplying the required Ohio EPA NOx Reasonably Available Control Technology emission limit of 0.1 lb/million Btu from OAC rule 3745-110-03(C) by the maximum heat input of 227 million Btu/hr. Compliance is presumed by only using natural gas as required in (c)(1).

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 7 of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0135110]

d. Emissions Limitations

18.69 lbs of CO/hr and 81.88 tons of CO/yr

Applicable Compliance Method

The hourly CO emission limitation above was developed by multiplying the CO emission factor from AP-42, Table 1.4-1 (dated 7/98) (84 lbs/million scf) by the maximum heat input of 227 million Btu/hr, then dividing by the natural gas heat content of 1,020 Btu/scf. Compliance is presumed by only using natural gas as required in (c)(1).

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 10 of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton.

Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0135110]

e. Emissions Limitations

1.22 lbs of VOC/hr and 5.36 tons of VOC/yr

Applicable Compliance Method

The hourly VOC emission limitation above was developed by multiplying the VOC emission factor from AP-42, Table 1.4-2 (dated 7/98) (5.5 lbs/million scf) by the maximum heat input of 227 million Btu/hr, then dividing by the natural gas heat content of 1,020 Btu/scf. Compliance is presumed by only using natural gas as required in (c)(1).

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 18, 25, or 25A, as applicable, of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0135110]

f. Emissions Limitation

Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method

If required, the permittee shall demonstrate compliance with the visible particulate emission limitation above in accordance with the methods and procedures specified in Method 9 of 40 CFR, Part 60, Appendix A, and the requirements specified in OAC rule 3745-17-03(B)(1).

[OAC rule 3745-77-07(C)(1) and PTI #P0135110]

g. Emissions Limitation:

0.20 lb of NOx (expressed as NO2)/mmBtu of actual heat input on a 30-day rolling average basis

Applicable Compliance Method

The permittee shall demonstrate compliance with the 30-day rolling average emission limitation by conducting the performance testing as required under *40 CFR 60.8* using the continuous system for monitoring NOx under *40 CFR 60.48(b)*.

Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA. [40 CFR 60.46b(e)]

i. the permittee shall, upon request, determine compliance with the NOx emission limit through the use of a 30-day performance test. During periods when performance tests are not requested, NOx emissions data collected pursuant to *40 CFR 60.48b(g)(1)* are used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the NOx emission standards. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NOx emission data for the preceding 30 steam generating unit operating days. [40 CFR 60.46b(e)(4)]

[OAC rule 3745-77-07(C)(1), 40 CFR Part 60 Subpart Db, and PTI #P0135110]

g) Miscellaneous Requirements

(1) None.

7. J001, DEF, Urea Water, or UAN Solution Truck/Railcar Loading

Operations, Property and/or Equipment Description:

DEF , Urea Water, or UAN Solution Truck/Railcar Loading

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)a., d)(1) through d)(5) and e)(1).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	ORC 3704.03(F) and OAC rule 3745-114-01 [PTI #P0136172, issued 7/8/2024]	See d)(1) through d)(5) and e)(1).
b.	OAC rule 3745-104	See Standard Term and Condition A.4. (Risk Management Plans) See b)(2)a.

(2) Additional Terms and Conditions

a. This emissions unit emits a regulated air pollutant [as defined in OAC rule 3745-77-01(R)(1)] in excess of five tons per year in the form of anhydrous ammonia, which is subject to OAC Chapter 3745-104 and Section 112(r) of the Clean Air Act. As such, this emissions unit is a significant emissions unit [as defined in OAC rule 3745-77-01(S)(1)].

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) Air toxic emissions associated with the original installation of this emissions unit (J001) was addressed by PTI #P0109600 issued 3/21/2012. Additional modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary for this permit action because actual emissions of the toxic air contaminant ammonia (NH3), as specified in OAC rule 3745-114-01, resulted in an actual decrease. Other than NH3, the maximum annual emissions for each toxic air contaminant (as specified in OAC rule 3745-114-01) that is not subject to MACT and/or NESHAP regulations will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01.

The permittee is hereby advised that changes in the composition of the materials, or use of new materials, etc. that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

[PTI #P0136172]

(2) PTI #P0109600 issued for this emissions unit, J001, was evaluated using the air dispersion model ISCST3 and the actual materials and the design parameters of the emissions units' exhaust system as specified by the permittee, and as presented in the paragraphs below.

The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

   i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or

   ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

   TLV/10 x 8/X x 5/Y = 4 TLV/XY = MAGLC

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: Ammonia

TLV (mg/m3): 17.413

Maximum Hourly Emission Rate (lbs/hr): 1.574

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 395.68

MAGLC (ug/m3): 414.6

[PTI #P0136172]

(3) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and

c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[PTI #P0136172]

(4) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);

c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

[PTI #P0136172]

(5) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

[PTI #P0136172]

e) Reporting Requirements

(1) The permittee shall submit quarterly reports to the appropriate Ohio EPA, Northwest District Office, documenting any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect. These quarterly reports shall be submitted by April 30, July 31, October 31, and January 31, and shall cover the records for the previous calendar quarters.

[PTI #P0136172]

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

8. P520, NH3 Unit - Reforming

Operations, Property and/or Equipment Description:

Ammonia Unit - Reforming Section

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)d., d)(1) through d)(5) and e)(1).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions

		Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (Established as federally enforceable requirements to represent the PTE) [PTI P0136819, Issued 01/22/25]	9.36 lbs of CO/hr and 41.00 tons of CO/yr during normal production mode of operation 0.86 lb of VOC/hr and 3.75 tons of VOC/yr during normal production mode of operation See b)(2)a., b)(2)b. and b)(2)d. See Facility-Wide Terms and Conditions B.9
b.	ORC 3704.03(T) OAC rule 3745-31-05(A)(3) [PTI P0136819, Issued 01/22/25]	See b)(2)c.
c.	OAC rule 3745-31-05(A)(3)(a)(ii) [PTI P0136819, Issued 01/22/25]	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the PTE is less than 10 tons/yr, taking into account the federally enforceable requirements in b)(1)b.
d.	ORC 3704.03(F) and OAC rule 3745-114-01	See d)(1) through d)(4) and e)(1)

(2) Additional Terms and Conditions

a. The mass emission rate limitations in b)(1)a. above represent the PTE, defined as the maximum capacity to emit an air pollutant under the physical and operational design. Therefore, no monitoring, recordkeeping, or reporting requirements are necessary to ensure compliance with these emission limitations. See f)(1)a. and f)(1)b., for details regarding the PTE.

b. The federally enforceable emission limitations in b)(1)a. were established for the purpose of representing the potentials to emit of this emissions unit.

c. BAT requirements for CO emissions under ORC 3704.03(T)/OAC rule 3745-31-05(A)(3) have been determined to be compliance with the annual emission limitations for CO established pursuant to OAC rule 3745-31-05(D).

d. Criteria pollutant emissions resulting from shutdown events have been determined to be negligible for this emissions unit.

e. The permittee shall comply with applicable emissions limitations/control measures, operational restrictions, monitoring and recordkeeping requirements, reporting requirements, testing requirements, and additional term and conditions

requirements in Section B. of PTI #P0130953, issued 9/29/21 until the emissions unit commences operation under modification authorized by PTI #P0130953, issued 9/29/21, Section C.3 as incorporated in this Title V permit. The requirements of PTI #P0130953 Section B. shall cease to be enforceable after commencing operation under the terms specified in Section C. of said PTI, as incorporated into this Title V permit.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The PTI application for these emissions units, B503 and P520 was evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to these emissions units for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant emitted at over one ton per year using an air dispersion model such as AERSCREEN or AERMOD or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

a. The exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions units, (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

i. Threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or

ii. STEL (short term exposure limit) or the ceiling value from the ACGIH "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions units, i.e., "**X**" hours per day and "**Y**" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the MAGLC:

$$TLV/10 \times 8/X \times 5/Y = 4\ TLV/XY = MAGLC$$

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year):

Toxic Contaminant: Ammonia

TLV (mg/m^3): 17.41 (From ACGIH's "2024 TLVs and BEIs" Book)

Increased Hourly Emission Rate (lbs/hr): 6.94

Predicted 1-Hour Maximum Ground-Level Concentration ($\mu g/m^3$): 4.09

MAGLC ($\mu g/m^3$): 414.59

The permittee has demonstrated that emissions of Ammonia from emission units B503 and P520 are calculated to be less than eighty per cent of the MAGLC; any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

[PTI #P0136819]

(2) Prior to making any physical changes to or changes in the method of operation of the emissions units, that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

a. Changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower TLV than the lowest TLV previously modeled;

b. Changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and

c. Physical changes to the emissions units or their exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[PTI #P0136819]

(3) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

a. A description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

b. The MAGLC for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);

c. A copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions units to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

d. The documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions units or the materials applied.

[PTI #P0136819]

(4) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

[PTI #P0136819]

(5) Modeling to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F)(4)(b), was not necessary for toxic air contaminants other than ammonia because the change to the EU's maximum annual emissions for other toxic air contaminants, as defined in OAC rule 3745-114-01, will each be less than one TPY. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified PTI prior to making a modification as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes, in the composition of the materials or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above one TPY may require the permittee to apply for and obtain a new PTI.

[PTI #P0136819]

e) Reporting Requirements

(1) The permittee shall submit annual reports that include any changes to any parameter or value used in the dispersion model used to demonstrate compliance with the "Toxic Air Contaminate Statute", ORC 3704.03(F), through the predicted 1-hour maximum concentration. The report should include:

a. The original model input;

b. The updated model input;

c. The reason for the change(s) to the input parameter(s);

d. A summary of the results of the updated modeling, including the input changes; and

e. A statement that the model results indicate that the 1-hour maximum ground-level concentration is less than 80% of the MAGLC.

If no changes to the emissions, emissions units, or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

[OAC rule 3745-77-07(C)(1) and PTI #P0136819]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitation

9.36 lbs of CO/hr and 41.00 tons of CO/yr during normal production mode of operation

Applicable Compliance Method

The hourly emission limitation is based on previous stack testing data and reflects the PTE* for this emissions unit during normal production mode of operation.

*PTE was determined by multiplying an emission factor of 0.0840 lb CO/ton ammonia (based on the most current stack test data) by a maximum hourly production rate of 111.458 tons ammonia/hr.

Therefore, it is not necessary to develop any further monitoring, recordkeeping and/or reporting requirements to ensure compliance with this limitation.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 10 of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0136819]

b. Emissions Limitation

0.86 lb of VOC/hr and 3.75 tons of VOC/yr during normal production mode of operation

Applicable Compliance Method

The hourly emission limitation is based on previous stack testing data and reflects the PTE* for this emissions unit during normal production mode of operation.

*PTE was determined by multiplying an emission factor of 0.00768 lb VOC/ton ammonia (based on the most current stack test data) by a maximum hourly production rate of 111.458 tons ammonia/hr.

Therefore, it is not necessary to develop any further monitoring, recordkeeping and/or reporting requirements to ensure compliance with this limitation.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 18, 25, or 25A, as applicable, of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0136819]

g) Miscellaneous Requirements

(1) None.

9. P521, NH3 Unit - Purification

Operations, Property and/or Equipment Description:

Ammonia Production Unit Purification Section

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)d., d)(1) through d)(4) and e)(1).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (Established as federally enforceable requirements to represent the PTE) [PTI #P0130953, issued 9/29/21]	2.99 lbs of CO/hr and 13.07 tons of CO/yr during normal production mode of operation 0.42 lb of VOC/hr and 1.85 tons of VOC/yr during normal production mode of operation See b)(2)a. and b)(2)b. See Facility-Wide Terms and Conditions B.9.
b.	ORC 3704.03(T) OAC rule 3745-31-05(A)(3) [PTI #P0130953, issued 9/29/21]	See b)(2)c.
c.	OAC rule 3745-31-05(A)(3)(a)(ii) [PTI #P0130953, issued 9/29/21]	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the PTE is less than 10 tons/yr, taking into account the federally enforceable requirements in b)(1)a.
d.	ORC 3704.03(F) and OAC rule 3745-114-01	See d)(1) through d)(4) and e)(1)

(2) Additional Terms and Conditions

a. The mass emission rate limitations in b)(1)a. above represent the PTE, defined as the maximum capacity to emit an air pollutant under the physical and operational design. Therefore, no monitoring, recordkeeping, or reporting requirements are necessary to ensure compliance with these emission limitations. See f)(1)a. and f)(1)b. for details regarding the PTE.

b. The federally enforceable emission limitations in b)(1)a. were established for the purpose of representing the potentials to emit of this emissions unit.

c. BAT requirements for CO emissions under ORC 3704.03(T)/OAC rule 3745-31-05(A)(3) have been determined to be compliance with the annual CO emission limitation established pursuant to OAC rule 3745-31-05(D).

d. The permittee shall comply with applicable emission limitations/control measures, operational restrictions, monitoring and record keeping requirements, reporting requirements, testing requirements, and additional term and condition requirements in Section B of PTI #P0130953, issued 9/29/21 until the emissions unit commences operation under the modification authorized by PTI #P0130953, issued 9/29/21, Section C.3. as incorporated in this Title V permit. The requirements of Section B, PTI #P0130953 shall cease to be enforceable after commencing operation under the terms specified in Section C.3. of said PTI, as incorporated into this Title V permit.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The PTI application for these emissions units, B503 and P520 to P523, was evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to these emissions units for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant emitted at over one ton per year using an air dispersion model such as AERSCREEN or AERMOD or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

a. The exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions units, (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

i. Threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or

ii. STEL (short term exposure limit) or the ceiling value from the ACGIH "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions units, i.e., "**X**" hours per day and "**Y**" days per week,

from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the MAGLC:

TLV/10 x 8/X x 5/Y = 4 TLV/XY = MAGLC

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year):

Toxic Contaminant: Ammonia

TLV (mg/m^3): 17.41 (From ACGIH's "2021 TLVs and BEIs" Book)

Increased Hourly Emission Rate (lbs/hr): 9.079

Predicted 1-Hour Maximum Ground-Level Concentration ($\mu g/m^3$): 19.816

MAGLC ($\mu g/m^3$): 414.60

Toxic Contaminant: Methanol

TLV (mg/m^3): 262.09 (From ACGIH's "2021 TLVs and BEIs" Book)

Increased Hourly Emission Rate (lbs/hr): 6.199

Predicted 1-Hour Maximum Ground-Level Concentration ($\mu g/m^3$): 15.468

MAGLC ($\mu g/m^3$): 6,240.14

The permittee has demonstrated that emissions of Ammonia and Methanol, from emission units B503 and P520 to P523, are calculated to be less than eighty per cent of the MAGLC; any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

[PTI #P0130953]

(2) Prior to making any physical changes to or changes in the method of operation of the emissions units, that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

a. Changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower TLV than the lowest TLV previously modeled;

b. Changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and

c. Physical changes to the emissions units or their exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation,

where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[PTI #P0130953]

(3) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

a. A description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

b. The MAGLC for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);

c. A copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions units to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

d. The documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions units or the materials applied.

[PTI #P0130953]

(4) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

[PTI #P0130953]

e) Reporting Requirements

(1) The permittee shall submit annual reports that include any changes to any parameter or value used in the dispersion model used to demonstrate compliance with the "Toxic Air Contaminate Statute", ORC 3704.03(F), through the predicted 1-hour maximum concentration. The report should include:

a. The original model input;

b. The updated model input;

c. The reason for the change(s) to the input parameter(s);

d. A summary of the results of the updated modeling, including the input changes; and

e. A statement that the model results indicate that the 1-hour maximum ground-level concentration is less than 80% of the MAGLC.

If no changes to the emissions, emissions units, or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

[PTI #P0130953]

(2) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[OAC rule 3745-77-07(C)(1) and PTI #P0130953]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitation

2.99 lbs of CO/hr and 13.07 tons of CO/yr during normal production mode of operation

Applicable Compliance Method

The hourly emission limitation is based on previous stack testing data and reflects the PTE* for this emissions unit during normal production mode of operation.

*PTE was determined by multiplying an emission factor of 0.0268 lb CO/ton ammonia (based on the most current stack test data) by a maximum hourly production rate of 111.458 tons ammonia/hr.

Therefore, it is not necessary to develop any further monitoring, recordkeeping and/or reporting requirements to ensure compliance with this limitation.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 10 of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0130953]

b. Emissions Limitation

0.42 lb of VOC/hr and 1.85 tons of VOC/yr during normal production mode of operation

Applicable Compliance Method

The hourly emission limitation is based on previous stack testing data and reflects the PTE* for this emissions unit during normal production mode of operation.

*PTE was determined by multiplying an emission factor of 0.0038 lb VOC/ton ammonia (based on the most current stack test data) by a maximum hourly production rate of 111.458 tons ammonia/hr.

Therefore, it is not necessary to develop any further monitoring, recordkeeping and/or reporting requirements to ensure compliance with this limitation.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 18, 25 and/or 25A, as applicable, of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0130953]

g) Miscellaneous Requirements

(1) None.

10. P522, NH3 Unit - Synthesis

Operations, Property and/or Equipment Description:

Ammonia Unit - Synthesis Section

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)e. and d)(5).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (Established as a synthetic minor limitation) [PTI #P0135174, Issued 01/16/24]	<u>Emissions from the flare:</u> No visible emissions except for periods not to exceed a total of five minutes during any 2 consecutive hours 5.22 tons of NOx per rolling, 12-month period during combustion of purge and/or

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		flash gases during HRU P1 and/or HRU P2 reduced efficiency* 27.45 tons of CO per rolling, 12-month period during normal operations and the combustion of purge and flash gases during HRU P2 (B503) reduced efficiency* See b)(2)c., b)(2)d., b)(2)e., c)(1) through c)(2), d)(1) through d)(4), and e)(1) through e)(3)
b.	OAC rule 3745-31-05(D) (Established as federally enforceable requirements to represent the PTE) [PTI #P0135174, Issued 01/16/24]	Emissions from the flare: 20.72 lbs of NOx/hr during combustion of purge and/or flash gases during HRU P1 and /or HRU P2 reduced efficiency 2.66 lbs of CO/hr during normal production mode of operation 65.29 lbs of CO/hr during combustion of purge and/or flash gases during HRU P1 and /or HRU P2 reduced efficiency See b)(2)a. See Facility-Wide Terms and Conditions B.4.a) through B.4.e).
c.	ORC 3704.03(T) OAC rule 3745-31-05(A)(3) [PTI #P0135174, Issued 01/16/24]	See b)(2)b.
d.	OAC rule 3745-31-05(A)(3)(a)(ii) [PTI #P0135174, Issued 01/16/24]	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NOx emissions from this air contaminant source since the PTE is less than 10 tons/yr, taking into account the federally enforceable requirements in b)(1)b.
e.	ORC 3704.03(F) OAC rule 3745-114-01	See d)(5)

*Reduced HRU efficiency is when HRU P1 (flash gas) and/or HRU P2 (purge gas) is not scrubbed. Unscrubbed HRU P1 (flash gas) can be sent to the Primary Reformer (B503) or the South Stripper Stack Flare (P522). Unscrubbed HRU P2 (purge gas) can only be sent to the South Stripper Stack Flare (P522).

(2) Additional Terms and Conditions

a. The federally enforceable mass emission rate limitations in b)(1)b. above represent the potentials to emit (PTE), defined as the maximum capacity to emit an air pollutant under the physical and operational design. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with these emission limitations. See f)(1)d., f)(1)e. and f)(1)f., for details regarding the PTE.

b. Best Available Technology (BAT) requirements for CO emissions under ORC 3704.03(T)/OAC rule 3745-31-05(A)(3) have been determined to be compliance with the 27.45 tons of CO per rolling, 12-month period emission limitation established pursuant to OAC rule 3745-31-05(D).

c. The federally enforceable limitations in b)(1)a. above are based on the operational restrictions in c)(2) and c)(3).

d. Sulfur dioxide (SO2), VOC and particulate emissions/particulate matter less than or equal to 10 microns in diameter/particulate matter less than or equal to 2.5 microns in diameter (PE/PM10/PM2.5) emissions resulting from HRU P1 and/or HRU P2 reduced efficiency and from combustion of gas streams in the flare have been determined to be negligible for this emissions unit. The VOC emissions that vent through the flare (determined by previous stack testing) have been determined to be negligible (0.02 ton of VOC/yr).

e. The permittee shall properly install, operate, and maintain a device to continuously monitor the pilot flame when the emissions unit is in operation. The monitoring device and any recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

c) Operational Restrictions

(1) Normal operations and during HRU P1 and/or HRU P2 reduced efficiency* for the ammonia synthesis unit is limited by the following:

$$\sum_{M=1}^{12}\sum_{n} CO_n \leq 27.45 \; and \; \sum_{n} NOx_n \leq 5.22$$

where:

M = the increment of the rolling, 12-month period;

n = type and total period of each operation (i.e. normal operation** and HRU P1 and/or HRU P2 reduced efficiency*);

CO_n = calculated emissions of carbon monoxide in tons; and

NOx_n = calculated emissions of nitrogen oxide in tons.

*Reduced HRU efficiency is when gas entering HRU P1 (flash gas) and/or HRU P2 (purge gas) is not scrubbed. Unscrubbed HRU P1 (flash gas) can be sent to the Primary Reformer (B503) or the South Stripper Stack Flare (P522). Unscrubbed HRU P2 (purge gas) can only be sent to the South Stripper Stack Flare (P522).

**It should be noted that this emissions unit does not generate NOx emissions during periods of normal operations.

[OAC rule 3745-77-07(A)(1) and PTI #P0135174]

(2) A pilot flame shall be maintained at all times in the flare's pilot light burner when the emissions unit is in operation. The presence of the pilot flame shall be monitored using a thermocouple or other equivalent device to detect the presence of a flame.

[OAC rule 3745-77-07(A)(1) and PTI #P0135174]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall collect and record the following information each month:

a. Type and time period of each operation (normal and HRU P1 and/or HRU P2 reduced efficiency);

b. The calculated NOx and CO emissions [calculated using the approach in f)(1)b. and f)(1)c., respectively], in tons, associated with each type of operation, based on a detailed review of HRU P1 and/or HRU P2 reduced efficiency and normal operations;

c. The total NOx and CO emission rates, in tons, from all operation types [summation of d)(1)b. for HRU P1 and/or HRU P2 reduced efficiency and normal operations];

d. The rolling 12-month CO emissions, in tons;

e. The rolling 12-month NOx emissions, in tons.

[OAC rule 3745-77-07(C)(1) and PTI #P0135174]

(2) The permittee shall perform daily checks, when the emissions unit is being shut down and when the weather conditions allow, for any visible particulate emissions from the flare serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emissions incident; and

e. any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1) and PTI #P0135174]

(3) The permittee shall monitor the flare to ensure that it is operated and maintained in conformance with its design and the requirements contained in this permit.

[OAC rule 3745-77-07(C)(1) and PTI #P0135174]

(4) The permittee shall record all periods of time during which there was no pilot flame or the flare was inoperable when the emissions unit is in operation.

[OAC rule 3745-77-07(C)(1) and PTI #P0135174]

(5) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary for this permit action because actual emissions of the toxic air contaminant ammonia (NH3), as specified in OAC rule 3745-114-01, resulted in an actual decrease. Other than NH3, the maximum annual emissions for each toxic air

contaminant (as specified in OAC rule 3745-114-01) that is not subject to MACT and/or NESHAP regulations will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01.

The permittee is hereby advised that changes in the composition of the materials, or use of new materials, etc. that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

[PTI #P0135174]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify:

a. all exceedances of the rolling, 12-month operational restriction specified in c)(1); and

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[OAC rule 3745-77-07(C)(1) and PTI #P0135174]

(2) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the flare serving this emissions unit; and

b. any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1) and PTI #P0135174]

(3) The permittee shall submit quarterly deviation reports that identify all periods of time during which the pilot flame was not functioning properly when this emissions unit was in operation or the flare was not maintained as required in this permit. The reports shall include the date, time, and duration of each such period.

[OAC rule 3745-77-07(C)(1) and PTI #P0135174]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emissions Limitation</u>

No visible emissions from the flare except for periods not to exceed a total of five minutes during any 2 consecutive hours

<u>Applicable Compliance Method</u>

If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods and procedures specified in Method 22 in Appendix A of 40 CFR, Part 60.

[OAC rule 3745-77-07(C)(1) and PTI #P0135174]

b. Emissions Limitation

5.22 tons of NOx per rolling, 12-month period from the flare during combustion of purge and/or flash gases during HRU P1 and/or HRU P2 reduced efficiency

Applicable Compliance Method

The annual NOx emission limitation was developed by summing the following emissions:

i. fuel combustion emissions determined by multiplying an emission factor of 0.068 lb NOx/mmBtu [AP-42, Table 13.5.1 (02/18)]) by a maximum annual heat input of 101,820.9 mmBtu/yr, then dividing by 2,000 lbs/ton = 3.46 tons of NOx; and

ii. ammonia combustion emissions determined by multiplying an emission factor of 0.005 lb NOx/lb NH3 (manufacturer guarantee) by a maximum ammonia combustion rate of 703,984.9 lb NH3/yr, then dividing by 2,000 lbs/ton = 1.76 tons of NOx.

Compliance with the annual emission limitation shall be demonstrated by the record keeping requirements in d)(1).

[OAC rule 3745-77-07(C)(1) and PTI #P0135174]

c. Emissions Limitation

27.45 tons of CO per rolling, 12-month period from the flare during normal operations and the combustion of purge and/or flash gases during HRU P1 and/or HRU P2 reduced efficiency, combined

Applicable Compliance Method

The annual CO emission limitation was developed by summing the following emissions:

i. fuel combustion determined by multiplying an emission factor of 0.31 lb CO/mmBtu [AP-42, Table 13.5.1 (02/18)]) by a maximum annual heat input of 101,820.9 mmBtu/yr, then dividing by 2000 lbs/ton = 15.78 tons of CO/yr; and

ii. production emissions determined by multiplying an emission factor of 0.0246 lb CO/ton ammonia (based on the most current stack test data) by a maximum hourly production rate of 949,000 tons ammonia/yr, then dividing by 2,000 lbs/ton = 11.67 tons of CO/yr.

Compliance with the annual emission limitation shall be demonstrated by the record keeping requirements in d)(1).

[OAC rule 3745-77-07(C)(1) and PTI #P0135174]

d. Emissions Limitation

20.72 lbs of NOx/hr from the flare during combustion of purge and/or flash gases during HRU P1 and/or HRU P2 reduced efficiency

Applicable Compliance Method

The hourly emission limitation reflects the PTE* for this emissions unit during combustion operations of purge and/or flash gases during HRU P1 and/or HRU P2 reduced efficiency.

*PTE was determined by summing the following emissions:

i. fuel combustion emissions determined by multiplying an emission factor of 0.068 lb NOx/mmBtu [AP-42, Table 13.5.1 (02/18)]) by a maximum heat input of 202.02 mmBtu/hr = 13.74 pounds of NOx/hr; and

ii. ammonia combustion emissions determined by multiplying an emission factor of 0.005 lb NOx/lb NH3 (manufacturer guarantee) by a maximum ammonia combustion rate of 1,396.7955 lb NH3/hr = 6.98 pounds of NOx/hr.

Therefore, it is not necessary to develop any further monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4 and 7 of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

[OAC rule 3745-77-07(C)(1) and PTI #P0135174]

e. Emissions Limitations

2.66 lbs of CO/hr from the flare during normal production mode of operation

Applicable Compliance Method

The hourly emission limitation is based on previous stack testing data, and reflects the PTE* for this emissions unit during normal production mode of operation.

*PTE was determined by multiplying an emission factor of 0.0246 lb CO/ton ammonia (based on the most current stack test data) by a maximum hourly production rate of 108.333 tons ammonia/hr.

Therefore, it is not necessary to develop any further monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4 and 10 of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

[OAC rule 3745-77-07(C)(1) and PTI #P0135174]

f. Emissions Limitations

65.29 lbs of CO/hr from the flare during combustion of purge and/or flash gases during HRU P1 and/or HRU P2 reduced efficiency, combined

Applicable Compliance Method

The hourly emission limitation reflects the PTE* for this emissions unit during combustion operations.

*PTE was determined by summing the following emissions:

i. fuel combustion determined by multiplying an emission factor of 0.31 lb CO/mmBtu [AP-42, Table 13.5.1 (02/18)]) by a maximum annual heat input of 202.02 mmBtu/hr = 62.63 pounds of CO/hr; and

ii. normal production emissions determined by multiplying an emission factor of 0.0246 lb CO/ton ammonia (based on the most current stack test data) by a maximum hourly production rate of 108.333 pounds ammonia/hr = 2.66 pounds of CO/hr.

Therefore, it is not necessary to develop any further monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4 and 10 of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

[OAC rule 3745-77-07(C)(1) and PTI #P0135174]

g) Miscellaneous Requirements

(1) None.

11. P523, NH3 Unit - CO2 Stripper

Operations, Property and/or Equipment Description:

Ammonia Unit - CO2 Stripper Section

This includes the Medium Pressure Condensate Stripper and Low Pressure Condensate Strippers used for product recovery

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)e., d)(2) through d)(5) and e)(2).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (Established as a synthetic minor limitation) [PTI #P0130953, issued 9/29/21]	275.90 tons of VOC per rolling, 12-month period See b)(2)d., c)(1),c)(2), d)(1) and e)(1)
b.	OAC rule 3745-31-05(D) (Established as federally enforceable requirements to represent the PTE) [PTI #P0130953, issued 9/29/21]	1.17 lbs of CO/hr and 5.13 tons of CO/yr 220.87 lbs of VOC/hr See b)(2)b. and b)(2)c.
c.	ORC 3704.03(T) OAC rule 3745-31-05(A)(3)	See b)(2)e.
d.	OAC rule 3745-31-05(A)(3) [PTI #P0130953, issued 9/29/21]	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the CO emissions from this air contaminant source since the PTE is less than 10 tons per year taking into account the federally enforceable restriction in b)(1)b. above.
e.	ORC 3704.03(F) and OAC rule 3745-114-01	See d)(2) through d)(5) and e)(2).

(2) Additional Terms and Conditions

a. The MPCS (and LPCS as backup) associated with this emissions unit is integral to the process equipment as a product recovery device. Thus, there is no parametric monitoring necessary.

b. The mass emission rate limitations for CO and the hourly VOC limitation in b)(1)b. above represent the PTE, defined as the maximum capacity to emit an air pollutant under the physical and operational design. Therefore, no monitoring, recordkeeping, or reporting requirements are necessary to ensure compliance with these emission limitations. See f)(1)a. and f)(1)b., for details regarding the PTE.

c. The federally enforceable emission limitations in b)(1)a. were established for the purpose of representing the potentials to emit of this emissions unit.

d. The federally enforceable limitation of 275.90 tons VOC per rolling, 12-month period is based on the operational restrictions in c)(1) and c)(2).

e. BAT requirements for VOC emissions under ORC 3704.03(T)/OAC rule 3745-31-05(A)(3) have been determined to be compliance with the 275.90 tons of VOC per rolling, 12-month period emission limitation as established pursuant to OAC rule 3745-31-05(D).

c) Operational Restrictions

(1) Emissions from normal operations and reduced "MPCS" efficiency for the ammonia unit – CO_2 stripper section are limited by the following:

$$\sum_{M=1}^{12} \sum_{n} VOC_n \leq 275.90$$

where:

M = the increment of the rolling, 12-month period;

n = type of operation (i.e. normal and reduced MPCS efficiency) during the period;

VOC_n = calculated emissions of volatile organic compounds in tons.

[OAC rule 3745-77-07(A)(1) and PTI #P0130953]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall collect and record the following information each month:

a. Type and time period of each operation (normal operations and reduced MPCS efficiency);

b. The calculated VOC emissions [calculated using the approach in f)(1)b.], in tons, associated with each type of operation, based on a detailed review of normal operations and reduced MPCS efficiency;

c. The total VOC emission rates, in tons, from all operation types [summation of d)(1)b. for normal operations and reduced MPCS efficiency];

d. The rolling, 12-month VOC emissions, in tons.

[OAC rule 3745-77-07(C)(1) and PTI #P0130953]

(2) The PTI application for these emissions units, B503 and P520 to P523, was evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to these emissions units for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant

emitted at over one ton per year using an air dispersion model such as AERSCREEN or AERMOD or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

a. The exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions units, (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

   i. Threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or

   ii. STEL (short term exposure limit) or the ceiling value from the ACGIH "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions units, i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the MAGLC:

   TLV/10 x 8/X x 5/Y = 4 TLV/XY = MAGLC

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year):

   Toxic Contaminant: Ammonia

   TLV (mg/m^3): 17.41 (From ACGIH's "2021 TLVs and BEIs" Book)

   Increased Hourly Emission Rate (lbs/hr): 9.079

   Predicted 1-Hour Maximum Ground-Level Concentration ($\mu g/m^3$): 19.816

   MAGLC ($\mu g/m^3$): 414.60

   Toxic Contaminant: Methanol

   TLV (mg/m^3): 262.09 (From ACGIH's "2021 TLVs and BEIs" Book)

   Increased Hourly Emission Rate (lbs/hr): 6.199

   Predicted 1-Hour Maximum Ground-Level Concentration ($\mu g/m^3$): 15.468

   MAGLC ($\mu g/m^3$): 6,240.14

The permittee has demonstrated that emissions of Ammonia and Methanol, from emission units B503 and P520 to P523, are calculated to be less than eighty per cent of the MAGLC; any

new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

[PTI #P0130953]

(3) Prior to making any physical changes to or changes in the method of operation of the emissions units, that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

a. Changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower TLV than the lowest TLV previously modeled;

b. Changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and

c. Physical changes to the emissions units or their exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[PTI #P0130953]

(4) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

a. A description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

b. The MAGLC for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);

c. A copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions units to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

d. The documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions units or the materials applied.

[PTI #P0130953]

(5) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

[PTI #P0130953]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify:

a. all exceedances of the rolling, 12-month operational restriction specified in c)(1).

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[OAC rule 3745-77-07(C)(1) and PTI #P0130953]

(2) The permittee shall submit annual reports that include any changes to any parameter or value used in the dispersion model used to demonstrate compliance with the "Toxic Air Contaminate Statute", ORC 3704.03(F), through the predicted 1-hour maximum concentration. The report should include:

a. The original model input;

b. The updated model input;

c. The reason for the change(s) to the input parameter(s);

d. A summary of the results of the updated modeling, including the input changes; and

e. A statement that the model results indicate that the 1-hour maximum ground-level concentration is less than 80% of the MAGLC.

If no changes to the emissions, emissions units, or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

[PTI #P0130953]

(3) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

[OAC rule 3745-77-07(C)(1) and PTI #P0130953]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emissions Limitation</u>

1.17 lbs of CO/hr and 5.13 tons of CO/yr

Applicable Compliance Method

The hourly CO emission limitation above was developed by multiplying an adjusted CO emission factor from AP-42, Table 8.1-1 (dated 7/1993) (0.0105 lb/ton of ammonia, which was adjusted from PCS Engineering staff system knowledge, a detailed review of operations history, and process chemistry and conversion data) by the maximum ammonia production rate of 111.458 tons/hr.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 10 of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0130953]

b. Emissions Limitation

220.87 lbs of VOC/hr

Applicable Compliance Method

The hourly VOC emission limitation above was developed by multiplying an adjusted uncontrolled (without the MPCS operating) VOC emission factor from AP-42, Table 8.1-1 (dated 7/1993) (1.9817 lb/ton of ammonia, which was adjusted from PCS Engineering staff system knowledge, a detailed review of operations history, and process chemistry and conversion data) by the maximum ammonia production rate of 111.458 tons/hr.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 18, 25, or 25A, as applicable, of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

[OAC rule 3745-77-07(C)(1) and PTI #P0130953]

c. Emissions Limitation

275.90 tons of VOC per rolling 12-month period

Applicable Compliance Method

Compliance with the annual VOC emission limitation shall be demonstrated by the record keeping requirements specified in d)(1) of this permit.

[OAC rule 3745-77-07(C)(1) and PTI #P0130953]

g) Miscellaneous Requirements

(1) None.

12. P524, Urea Prill - Cyclone

Operations, Property and/or Equipment Description:

Urea Prilling Section - Cyclone, with Cyclone Scrubber

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) [PTI #P0108792, issued 11/18/11]	3.34 lbs of particulate emissions (PE)/hr; 14.62 tons of PE/yr (filterable) 2.00 lbs of particulate matter 10 microns or less in size (PM10)/hr; 8.77 tons of PM10/yr (filterable) 1.43 lbs of particulate matter 2.5 microns or less in size (PM2.5)/hr; 6.28 tons of PM2.5/yr (filterable) Visible PE shall not exceed 10% opacity as a six-minute average. See b)(2)a. and c)(1)
b.	OAC rule 3745-31-05(A)(3)(a)(ii) [PTI #P0108792, issued 11/18/11]	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM10/PM2.5 emissions from this air contaminant source since the PTE for each is less than 10 tons/year.
c.	OAC rule 3745-17-07(A)	See b)(2)b.
d.	OAC rule 3745-17-11(B)(1)	See b)(2)c.
e.	40 CFR, Part 63, Subpart FFFF [40 CFR 63.2430 – 63.2550] In accordance with 40 CFR 63.2440, this emissions unit is an existing affected source, consisting of crystal drying, conveying, melting and associated equipment, which are part	See b)(2)d., d)(8), and e)(2)

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	of a miscellaneous organic chemical manufacturing process unit at an existing chemical manufacturing facility subject to the emission limitations/control measures specified in this section.	
f.	a)40 CFR, Part 63, Subpart A b)[40 CFR 63.1 – 63.15]	Table 12 to 40 CFR, Part 63, Subpart FFFF – Applicability of General Provisions to Subpart FFFF shows which parts of the General Provisions in 40 CFR 63.1-15 apply.
g.	c)40 CFR, Part 64 - Compliance Assurance Monitoring (CAM)	See c)(1)d., c)(1)e., d)(1) through d)(7) and e)(1)

(2) Additional Terms and Conditions

a. PTI #P0108792 established the federally enforceable emission limitations in b)(1)a. above for purposes of limiting the PTE for emissions of particulate matter from this emissions unit. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1) which requires control equipment.

b. The visible emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D).

c. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D).

d. The permittee shall comply with the additional terms and conditions under 40 CFR, Part 63, Subpart FFFF, including the following sections:

63.2445(b)	If you have an existing source no November 10, 2003, you must comply with the requirements from existing sources in this subpart no later than May 10, 2008.
63.2445(c)	Meet the notification requirements in 63.2515 according to the dates specified in that section and in Subpart A of this part 63.
63.2445(d)	If you have a Group 2 emission point that becomes a Group 1 emission point after the compliance date from your affected source you must comply with the Group 1 requirements beginning on the date the switch occurs. An initial compliance demonstration as specified in this

	subpart must be conducted within 150 days after the switch occurs.
63.2450	Emission Limitations, Work Practice Standards and Compliance Requirements -- What are my general requirements for complying with this subpart?
63.2450(a)	You must be in compliance with the emission limits and work practice standards in tables 1 through 7* to this subpart at all times, except during periods of startup, shutdown, and malfunction (SSM), and you must meet the requirements specified in 63.2455 through 63.2490 (or the alternative means of compliance in 63.2495, 63.2500, or 63.2505), except as specified in paragraphs (b) through (s) of this section. You must meet the notification, reporting, and recordkeeping requirements specified in 63.2515, 63.2520, and 63.2525. *Only the work practice standards listed in Table 6 are applicable
63.2450(p)	Opening a safety device, as defined in 63.2550, is allowed at any time conditions require it to avoid unsafe conditions
63.2455	Emission Limitations, Work Practice Standards and Compliance Requirements – What requirements must I meet for continuous process vents?
63.2455(a)	You must meet each emission limit in Table 1 to this subpart that applies to your continuous process vents, and you must meet each applicable requirement specified in paragraphs (b) through (c) of this section. [Note: There are no emission limits and/or work practice standards in Table 1 that are applicable.]

63.2455(b)	For each continuous process vent, you must either designate the vent as a Group 1 continuous process vent or determine the total resource effectiveness (TRE) index value as specified in 63.115(d), except as specified in paragraphs (b)(1) through (3) of this section.
63.2480	Emission Limitations, Work Practice Standards and Compliance Requirements – What requirements must I meet for equipment leaks?
63.2480(a)	You must meet each requirement in Table 6 to this subpart that applies to your equipment leaks, except as specified in paragraphs (b) through (d) of this section. [See Table 6 below for requirements.]
63.2480(b)	If you comply with either subpart H or subpart UU of this part 63, you may elect to comply with the provisions in paragraphs (b)(1) through (5) of this section as an alternative to the referenced provisions in subpart H or subpart UU of this part.
63.2535	Other Requirements and Information – What compliance options do I have if part of my plant is subject to both this subpart and another subpart?
63.2535(k)	Compliance with 40 CFR, Part 60, subpart VV and 40 CFR, Part 61, Subpart V
63.2540	Other Requirements and Information – What parts of the General Provisions apply to me?
Table 6	Requirements for Equipment Leaks

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for purposes of establishing federally enforceable requirements which limit the PTE [see b)(2)a.]. All exhaust gas from the urea prilling dryer cyclone shall be controlled by a scrubber. The scrubber control system shall meet the following requirements:

a. a maximum outlet concentration of 0.016 grains per dry standard cubic foot (gr/dscf) of exhaust gas for PE (filterable);

b. a maximum outlet concentration of 0.010 gr/dscf of exhaust gas for PM10 (filterable); and

c. a maximum outlet concentration of 0.007 gr/dscf of exhaust gas for PM2.5 (filterable).

d. The scrubber shall maintain the blower amps at a value less than or equal to 43.91 amps, as a daily average, at all times while the emissions unit is in operation. This operational restriction was established through a series of diagnostic and compliance stack tests in 2004, and was approved in a letter to the permittee dated August 19, 2005.

e. The scrubber shall maintain a liquid flow rate of a value greater than or equal to 4.93 gallons per minute, as a daily average, at all times while the emissions unit is in operation. This operational restriction was established through a series of diagnostic and compliance stack tests in 2004, and was approved in a letter to the permittee dated August 19, 2005.

f. The permittee may petition to the Ohio EPA for reestablishment, based on emissions testing or the collection of data, of the scrubber blower amps and water flow rate values provided the permittee can demonstrate to the Ohio EPA's satisfaction that the new values will reasonably ensure compliance and the basis upon which the values were previously established is no longer applicable.

The operation of the control equipment outside the values established in c)(1)d. and c)(1)e. above may or may not indicate a mass emission and/or visible emission violation. If required by the Ohio EPA, Northwest District Office, compliance with the mass emission limitations and visible emission limitations shall be determined by performing concurrent mass emission tests and visible emission readings, using U.S. EPA approved methods and procedures. The results of any required emission tests and visible emission readings shall be used in determining whether or not the operation of the control equipment outside the values that will be established above is indicative of a possible violation of the mass emission limitation and/or visible emission limitations. In addition, the permittee may provide other relevant credible evidence to the Ohio EPA to demonstrate that a deviation of an operational restriction is not a violation of the applicable mass emission and/or visible emission limitations.

[OAC rule 3745-77-07(A)(1), PTI #P0108792 and 40 CFR, Part 64]

d) Monitoring and/or Recordkeeping Requirements

(1) The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicators for the scrubber controlling this emissions unit are the scrubber blower amps and the scrubber water flow rate which were established in accordance with the manufacturer's recommendations and verified during site-specific particulate emission testing and scrubber parametric data collected during the emission testing. When the blower amps and/or the water flow rate of the scrubber are operating outside the indicator ranges, the permittee shall take corrective actions to restore operation of the emissions unit and/or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions and comply with the reporting requirements specified in Section e) below.

The emissions unit and control equipment shall be operated in accordance with the approved CAM Plan, or any approved revision of the Plan. The scrubber shall not be configured to have bypass capability.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(2) The permittee shall operate and maintain equipment to monitor the scrubber blower amps and the scrubber water flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

a. The permittee shall collect and record the following information each shift:

i. the scrubber blower amps;

ii. the scrubber water flow rate, in gallons per minute; and

iii. a log of the down time for the scrubber and monitoring equipment when the associated emissions unit was in operation.

b. Whenever the monitored values for the scrubber blower amps and/or scrubber water flow rate deviate from the range specified in section c)(1)d. and/or c)(1)e., the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

i. the date and time the deviation began and the magnitude of the deviation at that time;

ii. the date(s) the investigation was conducted;

iii. the names of the personnel who conducted the investigation; and

iv. the findings and recommendations.

Records of these inspections shall be kept in accordance with the Standard Terms and Conditions of this permit.

c. In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable ranges specified in section c)(1)d. and/or c)(1)e. unless the permittee determines that corrective action is not necessary.

i. The permittee shall maintain records of the following information for each deviation when it was determined that corrective action was not necessary:

(a) the reason corrective action was not necessary; and

(b) the date and time the deviation ended.

ii. The permittee shall maintain records of the following information for each corrective action taken:

(a) a description of the corrective action;

(b) the date it was completed;

(c) the date and time the deviation ended;

(d) the total period of time (in minutes) during which there was a deviation;

(e) the scrubber blower amps and/or scrubber water flow rate immediately after the corrective action; and

(f) the names of the personnel who performed the work.

iii. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

[OAC rule 3745-77-07(C)(1), PTI #P0108792 and 40 CFR, Part 64]

(3) Scrubber operating parameters shall be re-verified as a result of any changes to the operating conditions of the scrubber or emissions unit. In addition to periodic monitoring of their scrubber operating parameters, the permittee also has an inspection and maintenance program for the scrubber. Based on the results of the monitoring and inspection program, repairs to the scrubber shall be made as needed. If the current indicators and/or the scrubber inspection program is considered inadequate, the permittee will develop a Quality Improvement Plan.

[OAC rule 3745-77-07(C)(1), PTI #P0108792 and 40 CFR, Part 64]

(4) At all times, the permittee shall maintain an inventory, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

[OAC rule 3745-77-07(C)(1), PTI #P0108792 and 40 CFR, Part 64]

(5) If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance, the permittee shall promptly notify the Ohio EPA, Northwest District Office, and if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, re-establishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[OAC rule 3745-77-07(C)(1), PTI #P0108792 and 40 CFR, Part 64]

(6) In addition to the parametric monitoring required in Section d)(1), the permittee shall conduct visual inspections of the scrubber's spray nozzles every twelve (12) months. At a minimum, each spray nozzle shall be inspected for the following:

a. excessive wear or clogging; and

b. appropriate directional output to ensure that the spray is covering the entire gas stream. Records of these inspections shall be kept in accordance with the Standard Terms and Conditions of this permit.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(7) The permittee shall maintain a supply of replacement nozzles, or any other parts necessary to ensure that the scrubbing system will operate properly. Any worn, or clogged nozzles shall be replaced, or fixed during the inspection.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(8) The permittee shall comply with the applicable monitoring and recordkeeping requirements under 40 CFR, Part 63, Subpart FFFF, including the following sections:

63.2525	Notifications, Reports and Records – What records must I keep?
63.2525(a)	Each applicable record required by subpart A of this part 63 and in referenced subparts F, G, SS, UU, WW, and GGG of this part 63 and in referenced subpart F of 40 CFR part 65.
63.2525(b)	Records of each operating scenario as specified in paragraphs (b)(1) through (8) of this section.
63.2525(f)	A record of each time a safety device is opened to avoid unsafe conditions in accordance with 63.2450(s).
63.2525(j)	In the SSMP required by 63.6(e)(3), you are not required to include Group 2 emission points, unless those emission points are used in an emissions average. For equipment leaks, the SSMP requirement is limited to control devices and is optional for other equipment.

[OAC rule 3745-77-07(C)(1), 40 CFR, Part 63, Subpart FFFF, and PTI #P0108792]

(9) The permittee shall maintain the following records for emissions units B503, B506, B507, P520, P521, P522, P523, P524, P525, P526, P527, P528, P529, P536, P554, P555, P560, P563, P564, T518, T537, and T551, as described in Permit to Install application No. A0038802 for PTI #P0105861 submitted on December 22, 2009 in order to demonstrate that the ammonia and urea units modification project does not trigger a major modification for PE, PM10/PM2.5, SO2, NOx, CO, and VOC:

a. the projected actual annual emissions for PE, PM10/PM2.5, SO2, NOx, CO, and VOC, in tons per year, from the ammonia and urea units' modification project as submitted in application No. A0038802 for PTI #P0105861 on December 22, 2009; and

b. the total actual annual emissions for PE, PM10/PM2.5, SO2, NOx, CO, and VOC, in tons per year, from emissions units B503, B506, B507, P520, P521, P522, P523, P524, P525, P526, P527, P528, P529, P536, P554, P555, P560, P563, P564, T518, T537, and T551 combined, for five calendar years after commencing operation of the ammonia and urea units modification project.

[OAC rule 3745-77-07(C)(1) and PTI #P0108792]

e) Reporting Requirements

(1) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

a. Each period of time (start time and date and end time and date) when the scrubber blower amps or liquid flow rate was/were outside of the applicable limit(s) contained in this permit;

b. Any period of time (start time and date and end time and date) when the emissions unit was in operation and the process emissions were not vented to the scrubber;

c. Each incident of deviation described in e)(1)a. or e)(1)b. above where a prompt investigation was not conducted;

d. Each incident of deviation described in e)(1)a. or e)(1)b. where prompt corrective action that would bring the blower amps and/or liquid flow rate into compliance with the applicable limit was determined to be necessary and was not taken; and

e. Each incident of deviation described in e)(1)a. or e)(1)b. where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and recordkeeping requirements of this permit.

[OAC rule 3745-77-07(C)(1), PTI #P0108792 and 40 CFR, Part 64]

(2) The permittee shall submit semiannual reports and such other notifications and reports to the Ohio EPA, Northwest District Office, as are required pursuant to 40 CFR, Part 63, Subpart FFFF, per the following sections:

63.2450(m)	Reporting The compliance report must include the information specified in 63.2520(e), as well as the information specified in referenced subparts. When there are conflicts between this subpart and referenced subparts for the due dates of reports required by this subpart, reports must be submitted according to the due dates presented in this subpart. Excused excursions, as defined in subparts G and SS of this part 63, are not allowed.
63.2515	Notifications, Reports and Records – What notifications must I submit and when?
63.2515(a)	You must submit all of the notifications in 63.6(h)(4) and (5), 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified.
63.2515(b)	Initial notification (the initial notification was submitted in 2004)

63.2520	Notifications, Reports and Records – What reports must I submit and when?
63.2520(a)	You must submit each report in Table 11 to this subpart that applies to you.
63.2520(b)	Unless the Administrator has approved a different schedule for submission of reports under 63.10(a), you must submit each report by the date in Table 11 to this subpart and according to paragraphs (b)(1) through (5) of this section.
63.2520(d)	Notification of compliance status report
63.2520(e)	Compliance report
Table 11	Requirements for Reports

[OAC rule 3745-77-07(C)(1), 40 CFR, Part 63, Subpart FFFF, and PTI #P0108792]

(3) The permittee shall notify the Northwest District Office in writing if annual emissions from all emissions units in the ammonia and urea modification, as specified in d)(8)b., result in a significant PE, PM10/PM2.5, SO2, NOx, CO, and/or VOC emissions increase and exceed the projected actual PE, PM10/PM2.5, SO2, NOx, CO, and VOC emissions contained in application No. A0038802 for PTI #P0105861, submitted December 22, 2009. This notification shall identify the cause for the significant emissions increase and the estimated PE, PM10/PM2.5, SO2, NOx, CO, and/or VOC emissions. This notification shall be submitted to the Northwest District Office within 120 days after the end of such year.

[OAC rule 3745-77-07(C)(1) and PTI #P0108792]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitation

Visible PE shall not exceed 10% opacity as a six-minute average.

Applicable Compliance Method

If required, compliance shall be determined in accordance with 40 CFR, Part 60, Appendix A, Method 9.

[OAC rule 3745-77-07(C)(1) and PTI #P0108792]

b. Emissions Limitation

0.016 gr/dscf for PE

3.34 lbs of PE/hr

14.62 tons of PE/yr

Applicable Compliance Method

Compliance with the gr/dscf and hourly limitations was demonstrated on March 23, 2011.

If required, further compliance with the gr/dscf and hourly limitations shall be determined in accordance with the test methods and procedures of 40 CFR, Part 60, Appendix A, Methods 1-5.

The annual limitation was developed by multiplying the hourly emission rate by 8,760 hours per year and dividing by 2,000 lbs. Therefore, as long as compliance with the hourly allowable emission limitation is maintained, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0108792]

c. Emissions Limitation

0.010 gr/dscf for PM10 (filterable)

2.00 lbs of PM10/hr (filterable)

8.77 tons of PM10/yr (filterable)

Applicable Compliance Method

The gr/dscf and hourly limitations were developed using results from the March 23, 2011 stack testing results for filterable particulate emissions and particle size data from AP-42, Table 8.2-2 (7/93, reformatted 1/95). Compliance with the gr/dscf and hourly limitations will not be able to be determined using the test methods and procedures of Methods 201/201A of 40 CFR, Part 51, Appendix M or alternative U.S. EPA approved test methods due to the presence of entrained water droplets within the scrubber exhaust. The permittee will be required to demonstrate compliance by actual emissions testing at the time appropriate methodologies become available.

Additionally, the permittee will be required to perform stack testing if the scrubber exhaust conditions involving entrained water droplets change such that Methods 201/201A of 40 CFR, Part 51, Appendix M or alternative U.S. EPA approved test methods can be properly applied.

The annual limitation was developed by multiplying the hourly emission rate by 8,760 hours per year and dividing by 2,000 lbs. Therefore, as long as compliance with the hourly allowable emission limitation is maintained, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0108792]

d. Emissions Limitation

0.007 gr/dscf for PM2.5 (filterable)

1.43 lbs of PM2.5/hr (filterable)

6.28 tons of PM2.5/yr (filterable)

Applicable Compliance Method

The gr/dscf and hourly limitations were developed using stack test results for filterable particulate emissions (March 23, 2011) and particle size data from AP-42, Table 8.2-2 (7/93, reformatted 1/95). Compliance with the gr/dscf and hourly limitations will not be able to be determined using the test methods and procedures of Methods 201/201A of 40 CFR, Part 51, Appendix M or alternative U.S. EPA approved test methods due to the presence of entrained water droplets within the scrubber exhaust. The permittee will be required to demonstrate compliance by actual emissions testing at the time appropriate methodologies become available.

Additionally, the permittee will be required to perform stack testing if the scrubber exhaust conditions involving entrained water droplets change such that Methods 201/201A of 40 CFR, Part 51, Appendix M or alternative U.S. EPA approved test methods can be properly applied.

The annual limitation was developed by multiplying the hourly emission rate by 8,760 hours per year and dividing by 2,000 lbs. Therefore, as long as compliance with the hourly allowable emission limitation is maintained, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0108792]

g) Miscellaneous Requirements

(1) None.

13. P526, Urea Syn - Synthesis

Operations, Property and/or Equipment Description:

Urea Production Section - Synthesis, with Flare during start-up periods

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)d. and d)(3).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) [PTI #P0136172, issued 7/8/2024]	Emissions from Urea Unit Flare: 187.5 lbs of NOx/hr and 0.75 ton of NOx/yr during emissions unit startup periods when startup venting is taking place Visible particulate emissions (PE) from the flare shall not exceed 5% opacity, as a six-minute average during emissions unit startup periods when startup venting is taking place Emissions from Urea Plant Synthesis process equipment: 2.85 lbs of VOC/hr and 12.50 tons of VOC/yr during normal production mode of operation See b)(2)a., b)(2)b., b)(2)g., c)(1), d)(1) through d)(3), and e)(1) through e)(3)
b.	ORC 3704.03(T) [PTI #P0136172, issued 7/8/2024]	See b)(2)c.
c.	OAC rule 3745-31-05(A)(3)(a)(ii) [PTI #P0136172, issued 7/8/2024]	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NOx emissions from this air contaminant source since the PTE is less than 10 tons per year taking into account the federally enforceable restriction in b)(1)a. above.
d.	ORC 3704.03(F) and OAC rule 3745-114-01	See d)(3)

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
e.	OAC rule 3745-21-09(DD)	See b)(2)e., d)(4) and e)(4)
f.	40 CFR, Part 63, Subpart FFFF [40 CFR 63.2430 – 63.2550] In accordance with 40 CFR 63.2440, this emissions unit is an existing affected source consisting of a pressurized reactor; which is part of a miscellaneous organic chemical manufacturing process unit at an existing chemical manufacturing facility subject to the emission limitations/control measures specified in this section.	See b)(2)f., d)(5), and e)(5)
g.	40 CFR, Part 63, Subpart A [40 CFR 63.1 – 63.15]	Table 12 to 40 CFR, Part 63, Subpart FFFF – Applicability of General Provisions to Subpart FFFF shows which parts of the General Provisions in 40 CFR 63.1-15 apply.

(2) Additional Terms and Conditions

a. The mass emission rate limitations in b)(1)a. above represent the PTE, defined as the maximum capacity to emit an air pollutant under the physical and operational design. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with these emission limitations. See f)(1)a. and c., for details regarding the PTE.

b. The federally enforceable emission limitations in b)(1)a. were established for the purpose of representing the potentials to emit of this emissions unit.

c. Best Available Technology (BAT) requirements for VOC emissions under ORC 3704.03(T) have been determined to be compliance with the annual VOC emission limitation as established pursuant to OAC rule 3745-31-05(D).

d. Criteria pollutant emissions resulting from shutdown events have been determined to be negligible for this emissions unit.

e. The permittee shall comply with the applicable requirements under OAC rule 3745-21-09(DD), including the following sections:

OAC rule 3745-21-09(DD)(1)	Compliance requirements
OAC rule 3745-21-09(DD)(3)	Compressors
OAC rule 3745-21-09(DD)(4)	Pressure relief devices in gas/vapor service
OAC rule 3745-21-09(DD)(5)	Sampling connection systems
OAC rule 3745-21-09(DD)(6)	Open-ended valves or lines

OAC rule 3745-21-09(DD)(7)	Equipment designated for no detectable emissions
OAC rule 3745-21-09(DD)(8)	Barrier fluid systems and sensors for pumps and compressors
OAC rule 3745-21-09(DD)(9)	Closed vent systems
OAC rule 3745-21-09(DD)(10)	Control equipment
OAC rule 3745-21-09(DD)(11)	Delay of repair
OAC rule 3745-21-09(DD)(16)	Equivalent requirements
OAC rule 3745-21-09(DD)(17)	Exemptions
OAC rule 3745-21-09(DD), Appendix A	List of organic chemicals for which paragraph (DD) of Rule 3745-21-09 is applicable

f. The permittee shall comply with the additional terms and conditions under 40 CFR, Part 63, Subpart FFFF, including the following sections:

63.2445(b)	If you have an existing source no November 10, 2003, you must comply with the requirements from existing sources in this subpart no later than May 10, 2008.
63.2445(c)	Meet the notification requirements in 63.2515 according to the dates specified in that section and in Subpart A of this part 63.
63.2445(d)	If you have a Group 2 emission point that becomes a Group 1 emission point after the compliance date from your affected source you must comply with the Group 1 requirements beginning on the date the switch occurs. An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs.
63.2450	Emission Limitations, Work Practice Standards and Compliance Requirements -- What are my general requirements for complying with this subpart?

63.2450(a)	You must be in compliance with the emission limits and work practice standards in tables 1 through 7* to this subpart at all times, except during periods of startup, shutdown, and malfunction (SSM), and you must meet the requirements specified in 63.2455 through 63.2490 (or the alternative means of compliance in 63.2495, 63.2500, or 63.2505), except as specified in paragraphs (b) through (s) of this section. You must meet the notification, reporting, and recordkeeping requirements specified in 63.2515, 63.2520, and 63.2525. *Only the work practice standards listed in Table 6 are applicable
63.2450(p)	Opening a safety device, as defined in 63.2550, is allowed at any time conditions require it to avoid unsafe conditions
63.2455	Emission Limitations, Work Practice Standards and Compliance Requirements – What requirements must I meet for continuous process vents?
63.2455(a)	You must meet each emission limit in Table 1 to this subpart that applies to your continuous process vents, and you must meet each applicable requirement specified in paragraphs (b) through (c) of this section. [Note: There are no emission limits and/or work practice standards in Table 1 that are applicable.]
63.2455(b)	For each continuous process vent, you must either designate the vent as a Group 1 continuous process vent or determine the total resource effectiveness (TRE) index value as specified in 63.115(d), except as specified in paragraphs (b)(1) through (3) of this section.
63.2480	Emission Limitations, Work Practice Standards and Compliance Requirements – What requirements must I meet for equipment leaks?
63.2480(a)	You must meet each requirement in Table 6 to this subpart that applies to your equipment leaks, except as specified in paragraphs (b) through (d) of this section. [See Table 6 below for requirements.]

63.2480(b)	If you comply with either subpart H or subpart UU of this part 63, you may elect to comply with the provisions in paragraphs (b)(1) through (5) of this section as an alternative to the referenced provisions in subpart H or subpart UU of this part.
63.2535	Other Requirements and Information – What compliance options do I have if part of my plant is subject to both this subpart and another subpart?
63.2535(k)	Compliance with 40 CFR, Part 60, subpart VV and 40 CFR, Part 61, Subpart V
63.2540	Other Requirements and Information – What parts of the General Provisions apply to me?
Table 6	Requirements for Equipment Leaks

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for establishing federally enforceable requirements which limit PTE for NOx [See b)(2)b.i.]:

a. The permittee shall employ a flare during all emission unit startup periods when startup venting is taking place; and

b. Startup operations, when startup venting is taking place, for the urea synthesis plant is limited by the following as a rolling, 12-month summation:

$$\sum_{M=1}^{12}\sum_{n} NOx_n \leq 0.75$$

where:

M = the increment of the rolling 12-month period;

n = individual startup event during the period;

NOx_n = calculated emissions of nitrogen oxide in tons.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when the emissions unit is being started up when startup venting is taking place and when the weather conditions allow, for any visible particulate emissions from the flare serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emissions incident; and

e. any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1) and PTI #P0136172]

(2) The permittee shall collect and record the following information each month:

a. Time period for each startup operation when startup venting is taking place;

b. The calculated NOx emissions, in tons, for each startup operation when startup venting is taking place;

c. The total NOx emission rate, in tons, from all startup operations when startup venting is taking place [summation of d)(2)b.]; and

i. The rolling 12-month NOx emissions, in tons.

[OAC rule 3745-77-07(C)(1) and PTI #P0136172]

(3) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary for this permit action because actual emissions of the toxic air contaminant ammonia (NH3), as specified in OAC rule 3745-114-01, resulted in an actual decrease. Other than NH3, the maximum annual emissions for each toxic air contaminant (as specified in OAC rule 3745-114-01) that is not subject to MACT and/or NESHAP regulations will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01.

The permittee is hereby advised that changes in the composition of the materials, or use of new materials, etc. that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

[PTI #P0136172]

(4) The permittee shall comply with the applicable monitoring and recordkeeping requirements under 40 CFR, Part 63, Subpart FFFF, including the following sections:

63.2525	Notifications, Reports and Records – What records must I keep?
63.2525(a)	Each applicable record required by subpart A of this part 63 and in referenced subparts F, G, SS, UU, WW, and GGG of this part 63 and in referenced subpart F of 40 CFR part 65.
63.2525(b)	Records of each operating scenario as specified in paragraphs (b)(1) through (8) of this section.
63.2525(f)	A record of each time a safety device is opened to avoid unsafe conditions in accordance with 63.2450(s).
63.2525(j)	In the SSMP required by 63.6(e)(3), you are not required to include Group 2 emission points, unless those emission points are used in an emissions average. For equipment leaks, the SSMP requirement is limited to control devices and is optional for other equipment.

[OAC rule 3745-77-07(C)(1); 40 CFR, Part 63, Subpart FFFF; and PTI #P0136172]

(5) The permittee shall maintain records showing that emissions were vented to the flare during all emissions unit startup periods when startup venting is taking place.

[OAC rule 3745-77-07(C)(1) and PTI #P0136172]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible PE were observed from the flare serving this emissions unit when startup venting is taking place; and

b. any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1) and PTI #P0136172]

(2) The permittee shall submit quarterly deviation (excursion) reports that identify:

a. all exceedances of the rolling, 12-month operational restriction specified in c)(1)b.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[OAC rule 3745-77-07(C)(1) and PTI #P0136172]

(3) If emissions were not vented to the flare during all emissions unit startup periods when startup venting is taking place, the permittee shall notify the Ohio EPA, Northwest District Office within 30 days of such occurrence. The notification shall include calculations that show the emissions of any criteria pollutants from the startup event(s), and if necessary, submit a PTI modification application.

[OAC rule 3745-77-07(C)(1) and PTI #P0136172]

(4) The permittee shall comply with the applicable reporting requirements under OAC rule 3745-21-09(DD), including the following section:

OAC Rule 3745-21-09(DD)(15)	Reporting

[OAC rule 3745-77-07(C)(1) and PTI #P0136172]

(5) The permittee shall submit semiannual reports and such other notifications and reports to the Ohio EPA, Northwest District Office, as are required pursuant to 40 CFR, Part 63, Subpart FFFF, per the following sections:

63.2450(m)	Reporting The compliance report must include the information specified in 63.2520(e), as well as the information specified in referenced subparts. When there are conflicts between this subpart and referenced subparts for the due dates of reports required by this subpart, reports must be submitted according to the due dates presented in this subpart. Excused excursions, as defined in subparts G and SS of this part 63, are not allowed.
63.2515	Notifications, Reports and Records – What notifications must I submit and when?
63.2515(a)	You must submit all of the notifications in 63.6(h)(4) and (5), 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified.
63.2515(b)	Initial notification* *The company submitted the initial notification in 2004
63.2520	Notifications, Reports and Records – What reports must I submit and when?
63.2520(a)	You must submit each report in Table 11 to this subpart that applies to you.
63.2520(b)	Unless the Administrator has approved a different schedule for submission of reports under 63.10(a), you must submit each report by the date in Table 11 to this subpart and according to paragraphs (b)(1) through (5) of this section.
63.2520(d)	Notification of compliance status report
63.2520(e)	Compliance report
Table 11	Requirements for Reports

[OAC rule 3745-77-07(C)(1); 40 CFR, Part 63, Subpart FFFF; and PTI #P0136172]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitation

187.5 lbs of NOx/hr and 0.75 ton of NOx/yr during emissions unit startup periods when startup venting is taking place (from the flare)

Applicable Compliance Method

The hourly emission limitation was developed by using a flare manufacturer emission factor of 0.005 lb NOx/lb of ammonia introduced to the flare, multiplied by the maximum of 37,500 lbs of ammonia/hr = 187.5 lbs of NOx/hr.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 7 of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation is based on a maximum annual-average rate of NOx emissions (based on maximum annual-average rate of ammonia introduced to the flare of 7,500 lb of ammonia/hr) of 37.50 lbs of NOx/hr during emissions unit startups when startup venting is taking place multiplied by a maximum of 40 hrs/yr of startups, then divided by 2,000 lbs/ton.

The emission limitations during startup periods when startup venting is taking place are based on PCS Engineering staff system knowledge and a detailed review of operations history. Compliance shall be demonstrated by the recordkeeping requirements in d)(2).

[OAC rule 3745-77-07(C)(1) and PTI #P0136172]

b. Emissions Limitation

Visible PE from the flare shall not exceed 5% opacity, as a six-minute average during emissions unit startup periods when startup venting is taking place

Applicable Compliance Method

If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods and procedures specified in Method 9 in Appendix A of 40 CFR, Part 60.

[OAC rule 3745-77-07(C)(1) and PTI #P0136172]

c. Emissions Limitation

2.85 lbs of VOC/hr and 12.50 tons of VOC/yr during normal production mode of operation (from process equipment, not flare)

Applicable Compliance Method

The hourly emission limitation is based on previous stack testing data, and reflects the PTE for this emissions unit during normal production mode of operation. Therefore, it is not necessary to develop any further monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 18, 25, or 25A, as applicable, of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by

2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0136172]

g) Miscellaneous Requirements

(1) None.

14. P531, AN Neutralizer

Operations, Property and/or Equipment Description:

Ammonium Nitrate Neutralizer System, with Scrubber Tower and Pond Water Scrubber

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
b.	OAC rule 3745-17-11(B)(1)	15.4 lbs PE/hr
c.	40 CFR, Part 64 - Compliance Assurance Monitoring (CAM)	See d)(1) through d)(7), and e)(1)

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicators for the scrubbers controlling this emissions unit are the scrubber pressure drop and the scrubber water circulation flow rate which were established in accordance with the manufacturer's recommendations and verified during site-specific particulate emission testing and scrubber parametric data collected during the emission testing. When the pressure drop and/or the water circulation flow rate of the scrubbers are operating outside the indicator ranges, the permittee shall take corrective actions to restore operation of the emissions unit and/or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions and comply with the reporting requirements specified in Section e) below. The emissions unit and control equipment shall be operated in accordance with the approved CAM Plan, or any approved revision of the Plan. The scrubbers shall not be configured to have bypass capability.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(2) The permittee shall operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water circulation flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

a. The permittee shall collect and record the following information each shift:

i. the scrubber pressure drop; in inches water column;

ii. the scrubber water circulation flow rate, in gallons per minute; and

iii. a log of the down time for the scrubber and monitoring equipment when the associated emissions unit was in operation.

b. Whenever the monitored values for the scrubber pressure drop and/or scrubber water circulation flow rate deviate from the indicator ranges, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

i. the date and time the deviation began and the magnitude of the deviation at that time;

ii. the date(s) the investigation was conducted;

iii. the names of the personnel who conducted the investigation; and

iv. the findings and recommendations.

Records of these inspections shall be kept in accordance with the Standard Terms and Conditions of this permit.

c. In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable ranges specified below unless the permittee determines that corrective action is not necessary.

i. The permittee shall maintain records of the following information for each deviation when it was determined that corrective action was not necessary:

(a) the reason corrective action was not necessary; and

(b) the date and time the deviation ended.

ii. The permittee shall maintain records of the following information for each corrective action taken:

(a) a description of the corrective action;

(b) the date it was completed;

(c) the date and time the deviation ended;

(d) the total period of time (in minutes) during which there was a deviation;

(e) the scrubber pressure drop and/or scrubber water circulation flow rate immediately after the corrective action; and

(f) the names of the personnel who performed the work.

iii. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

d. Pressure drop indicator range

The pressure drop across the neutralizer scrubbers shall be continuously maintained at a value greater than or equal to 0.33 inches water column, as a daily average, at all times while the emissions unit is in operation.

e. Scrubber water flow rate indicator range

The scrubber water circulation flow rate shall be continuously maintained at a value greater than or equal to 41.41 gallons per minute, as a daily average, at all times while the emissions unit is in operation.

f. These range(s) and/or limit(s) for the pressure drop and liquid flow rate are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northwest District Office. The permittee may request revisions to the permitted range or limit for the pressure drop or liquid flow rate based upon information obtained during future performance tests that demonstrate compliance with the allowable particulate emission rate for this emissions unit. In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(3) Scrubber operating parameters shall be re-verified as a result of any changes to the operating conditions of the scrubbers or emissions unit. In addition to periodic monitoring of their scrubber operating parameters, the permittee also has an inspection and maintenance program for the scrubbers. Based on the results of the monitoring and inspection program, repairs to the scrubbers shall be made as needed. If the current CAM indicators and/or the scrubber inspection program is considered inadequate, the permittee will develop a Quality Improvement Plan.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(4) At all times, the permittee shall maintain the monitoring equipment, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(5) If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance, the permittee shall promptly notify the Ohio EPA, Northwest District Office, and if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, re-establishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(6) In addition to the parametric monitoring required in Section d)(2), the permittee shall conduct visual inspections of the scrubbers every twelve (12) months. At a minimum, each scrubber shall be inspected for the following:

a. scrubber trays for excessive wear; and

b. any other mechanical parts associated with the tray mounts, for excessive wear.

Records of these inspections shall be kept in accordance with the Standard Terms and Conditions of this permit.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(7) The permittee shall maintain a supply of any parts necessary to ensure that the scrubbing system will operate properly. Any worn parts shall be replaced, or fixed during the inspection.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

e) Reporting Requirements

(1) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

a. each period of time (start time and date, and end time and date) when the pressure drop across the scrubber and/or the liquid flow rate was/were outside of the appropriate range contained in this permit;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the scrubber;

c. an identification of each incident of deviation described in e)(1)a. and e)(1)b. above where a prompt investigation was not conducted;

d. an identification of each incident of deviation described in e)(1)a. and e)(1)b. above where prompt corrective action, that would bring the scrubber pressure drop and/or the scrubber water circulation flow rate into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. an identification of each incident of deviation described in e)(1)a. and e)(1)b. above where proper records were not maintained for the investigation and/or the corrective action.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitation

Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method

If required, compliance with the visible emissions limitation above shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

[OAC rule 3745-77-07(C)(1)]

b. Emissions Limitation

15.4 lbs PE/hr

Applicable Compliance Method

The permittee shall demonstrate compliance with the hourly PE limitation by multiplying an emission factor of 0.284 lb PE/ton times a maximum process weight rate of 18.75 tons per hour. The emission factor was derived from stack testing conducted on April 12, 2005 as follows:

Actual PE = 3.8 lbs PE/hr

Actual process weight rate during stack test = 13.387 tons/hr

Emission factor for PE = (3.8 lbs PE/hr)/(13.387 tons/hr) = 0.284 lb PE/ton

If required, compliance with the hourly PE limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

[OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

15. P536, Urea Prill - West Warehouse

Operations, Property and/or Equipment Description:

Urea Prilling Section - West Warehouse including storage, handling (bagging), 4 separate loadout operations (50-lb bags, 2000-lb supersacks, bulk truck, bulk railcar). Bag and supersacks loadout operations are vented to the warehouse which is under negative pressure and is controlled by a dust collector and wet scrubber (each is capable of controlling this emissions unit independently and meeting the emission limits). Storage and handling operations are conducted in the warehouse as well. Bulk truck and bulk railcar loading is performed outside the warehouse and are uncontrolled operations.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (Established as a synthetic minor limitation) [PTI #P0133229, issued 12/8/22]	0.58 lb particulate matter less than 10 microns in size (PM10)/hr and 2.53 tons PM10/yr from urea prill bagging operations (stack emissions) See c)(1), d)(1) through d)(4), e)(1) through e)(3) and f)(1)a. No visible fugitive emissions from the warehouse building containing the urea prill bagging operations See c)(2), d)(1), e)(1) and f)(1)b.
b.	OAC rule 3745-31-05(D) (Established as federally enforceable requirements to represent the PTE) [PTI #P0133229, issued 12/8/22]	2.87 tons PM10/yr from bulk loadout operations (fugitive emissions) 0.022 tons PM10/yr from urea prill storage/handling operations (fugitive emissions) See b)(2)a., b)(2)b., f)(1)c. and f)(1)d. Visible fugitive particulate emissions (PE) from the bulk loadout operations and the urea prill storage/handling operations shall

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		not exceed 20% opacity, as a three-minute average See b)(2)b., d)(1), e)(1) and f)(1)e.
c.	OAC rule 3745-31-05(A)(3)(a)(ii) [PTI #P0133229, issued 12/8/22]	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM10 emissions from this air contaminant source since the PTE is less than 10 tons/year taking into account the federally enforceable restriction in b)(1)a. above.
d.	OAC rule 3745-17-07(A)	Visible PE from the stack shall not exceed 20% opacity, as a six-minute average, except as provided by rule. See d)(1), e)(1) and f)(1)f.
e.	OAC rule 3745-17-11(B)	See b)(2)c.
f.	OAC rule 3745-17-07(B)	See b)(2)d.
g.	OAC rule 3745-17-08(B)	See b)(2)e.

(2) Additional Terms and Conditions

a. The mass emission rate limitation for PM10 in b)(1)b. above represents the PTE, defined as the maximum capacity to emit an air pollutant under the physical and operational design. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with these emission limitations. See f)(1)c. and f)(1)d. for details regarding the PTE.

b. The federally enforceable emission limitations in b)(1)b. were established for the purpose of representing the potentials to emit of this emissions unit.

c. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D).

d. This emissions unit is exempt from the visible particulate emission limitations specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(e).

e. The facility is not located within an "Appendix A" area as identified in OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), this emissions unit is exempt from the requirements of OAC rule 3745-17-08(B).

c) Operational Restrictions

(1) The following operational restriction has been included in this permit for the purpose of establishing federally enforceable requirements [See b)(1)a.]:

a. Bagging operations shall be performed inside the west warehouse and vented to either the baghouse and/or wet scrubber each designed to meet a 90% control efficiency for PM10 (based on manufacturer specifications).

[OAC rule 3745-77-07(A)(1) and PTI #P0133229]

(2) The emissions from the bagging operations shall be vented to a baghouse and/or wet scrubber at all times.

[OAC rule 3745-77-07(A)(1) and PTI #P0133229]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the baghouse stack and for any visible emissions of fugitive dust from the warehouse building egress points (i.e., building windows, doors, roof monitors, etc.) and for any visible emissions of fugitive dust from bulk loadout operations and urea prill storage/handling operations serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emissions incident; and

e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emissions incident has occurred. The observer does not have to document the exact start and end times for the visible emissions incident under item d)(1)d. above or continue the daily check until the incident has ended. The observer may indicate that the visible emissions incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

[OAC rule 3745-77-07(C)(1) and PTI #P0133229]

(2) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable range or limit for the pressure drop across the scrubber and the scrubber liquid flow rate shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range for each parameter is established to demonstrate compliance.

[OAC rule 3745-77-07(C)(1) and PTI #P0133229]

(3) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop across the scrubber (in pounds per square inch, gauge) and the scrubber liquid flow rate (in gallons per minute) during operation of this emissions unit and the wet scrubber, including periods of startup and shutdown. The permittee shall record the pressure drop across the scrubber and the scrubber liquid's flow rate on a daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

a. Whenever the monitored value for any parameter deviates from the range(s) or minimum limit(s) established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

i. the date and time the deviation began;

ii. the magnitude of the deviation at that time;

iii. the date the investigation was conducted;

iv. the name(s) of the personnel who conducted the investigation; and

v. the findings and recommendations.

b. In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the control equipment parameters within the acceptable range(s), or at or above the minimum limit(s) specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

i. a description of the corrective action;

ii. the date the corrective action was completed;

iii. the date and time the deviation ended;

iv. the total period of time (in minutes) during which there was a deviation;

v. the pressure drop and flow rate readings immediately after the corrective action was implemented; and

vi. the name(s) of the personnel who performed the work.

c. Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

d. These range(s) and/or limit(s) for the pressure drop and liquid flow rate are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northwest District Office. The permittee may request revisions to the permitted range or limit for the pressure drop or liquid flow rate based upon information obtained during future performance tests that demonstrate compliance with the allowable particulate emission rate for this emissions unit. In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a Title V minor permit modification.

[OAC rule 3745-77-07(C)(1) and PTI #P0133229]

(4) The permittee shall maintain records during all periods of time the bagging operations were not vented to either the baghouse and/or the wet scrubber.

[OAC rule 3745-77-07(C)(1) and PTI #P0133229]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the baghouse stack serving this emissions unit;

b. all days during which any visible emissions of fugitive dust were observed from the warehouse building egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit;

c. all days during which any visible emissions of fugitive dust were observed from the bulk loadout operations and urea prill storage/handling operations; and

d. any corrective actions taken to minimize or eliminate the visible particulate emissions from the stack and/or visible emissions of fugitive dust.

These reports shall be submitted to the Ohio EPA, Northwest District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1) and PTI #P0133229]

(2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. each period of time (start time and date, and end time and date) when the pressure drop across the scrubber and/or the liquid flow rate was outside of the appropriate range or limit specified by the manufacturer or outside of the acceptable range following any required compliance demonstration;

b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process (bagging operations) emissions were not vented to the baghouse and/or scrubber;

c. each incident of deviation described in e)(2)a. or e)(2)b. (above) where a prompt investigation was not conducted;

d. each incident of deviation described in e)(2)a. or e)(2)b. where prompt corrective action, that would bring the pressure drop and/or liquid flow rate into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in e)(2)a. or e)(2)b. where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the Northwest District Office).

[OAC rule 3745-77-07(C)(1) and PTI #P0133229]

The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time when the bagging operations were not vented to either the baghouse and/or the wet scrubber.

[OAC rule 3745-77-07(C)(1) and PTI #P0133229]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitation

0.58 lb PM10/hr and 2.53 tons PM10/yr from urea prill bagging operations (stack emissions)

Applicable Compliance Method

The hourly emission limitation was established by multiplying an AP-42 emission factor of 0.16 lb PM10/ton (AP-42 Table 8.2-1 [07/1993]) by the maximum process weight rate of 36.0 tons of urea bagged/hr, then multiplying by a control efficiency of 90% for the use of a scrubber and/or baghouse.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Methods 1 through 4 of 40 CFR, Part 60, Appendix A and Methods 201, 201A and 202 of 40 CFR, Part 51, Appendix M.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0133229]

b. Emissions Limitation

No visible fugitive emissions from the warehouse building containing the urea prill bagging operations

Applicable Compliance Method

If required, compliance with the visible fugitive PE limitation shall be determined in accordance with Method 22 of 40 CFR, Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI #P0133229]

c. Emissions Limitation

2.87 tons PM10/yr from bulk loadout operations (fugitive emissions)

Applicable Compliance Method:

The annual fugitive emission limitation of PM10 represents PTE* for this emissions unit. Therefore, no monitoring, recordkeeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with this limitation.

*PTE was calculated by multiplying an AP-42 emission factor of 0.017 lb PM10/ton (U.S. EPA WebFIRE SCC 30104007) by a total maximum urea prill production rate of 925 tons/day by a maximum operating schedule of 365 days/yr, and then dividing by 2,000 lbs/ton.

[OAC rule 3745-77-07(C)(1) and PTI #P0133229]

d. Emissions Limitation

0.022 tons PM10/yr, from urea prill storage/handling operations (fugitive emissions)

Applicable Compliance Method

The annual fugitive emission limitation of PM10 represents PTE* for this emissions unit. Therefore, no monitoring, recordkeeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with this limitation.

*PTE was calculated by multiplying an AP-42 emission factor of 0.000129 lb PM10/ton (AP-42 Chapter 13.2.4 [11/2006]) by the maximum process weight rate of 38.54 tons of urea stored/handled/hr by a maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton.

[OAC rule 3745-77-07(C)(1) and PTI #P0133229]

e. Emissions Limitation

Visible fugitive PE from the bulk loadout operations and the urea prill storage/handling operations shall not exceed 20% opacity, as a three-minute average

Applicable Compliance Method

If required, the permittee shall demonstrate compliance with the visible particulate emission limitation above in accordance with methods and procedures specified in Method 9 of 40 CFR, Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI #P0133229]

f. Emissions Limitation

Visible PE from the stack shall not exceed 20% opacity as a six-minute average, except as provided by rule.

Applicable Compliance Method

If required, the permittee shall demonstrate compliance with the visible particulate emission limitation above in accordance with the methods and procedures specified in Method 9 of 40 CFR, Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI #P0133229]

g) Miscellaneous Requirements

(1) None.

16. P556, NH3-Aqua Truck/Railcar Load

Operations, Property and/or Equipment Description:

NH3 (Aqua) Truck/Railcar Loadout Controlled by a Scrubber

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)a., b)(1)b., b)(2)a., c)(1), d)(1) through d)(6), e)(1) and e)(2).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(E) [PTI #P0122148, issued 3/17/17]	See b)(2)a., c)(1), d)(1), d)(2) and e)(1)
b.	OAC rule 3745-114-01 ORC 3704.03(F)	See d)(3) through d)(6) and e)(2)

(2) Additional Terms and Conditions

a. The state-only enforceable operational restriction is being established to ensure compliance with the "Toxic Air Contaminant Statute," ORC 3704.03(F)(4) through conformity with the Ohio EPA document entitled "Review of New Sources of Air Toxics Emissions, Option A" as indicated in ORC 3704.03(F)(4)(a). The state-only enforceable operational restriction in c)(1) is necessary to demonstrate compliance with the "Toxic Air Contaminant Statute," ORC 3704.04(F)(4)(b) because the modeling analysis submitted by the permittee is based on an ammonia emissions increase after controls are employed (3.70 ton/yr increase with potential annual emissions of 6.31 tons/yr).

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing state-only enforceable requirements [See b)(2)a.]:

a. Emissions from aqua ammonia truck and railcar loadout shall be vented to the aqua ammonia scrubber designed to meet a 95% control efficiency for ammonia.

[PTI #P0122184]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop across the scrubber (in pounds per square inch, gauge) and the

scrubber liquid flow rate (in gallons per minute) during operation of this emissions unit, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee.

a. The permittee shall record the pressure drop across the scrubber and the scrubber liquid's flow rate on a daily basis.

b. Whenever the monitored value for any parameter deviates from the range(s) or minimum limit(s) established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation.

The permittee shall maintain records of the following information for each investigation:

i. the date and time the deviation began;

ii. the magnitude of the deviation at that time;

iii. the date the investigation was conducted;

iv. the name(s) of the personnel who conducted the investigation; and

v. the findings and recommendations.

c. In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the control equipment parameters within the acceptable range(s), or at or above the minimum limit(s) specified in this permit, unless the permittee determines that corrective action is not necessary.

i. The permittee shall maintain records of the following information for each deviation when it was determined that corrective action was not necessary:

(a) the reasons corrective action was not necessary; and

(b) the date and time the deviation ended.

ii. The permittee shall maintain records of the following information for each deviation when corrective action taken:

(a) a description of the corrective action;

(b) the date the corrective action was completed;

(c) the date and time the deviation ended;

(d) the total period of time (in minutes) during which there was a deviation;

(e) the pressure drop and flow rate readings immediately after the corrective action was implemented; and

(f) the name(s) of the personnel who performed the work.

iii. Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

d. The acceptable pressure drop across the scrubber and liquid flow rate shall be based upon the manufacturer's specifications until such time as any required performance testing is conducted and the appropriate range for each parameter is established to demonstrate compliance.

e. These range(s) and/or limit(s) for the pressure drop and liquid flow rate are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northwest District Office. The permittee may request revisions to the permitted range or limit for the pressure drop or liquid flow rate based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate for this emissions unit. In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[PTI #P0122184]

(2) The permittee shall document each day whether or not the aqua ammonia scrubber was in service when the emissions unit was in operation.

[PTI #P0122184]

(3) The PTI application for these emissions units, P556 and P558, was evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to these emissions units for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as AERSCREEN, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions units, (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or

ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions units, i.e., "**X**" hours per day and "**Y**" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

TLV/10 x 8/X x 5/Y = 4 TLV/XY = MAGLC

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: Ammonia

TLV (mg/m3): 17.413

Maximum Hourly Emission Rate (lbs/hr): 0.84

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 132.2

MAGLC (ug/m3): 414.6

The permittee, has demonstrated that emissions of ammonia, from emissions units P556 and P558, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

[PTI #P0122184]

(4) Prior to making any physical changes to or changes in the method of operation of the emissions units, that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and

c. physical changes to the emissions units or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine

the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[PTI #P0122184]

(5) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);

c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions units to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions units or the materials applied.

[PTI #P0122184]

(6) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

[PTI #P0122184]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify:

a. each period of time (start time and date, and end time and date) when the pressure drop across the scrubber or the liquid flow rate was outside of the appropriate range or limit specified by the manufacturer and outside of the acceptable range for each parameter following any required compliance demonstration;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the scrubber;

c. each incident of deviation described in "a" or "b" (above) where a prompt investigation was not conducted;

d. each incident of deviation described in "a" or "b" where prompt corrective action, that would bring the pressure drop or liquid flow rate into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in "a" or "b" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[PTI #P0122184]

(2) The permittee shall submit annual reports that include any changes to any parameter or value used in the dispersion model used to demonstrate compliance with the "Toxic Air Contaminate Statute", ORC 3704.03(F), through the predicted 1-hour maximum concentration. The report should include:

a. the original model input;

b. the updated model input;

c. the reason for the change(s) to the input parameter(s); and

d. a summary of the results of the updated modeling, including the input changes; and

e. a statement that the model results indicate that the 1-hour maximum ground-level concentration is less than 80% of the MAGLC.

If no changes to the emissions, emissions units, or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

[PTI #P0122184]

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

17. P558, AN Sol'n Truck/Railcar Load

Operations, Property and/or Equipment Description:

Ammonium Nitrate Truck/Railcar Loadout

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)a., d)(1) through d)(4) and e)(1).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-114-01 ORC 3704.03(F)	See d)(1) through d)(4) and e)(1)

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The PTI application for these emissions units, P556 and P558, was evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to these emissions units for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as AERSCREEN, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions units, (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or

ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions units, i.e., "**X**" hours per day and "**Y**" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

TLV/10 x 8/X x 5/Y = 4 TLV/XY = MAGLC

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: Ammonia

TLV (mg/m3): 17.413

Maximum Hourly Emission Rate (lbs/hr): 0.04

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 12.29

MAGLC (ug/m3): 414.6

The permittee has demonstrated that emissions of ammonia, from emissions units P556 and P558, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

[PTI #P0122184]

(2) Prior to making any physical changes to or changes in the method of operation of the emissions units, that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and

c. physical changes to the emissions units or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[PTI #P0122184]

(3) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);

c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions units to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions units or the materials applied.

[PTI #P0122184]

(4) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

[PTI #P0122184]

e) Reporting Requirements

(1) The permittee shall submit annual reports that include any changes to any parameter or value used in the dispersion model used to demonstrate compliance with the "Toxic Air

Contaminate Statute", ORC 3704.03(F), through the predicted 1-hour maximum concentration. The report should include:

a. the original model input;

b. the updated model input;

c. the reason for the change(s) to the input parameter(s); and

d. a summary of the results of the updated modeling, including the input changes; and

e. a statement that the model results indicate that the 1-hour maximum ground-level concentration is less than 80% of the MAGLC.

If no changes to the emissions, emissions units, or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

[PTI #P0122184]

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

18. P560, Urea Prill - Prill Tower

Operations, Property and/or Equipment Description:

Urea Prilling Section - Prill Tower, with Bustle Pond Filter

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
b.	OAC rule 3745-17-11(B)(1)	50.0 lbs PE/hr
c.	OAC rule 3745-21-07(M)	See b)(2)a.
d.	40 CFR, Part 64 - Compliance Assurance Monitoring (CAM)	See d)(1) through d)(7), and e)(1)

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicator for the scrubber controlling this emissions unit is the scrubber pressure drop which was established in accordance with the manufacturer's recommendations and verified during site-specific particulate emission testing and scrubber parametric data collected during the emission testing. When the pressure drop of the scrubber is operating outside the indicator range, the permittee shall take corrective actions to restore operation of the emissions unit and/or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions and comply with the reporting requirements specified in Section e) below. The emissions unit and control equipment shall be operated in accordance with the approved CAM Plan, or any approved revision of the Plan. The scrubber shall not be configured to have bypass capability.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(2) The permittee shall operate and maintain equipment to monitor the scrubber pressure drop while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

a. The permittee shall collect and record the following information each shift:

i. the scrubber pressure drop; in inches water column; and

ii. a log of the down time for the scrubber and monitoring equipment when the associated emissions unit was in operation.

b. Whenever the monitored values for the scrubber pressure drop deviate from the indicator range specified, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

i. the date and time the deviation began and the magnitude of the deviation at that time;

ii. the date(s) the investigation was conducted;

iii. the names of the personnel who conducted the investigation; and

iv. the findings and recommendations.

Records of these inspections shall be kept in accordance with the Standard Terms and Conditions of this permit.

c. In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified below unless the permittee determines that corrective action is not necessary.

i. The permittee shall maintain records of the following information for each deviation when it was determined that corrective action was not necessary:

(a) the reason corrective action was not necessary; and

(b) the date and time the deviation ended.

ii. The permittee shall maintain records of the following information for each corrective action taken:

(a) a description of the corrective action;

(b) the date it was completed;

(c) the date and time the deviation ended;

(d) the total period of time (in minutes) during which there was a deviation;

(e) the scrubber pressure drop immediately after the corrective action; and

(f) the names of the personnel who performed the work.

iii. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

d. Pressure drop indicator

The pressure drop across the washed filter media scrubber shall be maintained at a minimum value of 0.5 inch of water, while the emissions unit is in operation.

e. This range and or limit for the pressure drop are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northwest District Office. The permittee may request revisions to the permitted range or limit for the pressure drop based upon information obtained during future performance tests that demonstrate compliance with the allowable particulate emission rate for this emissions unit. In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(3) Scrubber operating parameters shall be re-verified as a result of any changes to the operating conditions of the scrubber or emissions unit. In addition to periodic monitoring of their scrubber operating parameters, the permittee also has an inspection and maintenance program for the scrubbers. Based on the results of the monitoring and inspection program, repairs to the scrubber shall be made as needed. If the current CAM indicators and/or the scrubber inspection program is considered inadequate, the permittee will develop a Quality Improvement Plan.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(4) At all times, the permittee shall maintain the monitoring equipment, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(5) If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance, the permittee shall promptly notify the Ohio EPA, Northwest District Office, and if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, re-establishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(6) In addition to the parametric monitoring required in Section d)(2), the permittee shall conduct visual inspections of the scrubber's spray nozzles every twelve (12) months. At a minimum, each spray nozzle shall be inspected for the following:

a. excessive wear, or clogging; and

b. appropriate directional output to ensure that the spray is covering the entire gas stream.

Records of these inspections shall be kept in accordance with the Standard Terms and Conditions of this permit.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(7) The permittee shall maintain a supply of replacement nozzles, or any other parts necessary to ensure that the scrubbing system will operate properly. Any worn, or clogged nozzles shall be replaced, or fixed during the inspection.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

e) Reporting Requirements

(1) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:

a. each period of time (start time and date, and end time and date) when the pressure drop across the scrubber was outside of the appropriate range contained in this permit;

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the scrubber;

c. an identification of each incident of deviation described in e)(1)a. and e)(1)b. above where a prompt investigation was not conducted;

d. an identification of each incident of deviation described in e)(1)a. and e)(1)b. above where prompt corrective action, that would bring the scrubber pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. an identification of each incident of deviation described in e)(1)a. and e)(1)b. above where proper records were not maintained for the investigation and/or the corrective action.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitation

Visible PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.

Applicable Compliance Method

If required, compliance with the visible emissions limitation above shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

[OAC rule 3745-77-07(C)(1)]

b. Emissions Limitation

50.0 lbs PE/hr

Applicable Compliance Method

The permittee shall demonstrate compliance with the hourly PE limitation by multiplying an emission factor of 0.50 lb PE/ton times a maximum process weight rate of 41.67 tons per hour. The emission factor was derived from stack testing conducted on December 16, 2004 as follows:

Actual PE = 18.4 lbs PE/hr

Actual process weight rate during stack test = 36.46 tons/hr

Emission factor for PE = (18.4 lbs PE/hr)/(36.46 tons/hr) = 0.50 lb PE/ton

If required, compliance with the hourly PE limitation shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(10).

[OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

19. P563, Urea Syn - Reactor Feed

Operations, Property and/or Equipment Description:

Urea Plant - Reactor Feed Section

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)c. and d)(1).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) [PTI #P0117742, issued 10/15/14]	0.36 lb of VOC/hr and 1.58 tons of VOC/yr See b)(2)a. and b)(2)b.
b.	OAC rule 3745-31-05(A)(3)(a)(ii) [PTI #P0117742, issued 10/15/14]	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the PTE is less than 10 tons per year taking into account the federally enforceable restriction in b)(1)b. above.
c.	ORC 3704.03(F) and OAC rule 3745-114-01	See d)(1)
d.	OAC rule 3745-21-09(DD)	See b)(2)d., d)(2) and e)(1)
e.	40 CFR, Part 63, Subpart FFFF [40 CFR 63.2430 – 63.2550] In accordance with 40 CFR 63.2440, this emissions unit is an existing affected source consisting of Sundyne and Lawrence carbamate charge and booster pumps; which is part of a miscellaneous organic chemical manufacturing process unit at an existing chemical manufacturing facility subject to the emission limitations/control measures specified in this section.	See b)(2)e., d)(3), and e)(2)
f.	40 CFR, Part 63, Subpart A [40 CFR 63.1 – 63.15]	Table 12 to 40 CFR, Part 63, Subpart FFFF – Applicability of General Provisions to Subpart FFFF shows which parts of the General Provisions in 40 CFR 63.1-15 apply.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
g.	OAC rule 3745-104	See Standard Term and Condition A.4. (Risk Management Plans). See b)(2)c.

(2) Additional Terms and Conditions

a. The mass emission rate limitations in b)(1)a. above represent the PTE, defined as the maximum capacity to emit an air pollutant under the physical and operational design. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with these emission limitations. See f)(1)a., for details regarding the PTE.

b. The federally enforceable emission limitations in b)(1)a. were established for the purpose of representing the potentials to emit of this emissions unit.

c. This emissions unit emits a regulated air pollutant [as defined in OAC rule 3745-77-01(R)(1)] in excess of five tons per year in the form of anhydrous ammonia, which is subject to OAC Chapter 3745-104 and Section 112(r) of the Clean Air Act. As such, this emissions unit is a significant emissions unit [as defined in OAC rule 3745-77-01(S)(1)].

d. The permittee shall comply with the applicable requirements under OAC rule 3745-21-09(DD), including the following sections:

OAC rule 3745-21-09(DD)(1)	Compliance requirements
OAC rule 3745-21-09(DD)(3)	Compressors
OAC rule 3745-21-09(DD)(4)	Pressure relief devices in gas/vapor service
OAC rule 3745-21-09(DD)(5)	Sampling connection systems
OAC rule 3745-21-09(DD)(6)	Open-ended valves or lines
OAC rule 3745-21-09(DD)(7)	Equipment designated for no detectable emissions
OAC rule 3745-21-09(DD)(8)	Barrier fluid systems and sensors for pumps and compressors
OAC rule 3745-21-09(DD)(9)	Closed vent systems
OAC rule 3745-21-09(DD)(10)	Control equipment
OAC rule 3745-21-09(DD)(11)	Delay of repair
OAC rule 3745-21-09(DD)(16)	Equivalent requirements

OAC rule 3745-21-09(DD)(17)	Exemptions
OAC rule 3745-21-09(DD), Appendix A	List of organic chemicals for which paragraph (DD) of Rule 3745-21-09 is applicable

e. The permittee shall comply with the additional terms and conditions under 40 CFR, Part 63, Subpart FFFF, including the following sections:

63.2445(b)	If you have an existing source no November 10, 2003, you must comply with the requirements from existing sources in this subpart no later than May 10, 2008.
63.2445(c)	Meet the notification requirements in 63.2515 according to the dates specified in that section and in Subpart A of this part 63.
63.2445(d)	If you have a Group 2 emission point that becomes a Group 1 emission point after the compliance date from your affected source you must comply with the Group 1 requirements beginning on the date the switch occurs. An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs.
63.2450	Emission Limitations, Work Practice Standards and Compliance Requirements -- What are my general requirements for complying with this subpart?
63.2450(a)	You must be in compliance with the emission limits and work practice standards in tables 1 through 7* to this subpart at all times, except during periods of startup, shutdown, and malfunction (SSM), and you must meet the requirements specified in 63.2455 through 63.2490 (or the alternative means of compliance in 63.2495, 63.2500, or 63.2505), except as specified in paragraphs (b) through (s) of this section. You must meet the notification, reporting, and recordkeeping requirements specified in 63.2515, 63.2520, and 63.2525. *Only the work practice standards listed in Table 6 are applicable
63.2450(p)	Opening a safety device, as defined in 63.2550, is allowed at any time conditions require it to avoid unsafe conditions
63.2455	Emission Limitations, Work Practice Standards and Compliance Requirements – What requirements must I meet for continuous process vents?

63.2455(a)	You must meet each emission limit in Table 1 to this subpart that applies to your continuous process vents, and you must meet each applicable requirement specified in paragraphs (b) through (c) of this section. [Note: There are no emission limits and/or work practice standards in Table 1 that are applicable.]
63.2455(b)	For each continuous process vent, you must either designate the vent as a Group 1 continuous process vent or determine the total resource effectiveness (TRE) index value as specified in 63.115(d), except as specified in paragraphs (b)(1) through (3) of this section.
63.2480	Emission Limitations, Work Practice Standards and Compliance Requirements – What requirements must I meet for equipment leaks?
63.2480(a)	You must meet each requirement in Table 6 to this subpart that applies to your equipment leaks, except as specified in paragraphs (b) through (d) of this section. [See Table 6 below for requirements.]
63.2480(b)	If you comply with either subpart H or subpart UU of this part 63, you may elect to comply with the provisions in paragraphs (b)(1) through (5) of this section as an alternative to the referenced provisions in subpart H or subpart UU of this part.
63.2535	Other Requirements and Information – What compliance options do I have if part of my plant is subject to both this subpart and another subpart?
63.2535(k)	Compliance with 40 CFR, Part 60, subpart VV and 40 CFR, Part 61, Subpart V
63.2540	Other Requirements and Information – What parts of the General Provisions apply to me?
Table 6	Requirements for Equipment Leaks

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) Modeling to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary for this permit action because actual emissions of the toxic air contaminant ammonia (NH3), as specified in OAC rule 3745-114-01, resulted in an

actual decrease. Other than NH3, the maximum annual emissions for each toxic air contaminant (as specified in OAC rule 3745-114-01) that is not subject to MACT and/or NESHAP regulations will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01.

The permittee is hereby advised that changes in the composition of the materials, or use of new materials, etc. that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

[PTI #P0117742]

(2) The permittee shall comply with the applicable monitoring and record keeping requirements under OAC rule 3745-21-09(DD), including the following sections:

OAC rule 3745-21-09(DD)(2)	Leak detection and repair program
OAC rule 3745-21-09(DD)(12)	Alternative monitoring schedule for valves based on a skip period
OAC rule 3745-21-09(DD)(13)	Alternative monitoring standard for valves based on the allowable percentage of valves leaking
OAC rule 3745-21-09(DD)(14)	Record keeping

[OAC rule 3745-77-07(C)(1) and PTI #P0117742]

(3) The permittee shall comply with the applicable monitoring and recordkeeping requirements under 40 CFR, Part 63, Subpart FFFF, including the following sections:

63.2525	Notifications, Reports and Records – What records must I keep?
63.2525(a)	Each applicable record required by subpart A of this part 63 and in referenced subparts F, G, SS, UU, WW, and GGG of this part 63 and in referenced subpart F of 40 CFR part 65.
63.2525(b)	Records of each operating scenario as specified in paragraphs (b)(1) through (8) of this section.
63.2525(f)	A record of each time a safety device is opened to avoid unsafe conditions in accordance with 63.2450(s).
63.2525(j)	In the SSMP required by 63.6(e)(3), you are not required to include Group 2 emission points, unless those emission points are used in an emissions average. For equipment leaks, the SSMP requirement is limited to control devices and is optional for other equipment.

[OAC rule 3745-77-07(C)(1), 40 CFR, Part 63, Subpart FFFF, and PTI #P0117742]

e) Reporting Requirements

(1) The permittee shall comply with the applicable reporting requirements under OAC rule 3745-21-09(DD), including the following section:

OAC rule 3745-21-09(DD)(15)	Reporting

[OAC rule 3745-77-07(C)(1) and PTI #P0117742]

(2) The permittee shall submit semiannual reports and such other notifications and reports to the Ohio EPA, Northwest District Office, as are required pursuant to 40 CFR, Part 63, Subpart FFFF, per the following sections:

63.2450(m)	Reporting The compliance report must include the information specified in 63.2520(e), as well as the information specified in referenced subparts. When there are conflicts between this subpart and referenced subparts for the due dates of reports required by this subpart, reports must be submitted according to the due dates presented in this subpart. Excused excursions, as defined in subparts G and SS of this part 63, are not allowed.
63.2515	Notifications, Reports and Records – What notifications must I submit and when?
63.2515(a)	You must submit all of the notifications in 63.6(h)(4) and (5), 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified.
63.2515(b)	Initial notification* *The company submitted the initial notification in 2004
63.2520	Notifications, Reports and Records – What reports must I submit and when?
63.2520(a)	You must submit each report in Table 11 to this subpart that applies to you.
63.2520(b)	Unless the Administrator has approved a different schedule for submission of reports under 63.10(a), you must submit each report by the date in Table 11 to this subpart and according to paragraphs (b)(1) through (5) of this section.
63.2520(d)	Notification of compliance status report
63.2520(e)	Compliance report
Table 11	Requirements for Reports

[OAC rule 3745-77-07(C)(1), 40 CFR, Part 63, Subpart FFFF, and PTI #P0117742]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitation

0.36 lb of VOC/hr and 1.58 tons of VOC/yr

Applicable Compliance Method

The hourly emission limitation is based on previous stack testing data, and reflects the PTE for this emissions unit. Therefore, it is not necessary to develop any further monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 18, 25, or 25A, as applicable, of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr and dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0117742]

g) Miscellaneous Requirements

(1) None.

20. P564, Urea Syn - UTI Hotwell

Operations, Property and/or Equipment Description:

Urea Plant - UTI Hotwell Section

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)e. and d)(2).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) [PTI #P0117742, issued 10/15/14]	0.02 lb PE/PM10/PM2.5/hr and 0.09 ton of PE/PM10/PM2.5/yr Visible particulate emissions (PE) shall not exceed 20% opacity, as a six-minute average. 0.69 lb of CO/hr and 3.01 tons of CO/yr 2.06 lbs of VOC/hr and 9.01 tons of VOC/yr See b)(2)b. through b)(2)d., d)(1) and e)(1)
b.	OAC rule 3745-17-11(B)	See b)(2)e.
c.	OAC rule 3745-17-07(A)	See b)(2)f.
d.	OAC rule 3745-31-05(A)(3)(a)(ii) [PTI #P0117742, issued 10/15/14]	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PM10/PM2.5, CO and VOC emissions from this air contaminant source since the PTE is less than 10 tons per year taking into account the federally enforceable restriction in b)(1)b. above.
e.	ORC 3704.03(F) and OAC rule 3745-114-01	See d)(2)
f.	40 CFR, Part 63, Subpart FFFF [40 CFR 63.2430 – 63.2550] In accordance with 40 CFR 63.2440, this emissions unit is an existing affected source consisting of a vapor condensing/recovery system; which is	See b)(2)g., d)(3), and e)(2)

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	part of a miscellaneous organic chemical manufacturing process unit at an existing chemical manufacturing facility subject to the emission limitations/control measures specified in this section.	
g.	40 CFR, Part 63, Subpart A [40 CFR 63.1 – 63.15]	Table 12 to 40 CFR, Part 63, Subpart FFFF – Applicability of General Provisions to Subpart FFFF shows which parts of the General Provisions in 40 CFR 63.1-15 apply.

(2) Additional Terms and Conditions

a. The UTI Hotwell Scrubber associated with this emissions unit is integral to the process equipment as a product recovery device. Thus, there is no parametric monitoring necessary.

b. It is assumed that all PE are equivalent to both PM10 and PM2.5.

c. The mass emission rate limitations in b)(1)a. above represent the PTE, defined as the maximum capacity to emit an air pollutant under the physical and operational design. Therefore, no monitoring, record keeping, or reporting requirements are necessary to ensure compliance with these emission limitations. See f)(1)a., c. and d., for details regarding the PTE.

d. The federally enforceable emission limitations in b)(1)a. were established for the purpose of representing the PTE of this emissions unit.

e. The PE limitation specified by OAC 3745-17-11(B) is less stringent than the PE limitation established pursuant to OAC rule 3745-31-05(D).

f. The visible emission limitation specified by OAC rule 3745-17-07(A) is equivalent to the visible emission limitation established pursuant to OAC rule 3745-31-05(D).

g. The permittee shall comply with the additional terms and conditions under 40 CFR, Part 63, Subpart FFFF, including the following sections:

63.2445(b)	If you have an existing source no November 10, 2003, you must comply with the requirements from existing sources in this subpart no later than May 10, 2008.
63.2445(c)	Meet the notification requirements in 63.2515 according to the dates specified in that section and in Subpart A of this part 63.

63.2445(d)	If you have a Group 2 emission point that becomes a Group 1 emission point after the compliance date from your affected source you must comply with the Group 1 requirements beginning on the date the switch occurs. An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs.
63.2450	Emission Limitations, Work Practice Standards and Compliance Requirements -- What are my general requirements for complying with this subpart?
63.2450(a)	You must be in compliance with the emission limits and work practice standards in tables 1 through 7* to this subpart at all times, except during periods of startup, shutdown, and malfunction (SSM), and you must meet the requirements specified in 63.2455 through 63.2490 (or the alternative means of compliance in 63.2495, 63.2500, or 63.2505), except as specified in paragraphs (b) through (s) of this section. You must meet the notification, reporting, and recordkeeping requirements specified in 63.2515, 63.2520, and 63.2525. *Only the work practice standards listed in Table 6 are applicable
63.2450(p)	Opening a safety device, as defined in 63.2550, is allowed at any time conditions require it to avoid unsafe conditions
63.2455	Emission Limitations, Work Practice Standards and Compliance Requirements – What requirements must I meet for continuous process vents?
63.2455(a)	You must meet each emission limit in Table 1 to this subpart that applies to your continuous process vents, and you must meet each applicable requirement specified in paragraphs (b) through (c) of this section. [Note: There are no emission limits and/or work practice standards in Table 1 that are applicable.]
63.2455(b)	For each continuous process vent, you must either designate the vent as a Group 1 continuous process vent or determine the total resource effectiveness (TRE) index value as specified in 63.115(d), except as specified in paragraphs (b)(1) through (3) of this section.

63.2480	Emission Limitations, Work Practice Standards and Compliance Requirements – What requirements must I meet for equipment leaks?
63.2480(a)	You must meet each requirement in Table 6 to this subpart that applies to your equipment leaks, except as specified in paragraphs (b) through (d) of this section. [See Table 6 below for requirements.]
63.2480(b)	If you comply with either subpart H or subpart UU of this part 63, you may elect to comply with the provisions in paragraphs (b)(1) through (5) of this section as an alternative to the referenced provisions in subpart H or subpart UU of this part.
63.2535	Other Requirements and Information – What compliance options do I have if part of my plant is subject to both this subpart and another subpart?
63.2535(k)	Compliance with 40 CFR, Part 60, subpart VV and 40 CFR, Part 61, Subpart V
63.2540	Other Requirements and Information – What parts of the General Provisions apply to me?
Table 6	Requirements for Equipment Leaks

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform daily checks, when the emissions unit is being operated and when the weather conditions allow, for any visible particulate emissions from the scrubber stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the color of the emissions;

b. whether the emissions are representative of normal operations;

c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;

d. the total duration of any visible emissions incident; and

e. any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1) and PTI #P0117742]

(2) Modeling to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary for this permit action because actual emissions of the toxic air contaminant ammonia (NH3), as specified in OAC rule 3745-114-01, resulted in an actual decrease. Other than NH3, the maximum annual emissions for each toxic air contaminant (as specified in OAC rule 3745-114-01) that is not subject to MACT and/or NESHAP regulations will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) prior to making a "modification" as defined by OAC rule 3745-31-01.

The permittee is hereby advised that changes in the composition of the materials, or use of new materials, etc. that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

[PTI #P0117742]

(3) The permittee shall comply with the applicable monitoring and recordkeeping requirements under 40 CFR, Part 63, Subpart FFFF, including the following sections:

63.2525	Notifications, Reports and Records – What records must I keep?
63.2525(a)	Each applicable record required by subpart A of this part 63 and in referenced subparts F, G, SS, UU, WW, and GGG of this part 63 and in referenced subpart F of 40 CFR part 65.
63.2525(b)	Records of each operating scenario as specified in paragraphs (b)(1) through (8) of this section.
63.2525(f)	A record of each time a safety device is opened to avoid unsafe conditions in accordance with 63.2450(s).
63.2525(j)	In the SSMP required by 63.6(e)(3), you are not required to include Group 2 emission points, unless those emission points are used in an emissions average. For equipment leaks, the SSMP requirement is limited to control devices and is optional for other equipment.

[OAC rule 3745-77-07(C)(1); 40 CFR, Part 63, Subpart FFFF; and PTI #P0117742]

e) Reporting Requirements

(1) The permittee shall submit semiannual written reports that identify:

a. all days during which any visible particulate emissions were observed from the scrubber stack serving this emissions unit; and

b. any corrective actions taken to eliminate the visible particulate emissions.

These reports shall be submitted to the Director (the Ohio EPA, Northwest District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1) and PTI #P0117742]

(2) The permittee shall submit semiannual reports and such other notifications and reports to the Ohio EPA, Northwest District Office, as are required pursuant to 40 CFR, Part 63, Subpart FFFF, per the following sections:

63.2450(m)	Reporting The compliance report must include the information specified in 63.2520(e), as well as the information specified in referenced subparts. When there are conflicts between this subpart and referenced subparts for the due dates of reports required by this subpart, reports must be submitted according to the due dates presented in this subpart. Excused excursions, as defined in subparts G and SS of this part 63, are not allowed.
63.2515	Notifications, Reports and Records – What notifications must I submit and when?
63.2515(a)	You must submit all of the notifications in 63.6(h)(4) and (5), 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified.
63.2515(b)	Initial notification* *The company submitted the initial notification in 2004
63.2520	Notifications, Reports and Records – What reports must I submit and when?
63.2520(a)	You must submit each report in Table 11 to this subpart that applies to you.
63.2520(b)	Unless the Administrator has approved a different schedule for submission of reports under 63.10(a), you must submit each report by the date in Table 11 to this subpart and according to paragraphs (b)(1) through (5) of this section.
63.2520(d)	Notification of compliance status report
63.2520(e)	Compliance report
Table 11	Requirements for Reports

[OAC rule 3745-77-07(C)(1); 40 CFR, Part 63, Subpart FFFF; and PTI #P0117742]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emissions Limitation</u>

0.02 lb of PE/PM10/PM2.5/hr and 0.09 ton of PE/PM10/PM2.5/yr

<u>Applicable Compliance Method</u>

The hourly emission limitation is based on previous stack testing data, and reflects the PTE for this emissions unit. Therefore, it is not necessary to develop any further monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Methods 1 through 4 of 40 CFR, Part 60, Appendix A and Methods 201, 201A and 202 of 40 CFR, Part 51, Appendix M. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0117742]

b. Emissions Limitation

Visible PE shall not exceed 20% opacity, as a six-minute average.

Applicable Compliance Method

If required, the permittee shall demonstrate compliance with the visible particulate emissions limitation above in accordance with the methods and procedures specified in Method 9 in Appendix A of 40 CFR, Part 60.

[OAC rule 3745-77-07(C)(1) and PTI #P0117742]

c. Emissions Limitation

0.69 lb of CO/hr and 3.01 tons of CO/yr

Applicable Compliance Method:

The hourly emission limitation is based on previous stack testing data, and reflects the PTE for this emissions unit. Therefore, it is not necessary to develop any further monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 10 of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0117742]

d. Emissions Limitation

2.06 lbs of VOC/hr and 9.01 tons of VOC/yr

Applicable Compliance Method

The hourly emission limitation is based on previous stack testing data, and reflects the PTE for this emissions unit. Therefore, it is not necessary to develop any further monitoring, record keeping and/or reporting requirements to ensure compliance with this limitation.

If required, the permittee shall demonstrate compliance with the hourly emission limitation by conducting emission testing in accordance with the methods and procedures specified in Method 1 through 4, and 18, 25, or 25A, as applicable, of 40 CFR, Part 60, Appendix A. Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA.

The annual emission limitation was established by multiplying the hourly emission limitation by the maximum operating schedule of 8,760 hrs/yr, and then dividing by 2,000 lbs/ton. Therefore, provided compliance is shown with the lb/hr emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0117742]

g) Miscellaneous Requirements

(1) None.

21. P570, #2 NA Plant

Operations, Property and/or Equipment Description:

#2 Nitric Acid Plant, with EnviNOx control system for NOx and N2O

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)e., d)(6), d)(7), d)(8), d)(9), and e)(7).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) [PTI #P0131858, issued 5/12/22]	92.36 tons of NOx per rolling, 365-day period (including emissions from startups and shutdowns) See b)(2)a. and c)(1)
b.	OAC rule 3745-31-05(A)(3) ORC 3704.03(T) [PTI #P0131858, issued 5/12/22]	1.40 lbs of NOx/ton of acid (100% nitric acid) produced except during periods of startup and shutdown 3.885 tons CO per month averaged over a rolling, 12-month period (including emissions from startups and shutdowns) See b)(2)c., b)(2)d. and b)(2)e.
c.	40 CFR, Part 60, Subpart G [40 CFR 60.70 – 60.74] [In accordance with 40 CFR 60.70 this emissions unit is a nitric acid production unit and is subject to the NOx emission limitations specified in 40 CFR 60.72(a).]	See b)(2)b., b)(2)d. and b)(2)e.
d.	40 CFR, Part 60, Subpart A	See 40 CFR 60.1 through 60.19
e.	ORC 3704.03(F) and OAC rule 3745-114-01	See d)(6) through d)(9) and e)(7)

(2) Additional Terms and Conditions

a. The federally enforceable emission limitations in b)(1)a. were established for the purpose of limiting PTE to avoid Prevention of Significant Deterioration (PSD)

requirements. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1).

It should be noted that the federally enforceable emission limitation is based on the use of use of an EnviNO_X control system that achieves an emission rate of 1.40 lbs of NOx/ton of acid (100% nitric acid) produced except during periods of startup and shutdown.

b. The permittee shall not discharge into the atmosphere, except during startup and shutdown, any gases which:

i. Contain NOx, expressed as NO2, in excess of 3.0 lb per ton of acid produced, the production being expressed as 100% nitric acid; and

ii. Exhibit 10% opacity or greater.

c. The requirements of this rule also include compliance with the requirements of 40 CFR, Part 60, Subpart G.

d. The lb NOx/ton of acid produced limitation specified by 40 CFR, Part 60, Subpart G is less stringent than the lb NOx/ton of acid produced limitation established pursuant to OAC rule 3745-31-05(A)(3) and ORC 3704.03(T). 40 CFR, Part 60, Subpart G requires a specific method for demonstrating compliance without any option of an alternative compliance method. This permit requires the use of a different method resulting in greater accuracy (as compared to the requirements of 40 CFR, Part 60, Subpart G) for demonstrating compliance with the lb NOx/ton of acid produced limitation established by OAC rule 3745-31-05(A)(3) and ORC 3704.03(T). Due to the necessity for greater accuracy to demonstrate compliance with the limitation established by OAC rule 3745-31-05(A)(3) and ORC 3704.03(T) and the lack of an alternative compliance option in 40 CFR, Part 60, Subpart G, the establishment of two separate lbs NOx/ton of acid produced limitations is necessary.

e. The permittee shall submit a plan for quantifying NOx emissions during times of startup* and shutdown* when emissions exceed the capability of the NOx monitoring system (i.e., the NOx concentration exceeds the span range, etc.). The plan shall be submitted for review to the Ohio EPA, Northwest District Office within 60 days of final issuance of PTI #P0130377 and shall be implemented [as specified in d)(3)] immediately upon approval.

*A startup consists of all periods of time when the reactor gauze temperature is below a minimum operating temperature of 1,690 degrees Fahrenheit while bringing the unit online. A shutdown consists of all periods of time when the reactor gauze temperature is below a minimum operating temperature of 1,200 degrees Fahrenheit while bringing the unit offline.

Note: PTI #P0131858 is an administrative modification to PTI #P0130337, issued August 26, 2021. As such, the permittee has fulfilled these requirements by submitting a "Plan for Quantification of NOx Emissions During Startup and Shutdown" on March 24, 2022.

f. The permittee shall comply with applicable emission limitations/control measures, operational restrictions, monitoring and record keeping requirements, reporting requirements, testing requirements, and additional term and condition requirements in Section B of PTI #P0131858, issued 5/12/22 until the emissions unit commences operation under the modification authorized by PTI #P0131858, issued 5/12/22,

Section C.1 as incorporated in this Title V permit. The requirements of Section B, PTI #P0131858 shall cease to be enforceable after commencing operation under the terms specified in Section C.1. of said PTI, as incorporated into this Title V permit.

c) Operational Restrictions

(1) Emissions from normal operations and from startups and shutdowns are limited by the following, as a rolling, 365-day summation:

$$\sum_{M=1}^{365}\sum_{n} NOx_n \leq 92.36\ tons$$

where:

M = the increment of the rolling, 365-day period;

n = type of operation (i.e., normal and startups and shutdowns) during the period; and

NOx_n = calculated emissions of nitrogen oxides in tons.

[OAC rule 3745-77-07(A)(1) and PTI #P0131858]

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall perform the following monitoring and record keeping requirements contained in 40 CFR, Part 60, Subpart G for purposes of demonstrating compliance with the 3.0 lb NOx per ton of acid produced limitation:

a. The permittee shall operate and maintain a continuous monitoring system (CEMS) for measuring NOx. The pollutant gas mixtures under Performance Specification 2 and for calibration checks under 40 CFR 60.13(d) of this part shall be nitrogen dioxide (NO2). The span value shall be 500 ppm of NO2. Method 7 shall be used for the performance evaluations under 40 CFR 60.13(c). Acceptable alternative methods to Method 7 are given in 40 CFR 60.74(c). [40 CFR 60.73(a)]

b. The permittee shall establish a conversion factor for the purpose of converting monitoring data into units of applicable standard (kg/metric ton, lb/ton). The conversion factor shall be established by measuring emissions with the continuous monitoring system concurrent with measuring emissions with the applicable reference method tests. Using only that portion of the continuous monitoring emission data that represents emission measurements concurrent with the reference method test periods, the conversion factor shall be determined by dividing the reference method test data averages by the monitoring data averages to obtain a ratio expressed in units of the applicable standard to units of the monitoring data, i.e., kg/metric ton per ppm (lb/ton per ppm). The conversion factor shall be re-established during any performance test under 40 CFR 60.8 or any continuous monitoring system performance evaluation under 40 CFR 60.13(c). [40 CFR 60.73(b)]

c. The permittee shall record the daily production rate and the hours of operation. [40 CFR 60.73(c)]

It should be noted that the permittee has an existing certified CEMS. The existing certified CEMS will be used after the installation of the N2O reduction project, as permitted in administrative modification PTI #P0131858. However, the calibration curve in the CEMS will be reviewed. If the points on the calibration curve are adjusted, the permittee is required to

recertify the existing CEMS in order to demonstrate the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2 are still being met.

[OAC rule 3745-77-07(C)(1), 40 CFR, Part 60, Subpart G and PTI #P0131858]

(2) The permittee shall perform the following monitoring and recordkeeping requirements for purposes of quantifying NOx emissions which will be used in demonstrating ongoing compliance with the 1.40 lb NOx per ton of acid (100% nitric acid) produced limitation and the emission limitation of 92.36 tons NOx per rolling 365-day period:

a. The permittee shall operate and maintain equipment to continuously monitor and record NOx from this emissions unit in appropriate units (lbs/ton and tons per rolling, 365-day period) to be used to demonstrate compliance with the NOx limitations presented above. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

b. The permittee shall maintain records of all data obtained by the continuous NOx monitoring system including, but not limited to, parts per million NOx on an instantaneous (one-minute) basis, emissions of NOx in appropriate units and averaging period, results of daily zero/span calibration checks, and the magnitude of manual calibration adjustments.

c. The permittee shall maintain a written quality assurance/quality control plan for the continuous NOx monitoring system designed to ensure continuous valid and representative readings of NOx. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous NOx monitoring system must be kept on site and available for inspection during regular office hours.

d. A statement of certification of the existing continuous NOx monitoring system shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR, Part 60, Appendix B, Performance Specification 2 and/or 40 CFR, Part 75. Proof of certification shall be made available to the Director (the Ohio EPA, Northwest District Office) upon request.

In lieu of installing a continuous emissions monitoring system (CEM) for NOx (to demonstrate compliance with the NOx limitations of 1.40 lbs per ton of acid produced and 92.36 tons per rolling, 365-day period), the permittee may elect to install a predictive emission monitoring system (PEMS) for quantifying NOx emissions. The PEMS must meet 'Example Specifications and Test Procedures for Predictive Emission Monitoring Systems' as written by the United States Environmental Protection Agency, and the proposed system shall be approved in writing by Ohio EPA prior to installation. At such time that a performance specification for PEMS is promulgated, the PEMS shall be required to meet the promulgated requirements.

After initial testing to assure the PEMS meets the 'Example Specifications and Test Procedures for Predictive Emission Monitoring Systems', or when available, the promulgated performance specification, ongoing quality assurance/quality control shall include a relative accuracy test audit (RATA) once every four (or less) calendar quarters. RATA requirements are in addition to any and all PEMS manufacturer-

suggested quality assurance/quality control procedures. RATA requirements shall include multi-load, multi-fuel (when applicable) testing. RATA testing shall be completed using the appropriate 40 CFR 60, Appendix A test methods (Methods 7E, 3A and 1-4 as necessary). RATA testing protocol shall be submitted to the Director (the Ohio EPA, Central Office) for approval prior to installation of the PEMS.

e. The permittee shall calculate and record the following information for purposes of determining compliance with the 1.40 lb of NOx per ton of acid produced:

The emission rate (E) of NOx shall be computed using the following equation:

$E = (Q_{NOx})/P$

where

E = emission rate of NOx as NO2, lb/ton of 100% nitric acid

Q_{NOx} = NOx emissions quantified by CEM/PEM, lbs/day

P = acid production rate, ton/day for 100% nitric acid

f. The permittee shall follow the plan for quantifying NOx emissions during all times of startup and shutdown.

[OAC rule 3745-77-07(C)(1), 40 CFR, Part 60, Subpart G and PTI #P0131858]

(3) The permittee shall maintain daily records of the following information for this emissions unit:

a. The total NOx emissions, in lbs/day, as quantified by the CEM/PEM [See d)(2)a.].

b. The total NOx emissions, in lbs/day, from startup and shutdown events during which emissions exceed the capability of the NOx monitoring system. The NOx emissions shall be determined in accordance with the requirement contained in b)(2)e.

c. The total NOx emission rate, in lbs/day, [summation of d)(3)a. and d)(3)b.]

d. The rolling, 365-day NOx emission rate, in tons.

[OAC rule 3745-77-07(C)(1) and PTI #P0131858]

(4) The permittee shall perform daily checks when the emissions unit is in operation and when the weather conditions allow for any visible particulate emissions from the stack serving the emissions unit.

a. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

b. The color of the emissions;

c. Whether the emissions are representative of normal emissions;

d. If the emissions are not representative of normal emissions, the cause of the abnormal emissions;

e. The total duration of any visible emissions incident; and

f. Any corrective actions taken to eliminate the visible emissions.

[OAC rule 3745-77-07(C)(1) and PTI #P0131858]

(5) The permittee shall maintain monthly records of the CO emissions from this emissions unit; and at the end of 12 months of operation, the rolling 12-month summation of CO emissions and the average calculated over each rolling 12-month period.

Note: The above records shall be determined in accordance with the emissions calculations presented to the Ohio EPA in PTI Application No. A0069130 submitted by the permittee on June 2, 2021.

[OAC rule 3745-77-07(C)(1) and PTI #P0131858]

(6) The PTI application for this emissions unit, P570, was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this emissions unit for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as AERSCREEN, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

a. The exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour work-day and 40-hour work week, for each toxic compound emitted from the emissions unit, has been documented from one of the following sources and in the following order of preference (TLV was and shall be used if the chemical is listed):

i. TLV (threshold limit value) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or

ii. STEL (short term exposure limit) or the ceiling value from the ACGIH's "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard is then adjusted to account for the duration of the exposure or the operating hours of the emissions unit, i.e., "X" hours per day and "Y" hours per week, from that of 8 hours per day and 5 days per week. The resulting calculation was used to determine the MAGLC:

$$TLV/10 \times 8/X \times 5/Y = 4\,TLV/XY = MAGLC$$

d. The following summarizes the results of dispersion modeling for the increase in significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminants:

Toxic Contaminant: Ammonia

TLV (mg/m3): 17.41 (From ACGIH's "2021 TLVs and BEIs" Book)

Maximum Hourly Emission Rate (lbs/hr)*: 0.2732

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.525

MAGLC (ug/m3): 414.60

*This is an existing emissions unit. As such, the Maximum Hourly Emission Rate is the increase (change) in hourly emissions that occurred from the existing emissions unit to the changes being addressed through this permitting action (PTI #P0130377).

The permittee has demonstrated that emissions of ammonia, from emissions unit P570, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

[PTI #P0131858]

(7) Prior to making any physical changes to or changes in the method of operation of the emissions unit, that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

a. Changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;

b. Changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and

c. Physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[PTI #P0131858]

(8) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

a. A description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

b. The Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);

c. A copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

d. The documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

[PTI #P0131858]

(9) The permittee shall maintain a record of any change made to a parameter or value in the dispersion model used to demonstrate compliance with the "Toxic Air Contaminant Statute" through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason for the change, and a determination of whether the change would increase the ground-level determination.

[PTI #P0131858]

e) Reporting Requirements

(1) For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as any 3-hour period during which the average nitrogen oxide emissions (arithmetic average of three contiguous 1-hour periods), as measured by a continuous monitoring system, exceed the standard under 40 CFR 60.72(a). [40 CFR 60.73(e)]

[OAC rule 3745-77-07(C)(1); 40 CFR, Part 60, Subpart G; and PTI #P0131858]

(2) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its two separate continuous NO_x monitoring systems [CEM for 3.0 lbs NOx/ton of acid, CEM/PEM for 1.40 lbs NOx/ton of acid and 92.36 tons NOx per rolling 365-day period [see d)(1) and d)(2)]:

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the

requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Northwest District Office, documenting all instances of NO_x emissions in excess of any applicable limit specified in this permit and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

b. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous NOx and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;

v. the total NOx emissions for the calendar quarter (tons);

vi. the total operating time (hours) of the emissions unit;

vii. the total operating time of the continuous NOx monitoring system while the emissions unit was in operation;

viii. results and date of quarterly cylinder gas audits;

ix. unless previously submitted, results and date of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));

x. unless previously submitted, the results of any relative accuracy test audit showing the continuous NOx monitor out-of-control and the compliant results following any corrective actions;

xi. the date, time, and duration of any/each malfunction** of the continuous NOx monitoring system, emissions unit, and/or control equipment;

xii. the date, time, and duration of any downtime** of the continuous NOx monitoring system and/or control equipment while the emissions unit was in operation; and

xiii. the reason (if known) and the corrective actions taken (if any) for each event in e)(2)b.xi. and e)(2)b.x.ii..

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

*Where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report.

**Each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit.

[OAC rule 3745-77-07(C)(1); 40 CFR, Part 60, Subpart A; and PTI #P0131858]

(3) The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the abnormal visible particulate emissions. These reports shall be submitted to the Ohio EPA, Northwest District Office by January 31 and July 31 of each year and shall cover the previous 6-month period.

[OAC rule 3745-77-07(C)(1) and PTI #P0131858]

(4) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling 12-month CO emission limitation.

These reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[OAC rule 3745-77-07(C)(1) and PTI #P0131858]

(5) Within 30 days of the manufacturer reviewing the CEMS calibration curve, the permittee shall notify the Ohio EPA whether the CEMS needs to be recertified. If the CEMS does not need to be recertified, the notification shall include a statement to such effect and give a brief description of any maintenance performed on the CEMS by the manufacturer.

[OAC rule 3745-77-07(C)(1) and PTI #P0131858]

(6) The permittee shall submit quarterly deviation reports that identify all times when the plan for quantifying NOx emissions during startup and shutdown was not followed.

These reports shall be submitted in accordance with the Standard Terms and Conditions of this permit.

[OAC rule 3745-77-07(C)(1) and PTI #P0131858]

(7) The permittee shall submit annual reports that include any changes to any parameter or value used in the dispersion model used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1 hour maximum concentration. The report should include:

a. The original model input;

b. The updated model input;

c. The reason for the change(s) to the input parameter(s); and

d. A summary of the results of the updated modeling, including the input changes; and

e. A statement that the model results indicate that the 1-hour maximum ground-level concentration is less than 80% of the MAGLC.

If no changes to the emissions, emissions unit(s), or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

[PTI #P0131858]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitation

1.40 lbs of NOx/ton of acid produced (100% nitric acid), except during periods of startup and shutdown

Applicable Compliance Method

Compliance with the NOx emission limitation shall be based on the results of emission testing conducted in accordance with the testing requirements specified in f)(2) below.

[OAC rule 3745-77-07(C)(1) and PTI #P0131858]

b. Emissions Limitation

3.0 lbs of NOx/ton of acid produced (100% nitric acid), except during periods of startup and shutdown

Applicable Compliance Method

Compliance with the NOx emission limitation shall be based on the results of emission testing conducted in accordance the testing requirements specified in f)(2) below.

[OAC rule 3745-77-07(C)(1) and PTI #P0131858]

c. Emissions Limitation

92.36 tons of NOx per rolling, 365-day period (including emissions from startup and shutdown)

Applicable Compliance Method

Compliance with the NOx emission limitation shall be based on the monitoring and record keeping in d)(3).

[OAC rule 3745-77-07(C)(1) and PTI #P0131858]

d. Emissions Limitation

The permittee shall not discharge into the atmosphere, except during periods of startup and shutdown, any gases which exhibit 10% opacity or greater.

Applicable Compliance Method

If required, compliance with the opacity limitation shall be based on the results of emission testing conducted in accordance with Method 9 of 40 CFR, Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI #P0131858]

e. Emissions Limitation

3.885 tons CO per month averaged over a rolling, 12-month period (including emissions from startups and shutdowns)

Applicable Compliance Method

Compliance with the ton per month averaged over a 12-month rolling period shall be determined in accordance with the record keeping requirements established in d)(5) above.

[OAC rule 3745-77-07(C)(1) and PTI #P0131858]

(2) The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within the first wintertime period of January 1st to March 31st (for purposes of achieving maximum acid production) after startup of the modified equipment.

b. The emissions testing shall be conducted to demonstrate compliance with the following limitations:

i. 1.40 lbs of NOx/ton of acid produced (100% nitric acid); and

ii. 3.0 lbs of NOx/ton of acid produced (100% nitric acid).

c. The following test methods shall be employed to demonstrate compliance with the allowable emission rates:

i. For NOx: Methods 1 – 4 and 7 of 40 CFR Part 60, Appendix A.

d. The permittee shall determine compliance with the lbs of NOx per ton of acid produced limitations as follows:

i. The emission rate (E) of NOx shall be computed for each run using the following equation:

E = (Cs x Qsd)/P

where

E = emission rate of NOx as NO2, lb/ton of 100% nitric acid

Cs = concentration of NOx as NO2, lb/dscf

Qsd = volumetric flow rate of effluent gas, dscf/hr

P = acid production rate, ton/hr for 100% nitric acid

ii. Method 7 shall be used to determine the NOx concentration of each grab sample. Method 1 shall be used to select sampling site, and the sampling point shall be the centroid of the stack or duct or at a point no closer to the wall than 1 m (3.28 ft). Four grab samples shall be taken at approximately 15-minute intervals. The arithmetic mean of the four sample concentrations shall constitute the run value (Cs).

iii. Method 2 shall be used to determine the volumetric flow rate (Qsd of the effluent gas). The measurement site shall be the same as for the NOx samples taken.

iv. The methods of 40 CFR 60.73(c) shall be used to determine the production rate (P) of the nitric acid for each run. Material balance over the production system shall be used to confirm the production rate.

e. The permittee may use the following as alternatives to the reference methods and procedures specified in this section:

i. For Method 7, Method 7A, 7B, 7C, 7D, or 7E may be used. If Method 7C is used, the sampling time shall be at least 1 hour.

ii. The permittee shall use the procedures in 40 CFR 60.73(b) to determine the conversion factor for converting the monitoring data to the units of the standard.

Alternative U.S EPA-approved test methods may be used with prior approval from Ohio EPA.

f. During the emission testing, the emissions unit shall be operated under operational conditions approved in advance by the appropriate Ohio EPA District Office or local air agency. Operational conditions that may need to be approved include, but are not limited to, the production rate, the type of material processed, material make-up (solvent content, etc.), or control equipment operational limitations (burner temperature, precipitator voltage, etc.). In general, testing shall be done under "worst case" conditions expected during the life of the permit. As part of the information provided in the "Intent to Test" notification form described below, the permittee shall provide a description of the emissions unit operational conditions they will meet during the emissions testing and describe why they believe "worst case" operating conditions will be met. Prior to conducting the test(s), the permittee shall confirm with the appropriate Ohio EPA District Office or local air agency that the proposed operating conditions constitute "worst case". Failure to test under the approved conditions may result in Ohio EPA not accepting the test results as a demonstration of compliance.

g. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northwest District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s) and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Northwest District Office's refusal to accept the results of the emissions test(s).

h. Personnel from the Ohio EPA, Northwest District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information

necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

i. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northwest District Office within 30 days following the completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Northwest District Office.

[OAC rule 3745-77-07(C)(1) and PTI #P0131858]

g) Miscellaneous Requirements

(1) This emissions unit is subject to the applicable provisions of Subpart G of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR, Part 60.

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR, Part 60 are also federally enforceable.

It should be noted that the permittee fulfilled the reporting requirements pursuant to 40 CFR, Part 60.7 during the permitting process that resulted in the issuance of PTI #03-05319 on 07/17/91.

22. P572, #2 Cooling Tower - NH3 & Demin

Operations, Property and/or Equipment Description:

#2 Cooling Tower - Ammonia (NH3) and Demineralization Units with drift eliminator

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) [PTI #P0118384, issued 3/11/2015]	2.97 lbs PM10/hr; 13.03 tons PM10/yr See b)(2)a.
b.	ORC 3704.03(T) [Best Available Technology (BAT) for pollutants greater than 10 tons per year] [PTI #P0118384, issued 3/11/2015]	See b)(2)b.
c.	OAC rule 3745-17-11(B)	See b)(2)c.
d.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a six-minute average, except as provided by the rule.
e.	40 CFR, Part 64 - Compliance Assurance Monitoring (CAM)	See c)(1), d)(1) through d)(4) and e)(1).

(2) Additional Terms and Conditions

a. The federally enforceable emission limitations in b)(1)a. were established for the purpose of limiting PTE to avoid Prevention of Significant Deterioration (PSD) requirements. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1).

b. The Best Available Technology (BAT) requirements established pursuant to ORC rule 3704.03(T) has been determined to be the installation of a high efficiency drift eliminator designed to meet an outlet drift factor of 0.0012 gallons drift per 100-gallons circulating water flow for PM10.

c. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D).

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing legally and practically enforceable requirements which limit PTE [See b)(2)a.]:

a. The permittee shall not exceed a total dissolved solids (TDS) content of 6,000 mg/l in the cooling water for this emissions unit.

b. The use of a high efficiency drift eliminator capable of achieving an outlet drift factor of 0.0012 gallons drift per 100-gallons circulating water flow for PM10.

[OAC rule 3745-77-07(A)(1), PTI #P0118384 and 40 CFR, Part 64]

d) Monitoring and/or Recordkeeping Requirements

(1) A CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicator for the drift eliminator controlling this emissions unit is a daily TDS (via conductivity) test. The emissions unit and control equipment shall be operated in accordance with the approved CAM Plan, or any approved revision of the Plan. The drift eliminator shall not be configured to have bypass capability.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(2) Each day the permittee shall collect and record the following information for this emissions unit:

a. The permittee shall test and record the TDS content, in ppm or mg/l, of the cooling water at least once per day using a conductivity meter or other U.S. EPA-approved test procedures or an equivalent method approved by the Ohio EPA, Northwest District Office.

b. Whenever the monitored values for the drift eliminator exceed the TDS content specified in section c)(1)a., the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

i. the date and time the deviation began and the magnitude of the deviation at that time;

ii. the date(s) the investigation was conducted;

iii. the names of the personnel who conducted the investigation; and

iv. the findings and recommendations.

Records of these inspections shall be kept in accordance with the Standard Terms and Conditions of this permit.

c. In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable ranges specified in section c)(1)a. unless the permittee determines that corrective action is not necessary.

i. The permittee shall maintain records of the following information for each deviation when it was determined that corrective action was not necessary:

(a) the reason corrective action was not necessary; and

(b) the date and time the deviation ended.

ii. The permittee shall maintain records of the following information for each corrective action taken:

(a) a description of the corrective action;

(b) the date it was completed;

(c) the date and time the deviation ended;

(d) the total period of time (in minutes) during which there was a deviation;

(e) the TDS content immediately after the corrective action; and

(f) the names of the personnel who performed the work.

iii. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

[OAC rule 3745-77-07(C)(1), PTI #P0118384 and 40 CFR, Part 64]

(3) TDS content shall be re-verified as a result of any changes to the operating conditions of the drift eliminator or emissions unit. In addition to periodic monitoring of TDS content, the permittee also has an inspection and maintenance program for the drift eliminator. Based on the results of the monitoring and inspection program, repairs to the drift eliminator shall be made as needed. If the current indicators are considered inadequate, the permittee will develop a Quality Improvement Plan.

At all times, the permittee shall maintain the inventory, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(4) If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance, the permittee shall promptly notify the Ohio EPA, Northwest District Office, and if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, re-establishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(5) Each month, the permittee shall calculate and record PM10 emissions, in lbs per hr as a monthly average. The PM10 shall be calculated as follows:

[(82,500 gallons/minute) x (ppm TDS) x (0.00005) x (60 min/hr) x (0.0584) x (0.24)] / (7,000 grains/lb) = PM10, in lbs/hr

Where:

82,500 gallons/minute = the maximum water flow rate;

ppm TDS = the TDS level, on a monthly average basis, based on the daily measurements taken, as required by d)(2)a. above;

0.00005 = the maximum drift loss factor;

60 min/hr = conversion factor for minutes to hours;

0.0584 = conversion factor for ppm to grains/gallon;

0.24 = PM10 emissions are 24% of the total PM emissions, per figure 1 of "Calculating Realistic PM10 emissions from Cooling Towers" (Abstract No. 216, Session No. AM-1b, Joel Reisman and Gordon Frisbie, Greystone Environmental Consultants, Inc., 04/11/2002); and

7,000 gr/lb = conversion factor for grains to pounds.

[OAC rule 3745-77-07(C)(1) and PTI #P0118384]

(6) Each month, the permittee shall use the information in d)(5) to calculate the cumulative PM10 to date, for the calendar year from January to December.

[OAC rule 3745-77-07(C)(1) and PTI #P0118384]

(7) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install (PTI) P0118384, issued on 3/11/15: d)(2) and d)(5). The monitoring and record keeping requirements contained in the above-referenced PTI are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the PTI.

[OAC rule 3745-77-07(A)(3)(a)(ii)]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. any exceedances of the TDS content restriction of 6,000 mg/l;

b. an identification of each incident of deviation described in e)(1)a. above where a prompt investigation was not conducted;

c. an identification of each incident of deviation described in e)(1)a. above where prompt corrective action, that would bring the TDS content into compliance with the acceptable range, was determined to be necessary and was not taken; and

d. an identification of each incident of deviation described in e)(1)a. above where proper records were not maintained for the investigation and/or the corrective action.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[OAC rule 3745-77-07(C)(1), PTI #P0118384 and 40 CFR, Part 64]

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emissions Limitation</u>

2.97 lbs PM10/hr

Applicable Compliance Method

Compliance with the hourly emission limitation shall be demonstrated by the monitoring and record keeping requirements specified in sections d)(2) and d)(5).

[OAC rule 3745-77-07(C)(1) and PTI #P0118384]

b. Emissions Limitation

13.03 tons PM10/yr

Applicable Compliance Method

Compliance with the annual emission limitation shall be demonstrated by the monitoring and record keeping requirements specified in sections d)(6).

[OAC rule 3745-77-07(C)(1) and PTI #P0118384]

Emissions Limitation

Visible PE shall not exceed 20% opacity, as six-minute average, except as provided by rule.

Applicable Compliance Method

If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(1).

[OAC rule 3745-77-07(C)(1) and PTI #P0118384]

c. Emissions Limitation

Install a high efficiency drift eliminator designed to meet an outlet drift factor of 0.0012 gallons drift per 100-gallons circulating water flow for PM10.

Applicable Compliance Methods

The outlet drift factor emission limitation was established based on the emissions factors provided by the permittee in permit application #A0052632.

[OAC rule 3745-77-07(C)(1) and PTI #P0118384]

g) Miscellaneous Requirements

(1) None.

23. P573, #3 Cooling Tower – NA

Operations, Property and/or Equipment Description:

#3 Cooling Tower - Nitric Acid Unit with Drift Eliminator

a) The following emissions unit terms and conditions are federally enforceable with the exception those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) [PTI #P0117040, issued 9/30/2014]	0.07 lb of particulate matter less than or equal to 10 microns in size (PM10)/hr 0.29 ton of PM10/yr See b)(2)a.
b.	OAC rule 3745-17-11(B)	See b)(2)b.
c.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a six-minute average, except as provided by the rule.
d.	40 CFR, Part 64 - Compliance Assurance Monitoring (CAM)	See c)(1)a., d)(1) through d)(4) and e)(1).

(2) Additional Terms and Conditions

a. The federally enforceable emission limitations in b)(1)a. were established for the purpose of limiting PTE to avoid Prevention of Significant Deterioration (PSD) requirements. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1).

b. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D).

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing legally and practically enforceable requirements which limit PTE [See b)(2)a.]:

a. The permittee shall not exceed a total dissolved solids (TDS) content of 6,000 mg/l in the cooling water for this emissions unit.

b. The use of a high efficiency drift eliminator capable of achieving an outlet drift factor of 0.00024 gallons drift per 100-gallons circulating water flow for PM10.

[OAC rule 3745-77-07(A)(1), PTI #P0117040 and 40 CFR, Part 64]

d) Monitoring and/or Recordkeeping Requirements

(1) A CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicator for the drift eliminator controlling this emissions unit is a daily TDS (via conductivity) test. The emissions unit and control equipment shall be operated in accordance with the approved CAM Plan, or any approved revision of the Plan. The drift eliminator shall not be configured to have bypass capability.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(2) Each day the permittee shall collect and record the following information for this emissions unit:

a. The permittee shall test and record the TDS content, in ppm or mg/l, of the cooling water at least once per day using a conductivity meter or other U.S. EPA-approved test procedures or an equivalent method approved by the Ohio EPA, Northwest District Office.

b. Whenever the monitored values for the drift eliminator exceed the TDS content specified in section c)(1)a., the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

i. the date and time the deviation began and the magnitude of the deviation at that time;

ii. the date(s) the investigation was conducted;

iii. the names of the personnel who conducted the investigation; and

iv. the findings and recommendations.

Records of these inspections shall be kept in accordance with the Standard Terms and Conditions of this permit.

c. In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable ranges specified in section c)(1)a. unless the permittee determines that corrective action is not necessary.

i. The permittee shall maintain records of the following information for each deviation when it was determined that corrective action was not necessary:

(a) the reason corrective action was not necessary; and

(b) the date and time the deviation ended.

ii. The permittee shall maintain records of the following information for each corrective action taken:

(a) a description of the corrective action;

(b) the date it was completed;

(c) the date and time the deviation ended;

(d) the total period of time (in minutes) during which there was a deviation;

(e) the TDS content immediately after the corrective action; and

(f) the names of the personnel who performed the work.

iii. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

[OAC rule 3745-77-07(C)(1), PTI #P0117040 and 40 CFR, Part 64]

(3) TDS content shall be re-verified as a result of any changes to the operating conditions of the drift eliminator or emissions unit. In addition to periodic monitoring of TDS content, the permittee also has an inspection and maintenance program for the drift eliminator. Based on the results of the monitoring and inspection program, repairs to the drift eliminator shall be made as needed. If the current indicators are considered inadequate, the permittee will develop a Quality Improvement Plan.

At all times, the permittee shall maintain the inventory, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(4) If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance, the permittee shall promptly notify the Ohio EPA, Northwest District Office, and if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, re-establishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(5) Each month, the permittee shall calculate and record PM10 emissions, in lbs per hr as a monthly average. The PM10 shall be calculated as follows:

[(9,200 gallons/minute) x (ppm TDS) x (0.00001) x (60 min/hr) x (0.0584) x (0.24)] / (7,000 grains/lb) = PM10, in lbs/hr

Where:

9,200 gallons/minute = the maximum water flow rate;

ppm TDS = the TDS level, on a monthly average basis, based on the daily measurements taken, as required by d)(2)a. above;

0.00001 = the maximum drift loss factor;

60 min/hr = conversion factor for minutes to hours;

0.0584 = conversion factor for ppm to grains/gallon;

0.24 = PM10 emissions are 24% of the total PM emissions, per figure 1 of "Calculating Realistic PM10 emissions from Cooling Towers" (Abstract No. 216, Session No. AM-1b, Joel Reisman and Gordon Frisbie, Greystone Environmental Consultants, Inc., 04/11/2002); and

7,000 gr/lb = conversion factor for grains to pounds.

[OAC rule 3745-77-07(C)(1) and PTI #P0117040]

(6) Each month, the permittee shall use the information in d)(5) to calculate the cumulative PM10 to date, for the calendar year from January to December.

[OAC rule 3745-77-07(C)(1) and PTI #P0117040]

(7) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install (PTI) P0117040, issued on 9/30/14: d)(2) and d)(5). The monitoring and record keeping requirements contained in the above-referenced PTI are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the PTI.

[OAC rule 3745-77-07(A)(3)(a)(ii)]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. Any exceedances of the TDS content restriction of 6,000 mg/l;

b. an identification of each incident of deviation described in e)(1)a. above where a prompt investigation was not conducted;

c. an identification of each incident of deviation described in e)(1)a. above where prompt corrective action, that would bring the TDS content into compliance with the acceptable range, was determined to be necessary and was not taken; and

d. an identification of each incident of deviation described in e)(1)a. above where proper records were not maintained for the investigation and/or the corrective action.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[OAC rule 3745-77-07(C)(1), PTI #P0117040 and 40 CFR, Part 64

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emissions Limitation</u>

0.07 lb of PM10/hr

<u>Applicable Compliance Method</u>

Compliance with the hourly emission limitation shall be demonstrated by the monitoring and record keeping requirements specified in sections d)(2) and d)(5).

[OAC rule 3745-77-07(C)(1) and PTI #P0117040]

b. <u>Emissions Limitation</u>

0.29 ton of PM10/yr

Applicable Compliance Method

Compliance with the annual emission limitation shall be demonstrated by the monitoring and record keeping requirements specified in sections d)(6).

[OAC rule 3745-77-07(C)(1) and PTI #P0117040]

c. Emissions Limitation

Visible PE shall not exceed 20% opacity, as six-minute average, except as provided by rule.

Applicable Compliance Method

If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(1).

[OAC rule 3745-77-07(C)(1) and PTI #P0117040]

g) Miscellaneous Requirements

(1) None.

24. P577, #4 Cooling Tower – Urea Unit

Operations, Property and/or Equipment Description:

#4 Cooling Tower – Urea Unit, with Drift Eliminator

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) [PTI #P0110310, issued 8/8/2012]	0.32 lb of particulate matter less than or equal to 10 microns in size (PM10)/hr 1.42 tons of PM10/yr See b)(2)a.
b.	OAC rule 3745-17-11(B)	See b)(2)b.
c.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) shall not exceed 20% opacity, as a six-minute average, except as provided by the rule.
d.	40 CFR, Part 64 - Compliance Assurance Monitoring (CAM)	See c)(1)a., d)(1) through d)(4) and e)(1).

(1) Additional Terms and Conditions

a. The federally enforceable emission limitations in b)(1)a. were established for the purpose of limiting PTE to avoid Prevention of Significant Deterioration (PSD) requirements. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1).

b. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(D).

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing legally and practically enforceable requirements which limit PTE [See b)(2)a.]:

a. The permittee shall not exceed a total dissolved solids (TDS) content of 6,000 mg/l in the cooling water for this emissions unit.

b. The use of a high efficiency drift eliminator capable of achieving an outlet drift factor of 0.00024 gallons drift per 100-gallons circulating water flow for PM10.

[OAC rule 3745-77-07(A)(1), PTI #P0110310 and 40 CFR, Part 64]

d) Monitoring and/or Recordkeeping Requirements

(1) A CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicator for the drift eliminator controlling this emissions unit is a daily TDS (via conductivity) test. The emissions unit and control equipment shall be operated in accordance with the approved CAM Plan, or any approved revision of the Plan. The drift eliminator shall not be configured to have bypass capability.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(2) Each day the permittee shall collect and record the following information for this emissions unit:

a. The permittee shall test and record the TDS content, in ppm or mg/l, of the cooling water at least once per day using a conductivity meter or other U.S. EPA-approved test procedures or an equivalent method approved by the Ohio EPA, Northwest District Office.

b. Whenever the monitored values for the drift eliminator exceed the TDS content specified in section c)(1)a., the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

i. the date and time the deviation began and the magnitude of the deviation at that time;

ii. the date(s) the investigation was conducted;

iii. the names of the personnel who conducted the investigation; and

iv. the findings and recommendations.

Records of these inspections shall be kept in accordance with the Standard Terms and Conditions of this permit.

c. In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable ranges specified in section c)(1)a. unless the permittee determines that corrective action is not necessary.

i. The permittee shall maintain records of the following information for each deviation when it was determined that corrective action was not necessary:

(a) the reason corrective action was not necessary; and

(b) the date and time the deviation ended.

ii. The permittee shall maintain records of the following information for each corrective action taken:

(a) a description of the corrective action;

(b) the date it was completed;

(c) the date and time the deviation ended;

(d) the total period of time (in minutes) during which there was a deviation;

(e) the TDS content immediately after the corrective action; and

(f) the names of the personnel who performed the work.

iii. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

[OAC rule 3745-77-07(C)(1), PTI #P0110310 and 40 CFR, Part 64]

(3) TDS content shall be re-verified as a result of any changes to the operating conditions of the drift eliminator or emissions unit. In addition to periodic monitoring of TDS content, the permittee also has an inspection and maintenance program for the drift eliminator. Based on the results of the monitoring and inspection program, repairs to the drift eliminator shall be made as needed. If the current indicators are considered inadequate, the permittee will develop a Quality Improvement Plan.

At all times, the permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(4) If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance, the permittee shall promptly notify the Ohio EPA, Northwest District Office, and if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, re-establishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(5) Each month, the permittee shall calculate and record PM10 emissions, in lbs per hr as a monthly average. The PM10 shall be calculated as follows:

[(45,000 gallons/minute) x (ppm TDS) x (0.00001) x (60 min/hr) x (0.0584) x (0.24)] / (7,000 grains/lb) = PM10, in lbs/hr

Where:

45,000 gallons/minute = the maximum water flow rate;

ppm TDS = the TDS level, on a monthly average basis, based on the daily measurements taken, as required by d)(2)a. above;

0.00001 = the maximum drift loss factor;

60 min/hr = conversion factor for minutes to hours;

0.0584 = conversion factor for ppm to grains/gallon;

0.24 = PM10 emissions are 24% of the total PM emissions, per figure 1 of "Calculating Realistic PM10 emissions from Cooling Towers" (Abstract No. 216, Session No. AM-1b, Joel Reisman and Gordon Frisbie, Greystone Environmental Consultants, Inc., 04/11/2002); and

7,000 gr/lb = conversion factor for grains to pounds.

[OAC rule 3745-77-07(C)(1) and PTI #P0110310]

(6) Each month, the permittee shall use the information in d)(5) to calculate the cumulative PM10 to date, for the calendar year from January to December.

[OAC rule 3745-77-07(C)(1) and PTI #P0110310]

(7) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install (PTI) P0110310, issued on 8/8/12: d)(2) and d)(5). The monitoring and record keeping requirements contained in the above-referenced PTI are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the PTI.

[OAC rule 3745-77-07(A)(3)(a)(ii)]

e) Reporting Requirements

(1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

Any exceedances of the TDS content restriction of 6,000 mg/l;

a. an identification of each incident of deviation described in e)(1)a. above where a prompt investigation was not conducted;

b. an identification of each incident of deviation described in e)(1)a. above where prompt corrective action, that would bring the TDS content into compliance with the acceptable range, was determined to be necessary and was not taken; and

c. an identification of each incident of deviation described in e)(1)a. above where proper records were not maintained for the investigation and/or the corrective action.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

[OAC rule 3745-77-07(C)(1), PTI #P0110310 and 40 CFR, Part 64]

f) Testing Requirements

(1) Compliance with the emission limitations in Section b)(1) of the terms and conditions of this permit shall be determined in accordance with the following methods:

a. <u>Emissions Limitation</u>

0.32 lb of PM10/hr

Applicable Compliance Method

Compliance with the hourly emission limitation shall be demonstrated by the monitoring and record keeping requirements specified in sections d)(2) and d)(5).

[OAC rule 3745-77-07(C)(1) and PTI #P0110310]

b. Emission Limitation

1.42 tons of PM10/yr

Applicable Compliance Method

Compliance with the annual emission limitation shall be demonstrated by the monitoring and record keeping requirements specified in section d)(6).

[OAC rule 3745-77-07(C)(1) and PTI #P0110310]

c. Emission Limitation

Visible PE shall not exceed 20% opacity, as six-minute average, except as provided by rule.

Applicable Compliance Method

If required, the permittee shall demonstrate compliance with the visible PE limitation above in accordance with the methods and procedures specified in OAC rule 3745-17-03(B)(1).

[OAC rule 3745-77-07(C)(1) and PTI #P0110310]

g) Miscellaneous Requirements

(1) None.

25. P801, Fugitive Leaks

Operations, Property and/or Equipment Description:

Fugitive leaks including ancillary equipment (such as pumps, valves, piping etc.) associated with any emissions unit at the facility.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	ORC 3704.03(T) [PTI #P0118344, issued 2/5/2015]	See b)(2)a.
b.	OAC rule 3745-21-09(DD)	Fugitive emissions from equipment leaks [See b)(2)b., d)(1) and e)(1)]
c.	40 CFR, Part 60, Subpart VV [40 CFR 60.480 – 60.489]	Fugitive emissions from equipment leaks [See b)(2)c., d)(2), e)(2) and f)(1)]
d.	40 CFR, Part 60, Subpart A	See 40 CFR 60.1 through 60.19
e.	40 CFR, Part 63, Subpart FFFF [40 CFR 63.2430 – 63.2550] [In accordance with 40 CFR 63.2435(a), this emissions unit is an affected sources, since it includes fugitive emission equipment components that are part of a miscellaneous organic chemical manufacturing process unit at an existing chemical manufacturing facility subject to the leak provisions of a specific Subpart in 40 CFR, Part 63 that references this Subpart.]	Fugitive emissions from equipment leaks [See b)(2)d., d)(3) and e)(3)]
f.	40 CFR, Part 63, Subpart A [40 CFR 63.1 – 63.15]	Table 12 to 40 CFR, Part 63, Subpart FFFF – Applicability of General Provisions to Subpart FFFF shows which parts of the General Provisions in 40 CFR 63.1-15 apply.

(2) Additional Terms and Conditions

a. The Best Available Technology (BAT) requirements for this emissions unit have been determined to be compliance with 40 CFR, Part 63, Subpart FFFF.

b. The permittee shall comply with the applicable requirements under OAC rule 3745-21-09(DD), including the following sections:

OAC rule 3745-21-09(DD)(1)	Compliance requirements
OAC rule 3745-21-09(DD)(3)	Compressors
OAC rule 3745-21-09(DD)(4)	Pressure relief devices in gas/vapor service
OAC rule 3745-21-09(DD)(5)	Sampling connection systems
OAC rule 3745-21-09(DD)(6)	Open-ended valves or lines
OAC rule 3745-21-09(DD)(7)	Equipment designated for no detectable emissions
OAC rule 3745-21-09(DD)(8)	Barrier fluid systems and sensors for pumps and compressors
OAC rule 3745-21-09(DD)(9)	Closed vent systems
OAC rule 3745-21-09(DD)(10)	Control equipment
OAC rule 3745-21-09(DD)(11)	Delay of repair
OAC rule 3745-21-09(DD)(16)	Equivalent requirements
OAC rule 3745-21-09(DD)(17)	Exemptions
OAC rule 3745-21-09(DD), Appendix A	List of organic chemicals for which paragraph (DD) of Rule 3745-21-09 is applicable

c. The permittee shall comply with the applicable requirements under 40 CFR, Part 60, Subpart VV, including the following sections:

60.482-1	Standards: General
60.482-2	Standards: Pumps in light liquid service
60.482-3	Standards: Compressors
60.482-4	Standards: Pressure relief devices in gas/vapor service
60.482-5	Standards: Sampling connection systems
60.482-6	Standards: Open-ended valves or lines

60.482-7	Standards: Valves in gas/vapor service and in light liquid service
60.482-8	Standards: Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors
60.482-9	Standards: Delay of repair
60.482-10	Standards: Closed vent systems and control devices
60.483-1	Alternative standards for valves--allowable percentage of valves leaking
60.483-2	Alternative standards for valves--skip period leak detection and repair

d. The permittee shall comply with the applicable requirements under 40 CFR, Part 63, Subpart FFFF, including the following sections:

63.2445(b)	If you have an existing source no November 10, 2003, you must comply with the requirements from existing sources in this subpart no later than May 10, 2008.
63.2445(c)	Meet the notification requirements in 63.2515 according to the dates specified in that section and in Subpart A of this part 63.
63.2445(d)	If you have a Group 2 emission point that becomes a Group 1 emission point after the compliance date from your affected source you must comply with the Group 1 requirements beginning on the date the switch occurs. An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs.
63.2450	Emission Limitations, Work Practice Standards and Compliance Requirements -- What are my general requirements for complying with this subpart?

63.2480	Emission Limitations, Work Practice Standards and Compliance Requirements – What requirements must I meet for equipment leaks?
63.2480(a)	You must meet each requirement in Table 6 to this subpart that applies to your equipment leaks, except as specified in paragraphs (b) through (d) of this section. [See Table 6 below for requirements.]
63.2480(b)	If you comply with either subpart H or subpart UU of this part 63, you may elect to comply with the provisions in paragraphs (b)(1) through (5) of this section as an alternative to the referenced provisions in subpart H or subpart UU of this part.
63.2535	Other Requirements and Information – What compliance options do I have if part of my plant is subject to both this subpart and another subpart?
63.2535(k)	Compliance with 40 CFR, Part 60, Subpart VV: After the compliance date specified in 63.2445, if you have an affected source with equipment that is also subject to the requirements of 40 CFR Part 60, Subpart VV, you may elect to apply this subpart to all such equipment. After the compliance date specified in 63.2445, if you have an affected source with equipment to which this subpart does not apply, but which is subject to the requirements of 40 CFR Part 60, Subpart VV, you may elect to apply this subpart to all such equipment. If you elect either of these methods of compliance, you must consider all total organic compounds, minus methane and ethane, in such equipment for purposes of compliance with this subpart, as if they were organic HAP. Compliance with the provisions of this subpart, in the manner described in this paragraph (k),

	will constitute compliance with 40 CFR, Part 60, Subpart VV, as applicable.
63.2540	Other Requirements and Information – What parts of the General Provisions apply to me?
Table 6	Requirements for Equipment Leaks

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall comply with the applicable monitoring and record keeping requirements under OAC rule 3745-21-09(DD), including the following sections:

OAC rule 3745-21-09(DD)(2)	Leak detection and repair program
OAC rule 3745-21-09(DD)(12)	Alternative monitoring schedule for valves based on a skip period
OAC rule 3745-21-09(DD)(13)	Alternative monitoring standard for valves based on the allowable percentage of valves leaking
OAC rule 3745-21-09(DD)(14)	Record keeping

[OAC rule 3745-77-07(C)(1); OAC rule 3745-21-09(DD); and PTI #P0118344]

(2) The permittee shall comply with the applicable monitoring and record keeping requirements under 40 CFR, Part 60, Subpart VV, including the following sections:

60.486(a) and (b)	Identification of leaking components
60.486(c)	Maintain a log of all leaking components, repair attempts and repair methods and list of process unit shutdowns that occur during monitoring periods
60.486(d)	Maintain schematics, including piping and instrumentation diagrams
60.486(e)	Maintain lists of equipment with no detectable emissions, pressure relief devices with compliance test requirements, equipment in vacuum service, and

	equipment operating in VOC service less than 300 yrs/yr
60.486(f)	Maintain lists of unsafe to monitor and difficult to monitor components
60.486(g)	Maintain monitoring schedule
60.486(h)	Maintain a log design criterion required in 60.482-2(d)(5) and 60.482-3(e)(2) and any changes
60.486(i)	Maintain a log of facility capacity, including raw materials and feeds
60.486(j)	Maintain information needed to demonstrate equipment is not in VOC service
60.486(k)	The provisions of 60.7(b) and (d) do not apply

[OAC rule 3745-77-07(C)(1); 40 CFR, Part 60, Subpart VV; and PTI #P0118344]

(3) The permittee shall comply with the applicable monitoring and recordkeeping requirements under 40 CFR, Part 63, Subpart FFFF, including the following sections:

63.2525	Notifications, Reports and Records – What records must I keep?
63.2525(a)	Each applicable record required by subpart A of this part 63 and in referenced subparts F, G, SS, UU, WW, and GGG of this part 63 and in referenced subpart F of 40 CFR part 65.
63.2525(f)	A record of each time a safety device is opened to avoid unsafe conditions in accordance with §63.2450(s).
63.2525(j)	In the SSMP required by §63.6(e)(3), you are not required to include Group 2 emission points, unless those emission points are used in an emissions average. For equipment leaks, the SSMP requirement is limited to control devices and is optional for other equipment.

[OAC rule 3745-77-07(C)(1); 40 CFR, Part 63, Subpart FFFF; and PTI #P0118344]

e) Reporting Requirements

(1) The permittee shall comply with the applicable reporting requirements under OAC rule 3745-21-09(DD), including the following section:

OAC rule 3745-21-09(DD)(15)	Reporting

[OAC rule 3745-77-07(C)(1); OAC rule 3745-21-09(DD); and PTI #P0118344]

(2) The permittee shall submit semiannual reports and such other notifications and reports to the Ohio EPA, Northwest District Office, as are required pursuant to 40 CFR, Part 60, Subpart VV, per the following sections:

60.487(a) through 60.487(f)	Submit semiannual reports Initial semiannual report must include: process unit ID, number of valves, pumps, and compressors subject to the requirements All semiannual reports must include: Number of each type of component monitored each month Number of leaks for each type of component Number of components not repaired within the required time period Explanation for each delay of repair List of process unit shut downs Changes to counts in initial report

[OAC rule 3745-77-07(C)(1); 40 CFR, Part 60, Subpart VV; and PTI #P0118344]

(3) The permittee shall submit semiannual reports and such other notifications and reports to the Ohio EPA, Northwest District Office, as are required pursuant to 40 CFR, Part 63, Subpart FFFF, per the following sections:

63.2450(m)	Reporting The compliance report must include the information specified in 63.2520(e), as well as the information specified in referenced subparts. When there are conflicts between this subpart and referenced subparts for the due dates of reports required by this subpart,

	reports must be submitted according to the due dates presented in this subpart. Excused excursions, as defined in subparts G and SS of this part 63, are not allowed.
63.2515	Notifications, Reports and Records – What notifications must I submit and when?
63.2515(a)	You must submit all of the notifications in 63.6(h)(4) and (5), 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified.
63.2515(b)	Initial notification* *The company submitted the initial notification in 2004
63.2520	Notifications, Reports and Records – What reports must I submit and when?
63.2520(a)	You must submit each report in Table 11 to this subpart that applies to you.
63.2520(b)	Unless the Administrator has approved a different schedule for submission of reports under 63.10(a), you must submit each report by the date in Table 11 to this subpart and according to paragraphs (b)(1) through (5) of this section.
63.2520(d)	Notification of compliance status report
63.2520(e)	Compliance report
Table 11	Requirements for Reports

[OAC rule 3745-77-07(C)(1); 40 CFR, Part 63, Subpart FFFF; and PTI #P0118344]

f) Testing Requirements

(1) The permittee shall comply with the applicable testing requirements under 40 CFR Part 60, Subpart VV, including the following sections:

60.485(a) through 60.485(h)	Reference methods for sample equipment used to detect component VOC leaks

[OAC rule 3745-77-07(C)(1); 40 CFR, Part 60, Subpart VV; and PTI #P0118344]

g) Miscellaneous Requirements

(1) None.

26. T632, UAN Storage Tank T-20

Operations, Property and/or Equipment Description:

Urea Ammonium Nitrate (UAN) Storage Tank T-20

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)(a)(ii) [PTI P0137450, issued 3/6/25]	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to particulate matter less than 10 microns in size/particulate matter less than 2.5 microns in size (PM10/PM2.5) emissions from this air contaminant source since the PTE is less than 10 tons/year.
b.	OAC rule 3745-104	See Standard Term and Condition A.4. (Risk Management Plans). See b)(2)a.

(2) Additional Terms and Conditions

a. These emissions units emit a regulated air pollutant [as defined in OAC rule 3745-77-01(R)(1)] in excess of five tons per year in the form of anhydrous ammonia, which is subject to OAC Chapter 3745-104 and Section 112(r) of the Clean Air Act. As such, these emissions units are significant emissions units [as defined in OAC rule 3745-77-01(S)(1)].

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

27. Emissions Unit Group - RMP Significant EUs: P554, P555, T632

EU ID	Operations, Property and/or Equipment Description
P554	Ammonia (Anhydrous) Truck Loading (Flare Controlled)
P555	Ammonia (Anhydrous) Railcar Loading (Flare Controlled)
T632	UAN Storage Tank T-20

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-104	See Standard Term and Condition A.4. (Risk Management Plans). See b)(2)a.

(2) Additional Terms and Conditions

a. These emissions units emit a regulated air pollutant [as defined in OAC rule 3745-77-01(R)(1)] in excess of five tons per year in the form of anhydrous ammonia, which is subject to OAC Chapter 3745-104 and Section 112(r) of the Clean Air Act. As such, these emissions units are significant emissions units [as defined in OAC rule 3745-77-01(S)(1)].

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

28. Emissions Unit Group – RMP Significant EUs (MACT FFFF): P525, P527, P528

EU ID	Operations, Property and/or Equipment Description
P525	Urea Prilling Section - Mother Liquor System
P527	Urea Prilling Section - Lump Dissolving Tank
P528	Urea Prilling Section: - Crystallizer

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-104	See Standard Term and Condition A.4. (Risk Management Plans). See b)(2)a.
b.	40 CFR, Part 63, Subpart FFFF [40 CFR 63.2430 – 63.2550] In accordance with 40 CFR 63.2440, this emissions unit is an existing affected source consisting of crystal drying, conveying, melting and associated equipment which is part of a miscellaneous organic chemical manufacturing process unit at an existing chemical manufacturing facility subject to the emission limitations/control measures specified in this section.	See b)(2)b., d)(1), and e)(1)
c.	40 CFR, Part 63, Subpart A [40 CFR 63.1 – 63.15]	Table 12 to 40 CFR, Part 63, Subpart FFFF – Applicability of General Provisions to Subpart FFFF shows which parts of the General Provisions in 40 CFR 63.1-15 apply.

(2) Additional Terms and Conditions

a. These emissions units emit a regulated air pollutant [as defined in OAC rule 3745-77-01(R)(1)] in excess of five tons per year in the form of anhydrous ammonia, which is subject to OAC Chapter 3745-104 and Section 112(r) of the Clean Air Act. As such,

these emissions units are significant emissions units [as defined in OAC rule 3745-77-01(S)(1)].

b. The permittee shall comply with the additional terms and conditions under 40 CFR, Part 63, Subpart FFFF, including the following sections:

63.2445(b)	If you have an existing source no November 10, 2003, you must comply with the requirements from existing sources in this subpart no later than May 10, 2008.
63.2445(c)	Meet the notification requirements in 63.2515 according to the dates specified in that section and in Subpart A of this part 63.
63.2445(d)	If you have a Group 2 emission point that becomes a Group 1 emission point after the compliance date from your affected source you must comply with the Group 1 requirements beginning on the date the switch occurs. An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs.
63.2455	Emission Limitations, Work Practice Standards and Compliance Requirements – What requirements must I meet for continuous process vents?
63.2455(a)	You must meet each emission limit in Table 1 to this subpart that applies to your continuous process vents, and you must meet each applicable requirement specified in paragraphs (b) through (c) of this section. [Note: There are no emission limits and/or work practice standards in Table 1 that are applicable.]
63.2455(b)	For each continuous process vent, you must either designate the vent as a Group 1 continuous process vent or determine the total resource effectiveness (TRE) index value as specified in 63.115(d), except as specified in paragraphs (b)(1) through (3) of this section.

63.2480	Emission Limitations, Work Practice Standards and Compliance Requirements – What requirements must I meet for equipment leaks?
63.2480(a)	You must meet each requirement in Table 6 to this subpart that applies to your equipment leaks, except as specified in paragraphs (b) through (d) of this section. [See Table 6 below for requirements.]
63.2480(b)	If you comply with either subpart H or subpart UU of this part 63, you may elect to comply with the provisions in paragraphs (b)(1) through (5) of this section as an alternative to the referenced provisions in subpart H or subpart UU of this part.
63.2535	Other Requirements and Information – What compliance options do I have if part of my plant is subject to both this subpart and another subpart?
63.2535(k)	Compliance with 40 CFR, Part 60, subpart VV and 40 CFR, Part 61, Subpart V
63.2540	Other Requirements and Information – What parts of the General Provisions apply to me?
Table 6	Requirements for Equipment Leaks

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall comply with the applicable monitoring and recordkeeping requirements under 40 CFR, Part 63, Subpart FFFF, including the following sections:

63.2525	Notifications, Reports and Records – What records must I keep?
63.2525(a)	Each applicable record required by subpart A of this part 63 and in referenced subparts F, G, SS, UU, WW, and GGG of this part 63 and in referenced subpart F of 40 CFR part 65.

63.2525(f)	A record of each time a safety device is opened to avoid unsafe conditions in accordance with 63.2450(s).
63.2525(j)	In the SSMP required by 63.6(e)(3), you are not required to include Group 2 emission points, unless those emission points are used in an emissions average. For equipment leaks, the SSMP requirement is limited to control devices and is optional for other equipment.

[OAC rule 3745-77-07(C)(1); 40 CFR, Part 63, Subpart FFFF]

e) Reporting Requirements

(1) The permittee shall submit semiannual reports and such other notifications and reports to the Ohio EPA, Northwest District Office, as are required pursuant to 40 CFR, Part 63, Subpart FFFF, per the following sections:

63.2450(m)	Reporting The compliance report must include the information specified in 63.2520(e), as well as the information specified in referenced subparts. When there are conflicts between this subpart and referenced subparts for the due dates of reports required by this subpart, reports must be submitted according to the due dates presented in this subpart. Excused excursions, as defined in subparts G and SS of this part 63, are not allowed.
63.2515	Notifications, Reports and Records – What notifications must I submit and when?
63.2515(a)	You must submit all of the notifications in 63.6(h)(4) and (5), 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified.
63.2515(b)	Initial notification* *The company submitted the initial notification in 2004

63.2520	Notifications, Reports and Records – What reports must I submit and when?
63.2520(a)	You must submit each report in Table 11 to this subpart that applies to you.
63.2520(b)	Unless the Administrator has approved a different schedule for submission of reports under 63.10(a), you must submit each report by the date in Table 11 to this subpart and according to paragraphs (b)(1) through (5) of this section.
63.2520(d)	Notification of compliance status report
63.2520(e)	Compliance report
Table 11	Requirements for Reports

[OAC rule 3745-77-07(C)(1); 40 CFR, Part 63, Subpart FFFF]

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.

29. Emissions Unit Group – Urea Granulation Section: P546, P547

EU ID	Operations, Property and/or Equipment Description
P546	Urea Gran - Granulator Drum
P547	Urea Gran - Evaporator

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)g., d)(9), d)(10), d)(11), d)(12), and e)(2).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) [PTI #P0130000, issued 5/6/21]	<u>Emissions from P546 and P547, combined</u> 33.05 lbs particulate emissions (PE)/hr and 144.77 tons PE per rolling, 12-month period 17.72 lbs particulate matter less than 10 microns in size (PM10)/hr and 77.60 tons PM10 per rolling, 12-month period 9.06 lbs particulate matter less than 2.5 microns in size (PM2.5)/hr and 39.66 tons PM2.5 per rolling, 12-month period. 0.11 lb VOC/hr and 0.48 ton VOC per rolling, 12-month period Visible PE shall not exceed 10% opacity, as a six-minute average from the duct scrubber stack serving these emissions units. See b)(2)a. and b)(2)b.
b.	ORC 3704.03(T) [PTI #P0130000, issued 5/6/21]	See b)(2)c.
c.	OAC rule 3745-31-05(A)(3)(a)(ii) [PTI #P0130000, issued 5/6/21]	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the PTE is less than 10 tons/yr.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		See b)(2)d.
d.	OAC rule 3745-17-07(A)	See b)(2)e.
e.	OAC rule 3745-17-11(B)	See b)(2)f.
f.	OAC rule 3745-21-07(M)	See b)(2)g.
g.	OAC rule 3745-114-01 ORC 3704.03(F)	See d)(9) through d)(12) and e)(2)
h.	40 CFR, Part 63, Subpart FFFF [40 CFR 63.2430 – 63.2550] In accordance with 40 CFR 63.2440, these emissions units are existing affected sources consisting of a granulator, an evaporator, evaporator air heater, urea surge tank and associated equipment; which is part of a miscellaneous organic chemical manufacturing process unit at an existing chemical manufacturing facility subject to the emission limitations/control measures specified in this section.	See b)(2)h., d)(13) and e)(3)
i.	40 CFR 63.1-15 [40 CFR 63.2540]	Table 12 to 40 CFR, Part 63, Subpart FFFF – Applicability of General Provisions to Subpart FFFF shows which parts of the General Provisions in 40 CFR 63.1-15 apply.
j.	40 CFR, Part 64 - Compliance Assurance Monitoring (CAM)	See c)(1), d)(1), d)(2), d)(3), d)(4), d)(5), d)(6), d)(7) and e)(1)

(2) Additional Terms and Conditions

a. The federally enforceable emission limitations in b)(1)a. were established for the purpose of limiting PTE to avoid Prevention of Significant Deterioration (PSD) requirements. The federally enforceable emission limitations are based on the operational restrictions contained in c)(1).

b. PE is inclusive of filterable and condensable emissions.

c. The BAT requirements for PM10/PM2.5 emissions under ORC 3704.03(T) have been determined to be compliance with the rolling, 12-month emission limitation established pursuant to OAC rule 3745-31-05(D).

d. It should be noted that the uncontrolled PTE for emissions unit P546 is 7.80 tons VOC/year and for emissions unit P547 is 1.71 tons VOC/year, based upon a maximum urea gran throughput of 310,250 tons/year.

e. The visible emission limitation specified by OAC rule 3745-17-07(A) is less stringent than the visible emission limitation established pursuant to OAC rule 3745-31-05(D).

f. The PE limitation specified by OAC 3745-17-11(B) is less stringent than the PE limitation established pursuant to OAC rule 3745-31-05(D).

g. These emissions units are not subject to the requirements of the rule because they do not meet all of the conditions outlined in OAC rule 3745-21-07(M)(3)(a).

h. The permittee shall comply with the additional terms and conditions under 40 CFR, Part 63, Subpart FFFF, including the following sections:

63.2445(b)	If you have an existing source no November 10, 2003, you must comply with the requirements from existing sources in this subpart no later than May 10, 2008.
63.2445(c)	Meet the notification requirements in 63.2515 according to the dates specified in that section and in Subpart A of this part 63.
63.2445(d)	If you have a Group 2 emission point that becomes a Group 1 emission point after the compliance date from your affected source you must comply with the Group 1 requirements beginning on the date the switch occurs. An initial compliance demonstration as specified in this subpart must be conducted within 150 days after the switch occurs.
63.2450	Emission Limitations, Work Practice Standards and Compliance Requirements -- What are my general requirements for complying with this subpart?
63.2450(a)	You must be in compliance with the emission limits and work practice standards in tables 1 through 7* to this subpart at all times, except during periods of startup, shutdown, and malfunction (SSM), and you must meet the requirements specified in 63.2455 through 63.2490 (or the alternative means of compliance in 63.2495, 63.2500, or 63.2505), except as specified in paragraphs (b) through (s) of this section. You must meet the notification, reporting, and recordkeeping requirements specified in 63.2515, 63.2520, and 63.2525.

	* only the work practice standards listed in Table 6 are applicable
63.2450(p)	Opening a safety device, as defined in 63.2550, is allowed at any time conditions require it to avoid unsafe conditions
63.2455	Emission Limitations, Work Practice Standards and Compliance Requirements – What requirements must I meet for continuous process vents?
63.2455(a)	You must meet each emission limit in Table 1 to this subpart that applies to your continuous process vents, and you must meet each applicable requirement specified in paragraphs (b) through (c) of this section. [Note: There are no emission limits and/or work practice standards in Table 1 that are applicable.]
63.2455(b)	For each continuous process vent, you must either designate the vent as a Group 1 continuous process vent or determine the total resource effectiveness (TRE) index value as specified in 63.115(d), except as specified in paragraphs (b)(1) through (3) of this section.
63.2480	Emission Limitations, Work Practice Standards and Compliance Requirements – What requirements must I meet for equipment leaks?
63.2480(a)	You must meet each requirement in Table 6 to this subpart that applies to your equipment leaks, except as specified in paragraphs (b) through (d) of this section. [See Table 6 below for requirements.]
63.2480(b)	If you comply with either subpart H or subpart UU of this part 63, you may elect to comply with the provisions in paragraphs (b)(1) through (5) of this

	section as an alternative to the referenced provisions in subpart H or subpart UU of this part.
63.2535	Other Requirements and Information – What compliance options do I have if part of my plant is subject to both this subpart and another subpart?
63.2535(k)	Compliance with 40 CFR, part 60, subpart VV and 40 CFR, part 61, subpart V
63.2540	Other Requirements and Information – What parts of the General Provisions apply to me?
Table 6	Requirements for Equipment Leaks

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 63, Subpart FFFF]

c) Operational Restrictions

(1) The following operational restrictions have been included in this permit for the purpose of establishing federally enforceable requirements which limit PTE [See b)(2)a.]:

a. Emissions shall be vented to a venturi scrubber ("the duct scrubber") that is designed to achieve a minimum 95% control efficiency for PE, PM10, PM2.5 and VOC.; and

b. The permittee shall operate the venturi scrubber ("the duct scrubber") at all times when these emissions units are in operation.

[OAC rule 3745-77-07(A)(1) and PTI #P0130000]

d) Monitoring and/or Recordkeeping Requirements

(1) The CAM plan for this emissions unit has been developed for particulate emissions. The CAM performance indicators for the scrubbers controlling this emissions unit are the scrubber pressure drop and the scrubber water circulation flow rate which were established in accordance with the manufacturer's recommendations and verified during site-specific particulate emission testing and scrubber parametric data collected during the emission testing. When the pressure drop and/or the water circulation flow rate of the scrubbers are operating outside the indicator ranges, the permittee shall take corrective actions to restore operation of the emissions unit and/or its control equipment to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions and comply with the reporting requirements specified in Section e) below.

The emissions unit and control equipment shall be operated in accordance with the approved CAM Plan, or any approved revision of the Plan. The scrubbers shall not be configured to have bypass capability.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(2) The permittee shall operate and maintain equipment to monitor the scrubber pressure drop and the scrubber water circulation flow rate while the emissions unit is in operation. The monitoring devices and any recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

a. The permittee shall collect and record the following information at least once every 15 minutes:

i. The scrubber pressure drop; in inches water column;

ii. The scrubber water circulation flow rate, in gallons per minute; and

iii. A log of the down time for the scrubber and monitoring equipment when the associated emissions unit was in operation.

b. Whenever the monitored values for the scrubber pressure drop and/or scrubber water circulation flow rate deviate from the indicator ranges, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

i. The date and time the deviation began and the magnitude of the deviation at that time;

ii. The date(s) the investigation was conducted;

iii. The names of the personnel who conducted the investigation; and

iv. The findings and recommendations.

Records of these inspections shall be kept in accordance with the Standard Terms and Conditions of this permit.

c. In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable ranges specified below unless the permittee determines that corrective action is not necessary.

i. The permittee shall maintain records of the following information for each deviation when it was determined that corrective action was not necessary:

(a) The reason corrective action was not necessary; and

(b) The date and time the deviation ended.

ii. The permittee shall maintain records of the following information for each corrective action taken:

(a) A description of the corrective action;

(b) The date it was completed;

(c) The date and time the deviation ended;

(d) The total period of time (in minutes) during which there was a deviation;

(e) The scrubber pressure drop and/or scrubber water circulation flow rate immediately after the corrective action; and

(f) The names of the personnel who performed the work.

iii. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

d. Pressure drop indicator range

The pressure drop across the scrubber shall be continuously maintained at a value greater than or equal to 1.3 inches water column, as an hourly average, at all times while the emissions unit is in operation.

e. Scrubber water flow rate indicator range

The scrubber water circulation flow rate shall be continuously maintained at a value greater than or equal to 54.35 gallons per minute, as an hourly average, at all times while the emissions unit is in operation.

f. These range(s) and/or limit(s) for the pressure drop and liquid flow rate are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted range or limit for the pressure drop or liquid flow rate based upon information obtained during future performance tests that demonstrate compliance with the allowable particulate emission rate for this/these emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[OAC rule 3745-77-07(C)(1), PTI #P0130000 and 40 CFR, Part 64]

(3) Scrubber operating parameters shall be re-verified as a result of any changes to the operating conditions of the scrubbers or emissions unit. In addition to periodic monitoring of their scrubber operating parameters, the permittee also has an inspection and maintenance program for the scrubbers. Based on the results of the monitoring and inspection program, repairs to the scrubbers shall be made as needed.

If the current CAM indicators and/or the scrubber inspection program is considered inadequate, the permittee will develop a Quality Improvement Plan.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(4) At all times, the permittee shall maintain the monitoring equipment, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(5) If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance, the permittee shall promptly notify the Ohio EPA, Northwest District Office, and if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes.

Such a modification may include, but is not limited to, re-establishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(6) In addition to the parametric monitoring required in Section d)(2), the permittee shall conduct visual inspections of the scrubber's spray nozzles every twelve (12) months. At a minimum, each spray nozzle shall be inspected for the following:

a. Excessive wear, or clogging; and

b. Appropriate directional output to ensure that the spray is covering the entire gas stream.

Records of these inspections shall be kept in accordance with the Standard Terms and Conditions of this permit.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(7) The permittee shall maintain a supply of replacement nozzles, or any other parts necessary to ensure that the scrubbing system will operate properly. Any worn, or clogged nozzles shall be replaced, or fixed during the inspection.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 64]

(8) The permittee shall maintain records during all periods of time these emissions units were not vented to the venturi scrubber.

[OAC rule 3745-77-07(C)(1) and PTI #P0130000]

(9) The PTI application for these emissions units, P545, P546 and P547, was evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to these emissions units for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant emitted at over one ton per year using an air dispersion model such as AERSCREEN, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

a. The exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions units, (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):

i. Threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or

ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure

Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions units, i.e., "**X**" hours per day and "**Y**" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

TLV/10 x 8/X x 5/Y = 4 TLV/XY = MAGLC

d. The following summarizes the results of dispersion modeling for the significant toxic contaminant (emitted at 1 or more tons/year):

Toxic Contaminant: Ammonia

TLV (mg/m3): 17.41 (From ACGIH's "2019 TLVs and BEIs" Book)

Maximum Hourly Emission Rate (lbs/hr): 23.307

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 95.938

MAGLC (ug/m3): 414.60

The permittee, has demonstrated that emissions of ammonia, from emissions units P545, P546 and P547, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

[PTI #P0130000]

(10) Prior to making any physical changes to or changes in the method of operation of the emissions units, that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

a. Changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;

b. Changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and

c. Physical changes to the emissions units or their exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

[PTI #P0130000]

(11) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

a. A description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

b. The Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);

c. A copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions units to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

d. The documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions units or the materials applied.

[PTI #P0130000]

(12) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

[PTI #P0130000]

(13) The permittee shall comply with the applicable monitoring and recordkeeping requirements under 40 CFR, Part 63, Subpart FFFF, including the following sections:

63.2525	Notifications, Reports and Records – What records must I keep?

63.2525(a)	Each applicable record required by subpart A of this part 63 and in referenced subparts F, G, SS, UU, WW, and GGG of this part 63 and in referenced subpart F of 40 CFR part 65.
63.2525(b)	Records of each operating scenario as specified in paragraphs (b)(1) through (8) of this section.
63.2525(f)	A record of each time a safety device is opened to avoid unsafe conditions in accordance with 63.2450(s).
63.2525(j)	In the SSMP required by 63.6(e)(3), you are not required to include Group 2 emission points, unless those emission points are used in an emissions average. For equipment leaks, the SSMP requirement is limited to control devices and is optional for other equipment.

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 63, Subpart FFFF]

e) Reporting Requirements

(1) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of these emissions units:

a. Each period of time (start time and date, and end time and date) when the pressure drop across the scrubber and/or the scrubber water recirculation flow rate was/were outside of the appropriate range or exceeded the applicable limit contained in this permit;

b. Any period of time (start time and date, and end time and date) when the emissions units were in operation and the process emissions were not vented to the scrubber;

c. Each incident of deviation described in e)(1)a. or e)(1)b. (above) where a prompt investigation was not conducted;

d. Each incident of deviation described in e)(1)a. or e)(1)b. where prompt corrective action, that would bring the pressure drop and/or scrubber water recirculation flow rate into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. Each incident of deviation described in e)(1)a. or e)(1)b. where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

[OAC rule 3745-77-07(C)(1) and PTI #P0130000 and 40 CFR, Part 64]

(2) The permittee shall submit annual reports that include any changes to any parameter or value used in the dispersion model used to demonstrate compliance with the "Toxic Air

Contaminate Statute", ORC 3704.03(F), through the predicted 1 hour maximum concentration. The report should include:

a. The original model input;

b. The updated model input;

c. The reason for the change(s) to the input parameter(s); and

d. A summary of the results of the updated modeling, including the input changes; and

e. A statement that the model results indicate that the 1-hour maximum ground-level concentration is less than 80% of the MAGLC.

If no changes to the emissions, emissions units, or the exhaust stack have been made during the reporting period, then the report shall include a statement to that effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

[PTI #P0130000]

(3) The permittee shall submit semiannual reports and such other notifications and reports to the Ohio EPA, Northwest District Office, as are required pursuant to 40 CFR, Part 63, Subpart FFFF, per the following sections:

63.2450(m)	Reporting The compliance report must include the information specified in 63.2520(e), as well as the information specified in referenced subparts. When there are conflicts between this subpart and referenced subparts for the due dates of reports required by this subpart, reports must be submitted according to the due dates presented in this subpart. Excused excursions, as defined in subparts G and SS of this part 63, are not allowed.
63.2515	Notifications, Reports and Records – What notifications must I submit and when?
63.2515(a)	You must submit all of the notifications in 63.6(h)(4) and (5), 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified.
63.2515(b)	Initial notification* * the company submitted the initial notification in 2004

63.2520	Notifications, Reports and Records – What reports must I submit and when?
63.2520(a)	You must submit each report in Table 11 to this subpart that applies to you.
63.2520(b)	Unless the Administrator has approved a different schedule for submission of reports under 63.10(a), you must submit each report by the date in Table 11 to this subpart and according to paragraphs (b)(1) through (5) of this section.
63.2520(d)	Notification of compliance status report
63.2520(e)	Compliance report
Table 11	Requirements for Reports

[OAC rule 3745-77-07(C)(1) and 40 CFR, Part 63, Subpart FFFF]

f) Testing Requirements

(1) The permittee shall conduct, or have conducted, emission testing for the duct scrubber associated with these emissions units in accordance with the following requirements:

a. The emission testing shall be conducted within 180 days after start-up of the modification.

b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate(s) for PE, PM10 and PM2.5, in the appropriate averaging period(s).

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

For PE: Methods 1-4 of 40 CFR, Part 60, Appendix A and Methods 201/201A and 202 of 40 CFR, Part 51, Appendix M; and

For PM10: Methods 1-4 of 40 CFR, Part 60, Appendix A and Methods 201/201A and 202 of 40 CFR, Part 51, Appendix M; and

For PM2.5: Methods 1-4 of 40 CFR, Part 60, Appendix A and Methods 201/201A and 202 of 40 CFR, Part 51, Appendix M.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. During the emission testing, the emissions unit shall be operated under operational conditions approved in advance by the appropriate Ohio EPA District Office or local air agency. Operational conditions that may need to be approved include, but are not limited to, the production rate, the type of material processed, material make-up (solvent content, etc.), or control equipment operational limitations (burner temperature, precipitator voltage, etc.). In general, testing shall be done under "worst

case" conditions expected during the life of the permit. As part of the information provided in the "Intent to Test" notification form described below, the permittee shall provide a description of the emissions unit operational conditions they will meet during the emissions testing and describe why they believe "worst case" operating conditions will be met. Prior to conducting the test(s), the permittee shall confirm with the appropriate Ohio EPA District Office or local air agency that the proposed operating conditions constitute "worst case". Failure to test under the approved conditions may result in Ohio EPA not accepting the test results as a demonstration of compliance.

d. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

e. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

f. A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

[OAC rule 3745-77-07(C)(1) and PTI #P0130000]

(2) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. <u>Emission Limitations</u>

33.05 lbs PE/hr and 144.77 tons PE per rolling, 12-month period

<u>Applicable Compliance Method</u>

The hourly emission limitation was determined by multiplying an emission factor of 18.6654 lbs/ton urea gran* by a maximum process weight rate of 35.417 tons per hour, then applying a 95% control efficiency.

*The emission factor is based upon engineering testing conducted July 7, 2020 and January 13-14, 2021 and includes a 15% safety factor.

Compliance with the hourly emission limitation shall be determined in accordance with the testing requirements specified in f)(1) above.

The annual emission limitation was determined by multiplying the hourly emission limitation by a maximum operating schedule of 8760 hrs/yr, then dividing by 2000

lbs/ton. Therefore, provided compliance is shown with the hourly emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0130000]

b. Emission Limitations

17.72 lbs PM10/hr and 77.60 tons PM10 per rolling, 12-month period

Applicable Compliance Method

The hourly emission limitation was determined by multiplying an emission factor of 10.0049 lbs/ton urea gran* by a maximum process weight rate of 35.417 tons per hour, then applying a 95% control efficiency.

*The emission factor is based upon engineering testing conducted July 7, 2020 and January 13-14, 2021 and includes a 15% safety factor.

Compliance with the hourly emission limitation shall be determined in accordance with the testing requirements specified in f)(1) above.

The annual emission limitation was determined by multiplying the hourly emission limitation by a maximum operating schedule of 8760 hrs/yr, then dividing by 2000

lbs/ton. Therefore, provided compliance is shown with the hourly emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0130000]

c. Emission Limitations

9.06 lbs PM2.5/hr and 39.66 tons PM2.5 per rolling, 12-month period.

Applicable Compliance Method:

The hourly emission limitation was determined by multiplying an emission factor of 5.1139 lbs/ton urea gran* by a maximum process weight rate of 35.417 tons per hour, then applying a 95% control efficiency.

*The emission factor is based upon engineering testing conducted July 7, 2020 and January 13-14, 2021 and includes a 15% safety factor.

Compliance with the hourly emission limitation shall be determined in accordance with the testing requirements specified in f)(1) above.

The annual emission limitation was determined by multiplying the hourly emission limitation by a maximum operating schedule of 8760 hrs/yr, then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0130000]

d. Emission Limitation

0.11 lb VOC/hr and 0.48 ton VOC per rolling, 12-month period

Applicable Compliance Method

The hourly emission limitation was determined by multiplying an emission factor of 0.0613 lb/ton urea gran* by a maximum process weight rate of 35.417 tons per hour, then applying a 95% control efficiency.

*The emission factor is based upon engineering testing conducted February 9, 1999 and includes a 15% safety factor.

If required, compliance with the hourly emission limitation shall be determined in accordance with Methods 1-4 and 18, 25, or 25A, as appropriate, of 40 CFR, Part 60, Appendix A.

The annual emission limitation was determined by multiplying the hourly emission limitation by a maximum operating schedule of 8760 hrs/yr, then dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly emission limitation, compliance with the annual emission limitation shall also be demonstrated.

[OAC rule 3745-77-07(C)(1) and PTI #P0130000]

e. Emission Limitation

Visible PE shall not exceed 10% opacity, as a six-minute average from the duct scrubber serving these emissions units.

Applicable Compliance Method

If required, compliance shall be determined in accordance with the methods and procedures specified in Method 9 of 40 CFR, Part 60, Appendix A.

[OAC rule 3745-77-07(C)(1) and PTI #P0130000]

g) Miscellaneous Requirements

(1) None.

30. Emissions Unit Group – UAN Storage Tanks: T626, T629

EU ID	Operations, Property and/or Equipment Description
T626	UAN Storage Tank T-23
T629	UAN Slop Storage Tank T-22

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) b)(1)b. and d)(1).

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)(a)(ii) (PTI #P0137450 issued 3/6/25)	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to PM10/PM2.5 emissions from these air contaminant sources since the potential to emit is less than 10 tons/year.
b.	ORC 3704.03(F) OAC rule 3745-114-01	See d)(1)
c.	OAC rule 3745-104	See Standard Term and Condition A.4. (Risk Management Plans). See b)(2)a.

(2) Additional Terms and Conditions

a. These emissions units emit a regulated air pollutant [as defined in OAC rule 3745-77-01(R)(1)] in excess of five tons per year in the form of anhydrous ammonia, which is subject to OAC Chapter 3745-104 and Section 112(r) of the Clean Air Act. As such, these emissions units are significant emissions units [as defined in OAC rule 3745-77-01(S)(1)].

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) Modeling to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F)(4)(b), was not necessary for PTI P0137450 because the modifications associated with emissions units P559, T549, T620, T621, T626, T629, T632 and T636 will result in an emissions increase of less than 1 ton per year for each toxic air contaminant, as defined in OAC rule 3745-114-01. OAC Chapter 3745-31 requires a permittee to apply for and obtain a

new or modified permit-to-install (PTI) before making a modification as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes, in the composition of the materials or use of new materials, that would cause the emissions of any toxic air contaminant to increase to above one TPY may require the permittee to apply for and obtain a new PTI.

[PTI #P0137450]

e) Reporting Requirements

(1) None.

f) Testing Requirements

(1) None.

g) Miscellaneous Requirements

(1) None.