PTI/PTIO Application A0041493
Middletown Cogeneration
1409001091
March 17, 2011

Division of Air Pollution Control

Application for Permit-to-Install or Permit-to-Install and Operate

This section should be filled out for each permit to install (PTI) or Permit to Install and Operate (PTIO) application. A PTI is required for all air contaminant sources (emissions units) installed or modified after January 1, 1974 that are subject to OAC Chapter 3745-77. A PTIO is required for all air contaminant sources (emissions units) that are not subject to OAC Chapter 3745-77 (Title V). See the application instructions for additional information.

For OEPA use only:		
	[X] Installation	[ ] Request Federally enforceable restrictions
	[ ] Modification	[ ] General Permit
	[ ] Renewal	[ ] Other

1. Please summarize the reason for this permit application. This text will be in the public notice that will appear in the newspaper of the county where the facility is located.

Air Products and Chemicals, Inc. (Air Products) is proposing to construct and operate a combined-cycle power generation plant at the AK Steel Corporation (AK Steel) Middletown Works in Middletown, Ohio. The plant would capture and process waste blast furnace gas to produce electricity and process steam for use at the Middletown Works. This project would be the first deployment in North America using steel mill blast furnace gas to generate both electricity and process steam via combined-cycle gas turbine technology. The project is referred to as the Middletown Cogeneration Facility.

Air Products is making this application to the Ohio Environmental Protection Agency (OEPA) for a Permit-To-Install (PTI) that will also address the BAT review requirements. This application for a PTI has been prepared using OEPA instructions and guidance received at the pre-application meetings and subsequent communications.

Is the purpose of this application to transition from OAC Chapter 3745-77 (Title V) to OAC Chapter 3745-31 (PTIO)?

No

2. **Establish PER Due Date** - Select an annual Permit Evaluation Report (PER) due date for this facility (does not apply to facilities subject to Title V, OAC Chapter 3745-77). If the PER has previously been established and a change is now desired, a PER Change Request form must be filed instead of selecting a date here.

PER not applicable (Title V) or due date already established

3. **Federal Rules Applicability**

New Source Performance Standards (NSPS) *New Source Performance Standards are listed under 40 CFR 60 - Standards of Performance for New Stationary Sources.*	Subject to subpart: - Db - Industrial-Commercial-Institutional Steam Generating Units - KKKK - Stationary Combustion Turbines
National Emission Standards for Hazardous Air Pollutants (NESHAP) *National Emissions Standards for Hazardous Air Pollutants are listed under 40 CFR 61. (These include asbestos, benzene, beryllium, mercury, and vinyl chloride).*	Not affected
Maximum Achievable Control Technology (MACT) *The Maximum Achievable Control Technology standards are listed under 40 CFR 63 and OAC rule 3745-31-28.*	Subject to subpart: - DDDDD - Industrial, Commercial, and Institutional Boilers and Process Heaters
Prevention of Significant Deterioration (PSD) *These rules are found under OAC rule 3745-31-10 through OAC rule 3745-31-20.*	Not affected
Greenhouse Gas Pollutant Prevention of Significant Deterioration (PSD) *These rules are listed under 40 CFR Parts 51, 52.*	Subject to Regulation

Non-Attainment New Source Review Not affected
These rules are found under OAC rule 3745-31-21 through OAC rule 3745-31-27.

112 (r) - Risk Management Plan Not affected
These rules are found under 40 CFR 68.

Title IV (Acid Rain Requirements) Not affected
These rules are found under 40 CFR 72 and 40 CFR 73.

4. **Express PTI/PTIO** - Do you qualify for express PTI or PTIO processing?

   No

5. **Air Contaminant Sources in this Application** - Identify the air contaminant source(s) for which you are applying below. Attach additional pages if necessary. Section II of this application and an EAC form should be completed for each air contaminant source.

Emissions Unit ID	**Company Equipment ID** (company's name for air contaminant source)	**Equipment Description** (List all equipment that are a part of this air contaminant source)
B001	Boiler 01	
B002	Boiler 02	
P001	GT/HRSG	SCR on the Gas Trubine/HRSG Exhaust
P002	Cooling Tower	Drift Eliminator on the Cooling Tower
P003	Flare	
P801	Fugitive CO	
TMP167115	Roads	
TMP167117	Inorganic storage tanks	
TMP167120	Ammonia Fugitives	
TMP167135	Ethylene Gylcol Fugitives	

The Emissions Unit ID would have been created when a previous air permit was issued. If no previous permits have been issued for this air contaminant source, leave this field blank. If this air contaminant source was previously identified in STARShip applications as a Z source (e.g., Z001), please provide that identification and a new ID will be assigned when the PTI/PTIO is issued.

6. **Trade Secret Information** - Is any information included in this application being claimed as a trade secret per Ohio Revised Code (ORC) 3704.08?

   No

7. **Permit Application Contact** - Person to contact for questions about this application:

Frederick Lash		Lead Environmental Specialist
Name		Title
7201 Hamilton Blvd.	Allentown, PA	18195
Street Address	City/Township, State	Zip Code
6104816241		lashfw@airproducts.com
Phone	Fax	E-mail

8. **Application Attachments**

Description	Type	EAC Form Type	Public Document Id
Operating Summary	Other		456727
Application Submittal Letter	Other		456141
Signature authority	Permit application		456150

	attachments and supplements		
Middletown Cogeneration	Process flow diagram		456151
Facility BFG calculations	Calculations		456169
GT - BF Down	Calculations		456065
GT Startup	Calculations		456064
SCR Maintenance	Calculations		456062
Control Technology Discussion	Calculations		456557
Boiler - GT Down	Calculations		456061
Boiler - BF Down	Calculations		456059
Flare Max Hour (Flare-GT Down)	Calculations		456058
Fugitives	Calculations		456057
Tanks	Calculations		456056
Flare NG Pilot	Calculations		456055
Cooling Tower	Calculations		456051
Boilers	Calculations		456050
Gas Turbine/HRSG	Calculations		456049
HAPs	Calculations		456048
AK Projected Annual	Calculations		456047
AK Past Baseline	Calculations		456046
Emission Factors	Calculations		456044
Facility PTE	Calculations		456043
Fuel Usage	Other		456041
NH3 Modeling Results	Air Toxics Modeling Results		456033

Section II - Specific Air Contaminant Source Information

Facility ID: 1409001091
Emissions Unit ID: B001
Company Equipment ID: Boiler 01

One copy of this section should be filled out for each air contaminant source (emissions unit) covered by this PTI/PTIO application identified in Section I, Question 5. See the application instructions for additional information.

1. **Air Contaminant Source Installation or Modification Schedule** Check all that apply (must be completed regardless of date of installation or modification):

New installation (for which construction has not yet begun, in accordance with OAC rule 3745-31-33). When will you begin to install the air contaminant source?
after installation permit has been issued

2. **SCC Codes** - List all Source Classification Code(s) (SCC) that describe the process(es) performed by this air contaminant source (e.g., 1-02-002-04).
See Facility Profile

3. **Emissions Information** - The following table requests information needed to determine the applicable requirements and the compliance status of this air contaminant source with those requirements. Suggestions for how to estimate emissions may be found in the instructions to the Emissions Activity Category (EAC) forms required with this application. If you need further assistance, contact your District Office/Local Air Agency representative.
   - If total potential emissions of HAPs or any Toxic Air Contaminant (as identified in OAC rule 3745-114-01) are greater than 1 ton/yr, fill in the table for that (those) pollutant(s). For all other pollutants, if Emissions before controls (max), lb/hr multiplied by 24 hours/day is greater than 10 lbs/day, fill in the table for that pollutant.
   - Actual emissions are calculated including add-on control equipment. If you have no add-on control equipment, Emissions before controls will be the same as Actual emissions.
   - Actual emissions and Requested Allowable should be based on operating 8760 hr/yr unless you are requesting federally enforceable operating restrictions to limit emissions. If so, calculate emissions based on requested operating restrictions and describe in your calculations.
   - If you use units other than lbs/hr or ton/yr, specify the units used (e.g., gr/dscf, lb/ton charged, lb/MMBtu, tons/12-months).
   - Requested Allowable (ton/yr) is often equivalent to Potential to Emit (PTE) as defined in OAC rule 3745-31-01 and OAC rule 3745-77-01.

Pollutant	Emissions before controls (max)* (lb/hr)	Actual emissions (lb/hr)	Actual emissions (ton/year)	Requested Allowable (lb/hr)	Requested Allowable (ton/year)
Particulate emissions (PE/PM) (formerly particulate matter, PM)	5.3	5.3	23.1	5.3	23.1
PM # 10 microns in diameter (PE/PM10)	5.3	5.3	23.1	5.3	23.1
PM # 2.5 microns in diameter (PE/PM2.5)	5.3	5.3	23.1	5.3	23.1
Sulfur dioxide (SO2)	42	42	184	42	184
Nitrogen oxides (NOx)	70.3	70.3	308	70.3	308
Carbon monoxide (CO)	77.3	77.3	339	77.3	339
Organic compounds (OC)	3.5	3.5	15	3.5	15
Volatile organic compounds (VOC)	3.5	3.5	15	3.5	15
Lead (Pb)	0	0	0	0	0
Total Hazardous Air Pollutants (HAPs)	0	0	0	0	0

Highest single HAP	0	0	0	0	0

4. **Best Available Technology (BAT)** - For each pollutant for which the Requested Allowable in the above table exceeds 10 tons per year, BAT, as defined in OAC 3745-31-01, is required. Describe what has been selected as BAT and the basis for the selection:

   This emission unit is subject to 40 CFR 60 Subpart Db. This represents BAT.

5. **Control Equipment** - Does this air contaminant source employ emissions control equipment?
   See Facility Profile

6. **Process Flow Diagram** - Attach a Process Flow Diagram to this application for this air contaminant source. See the application instructions for additional information.
   Process Flow Diagrams:

Description	Type	EAC Form Type	Public Document Id
Boiler PFD	Process flow diagram		456100

7. **Modeling information: (Note: items in bold in Tables 7-A and/or 7-B, as applicable, are required even if the tables do not otherwise need to be completed. If applicable, all information is required** An air quality modeling analysis is required for PTIs and PTIOs for new installations or modifications, as defined in OAC rule 3745-31-01, where either the increase of toxic air contaminants from any air contaminant source or the increase of any other pollutant for all air contaminant sources combined exceed a threshold listed below. This analysis is to assure that the impact from the requested project will not exceed Ohios Acceptable Incremental Impacts for criteria pollutants and/or Maximum Allowable Ground Level Concentrations (MAGLC) for toxic air contaminants. (See Ohio EPA, DAPCs Engineering Guide #69 for more information.) Permit requests that would have unacceptable impacts cannot be approved as proposed. See the line-by-line PTI/PTIO instructions for additional information.
   See Facility Profile

8. **Request for Federally Enforceable Limits** - As part of this permit application, do you wish to propose voluntary restrictions to limit emissions in order to avoid specific requirements listed below, (i.e., are you requesting federally enforceable limits to obtain synthetic minor status)?
   No

9. **Continuous Emissions Monitoring** Does this air contaminant source utilize any continuous emissions monitoring (CEM) equipment for indicating or demonstrating compliance? This does not include continuous parametric monitoring systems.
   See Facility Profile

10. **EAC Forms** The appropriate Emissions Activity Category (EAC) form(s) must be completed and attached for each air contaminant source. At least one complete EAC form must be submitted for each air contaminant source for the application to be considered complete. Refer to the list attached to the application instructions. Please indicate which EAC form corresponds to this air contaminant source.
    Process Flow Diagrams:

Description	Type	EAC Form Type	Public Document Id
Boiler EAC form	EAC	3101 Fuel burning operation (2003)	456142

Section II - Specific Air Contaminant Source Information

Facility ID: 1409001091
Emissions Unit ID: B002
Company Equipment ID: Boiler 02

One copy of this section should be filled out for each air contaminant source (emissions unit) covered by this PTI/PTIO application identified in Section I, Question 5. See the application instructions for additional information.

1. **Air Contaminant Source Installation or Modification Schedule** Check all that apply (must be completed regardless of date of installation or modification):

New installation (for which construction has not yet begun, in accordance with OAC rule 3745-31-33). When will you begin to install the air contaminant source?
after installation permit has been issued

2. **SCC Codes** - List all Source Classification Code(s) (SCC) that describe the process(es) performed by this air contaminant source (e.g., 1-02-002-04).
See Facility Profile

3. **Emissions Information** - The following table requests information needed to determine the applicable requirements and the compliance status of this air contaminant source with those requirements. Suggestions for how to estimate emissions may be found in the instructions to the Emissions Activity Category (EAC) forms required with this application. If you need further assistance, contact your District Office/Local Air Agency representative.
   - If total potential emissions of HAPs or any Toxic Air Contaminant (as identified in OAC rule 3745-114-01) are greater than 1 ton/yr, fill in the table for that (those) pollutant(s). For all other pollutants, if Emissions before controls (max), lb/hr multiplied by 24 hours/day is greater than 10 lbs/day, fill in the table for that pollutant.
   - Actual emissions are calculated including add-on control equipment. If you have no add-on control equipment, Emissions before controls will be the same as Actual emissions.
   - Actual emissions and Requested Allowable should be based on operating 8760 hr/yr unless you are requesting federally enforceable operating restrictions to limit emissions. If so, calculate emissions based on requested operating restrictions and describe in your calculations.
   - If you use units other than lbs/hr or ton/yr, specify the units used (e.g., gr/dscf, lb/ton charged, lb/MMBtu, tons/12-months).
   - Requested Allowable (ton/yr) is often equivalent to Potential to Emit (PTE) as defined in OAC rule 3745-31-01 and OAC rule 3745-77-01.

Pollutant	Emissions before controls (max)* (lb/hr)	Actual emissions (lb/hr)	Actual emissions (ton/year)	Requested Allowable (lb/hr)	Requested Allowable (ton/year)
Particulate emissions (PE/PM) (formerly particulate matter, PM)	5.3	5.3	23.1	5.3	23.1
PM # 10 microns in diameter (PE/PM10)	5.3	5.3	23.1	5.3	23.1
PM # 2.5 microns in diameter (PE/PM2.5)	5.3	5.3	23.1	5.3	23.1
Sulfur dioxide (SO2)	42	42	184	42	184
Nitrogen oxides (NOx)	70.3	70.3	308	70.3	308
Carbon monoxide (CO)	77.3	77.3	339	77.3	339
Organic compounds (OC)	3.5	3.5	15	3.5	15
Volatile organic compounds (VOC)	3.5	3.5	15	3.5	15
Lead (Pb)	0	0	0	0	0
Total Hazardous Air Pollutants (HAPs)	0	0	0	0	0

Highest single HAP	0	0	0	0	0

4. **Best Available Technology (BAT)** - For each pollutant for which the Requested Allowable in the above table exceeds 10 tons per year, BAT, as defined in OAC 3745-31-01, is required. Describe what has been selected as BAT and the basis for the selection:

   This emission unit is subject to 40 CFR 60 Subpart Db. This represents BAT.

5. **Control Equipment** - Does this air contaminant source employ emissions control equipment?
   See Facility Profile

6. **Process Flow Diagram** - Attach a Process Flow Diagram to this application for this air contaminant source. See the application instructions for additional information.
   Process Flow Diagrams:

Description	Type	EAC Form Type	Public Document Id
Boiler PFD	Process flow diagram		456103

7. **Modeling information: (Note: items in bold in Tables 7-A and/or 7-B, as applicable, are required even if the tables do not otherwise need to be completed. If applicable, all information is required** An air quality modeling analysis is required for PTIs and PTIOs for new installations or modifications, as defined in OAC rule 3745-31-01, where either the increase of toxic air contaminants from any air contaminant source or the increase of any other pollutant for all air contaminant sources combined exceed a threshold listed below. This analysis is to assure that the impact from the requested project will not exceed Ohios Acceptable Incremental Impacts for criteria pollutants and/or Maximum Allowable Ground Level Concentrations (MAGLC) for toxic air contaminants. (See Ohio EPA, DAPCs Engineering Guide #69 for more information.) Permit requests that would have unacceptable impacts cannot be approved as proposed. See the line-by-line PTI/PTIO instructions for additional information.
   See Facility Profile

8. **Request for Federally Enforceable Limits** - As part of this permit application, do you wish to propose voluntary restrictions to limit emissions in order to avoid specific requirements listed below, (i.e., are you requesting federally enforceable limits to obtain synthetic minor status)?
   No

9. **Continuous Emissions Monitoring** Does this air contaminant source utilize any continuous emissions monitoring (CEM) equipment for indicating or demonstrating compliance? This does not include continuous parametric monitoring systems.
   See Facility Profile

10. **EAC Forms** The appropriate Emissions Activity Category (EAC) form(s) must be completed and attached for each air contaminant source. At least one complete EAC form must be submitted for each air contaminant source for the application to be considered complete. Refer to the list attached to the application instructions. Please indicate which EAC form corresponds to this air contaminant source.
    Process Flow Diagrams:

Description	Type	EAC Form Type	Public Document Id
Boiler EAC form	EAC	3101 Fuel burning operation (2003)	456143

Section II - Specific Air Contaminant Source Information

Facility ID: 1409001091
Emissions Unit ID: P001
Company Equipment ID: GT/HRSG

One copy of this section should be filled out for each air contaminant source (emissions unit) covered by this PTI/PTIO application identified in Section I, Question 5. See the application instructions for additional information.

1. **Air Contaminant Source Installation or Modification Schedule** Check all that apply (must be completed regardless of date of installation or modification):

New installation (for which construction has not yet begun, in accordance with OAC rule 3745-31-33). When will you begin to install the air contaminant source?
after installation permit has been issued

2. **SCC Codes** - List all Source Classification Code(s) (SCC) that describe the process(es) performed by this air contaminant source (e.g., 1-02-002-04).
See Facility Profile

3. **Emissions Information** - The following table requests information needed to determine the applicable requirements and the compliance status of this air contaminant source with those requirements. Suggestions for how to estimate emissions may be found in the instructions to the Emissions Activity Category (EAC) forms required with this application. If you need further assistance, contact your District Office/Local Air Agency representative.
   - If total potential emissions of HAPs or any Toxic Air Contaminant (as identified in OAC rule 3745-114-01) are greater than 1 ton/yr, fill in the table for that (those) pollutant(s). For all other pollutants, if Emissions before controls (max), lb/hr multiplied by 24 hours/day is greater than 10 lbs/day, fill in the table for that pollutant.
   - Actual emissions are calculated including add-on control equipment. If you have no add-on control equipment, Emissions before controls will be the same as Actual emissions.
   - Actual emissions and Requested Allowable should be based on operating 8760 hr/yr unless you are requesting federally enforceable operating restrictions to limit emissions. If so, calculate emissions based on requested operating restrictions and describe in your calculations.
   - If you use units other than lbs/hr or ton/yr, specify the units used (e.g., gr/dscf, lb/ton charged, lb/MMBtu, tons/12-months).
   - Requested Allowable (ton/yr) is often equivalent to Potential to Emit (PTE) as defined in OAC rule 3745-31-01 and OAC rule 3745-77-01.

Pollutant	Emissions before controls (max)* (lb/hr)	Actual emissions (lb/hr)	Actual emissions (ton/year)	Requested Allowable (lb/hr)	Requested Allowable (ton/year)
Particulate emissions (PE/PM) (formerly particulate matter, PM)	21.2	21.2	93	21.2	93
PM # 10 microns in diameter (PE/PM10)	21.2	21.2	93	21.2	93
PM # 2.5 microns in diameter (PE/PM2.5)	21.2	21.2	93	21.2	93
Sulfur dioxide (SO2)	132	132	578	132	578
Nitrogen oxides (NOx)	143	73.1	320.2	73.1	320.2
Carbon monoxide (CO)	69.4	69.4	304	69.4	304
Organic compounds (OC)	2.3	2.3	10.1	2.3	10.1
Volatile organic compounds (VOC)	2.3	2.3	10.1	2.3	10.1
Lead (Pb)	0	0	0	0	0
Total Hazardous Air Pollutants (HAPs)	0	0	0	0	0

Highest single HAP	0	0	0	0	0

4. **Best Available Technology (BAT)** - For each pollutant for which the Requested Allowable in the above table exceeds 10 tons per year, BAT, as defined in OAC 3745-31-01, is required. Describe what has been selected as BAT and the basis for the selection:

   This emission unit is subject to 40 CFR Part 60 Subpart KKKK. This regulation establishes BAT.

5. **Control Equipment** - Does this air contaminant source employ emissions control equipment?
   See Facility Profile

6. **Process Flow Diagram** - Attach a Process Flow Diagram to this application for this air contaminant source. See the application instructions for additional information.
   Process Flow Diagrams:

Description	Type	EAC Form Type	Public Document Id
Turbine/HRSG PFD	Process flow diagram		456106

7. **Modeling information: (Note: items in bold in Tables 7-A and/or 7-B, as applicable, are required even if the tables do not otherwise need to be completed. If applicable, all information is required** An air quality modeling analysis is required for PTIs and PTIOs for new installations or modifications, as defined in OAC rule 3745-31-01, where either the increase of toxic air contaminants from any air contaminant source or the increase of any other pollutant for all air contaminant sources combined exceed a threshold listed below. This analysis is to assure that the impact from the requested project will not exceed Ohios Acceptable Incremental Impacts for criteria pollutants and/or Maximum Allowable Ground Level Concentrations (MAGLC) for toxic air contaminants. (See Ohio EPA, DAPCs Engineering Guide #69 for more information.) Permit requests that would have unacceptable impacts cannot be approved as proposed. See the line-by-line PTI/PTIO instructions for additional information.
   See Facility Profile

8. **Request for Federally Enforceable Limits** - As part of this permit application, do you wish to propose voluntary restrictions to limit emissions in order to avoid specific requirements listed below, (i.e., are you requesting federally enforceable limits to obtain synthetic minor status)?
   No

9. **Continuous Emissions Monitoring** Does this air contaminant source utilize any continuous emissions monitoring (CEM) equipment for indicating or demonstrating compliance? This does not include continuous parametric monitoring systems.
   See Facility Profile

10. **EAC Forms** The appropriate Emissions Activity Category (EAC) form(s) must be completed and attached for each air contaminant source. At least one complete EAC form must be submitted for each air contaminant source for the application to be considered complete. Refer to the list attached to the application instructions. Please indicate which EAC form corresponds to this air contaminant source.
    Process Flow Diagrams:

Description	Type	EAC Form Type	Public Document Id
Turbine EAC form	EAC	3862 Stationary Internal Combustion Engine (2003)	456144

Section II - Specific Air Contaminant Source Information

Facility ID: 1409001091
Emissions Unit ID: P002
Company Equipment ID: Cooling Tower

One copy of this section should be filled out for each air contaminant source (emissions unit) covered by this PTI/PTIO application identified in Section I, Question 5. See the application instructions for additional information.

1. **Air Contaminant Source Installation or Modification Schedule** Check all that apply (must be completed regardless of date of installation or modification):

New installation (for which construction has not yet begun, in accordance with OAC rule 3745-31-33). When will you begin to install the air contaminant source?
after installation permit has been issued

2. **SCC Codes** - List all Source Classification Code(s) (SCC) that describe the process(es) performed by this air contaminant source (e.g., 1-02-002-04).

See Facility Profile

3. **Emissions Information** - The following table requests information needed to determine the applicable requirements and the compliance status of this air contaminant source with those requirements. Suggestions for how to estimate emissions may be found in the instructions to the Emissions Activity Category (EAC) forms required with this application. If you need further assistance, contact your District Office/Local Air Agency representative.

- If total potential emissions of HAPs or any Toxic Air Contaminant (as identified in OAC rule 3745-114-01) are greater than 1 ton/yr, fill in the table for that (those) pollutant(s). For all other pollutants, if Emissions before controls (max), lb/hr multiplied by 24 hours/day is greater than 10 lbs/day, fill in the table for that pollutant.
- Actual emissions are calculated including add-on control equipment. If you have no add-on control equipment, Emissions before controls will be the same as Actual emissions.
- Actual emissions and Requested Allowable should be based on operating 8760 hr/yr unless you are requesting federally enforceable operating restrictions to limit emissions. If so, calculate emissions based on requested operating restrictions and describe in your calculations.
- If you use units other than lbs/hr or ton/yr, specify the units used (e.g., gr/dscf, lb/ton charged, lb/MMBtu, tons/12-months).
- Requested Allowable (ton/yr) is often equivalent to Potential to Emit (PTE) as defined in OAC rule 3745-31-01 and OAC rule 3745-77-01.

Pollutant	Emissions before controls (max)* (lb/hr)	Actual emissions (lb/hr)	Actual emissions (ton/year)	Requested Allowable (lb/hr)	Requested Allowable (ton/year)
Particulate emissions (PE/PM) (formerly particulate matter, PM)	0.6	0.6	3	0.6	3
PM # 10 microns in diameter (PE/PM10)	0.6	0.6	3	0.6	3
PM # 2.5 microns in diameter (PE/PM2.5)	0.6	0.6	3	0.6	3
Sulfur dioxide (SO2)	0	0	0	0	0
Nitrogen oxides (NOx)	0	0	0	0	0
Carbon monoxide (CO)	0	0	0	0	0
Organic compounds (OC)	0	0	0	0	0
Volatile organic compounds (VOC)	0	0	0	0	0
Lead (Pb)	0	0	0	0	0
Total Hazardous Air Pollutants (HAPs)	0	0	0	0	0

Highest single HAP	0	0	0	0	0

4. **Best Available Technology (BAT)** - For each pollutant for which the Requested Allowable in the above table exceeds 10 tons per year, BAT, as defined in OAC 3745-31-01, is required. Describe what has been selected as BAT and the basis for the selection:

   This emission unit is equipped with high efficiency drift eliminators that will minimze emissions from the cooling tower. The design drift rate will be 0.0005%, which is considered state-of-the-art for drift elimination. This technolgy represents BAT.

5. **Control Equipment** - Does this air contaminant source employ emissions control equipment?
   See Facility Profile

6. **Process Flow Diagram** - Attach a Process Flow Diagram to this application for this air contaminant source. See the application instructions for additional information.
   Process Flow Diagrams:

Description	Type	EAC Form Type	Public Document Id
Cooling Tower PFD	Process flow diagram		456108

7. **Modeling information: (Note: items in bold in Tables 7-A and/or 7-B, as applicable, are required even if the tables do not otherwise need to be completed. If applicable, all information is required** An air quality modeling analysis is required for PTIs and PTIOs for new installations or modifications, as defined in OAC rule 3745-31-01, where either the increase of toxic air contaminants from any air contaminant source or the increase of any other pollutant for all air contaminant sources combined exceed a threshold listed below. This analysis is to assure that the impact from the requested project will not exceed Ohios Acceptable Incremental Impacts for criteria pollutants and/or Maximum Allowable Ground Level Concentrations (MAGLC) for toxic air contaminants. (See Ohio EPA, DAPCs Engineering Guide #69 for more information.) Permit requests that would have unacceptable impacts cannot be approved as proposed. See the line-by-line PTI/PTIO instructions for additional information.
   See Facility Profile

8. **Request for Federally Enforceable Limits** - As part of this permit application, do you wish to propose voluntary restrictions to limit emissions in order to avoid specific requirements listed below, (i.e., are you requesting federally enforceable limits to obtain synthetic minor status)?
   No

9. **Continuous Emissions Monitoring** Does this air contaminant source utilize any continuous emissions monitoring (CEM) equipment for indicating or demonstrating compliance? This does not include continuous parametric monitoring systems.
   See Facility Profile

10. **EAC Forms** The appropriate Emissions Activity Category (EAC) form(s) must be completed and attached for each air contaminant source. At least one complete EAC form must be submitted for each air contaminant source for the application to be considered complete. Refer to the list attached to the application instructions. Please indicate which EAC form corresponds to this air contaminant source.
    Process Flow Diagrams:

Description	Type	EAC Form Type	Public Document Id
Cooling Tower EAC form	EAC	3100 Process operation (2003)	456145

Section II - Specific Air Contaminant Source Information

Facility ID: 1409001091
Emissions Unit ID: P003
Company Equipment ID: Flare

One copy of this section should be filled out for each air contaminant source (emissions unit) covered by this PTI/PTIO application identified in Section I, Question 5. See the application instructions for additional information.

1. **Air Contaminant Source Installation or Modification Schedule** Check all that apply (must be completed regardless of date of installation or modification):

New installation (for which construction has not yet begun, in accordance with OAC rule 3745-31-33). When will you begin to install the air contaminant source?
after installation permit has been issued

2. **SCC Codes** - List all Source Classification Code(s) (SCC) that describe the process(es) performed by this air contaminant source (e.g., 1-02-002-04).
See Facility Profile

3. **Emissions Information** - The following table requests information needed to determine the applicable requirements and the compliance status of this air contaminant source with those requirements. Suggestions for how to estimate emissions may be found in the instructions to the Emissions Activity Category (EAC) forms required with this application. If you need further assistance, contact your District Office/Local Air Agency representative.
   - If total potential emissions of HAPs or any Toxic Air Contaminant (as identified in OAC rule 3745-114-01) are greater than 1 ton/yr, fill in the table for that (those) pollutant(s). For all other pollutants, if Emissions before controls (max), lb/hr multiplied by 24 hours/day is greater than 10 lbs/day, fill in the table for that pollutant.
   - Actual emissions are calculated including add-on control equipment. If you have no add-on control equipment, Emissions before controls will be the same as Actual emissions.
   - Actual emissions and Requested Allowable should be based on operating 8760 hr/yr unless you are requesting federally enforceable operating restrictions to limit emissions. If so, calculate emissions based on requested operating restrictions and describe in your calculations.
   - If you use units other than lbs/hr or ton/yr, specify the units used (e.g., gr/dscf, lb/ton charged, lb/MMBtu, tons/12-months).
   - Requested Allowable (ton/yr) is often equivalent to Potential to Emit (PTE) as defined in OAC rule 3745-31-01 and OAC rule 3745-77-01.

Pollutant	Emissions before controls (max)* (lb/hr)	Actual emissions (lb/hr)	Actual emissions (ton/year)	Requested Allowable (lb/hr)	Requested Allowable (ton/year)
Particulate emissions (PE/PM) (formerly particulate matter, PM)	0.01	0.01	0.02	0.01	0.02
PM # 10 microns in diameter (PE/PM10)	0.01	0.01	0.02	0.01	0.02
PM # 2.5 microns in diameter (PE/PM2.5)	0.01	0.01	0.02	0.01	0.02
Sulfur dioxide (SO2)	0.01	0.01	0.01	0.01	0.01
Nitrogen oxides (NOx)	0.15	0.15	0.64	0.15	0.64
Carbon monoxide (CO)	0.79	0.79	3.47	0.79	3.47
Organic compounds (OC)	0.01	0.01	0.01	0.01	0.01
Volatile organic compounds (VOC)	0.01	0.01	0.01	0.01	0.01
Lead (Pb)	0	0	0	0	0
Total Hazardous Air Pollutants (HAPs)	0	0	0	0	0

Highest single HAP	0	0	0	0	0

4. **Best Available Technology (BAT)** - For each pollutant for which the Requested Allowable in the above table exceeds 10 tons per year, BAT, as defined in OAC 3745-31-01, is required. Describe what has been selected as BAT and the basis for the selection:

   Very specific operating procedures are required to safely startup, shutdown, and operate the proposed facility. Associated with these procedures is the integral use of the flare as a control device to provide for the safe and efficient destruction of combustible gas streams from the blast furnace during intermittent periods of atypical operations. Potential emissions from the flare are associated with a continuous natural gas pilot during all operations.

   The flare will be designed to achieve current state-of-the-art efficiencies and engineering standard requirements. This represents BAT.

5. **Control Equipment** - Does this air contaminant source employ emissions control equipment?
   See Facility Profile

6. **Process Flow Diagram** - Attach a Process Flow Diagram to this application for this air contaminant source. See the application instructions for additional information.
   Process Flow Diagrams:

Description	Type	EAC Form Type	Public Document Id
Flare PFD	Process flow diagram		456110

7. **Modeling information: (Note: items in bold in Tables 7-A and/or 7-B, as applicable, are required even if the tables do not otherwise need to be completed. If applicable, all information is required** An air quality modeling analysis is required for PTIs and PTIOs for new installations or modifications, as defined in OAC rule 3745-31-01, where either the increase of toxic air contaminants from any air contaminant source or the increase of any other pollutant for all air contaminant sources combined exceed a threshold listed below. This analysis is to assure that the impact from the requested project will not exceed Ohios Acceptable Incremental Impacts for criteria pollutants and/or Maximum Allowable Ground Level Concentrations (MAGLC) for toxic air contaminants. (See Ohio EPA, DAPCs Engineering Guide #69 for more information.) Permit requests that would have unacceptable impacts cannot be approved as proposed. See the line-by-line PTI/PTIO instructions for additional information.
   See Facility Profile

8. **Request for Federally Enforceable Limits** - As part of this permit application, do you wish to propose voluntary restrictions to limit emissions in order to avoid specific requirements listed below, (i.e., are you requesting federally enforceable limits to obtain synthetic minor status)?
   No

9. **Continuous Emissions Monitoring** Does this air contaminant source utilize any continuous emissions monitoring (CEM) equipment for indicating or demonstrating compliance? This does not include continuous parametric monitoring systems.
   See Facility Profile

10. **EAC Forms** The appropriate Emissions Activity Category (EAC) form(s) must be completed and attached for each air contaminant source. At least one complete EAC form must be submitted for each air contaminant source for the application to be considered complete. Refer to the list attached to the application instructions. Please indicate which EAC form corresponds to this air contaminant source.
    Process Flow Diagrams:

Description	Type	EAC Form Type	Public Document Id
Flare EAC	EAC	3102 Incinerator Operations (2003)	456146

Section II - Specific Air Contaminant Source Information

Facility ID: 1409001091
Emissions Unit ID: P801
Company Equipment ID: Fugitive CO

One copy of this section should be filled out for each air contaminant source (emissions unit) covered by this PTI/PTIO application identified in Section I, Question 5. See the application instructions for additional information.

1. **Air Contaminant Source Installation or Modification Schedule** Check all that apply (must be completed regardless of date of installation or modification):

New installation (for which construction has not yet begun, in accordance with OAC rule 3745-31-33). When will you begin to install the air contaminant source?
after installation permit has been issued

2. **SCC Codes** - List all Source Classification Code(s) (SCC) that describe the process(es) performed by this air contaminant source (e.g., 1-02-002-04).
See Facility Profile

3. **Emissions Information** - The following table requests information needed to determine the applicable requirements and the compliance status of this air contaminant source with those requirements. Suggestions for how to estimate emissions may be found in the instructions to the Emissions Activity Category (EAC) forms required with this application. If you need further assistance, contact your District Office/Local Air Agency representative.
   - If total potential emissions of HAPs or any Toxic Air Contaminant (as identified in OAC rule 3745-114-01) are greater than 1 ton/yr, fill in the table for that (those) pollutant(s). For all other pollutants, if Emissions before controls (max), lb/hr multiplied by 24 hours/day is greater than 10 lbs/day, fill in the table for that pollutant.
   - Actual emissions are calculated including add-on control equipment. If you have no add-on control equipment, Emissions before controls will be the same as Actual emissions.
   - Actual emissions and Requested Allowable should be based on operating 8760 hr/yr unless you are requesting federally enforceable operating restrictions to limit emissions. If so, calculate emissions based on requested operating restrictions and describe in your calculations.
   - If you use units other than lbs/hr or ton/yr, specify the units used (e.g., gr/dscf, lb/ton charged, lb/MMBtu, tons/12-months).
   - Requested Allowable (ton/yr) is often equivalent to Potential to Emit (PTE) as defined in OAC rule 3745-31-01 and OAC rule 3745-77-01.

Pollutant	Emissions before controls (max)* (lb/hr)	Actual emissions (lb/hr)	Actual emissions (ton/year)	Requested Allowable (lb/hr)	Requested Allowable (ton/year)
Particulate emissions (PE/PM) (formerly particulate matter, PM)	0	0	0	0	0
PM # 10 microns in diameter (PE/PM10)	0	0	0	0	0
PM # 2.5 microns in diameter (PE/PM2.5)	0	0	0	0	0
Sulfur dioxide (SO2)	0	0	0	0	0
Nitrogen oxides (NOx)	0	0	0	0	0
Carbon monoxide (CO)	2.9	2.9	13	2.9	13
Organic compounds (OC)	0	0	0	0	0
Volatile organic compounds (VOC)	0	0	0	0	0
Lead (Pb)	0	0	0	0	0
Total Hazardous Air Pollutants (HAPs)	0	0	0	0	0

Highest single HAP	0	0	0	0	0

4. **Best Available Technology (BAT)** - For each pollutant for which the Requested Allowable in the above table exceeds 10 tons per year, BAT, as defined in OAC 3745-31-01, is required. Describe what has been selected as BAT and the basis for the selection:

   This emission unit was estimated using the AP-42 Factors for typical equipment leaks. The BFG Handling Systems will be designed to meet todays engineering standards and plant safety requirements. This state-of-the-art equipment will meet BAT.

5. **Control Equipment** - Does this air contaminant source employ emissions control equipment?
   See Facility Profile

6. **Process Flow Diagram** - Attach a Process Flow Diagram to this application for this air contaminant source. See the application instructions for additional information.
   Process Flow Diagrams:

Description	Type	EAC Form Type	Public Document Id
CO Fugitive PFD	Process flow diagram		456112

7. **Modeling information: (Note: items in bold in Tables 7-A and/or 7-B, as applicable, are required even if the tables do not otherwise need to be completed. If applicable, all information is required** An air quality modeling analysis is required for PTIs and PTIOs for new installations or modifications, as defined in OAC rule 3745-31-01, where either the increase of toxic air contaminants from any air contaminant source or the increase of any other pollutant for all air contaminant sources combined exceed a threshold listed below. This analysis is to assure that the impact from the requested project will not exceed Ohios Acceptable Incremental Impacts for criteria pollutants and/or Maximum Allowable Ground Level Concentrations (MAGLC) for toxic air contaminants. (See Ohio EPA, DAPCs Engineering Guide #69 for more information.) Permit requests that would have unacceptable impacts cannot be approved as proposed. See the line-by-line PTI/PTIO instructions for additional information.
   See Facility Profile

8. **Request for Federally Enforceable Limits** - As part of this permit application, do you wish to propose voluntary restrictions to limit emissions in order to avoid specific requirements listed below, (i.e., are you requesting federally enforceable limits to obtain synthetic minor status)?
   No

9. **Continuous Emissions Monitoring** Does this air contaminant source utilize any continuous emissions monitoring (CEM) equipment for indicating or demonstrating compliance? This does not include continuous parametric monitoring systems.
   See Facility Profile

10. **EAC Forms** The appropriate Emissions Activity Category (EAC) form(s) must be completed and attached for each air contaminant source. At least one complete EAC form must be submitted for each air contaminant source for the application to be considered complete. Refer to the list attached to the application instructions. Please indicate which EAC form corresponds to this air contaminant source.
    Process Flow Diagrams:

Description	Type	EAC Form Type	Public Document Id
CO Fugitives	EAC	3100 Process operation (2003)	456534

Section II - Specific Air Contaminant Source Information

Facility ID: 1409001091
Emissions Unit ID: TMP167115
Company Equipment ID: Roads

One copy of this section should be filled out for each air contaminant source (emissions unit) covered by this PTI/PTIO application identified in Section I, Question 5. See the application instructions for additional information.

1. **Air Contaminant Source Installation or Modification Schedule** Check all that apply (must be completed regardless of date of installation or modification):

New installation (for which construction has not yet begun, in accordance with OAC rule 3745-31-33). When will you begin to install the air contaminant source?
after installation permit has been issued

2. **SCC Codes** - List all Source Classification Code(s) (SCC) that describe the process(es) performed by this air contaminant source (e.g., 1-02-002-04).
See Facility Profile

3. **Emissions Information** - The following table requests information needed to determine the applicable requirements and the compliance status of this air contaminant source with those requirements. Suggestions for how to estimate emissions may be found in the instructions to the Emissions Activity Category (EAC) forms required with this application. If you need further assistance, contact your District Office/Local Air Agency representative.
   - If total potential emissions of HAPs or any Toxic Air Contaminant (as identified in OAC rule 3745-114-01) are greater than 1 ton/yr, fill in the table for that (those) pollutant(s). For all other pollutants, if Emissions before controls (max), lb/hr multiplied by 24 hours/day is greater than 10 lbs/day, fill in the table for that pollutant.
   - Actual emissions are calculated including add-on control equipment. If you have no add-on control equipment, Emissions before controls will be the same as Actual emissions.
   - Actual emissions and Requested Allowable should be based on operating 8760 hr/yr unless you are requesting federally enforceable operating restrictions to limit emissions. If so, calculate emissions based on requested operating restrictions and describe in your calculations.
   - If you use units other than lbs/hr or ton/yr, specify the units used (e.g., gr/dscf, lb/ton charged, lb/MMBtu, tons/12-months).
   - Requested Allowable (ton/yr) is often equivalent to Potential to Emit (PTE) as defined in OAC rule 3745-31-01 and OAC rule 3745-77-01.

Pollutant	Emissions before controls (max)* (lb/hr)	Actual emissions (lb/hr)	Actual emissions (ton/year)	Requested Allowable (lb/hr)	Requested Allowable (ton/year)
Particulate emissions (PE/PM) (formerly particulate matter, PM)	0.06	0.06	1	0.06	1
PM # 10 microns in diameter (PE/PM10)	0.06	0.06	0.3	0.06	0.3
PM # 2.5 microns in diameter (PE/PM2.5)	0.01	0.01	0.03	0.01	0.03
Sulfur dioxide (SO2)	0	0	0	0	0
Nitrogen oxides (NOx)	0	0	0	0	0
Carbon monoxide (CO)	0	0	0	0	0
Organic compounds (OC)	0	0	0	0	0
Volatile organic compounds (VOC)	0	0	0	0	0
Lead (Pb)	0	0	0	0	0
Total Hazardous Air Pollutants (HAPs)	0	0	0	0	0

Highest single HAP	0	0	0	0	0

4. **Best Available Technology (BAT)** - For each pollutant for which the Requested Allowable in the above table exceeds 10 tons per year, BAT, as defined in OAC 3745-31-01, is required. Describe what has been selected as BAT and the basis for the selection:

5. **Control Equipment** - Does this air contaminant source employ emissions control equipment?
   See Facility Profile
6. **Process Flow Diagram** - Attach a Process Flow Diagram to this application for this air contaminant source. See the application instructions for additional information.
   Process Flow Diagrams:

Description	Type	EAC Form Type	Public Document Id
Roads PFD	Process flow diagram		456735

7. **Modeling information: (Note: items in bold in Tables 7-A and/or 7-B, as applicable, are required even if the tables do not otherwise need to be completed. If applicable, all information is required** An air quality modeling analysis is required for PTIs and PTIOs for new installations or modifications, as defined in OAC rule 3745-31-01, where either the increase of toxic air contaminants from any air contaminant source or the increase of any other pollutant for all air contaminant sources combined exceed a threshold listed below. This analysis is to assure that the impact from the requested project will not exceed Ohios Acceptable Incremental Impacts for criteria pollutants and/or Maximum Allowable Ground Level Concentrations (MAGLC) for toxic air contaminants. (See Ohio EPA, DAPCs Engineering Guide #69 for more information.) Permit requests that would have unacceptable impacts cannot be approved as proposed. See the line-by-line PTI/PTIO instructions for additional information.
   See Facility Profile
8. **Request for Federally Enforceable Limits** - As part of this permit application, do you wish to propose voluntary restrictions to limit emissions in order to avoid specific requirements listed below, (i.e., are you requesting federally enforceable limits to obtain synthetic minor status)?
   No
9. **Continuous Emissions Monitoring** Does this air contaminant source utilize any continuous emissions monitoring (CEM) equipment for indicating or demonstrating compliance? This does not include continuous parametric monitoring systems.
   See Facility Profile
10. **EAC Forms** The appropriate Emissions Activity Category (EAC) form(s) must be completed and attached for each air contaminant source. At least one complete EAC form must be submitted for each air contaminant source for the application to be considered complete. Refer to the list attached to the application instructions. Please indicate which EAC form corresponds to this air contaminant source.
    Process Flow Diagrams:

Description	Type	EAC Form Type	Public Document Id
Road EAC	EAC	3111 Roadways and Parking Areas (2003)	456418

Section II - Specific Air Contaminant Source Information

Facility ID: 1409001091
Emissions Unit ID: TMP167117
Company Equipment ID: Inorganic storage tanks

One copy of this section should be filled out for each air contaminant source (emissions unit) covered by this PTI/PTIO application identified in Section I, Question 5. See the application instructions for additional information.

1. **Air Contaminant Source Installation or Modification Schedule** Check all that apply (must be completed regardless of date of installation or modification):

New installation (for which construction has not yet begun, in accordance with OAC rule 3745-31-33). When will you begin to install the air contaminant source?
after installation permit has been issued

2. **SCC Codes** - List all Source Classification Code(s) (SCC) that describe the process(es) performed by this air contaminant source (e.g., 1-02-002-04).

See Facility Profile

3. **Emissions Information** - The following table requests information needed to determine the applicable requirements and the compliance status of this air contaminant source with those requirements. Suggestions for how to estimate emissions may be found in the instructions to the Emissions Activity Category (EAC) forms required with this application. If you need further assistance, contact your District Office/Local Air Agency representative.

- If total potential emissions of HAPs or any Toxic Air Contaminant (as identified in OAC rule 3745-114-01) are greater than 1 ton/yr, fill in the table for that (those) pollutant(s). For all other pollutants, if Emissions before controls (max), lb/hr multiplied by 24 hours/day is greater than 10 lbs/day, fill in the table for that pollutant.
- Actual emissions are calculated including add-on control equipment. If you have no add-on control equipment, Emissions before controls will be the same as Actual emissions.
- Actual emissions and Requested Allowable should be based on operating 8760 hr/yr unless you are requesting federally enforceable operating restrictions to limit emissions. If so, calculate emissions based on requested operating restrictions and describe in your calculations.
- If you use units other than lbs/hr or ton/yr, specify the units used (e.g., gr/dscf, lb/ton charged, lb/MMBtu, tons/12-months).
- Requested Allowable (ton/yr) is often equivalent to Potential to Emit (PTE) as defined in OAC rule 3745-31-01 and OAC rule 3745-77-01.

Pollutant	Emissions before controls (max)* (lb/hr)	Actual emissions (lb/hr)	Actual emissions (ton/year)	Requested Allowable (lb/hr)	Requested Allowable (ton/year)
Particulate emissions (PE/PM) (formerly particulate matter, PM)	0.01	0.01	0.01	0.01	0.01
PM # 10 microns in diameter (PE/PM10)	0.01	0.01	0.01	0.01	0.01
PM # 2.5 microns in diameter (PE/PM2.5)	0.01	0.01	0.01	0.01	0.01
Sulfur dioxide (SO2)	0	0	0	0	0
Nitrogen oxides (NOx)	0	0	0	0	0
Carbon monoxide (CO)	0	0	0	0	0
Organic compounds (OC)	0	0	0	0	0
Volatile organic compounds (VOC)	0	0	0	0	0
Lead (Pb)	0	0	0	0	0
Total Hazardous Air Pollutants (HAPs)	0	0	0	0	0

Highest single HAP	0	0	0	0	0

4. **Best Available Technology (BAT)** - For each pollutant for which the Requested Allowable in the above table exceeds 10 tons per year, BAT, as defined in OAC 3745-31-01, is required. Describe what has been selected as BAT and the basis for the selection:

5. **Control Equipment** - Does this air contaminant source employ emissions control equipment?
   See Facility Profile
6. **Process Flow Diagram** - Attach a Process Flow Diagram to this application for this air contaminant source. See the application instructions for additional information.
   Process Flow Diagrams:

Description	Type	EAC Form Type	Public Document Id
Acid Tanks PFD	Process flow diagram		456730

7. **Modeling information: (Note: items in bold in Tables 7-A and/or 7-B, as applicable, are required even if the tables do not otherwise need to be completed. If applicable, all information is required** An air quality modeling analysis is required for PTIs and PTIOs for new installations or modifications, as defined in OAC rule 3745-31-01, where either the increase of toxic air contaminants from any air contaminant source or the increase of any other pollutant for all air contaminant sources combined exceed a threshold listed below. This analysis is to assure that the impact from the requested project will not exceed Ohios Acceptable Incremental Impacts for criteria pollutants and/or Maximum Allowable Ground Level Concentrations (MAGLC) for toxic air contaminants. (See Ohio EPA, DAPCs Engineering Guide #69 for more information.) Permit requests that would have unacceptable impacts cannot be approved as proposed. See the line-by-line PTI/PTIO instructions for additional information.
   See Facility Profile
8. **Request for Federally Enforceable Limits** - As part of this permit application, do you wish to propose voluntary restrictions to limit emissions in order to avoid specific requirements listed below, (i.e., are you requesting federally enforceable limits to obtain synthetic minor status)?
   No
9. **Continuous Emissions Monitoring** Does this air contaminant source utilize any continuous emissions monitoring (CEM) equipment for indicating or demonstrating compliance? This does not include continuous parametric monitoring systems.
   See Facility Profile
10. **EAC Forms** The appropriate Emissions Activity Category (EAC) form(s) must be completed and attached for each air contaminant source. At least one complete EAC form must be submitted for each air contaminant source for the application to be considered complete. Refer to the list attached to the application instructions. Please indicate which EAC form corresponds to this air contaminant source.
    Process Flow Diagrams:

Description	Type	EAC Form Type	Public Document Id
Inorganic storage tanks	EAC	3104 Storage Tank (2003)	456445

Section II - Specific Air Contaminant Source Information

Facility ID: 1409001091
Emissions Unit ID: TMP167120
Company Equipment ID: Ammonia Fugitives

One copy of this section should be filled out for each air contaminant source (emissions unit) covered by this PTI/PTIO application identified in Section I, Question 5. See the application instructions for additional information.

1. **Air Contaminant Source Installation or Modification Schedule** Check all that apply (must be completed regardless of date of installation or modification):

New installation (for which construction has not yet begun, in accordance with OAC rule 3745-31-33). When will you begin to install the air contaminant source?
after installation permit has been issued

2. **SCC Codes** - List all Source Classification Code(s) (SCC) that describe the process(es) performed by this air contaminant source (e.g., 1-02-002-04).

See Facility Profile

3. **Emissions Information** - The following table requests information needed to determine the applicable requirements and the compliance status of this air contaminant source with those requirements. Suggestions for how to estimate emissions may be found in the instructions to the Emissions Activity Category (EAC) forms required with this application. If you need further assistance, contact your District Office/Local Air Agency representative.

- If total potential emissions of HAPs or any Toxic Air Contaminant (as identified in OAC rule 3745-114-01) are greater than 1 ton/yr, fill in the table for that (those) pollutant(s). For all other pollutants, if Emissions before controls (max), lb/hr multiplied by 24 hours/day is greater than 10 lbs/day, fill in the table for that pollutant.
- Actual emissions are calculated including add-on control equipment. If you have no add-on control equipment, Emissions before controls will be the same as Actual emissions.
- Actual emissions and Requested Allowable should be based on operating 8760 hr/yr unless you are requesting federally enforceable operating restrictions to limit emissions. If so, calculate emissions based on requested operating restrictions and describe in your calculations.
- If you use units other than lbs/hr or ton/yr, specify the units used (e.g., gr/dscf, lb/ton charged, lb/MMBtu, tons/12-months).
- Requested Allowable (ton/yr) is often equivalent to Potential to Emit (PTE) as defined in OAC rule 3745-31-01 and OAC rule 3745-77-01.

Pollutant	Emissions before controls (max)* (lb/hr)	Actual emissions (lb/hr)	Actual emissions (ton/year)	Requested Allowable (lb/hr)	Requested Allowable (ton/year)
Particulate emissions (PE/PM) (formerly particulate matter, PM)	0.01	0.01	0.01	0.01	0.01
PM # 10 microns in diameter (PE/PM10)	0	0	0	0	0
PM # 2.5 microns in diameter (PE/PM2.5)	0	0	0	0	0
Sulfur dioxide (SO2)	0	0	0	0	0
Nitrogen oxides (NOx)	0	0	0	0	0
Carbon monoxide (CO)	0	0	0	0	0
Organic compounds (OC)	0	0	0	0	0
Volatile organic compounds (VOC)	0	0	0	0	0
Lead (Pb)	0	0	0	0	0
Total Hazardous Air Pollutants (HAPs)	0	0	0	0	0

Highest single HAP	0	0	0	0	0

4. **Best Available Technology (BAT)** - For each pollutant for which the Requested Allowable in the above table exceeds 10 tons per year, BAT, as defined in OAC 3745-31-01, is required. Describe what has been selected as BAT and the basis for the selection:

5. **Control Equipment** - Does this air contaminant source employ emissions control equipment?
   See Facility Profile
6. **Process Flow Diagram** - Attach a Process Flow Diagram to this application for this air contaminant source. See the application instructions for additional information.
   Process Flow Diagrams:

Description	Type	EAC Form Type	Public Document Id
NH3 fugitive PFD	Process flow diagram		456732

7. **Modeling information: (Note: items in bold in Tables 7-A and/or 7-B, as applicable, are required even if the tables do not otherwise need to be completed. If applicable, all information is required** An air quality modeling analysis is required for PTIs and PTIOs for new installations or modifications, as defined in OAC rule 3745-31-01, where either the increase of toxic air contaminants from any air contaminant source or the increase of any other pollutant for all air contaminant sources combined exceed a threshold listed below. This analysis is to assure that the impact from the requested project will not exceed Ohios Acceptable Incremental Impacts for criteria pollutants and/or Maximum Allowable Ground Level Concentrations (MAGLC) for toxic air contaminants. (See Ohio EPA, DAPCs Engineering Guide #69 for more information.) Permit requests that would have unacceptable impacts cannot be approved as proposed. See the line-by-line PTI/PTIO instructions for additional information.
   See Facility Profile
8. **Request for Federally Enforceable Limits** - As part of this permit application, do you wish to propose voluntary restrictions to limit emissions in order to avoid specific requirements listed below, (i.e., are you requesting federally enforceable limits to obtain synthetic minor status)?
   No
9. **Continuous Emissions Monitoring** Does this air contaminant source utilize any continuous emissions monitoring (CEM) equipment for indicating or demonstrating compliance? This does not include continuous parametric monitoring systems.
   See Facility Profile
10. **EAC Forms** The appropriate Emissions Activity Category (EAC) form(s) must be completed and attached for each air contaminant source. At least one complete EAC form must be submitted for each air contaminant source for the application to be considered complete. Refer to the list attached to the application instructions. Please indicate which EAC form corresponds to this air contaminant source.
    Process Flow Diagrams:

Description	Type	EAC Form Type	Public Document Id
Ammonia Fugitive	EAC	3100 Process operation (2003)	456546

Section II - Specific Air Contaminant Source Information

Facility ID: 1409001091
Emissions Unit ID: TMP167135
Company Equipment ID: Ethylene Gylcol Fugitives

One copy of this section should be filled out for each air contaminant source (emissions unit) covered by this PTI/PTIO application identified in Section I, Question 5. See the application instructions for additional information.

1. **Air Contaminant Source Installation or Modification Schedule** Check all that apply (must be completed regardless of date of installation or modification):

New installation (for which construction has not yet begun, in accordance with OAC rule 3745-31-33). When will you begin to install the air contaminant source?
after installation permit has been issued

2. **SCC Codes** - List all Source Classification Code(s) (SCC) that describe the process(es) performed by this air contaminant source (e.g., 1-02-002-04).

See Facility Profile

3. **Emissions Information** - The following table requests information needed to determine the applicable requirements and the compliance status of this air contaminant source with those requirements. Suggestions for how to estimate emissions may be found in the instructions to the Emissions Activity Category (EAC) forms required with this application. If you need further assistance, contact your District Office/Local Air Agency representative.

- If total potential emissions of HAPs or any Toxic Air Contaminant (as identified in OAC rule 3745-114-01) are greater than 1 ton/yr, fill in the table for that (those) pollutant(s). For all other pollutants, if Emissions before controls (max), lb/hr multiplied by 24 hours/day is greater than 10 lbs/day, fill in the table for that pollutant.
- Actual emissions are calculated including add-on control equipment. If you have no add-on control equipment, Emissions before controls will be the same as Actual emissions.
- Actual emissions and Requested Allowable should be based on operating 8760 hr/yr unless you are requesting federally enforceable operating restrictions to limit emissions. If so, calculate emissions based on requested operating restrictions and describe in your calculations.
- If you use units other than lbs/hr or ton/yr, specify the units used (e.g., gr/dscf, lb/ton charged, lb/MMBtu, tons/12-months).
- Requested Allowable (ton/yr) is often equivalent to Potential to Emit (PTE) as defined in OAC rule 3745-31-01 and OAC rule 3745-77-01.

Pollutant	Emissions before controls (max)* (lb/hr)	Actual emissions (lb/hr)	Actual emissions (ton/year)	Requested Allowable (lb/hr)	Requested Allowable (ton/year)
Particulate emissions (PE/PM) (formerly particulate matter, PM)	0	0	0	0	0
PM # 10 microns in diameter (PE/PM10)	0	0	0	0	0
PM # 2.5 microns in diameter (PE/PM2.5)	0	0	0	0	0
Sulfur dioxide (SO2)	0	0	0	0	0
Nitrogen oxides (NOx)	0	0	0	0	0
Carbon monoxide (CO)	0	0	0	0	0
Organic compounds (OC)	0.01	0.01	0.01	0.01	0.01
Volatile organic compounds (VOC)	0.01	0.01	0.01	0.01	0.01
Lead (Pb)	0	0	0	0	0
Total Hazardous Air Pollutants (HAPs)	0	0	0	0	0

Highest single HAP	0	0	0	0	0

4. **Best Available Technology (BAT)** - For each pollutant for which the Requested Allowable in the above table exceeds 10 tons per year, BAT, as defined in OAC 3745-31-01, is required. Describe what has been selected as BAT and the basis for the selection:

5. **Control Equipment** - Does this air contaminant source employ emissions control equipment?
   See Facility Profile
6. **Process Flow Diagram** - Attach a Process Flow Diagram to this application for this air contaminant source. See the application instructions for additional information.
   Process Flow Diagrams:

Description	Type	EAC Form Type	Public Document Id
Ethylene Gylcol PFD	Process flow diagram		456767

7. **Modeling information: (Note: items in bold in Tables 7-A and/or 7-B, as applicable, are required even if the tables do not otherwise need to be completed. If applicable, all information is required** An air quality modeling analysis is required for PTIs and PTIOs for new installations or modifications, as defined in OAC rule 3745-31-01, where either the increase of toxic air contaminants from any air contaminant source or the increase of any other pollutant for all air contaminant sources combined exceed a threshold listed below. This analysis is to assure that the impact from the requested project will not exceed Ohios Acceptable Incremental Impacts for criteria pollutants and/or Maximum Allowable Ground Level Concentrations (MAGLC) for toxic air contaminants. (See Ohio EPA, DAPCs Engineering Guide #69 for more information.) Permit requests that would have unacceptable impacts cannot be approved as proposed. See the line-by-line PTI/PTIO instructions for additional information.
   See Facility Profile
8. **Request for Federally Enforceable Limits** - As part of this permit application, do you wish to propose voluntary restrictions to limit emissions in order to avoid specific requirements listed below, (i.e., are you requesting federally enforceable limits to obtain synthetic minor status)?
   No
9. **Continuous Emissions Monitoring** Does this air contaminant source utilize any continuous emissions monitoring (CEM) equipment for indicating or demonstrating compliance? This does not include continuous parametric monitoring systems.
   See Facility Profile
10. **EAC Forms** The appropriate Emissions Activity Category (EAC) form(s) must be completed and attached for each air contaminant source. At least one complete EAC form must be submitted for each air contaminant source for the application to be considered complete. Refer to the list attached to the application instructions. Please indicate which EAC form corresponds to this air contaminant source.
    Process Flow Diagrams:

Description	Type	EAC Form Type	Public Document Id
EG EAC form	EAC	3100 Process operation (2003)	456773