THE OKONITE COMPANY
www.okonite.com

August 1, 2023

Ms. Amy Tempus-Doom
Supervisor, Metallurgical Section
Air Permit Branch
Kentucky Division for Air Quality
300 Sower Blvd, Second Floor
Frankfort, KY 40601

Submittal Via EEC eForms

RE: Permit Modification Application - The Okonite Company, AI 2858

Dear Ms. Tempus-Doom:

The Okonite Company (Okonite) located in Richmond, Ky. operates under a Federally-Enforceable State Operating Permit (FESOP) no. F-20-009 issued July 1, 2020. To preclude Title V permit regulations, the FESOP limits the facility to 90 tons per year (tpy) of volatile organic compound (VOC) emissions, and 9 tpy of emissions from a single hazardous air pollutant (HAP), specifically acetophenone.

Calculations submitted with the FESOP renewal application in November 2019 showed that the Okonite facility has the potential to emit 12.15 tpy of acetophenone from the continuous vulcanization (CV) rubber extrusion operations. However, based on previous production data which showed that actual emissions at the facility were much lower, Okonite agreed to the 9 tpy FESOP limit.

Due to increased demand for electrical infrastructure in recent years, Okonite has slowly encroached on the 9 tpy limit; when preparing the Annual Compliance Certification in January 2023, Okonite personnel realized that the calculated rolling 12-month acetophenone emissions surpassed the permit limit in March 2022 through December 2022. Okonite marked this as "not in compliance" on the Annual Compliance Certification, submitted corrective actions, and submitted an online notification to the Division of Air Quality (the Division) in accordance with Section F.8 of the FESOP. The corrective action stated that Okonite would prepare a Title V permit application to remove the 9 tpy limit, ensuring air permit compliance.

This letter and the attached documentation have been prepared to accomplish the following:

1) Provide the Division with the required documentation for this significant permit revision application (FESOP to Title V permit)
2) Describe existing equipment and processes that need to be changed/removed from the proposed permit
3) Provide the Division with a draft Title V operating permit to highlight the changes requested by the facility in this application.

FACILITY CHANGES – PERMIT SECTION B

Some facility changes have been made since the issuance of the FESOP; specifically, removal of emission units. These changes are detailed below.

EMISSION UNIT (EU) 2.1 – 8 CV Rubber Extrusion Lines

EU 2.1 includes eight (8) permitted CV rubber extrusion lines; one of these lines, EP 807 has been decommissioned and therefore should be removed from the Title V permit.

Okonite also plans to modify the existing CV lines by adding new extrusion equipment. The new equipment will allow the lines to produce more insulated cable but will not change the mix design or the emission factor for the product. The CV rubber extrusion lines are shut down periodically for regular maintenance; therefore, the maximum hours of operation for each line are 8,000 hours per year.

EU 4.1 – Cable Printing

EU 4.1 includes twenty-five (25) printers to coat cables with applicable electrical information. A total of two (2) cable printers have been decommissioned at the facility; one (1) of these is an inkjet printer (IJ 3) and one (1) of these is an offset printer (OP 1). These printers should be removed from the Title V permit.

EU 7.1 – Boiler #1

Boiler #1, the 21 MMBtu/hr dual-fuel boiler installed in 1969 and permitted as EU 7.1 has been decommissioned and disconnected from natural gas. It has not run since the spring of 2018 and is no longer needed for plant processes or building heat. This boiler should be removed from the Title V permit.

EU 7.6 – New Indirect Heat Exchanger

EU 7.6, the 1.8 MMBtu/hr natural gas front office boiler installed in 1986 has been decommissioned and disconnected from natural gas. It has not been used since 2018 and should be removed from the Title V permit.

FACILITY CHANGES – PERMIT SECTION C – Insignificant Activities

Item 2 – Lacquer Lines

As of 2019, the facility no longer applies lacquer on line 7870 and 7837 but plans to apply lacquer to line 7815 in the near future. This change should be made on the Title V permit.

Item 5 – Wire Stranding Lines

Two of these units (804 and 812) were removed in 2020 and should be removed from the Title V permit.

PTE CALCULATIONS AND SOURCE-WIDE EMISSIONS

The source-wide PTE, based on the Kentucky Emissions Inventory Survey (KYEIS) from reporting year 2022 is summarized in a spreadsheet attached to this application. The proposed source-wide PTE are also included in this spreadsheet; this reflects the removal of the natural gas combustion units described above and the increased throughput of the CV extrusion lines as a result of equipment modifications. In addition, Okonite has included the source-wide 12-month rolling VOC and HAP calculations from January 2021 to May 2023.

DRAFT TITLE V PERMIT

Okonite has included with this application recommended draft language in the relevant sections of the current FESOP air permit F-20-009.

The air permit sections that did not change or were unaffected by the planned changes are not included in the permit modification application.

PERMIT APPLICATION DOCUMENTS

Okonite has prepared and attached to this permit application the following documents:

- DEP 7007AI – Administrative Information (significant permit revision)
- DEP 7007B – Manufacturing or Process Operations
    - Note that since no changes will be made to the process flow or raw materials used, a flow diagram and SDS's are not included.
- DEP 7007N – Source Emissions Profile
    - Source-wide RAP/HAP PTE calculations from the 2022 KYEIS, source-wide PTE calculations resulting from plant changes, and net PTE change.
    - Source-wide VOC and Acetophenone emissions calculated monthly on a rolling 12-month basis from January 2021 to May 2023
- DEP 7007V – Applicable Requirements and Compliance Activities (see draft air permit)
- Draft Title V permit language for changes noted in permit application.

REGULATORY DISCUSSON

Okonite requests with this application a significant permit revision; removal of the 9 tpy limit for acetophenone and thereby a status change from a FESOP source to a Title V source. Okonite wishes to retain the 90 tpy limit on VOCs to remain a minor source of criteria air pollutants.

There are two types of revisions which qualify as significant permit revisions under 401 KAR 52:030 Section 16:

1. Those which involve significant changes in the monitoring requirements or relaxation in the reporting or recordkeeping requirements contained in the permit
2. Those which do not qualify as administrative permit amendments or minor permit revisions.

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Okonite does not request any changes to monitoring, testing, recordkeeping, or reporting conditions established by the current air permit; however, since the source is requesting a change to an emission limitation, this revision does not qualify as an administrative or minor permit revision. Therefore, Okonite requests that the Division process this permit revision as a significant permit revision.

Since Okonite has exceeded the 12-month rolling HAP emissions limit for acetophenone since March 2022, Okonite respectfully requests that this permit application be expedited for approval. Okonite is ready and willing to coordinate with the Division and provide any assistance needed during the approval process.

Upon your review of this application, please call if you need additional information or clarification.

Sincerely,

Marshall Hogan
Plant Manager

PC: Jim Groome, Okonite
Lewis Reams, Okonite
Lucy Pacholik, PE, Tetra Tech

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Division for Air Quality

300 Sower Boulevard

Frankfort, KY 40601

(502) 564-3999

DEP7007AI

Administrative Information

___ Section AI.1: Source Information

___ Section AI.2: Applicant Information

___ Section AI.3: Owner Information

___ Section AI.4: Type of Application

___ Section AI.5: Other Required Information

___ Section AI.6: Signature Block

___ Section AI.7: Notes, Comments, and Explanations

Additional Documentation

___ Additional Documentation attached

Source Name: **The Okonite Company, Inc.**

KY EIS (AFS) #: **21- 151-00021**

Permit #: **F-20-009**

Agency Interest (AI) ID: **2858**

Date: **7/26/2023**

Section AI.1: Source Information

Physical Location Address:	**Street:**	1740 Berea Rd				
	City:	Richmond	**County:**	Madison	**Zip Code:**	40475
Mailing Address:	**Street or P.O. Box:**	1740 Berea Rd				
	City:	Richmond	**State:**	Madison	**Zip Code:**	40475

Standard Coordinates for Source Physical Location

Longitude: 37.69444 (decimal degrees) **Latitude:** 84.26389 (decimal degrees)

Primary (NAICS) Category: Other Communication and Energy Wire Manufacturing **Primary NAICS #:** 335929

Classification (SIC) Category: Non-ferrous Wire Drawing and Insulating **Primary SIC #:** 3357

Briefly discuss the type of business conducted at this site: Non-ferrous wire drawing and insulating facility in Richmond, Kentucky for the manufacturing of non-ferrous wire and insulation.

Description of Area Surrounding Source: ☐ Rural Area ☐ Industrial Park ☐ Residential Area ☐ Urban Area ☑ Industrial Area ☐ Commercial Area

Is any part of the source located on federal land? ☐ Yes ☑ No

Number of Employees: Approx. 250

Approximate distance to nearest residence or commercial property: *800 ft.* **Property Area:** 71 ac. **Is this source portable?** ☐ Yes ☑ No

What other environmental permits or registrations does this source currently hold or need to obtain in Kentucky?

NPDES/KPDES:	☑ Currently Hold	☐ Need	☐ N/A
Solid Waste:	☐ Currently Hold	☐ Need	☐ N/A
RCRA:	☑ Currently Hold	☐ Need	☐ N/A
UST:	☐ Currently Hold	☐ Need	☐ N/A

Type of Regulated Waste Activity:

☐ Mixed Waste Generator ☑ Generator ☐ Recycler ☐ Other: _____

☐ U.S. Importer of Hazardous Waste ☐ Transporter ☐ Treatment/Storage/Disposal Facility ☐ N/A

Section AI.2: Applicant Information

Applicant Name: Marshall Hogan

Title: (if individual) Plant Manager

Mailing Address: **Street or P.O. Box:** 1740 Berea Rd

City: Richmond **State:** KY **Zip Code:** 40475

Email: (if individual)

Phone:

Technical Contact

Name: Lewis Reams

Title: Assistant Manager - Plant Engineering

Mailing Address: **Street or P.O. Box:** 1740 Berea Rd

City: Richmond **State:** KY **Zip Code:** 40475

Email: reams@okonite.com

Phone:

Air Permit Contact for Source

Name: same as above

Title:

Mailing Address: **Street or P.O. Box:**

City: **State:** **Zip Code:**

Email:

Phone:

Section AI.3: Owner Information

☑ **Owner same as applicant**

Name: _____

Title: _____

Mailing Address: **Street or P.O. Box:** _____

City: _____ **State:** _____ **Zip Code:** _____

Email: _____

Phone: _____

List names of owners and officers of the company who have an interest in the company of 5% or more.

Name	Position

Section AI.4: Type of Application

Current Status: ☐ Title V ☑ Conditional Major ☐ State-Origin ☐ General Permit ☐ Registration ☐ None

Requested Action: *(check all that apply)*

☐ Name Change	☐ Initial Registration	☑ Significant Revision	☐ Administrative Permit Amendment
☐ Renewal Permit	☐ Revised Registration	☐ Minor Revision	☐ Initial Source-wide OperatingPermit
☐ 502(b)(10)Change	☐ Extension Request	☐ Addition of New Facility	☐ Portable Plant Relocation Notice
☐ Revision	☐ Off Permit Change	☐ Landfill Alternate Compliance Submittal	☐ Modification of Existing Facilities
☐ Ownership Change	☐ Closure		

Requested Status: ☑ Title V ☐ Conditional Major ☐ State-Origin ☐ PSD ☐ NSR ☐ Other: _____

Is the source requesting a limitation of potential emissions? ☑ Yes ☐ No

Pollutant:	Requested Limit:	Pollutant:	Requested Limit:
☐ Particulate Matter		☐ Single HAP	
☑ Volatile Organic Compounds (VOC)	90 tpy	☐ Combined HAPs	
☐ Carbon Monoxide		☐ Air Toxics (40 CFR 68, Subpart F)	
☐ Nitrogen Oxides		☐ Carbon Dioxide	
☐ Sulfur Dioxide		☐ Greenhouse Gases (GHG)	
☐ Lead		☐ Other	

For New Construction:

Proposed Start Date of Construction: *(MM/YYYY)* n/a

Proposed Operation Start-Up Date: *(MM/YYYY)* n/a

For Modifications:

Proposed Start Date of Modification: *(MM/YYYY)* 12/2024

Proposed Operation Start-Up Date: *(MM/YYYY)* 12/2024

Applicant is seeking coverage under a permit shield. ☐ Yes ☑ No

Identify any non-applicable requirements for which permit shield is sought on a separate attachment to the application.

Section AI.5 Other Required Information

Indicate the documents attached as part of this application:

- ☐ DEP7007A Indirect Heat Exchangers and Turbines
- ☑ DEP7007B Manufacturing or Processing Operations
- ☐ DEP7007C Incinerators and Waste Burners
- ☐ DEP7007F Episode Standby Plan
- ☐ DEP7007J Volatile Liquid Storage
- ☐ DEP7007K Surface Coating or Printing Operations
- ☐ DEP7007L Mineral Processes
- ☐ DEP7007M Metal Cleaning Degreasers
- ☑ DEP7007N Source Emissions Profile
- ☐ DEP7007P Perchloroethylene Dry Cleaning Systems
- ☐ DEP7007R Emission Offset Credit
- ☐ DEP7007S Service Stations
- ☐ DEP7007T Metal Plating and Surface Treatment Operations
- ☑ DEP7007V Applicable Requirements and Compliance Activities
- ☐ DEP7007Y Good Engineering Practice and Stack Height Determination
- ☐ DEP7007AA Compliance Schedule for Non-complying Emission Units
- ☐ DEP7007BB Certified Progress Report
- ☐ DEP7007CC Compliance Certification
- ☐ DEP7007DD Insignificant Activities
- ☐ DEP7007EE Internal Combustion Engines
- ☐ DEP7007FF Secondary Aluminum Processing
- ☐ DEP7007GG Control Equipment
- ☐ DEP7007HH Haul Roads
- ☐ Confidentiality Claim
- ☐ Ownership Change Form
- ☐ Secretary of State Certificate
- ☐ Flowcharts or diagrams depicting process
- ☐ Digital Line Graphs (DLG) files of buldings, roads, etc.
- ☐ Site Map
- ☐ Map or drawing depicting location of facility
- ☐ Safety Data Sheet (SDS)
- ☐ Emergency Response Plan
- ☑ Other: PTE Calc Summary, Draft Title V Permit

Section AI.6: Signature Block

I, the undersigned, hereby certify under penalty of law, that I am a responsible official*, and that I have personally examined, and am familiar with, the information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the information is on knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false or incomplete information, including the possibility of fine or imprisonment.

Authorized Signature

8/1/23

Date

Marshall Hogan

Type or Printed Name of Signatory

Plant Manager

Title of Signatory

*Responsible official as defined by 401 KAR 52:001.

Section AI.7: Notes, Comments, and Explanations

Division for Air Quality

300 Sower Boulevard
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(502) 564-3999

DEP7007B

Manufacturing or Processing Operations

___ Section B.1: Process Information
___ Section B.2: Materials and Fuel Information
___ Section B.3: Notes, Comments, and Explanations

Additional Documentation

___ Complete DEP7007AI, DEP7007N, DEP7007V, and DEP7007GG.
___ Attach a flow diagram
___ Attach SDS

Source Name: The Okonite Company, Inc.
KY EIS (AFS) #: 21- 151-00021
Permit #: F-20-009
Agency Interest (AI) ID: 2858
Date: 7/26/2023

Section B.1: Process Information

Emission Unit #	Emission Unit Name	Describe Emission Unit	Process ID	Process Name	Manufacturer	Model No.	Proposed/Actual Date of Construction Commencement *(MM/YYYY)*	Is the Process Continuous or Batch?	Number of Batches per 24 Hours *(if applicable)*	Hours per Batch *(if applicable)*
2.1	CV Extrusion	CV Rubber Extrusion Operation - 7 Total Lines	2.1	CV Extrusion	Existing	Existing	Existing - modifications planned for 12/2024	Continuous, with periodic shutdowns. Max operation = 8,000 hr/yr		

Section B.2: Materials and Fuel Information

**Maximum yearly fuel usage rate only applies if applicant request operating restrictions through federally enforceable limitations.*

Emission Unit #	Emission Unit Name	Name of Raw Materials Input	Maximum Quantity of Each Raw Material Input	(Specify Units/hr)	Total Process Weight Rate for Emission Unit (tons/hr)	Name of Finished Materials	Maximum Quantity of Each Finished Material Output	(Specify Units/hr)	Fuel Type	Maximum Hourly Fuel Usage Rate	(Specify Units)	Maximum Yearly Fuel Usage Rate	(Specify Units)	Sulfur Content (%)	Ash Content (%)
2.1	CV Extrusion	Insulated Cables	31,503.23	lb/hr	15.75	Insulated Cables	31,503.23	lb/hr	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Section B.3: Notes, Comments, and Explanations

Division for Air Quality

300 Sower Boulevard

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DEP7007N

Source Emissions Profile

__ Section N.1: Emission Summary

__ Section N.2: Stack Information

__ Section N.3: Fugitive Information

__ Section N.4: Notes, Comments, and Explanations

Additional Documentation
___ Complete DEP7007AI

Source Name: The Okonite Company, Inc.

KY EIS (AFS) #: 21- 151-00021

Permit #: F-20-009

Agency Interest (AI) ID: 2858

Date: 7/26/2023

N.1: Emission Summary

Emission Unit #	Emission Unit Name	Process ID	Process Name	Control Device Name	Control Device ID	Stack ID	Maximum Design Capacity *(SCC Units/hour)*	Pollutant	Uncontrolled Emission Factor *(lb/SCC Units)*	Emission Factor Source (e.g. AP-42, Stack Test, Mass Balance)	Capture Efficiency *(%)*	Control Efficiency *(%)*	Hourly Emissions		Annual Emissions	
													Uncontrolled Potential *(lb/hr)*	Controlled Potential *(lb/hr)*	Uncontrolled Potential *(tons/yr)*	Controlled Potential *(tons/yr)*
2.1	CV Extrusion	2.1	CV Extrusion	n/a	n/a	n/a	15.75	VOC	0.6142	Stack Test	100.00%	0.00%	9.67	9.67	38.69	38.69
								Alpha Methyl Styrene	0.1030	Stack Test	100.00%	0.00%	1.62	1.62	6.49	6.49
								Dimethyl Benzene Alcohol	0.2353	Stack Test	100.00%	0.00%	3.71	3.71	14.82	14.82
								Acetophenone	0.2758	Stack Test	100.00%	0.00%	4.34	4.34	17.38	17.38

Section N.2: Stack Information

UTM Zone:

Stack ID	Identify all Emission Units (with Process ID) and Control Devices that Feed to Stack	Stack Physical Data			Stack UTM Coordinates		Stack Gas Stream Data		
		Equivalent Diameter *(ft)*	Height *(ft)*	Base Elevation *(ft)*	Northing *(m)*	Easting *(m)*	Flowrate *(acfm)*	Temperature *(°F)*	Exit Velocity *(ft/sec)*
n/a									

Section N.3: Fugitive Information

UTM Zone:

Emission Unit #	Emission Unit Name	Process ID	Area Physical Data		Area UTM Coordinates		Area Release Data	
			Length of the X Side *(ft)*	Length of the Y Side *(ft)*	Northing *(m)*	Easting *(m)*	Release Temperature *(°F)*	Release Height *(ft)*
2.1	CV Rubber Extrusion Operation - EP's 808, 809, 830, 831, 832, 7301, 7302 (EP 807 removed)	2.1	Existing	Existing	Existing	Existing	70	30

Section N.4: Notes, Comments, and Explanations
Okonite plans to install extrusion equipment on the existing CV lines to increase cable output. The emission factors and product composition will not change, only the throughput.

The Okonite Company, Inc AI 2858
Permit Revision Application (FESOP to Title V) - July 2023
Potential Emission Calculations (Existing and Planned Changes)

SUMMARY - OKONITE EMISSIONS (TONS/YEAR)			
Regulated Pollutant	**PTE Existing Plant Processes (2022 KYEIS)**	**PTE Proposed Plant Processes**	**Permit Revision Net Change**
CO_2	62,349.85	50,002.60	-12,347.25
CO	42.74	35.00	-7.74
Lead	2.14E-04	2.08E-04	-5.26E-06
Methane	0.98	0.96	-0.02
N_2O	0.96	0.92	-0.05
NO_x	47.21	41.67	-5.55
SO_2	0.33	0.25	-0.08
PM_{10}	4.44	1.26	-3.17
$PM_{2.5}$	4.18	1.01	-3.17
PM Tot (cond)	4.44	3.63	-0.80
VOC	42.78	65.64	22.86
HAPS	18.00	26.40	8.40
Maximum Individual HAP			
Acetophenone	12.64	23.14	10.50

Okonite Rolling 12-month
VOC and Acetophenone Emission Calculations

Month	Source-wide VOCs Rolling 12-month (lbs)	Source-wide VOCs Rolling 12-month (tons)	Source-wide Acetophenone (HAP) Rolling 12-month (lbs)	Source-wide Acetophenone (HAP) Rolling 12-month (tons)
Jan-21	38,122.2	19.1	17,250.2	8.6
Feb-21	38,285.8	19.1	17,421.4	8.7
Mar-21	35,902.2	18.0	16,436.4	8.2
Apr-21	34,733.3	17.4	16,132.3	8.1
May-21	36,317.6	18.2	15,867.9	7.9
Jun-21	35,067.2	17.5	16,724.7	8.4
Jul-21	34,561.0	17.3	16,525.0	8.3
Aug-21	35,922.0	18.0	17,133.2	8.6
Sep-21	36,629.6	18.3	17,231.9	8.6
Oct-21	36,623.2	18.3	17,079.6	8.5
Nov-21	34,292.8	17.1	17,116.8	8.6
Dec-21	34,774.3	17.4	17,105.2	8.6
Jan-22	35,335.2	17.7	17,195.7	8.6
Feb-22	37,408.1	18.7	17,228.3	8.6
Mar-22	39,599.6	19.8	18,286.8	9.1
Apr-22	39,827.6	19.9	18,344.8	9.2
May-22	38,583.0	19.3	18,699.2	9.3
Jun-22	41,139.7	20.6	18,598.0	9.3
Jul-22	42,346.7	21.2	19,110.8	9.6
Aug-22	44,583.3	22.3	19,394.1	9.7
Sep-22	43,976.9	22.0	19,723.1	9.9
Oct-22	45,172.3	22.6	20,101.9	10.1
Nov-22	46,159.0	23.1	20,663.5	10.3
Dec-22	46,291.5	23.1	20,874.5	10.4
Jan-23	46,087.6	23.0	20,978.1	10.5
Feb-23	44,719.8	22.4	20,954.0	10.5
Mar-23	43,809.5	21.9	20,438.5	10.2
Apr-23	44,153.7	22.1	20,201.0	10.1
May-23	44,773.7	22.4	20,245.3	10.1

Division for Air Quality

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Frankfort, KY 40601

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DEP7007V

Applicable Requirements and Compliance Activities

___ Section V.1: Emission and Operating Limitation(s)

___ Section V.2: Monitoring Requirements

___ Section V.3: Recordkeeping Requirements

___ Section V.4: Reporting Requirements

___ Section V.5: Testing Requirements

___ Section V.6: Notes, Comments, and Explanations

Additional Documentation
___ Complete DEP7007AI

Source Name: The Okonite Company, Inc.

KY EIS (AFS) #: 21- 151-00021

Permit #: F-20-009

Agency Interest (AI) ID: 2858

Date: 7/26/2023

Section V.1: Emission and Operating Limitation(s)

Emission Unit #	Emission Unit Description	Applicable Regulation or Requirement	Pollutant	Emission Limit (if applicable)	Voluntary Emission Limit or Exemption (if applicable)	Operating Requirement or Limitation (if applicable)	Method of Determining Compliance with the Emission and Operating Requirement(s)
		See attached draft Title V permit; applicable regulations and requirements for existing emission units.					

Section V.2: Monitoring Requirements

Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Monitored	Description of Monitoring
		See attached draft Title V permit; applicable regulations and requirements for existing emission units.			

Section V.3: Recordkeeping Requirements

Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Recorded	Description of Recordkeeping
		See attached draft Title V permit; applicable regulations and requirements for existing emission units.			

Section V.4: Reporting Requirements

Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Reported	Description of Reporting
		See attached draft Title V permit; applicable regulations and requirements for existing emission units.			

Section V.5: Testing Requirements

Emission Unit #	Emission Unit Description	Pollutant	Applicable Regulation or Requirement	Parameter Tested	Description of Testing
		See attached draft Title V permit; applicable regulations and requirements for existing emission units.			

Section V.6: Notes, Comments, and Explanations

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emission Unit 2.1 (EPs ~~807,~~ 808, 809, 830, 831, 832, 7301, 7302) – Continuous Vulcanization (CV) Rubber Extrusion Operation

Description:

Rubber insulation is extruded onto cables, and steam is utilized for the vulcanization process.

Construction Commenced:

Emission Points ~~807,~~ 808, 809, 830, & 831 installed in 1969
Emission Point 832 installed in 2013
Emission Points 7301 & 7302 installed in 2016

Maximum Capacity: ~~48501~~ **126,000** tons/year

Control Device: None

APPLICABLE REGULATIONS:

~~**STATE ORIGIN REQUIREMENTS:**~~

401 KAR 63:020, *Potentially hazardous matter or toxic substances.* Applies to acetophenone and alpha-methylstyrene emissions.

1. **Operating Limitations:**
   Refer to **SECTION D.**

2. **Emission Limitations:**
   a. The permittee shall not allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals, and plants. [401 KAR 63:020, Section 3]

   b. ***VOC ~~& HAP~~ Emission Standard:*** Refer to **SECTION D** for source-wide emission limitations.

   Compliance Demonstration Method:

   a. The Cabinet determines that the source is in compliance with 401 KAR 63:020 when the **emission points are operating and properly maintained according to the manufacturer's recommendations.** ~~requirements in SECTION D for acetophenone emissions are met.~~

   b. Refer to **SECTION D** for compliance with the VOC ~~& HAP~~ emission standard.

3. **Testing Requirements:**
   Pursuant to 401 KAR 50:045, Section 1, performance testing using the reference methods specified in 401 KAR 50:015 shall be conducted if required by the Division.

4. **Specific Monitoring Requirements**
   a. The permittee shall monitor the following: [401 KAR 52:~~030~~**020**, Section 10]
      i. The monthly combined hours of operation for all emission points in Emission Unit 2.1;
      ii. The monthly combined total product weight produced at all emission points in Emission Unit 2.1;
      iii. The monthly and 12-month rolling total emissions of acetophenone (a HAP);
      iv. The monthly and 12-month rolling total emissions of VOC;

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b. Refer to **SECTION F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the following: [401 KAR 52:030, Section 10]

i. The monthly combined hours of operation for all emission points in Emission Unit 2.1;
ii. The monthly combined total product weight produced at all emission points in Emission Unit 2.1;
iii. The monthly and 12-month rolling total emissions of acetophenone (a HAP);
iv. The monthly and 12-month rolling total emissions of VOC;

b. Refer to **SECTION F** for general recordkeeping requirements.

6. Specific Reporting Requirements:

Refer to **SECTION F** for general reporting requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Unit 2.2 – Cooling Tower

Description:

Steam vulcanizes the cable produced by the CV process line and cold water injects onto the end of the process line to cool the cable, prior to further processing in the plant. Water collects in the common pit at the end of the CV line and a pump transfers the heated water to the cooling tower prior to reuse on the CV line.
Model: The Cooling Tower Co. Model TCI-1110-15-1 (Two-Cell)
Control Device: Mist Eliminator
Construction Commenced: 2010
Maximum Capacity: 323 MMgal/year

APPLICABLE REGULATIONS:
401 KAR 59:010, *New Process operations*

~~**STATE-ORIGIN REQUIREMENTS:**~~
401 KAR 63:020, *Potentially hazardous matter or toxic substances.* Applies to acetophenone and alpha-methylstyrene emissions.

PRECLUDED REGULATIONS:
401 KAR 63:002, Section 2(4)(j), 40 C.F.R. 63.400 to 63.407, Table 1 (Subpart Q), *National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers*

1. **Operating Limitations:**
   Refer to **SECTION D.**

2. **Emission Limitations:**
   a. The permittee shall not use chromium based water treatment chemicals within the industrial process cooling tower. [40 CFR 63.402]

   b. ***Opacity Standard:*** The permittee shall not cause, suffer, allow or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity. [401 KAR 59:010, Section 3(1)(a)]

   c. ***Mass Emission Standard:*** The permittee shall not cause, suffer, allow or permit the emission into the open air from a control device or stack associated with any affected facility which is in excess of the quantity specified in 401 KAR 59:010, Appendix A. [401 KAR 59:010, Section 3(2)]
      i. For Process weights < 0.5 tons/hour: $E = 2.34$
      ii. For Process weights < 30 tons/hour: $E = 3.59P^{0.62}$
      iii. For Process weights ≥ 30 tons/hour: $E = 17.31P^{0.16}$
      Where:
      E is the rate of emission in lb/hour
      P is the process weight rate in tons/hour. Note: Process weight rate is the total CV line process rate (EU 2.1).

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

d. The permittee shall not allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants. [401 KAR 63:020]

e. ***VOC ~~& HAP~~ Emission Standard:*** Refer to **SECTION D** for source-wide emission limitations.

f. The permittee shall install, operate, and maintain a flow meter for the cooling tower.

Compliance Demonstration Method:

a. For compliance with **2. Emission Limitations (a)**, refer to **5. Specific Recordkeeping Requirements (b)** and **6. Specific Reporting Requirements**.

b. For compliance with **2. Emission Limitations (b)**, refer to **4. Specific Monitoring Requirements (b)** and **5. Specific Recordkeeping Requirements (a)**.

c. EU 2.2 is assumed to be in compliance with the production-based mass emission limit when the cooling tower and mist eliminators are operating and properly maintained based on the rate of emissions provided in the application. Refer to **4. Specific Monitoring Requirements (a)** and **5. Specific Recordkeeping Requirements (c)**.

d. The Cabinet determines that the source is in compliance with 401 KAR 63:020 when the **cooling tower is operating and properly maintained according to the manufacturer's recommendations.** ~~requirements in **SECTION D** for acetophenone emissions are met.~~

e. Refer to **SECTION D** for compliance with the VOC ~~& HAP~~ emission standard.

3. Testing Requirements:

Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the reference methods specified in 401 KAR 50:015 shall be conducted if required by the Division.

4. Specific Monitoring Requirements:

a. The permittee shall monitor the following: [401 KAR 52:0~~3~~20, Section 10]
   i. The monthly hours of operation;
   ii. The monthly throughput of cooling water in million gallons;
   iii. The monthly and 12-month rolling total emissions of acetophenone;
   iv. The monthly and 12-month rolling total emissions of VOC;

b. The permittee shall perform a qualitative visual observation of the opacity of emissions from the stack no less frequently than once every 7 days while the affected facility is operating. If visible emissions from the stack are observed (not including condensed water in the plume), then the permittee shall determine the opacity using U.S. EPA Reference Method 9. In lieu of determining the opacity using U.S. EPA Reference Method 9, the permittee shall immediately perform a corrective action which results in no visible emissions (not including condensed water in the plume). [401 KAR 52:020, Section 10]

c. Refer to **SECTION F** for general monitoring requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. **Specific Recordkeeping Requirements:**
   a. The permittee shall retain records of the qualitative visual observations required by **4. Specific Monitoring Requirements (b)**, including the date, time, initials of observer, whether any emissions were observed (yes/no), any Method 9 readings taken, and any corrective action taken including results due to observed emissions. [401 KAR 52:020, Section 10]

   b. The permittee shall maintain records of the MSDSs/SDSs of the water treatment chemicals used in the cooling tower. [401 KAR 52:030, Section 10]

   c. The permittee shall maintain records of the following: [401 KAR 52:030, Section 10]
      i. The monthly hours of operation;
      ii. The monthly throughput of cooling water in million gallons;
      iii. The monthly and 12-month rolling total emissions of acetophenone;
      iv. The monthly and 12-month rolling total emissions of VOC;

   d. Refer to **SECTION F** for general recordkeeping requirements.

6. **Specific Reporting Requirements:**
   Any water treatment chemical that is used in the cooling tower and is later found to contain chromium shall be reported to the Division within 3 days. Refer to **SECTION F** for general reporting requirements. [401 KAR 52:030, Section 10]

7. **Specific Control Equipment Operating Conditions:**
   None.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Unit 3.1 (EPs 810, 880, 890, 891, 7860, 7866) – 4 Plastic Extrusion Lines & 2 Vulcanizers

Description:

Polyethylene, polyvinyl chloride, polypropylene, or Sioplas are extruded onto an electric power cable. The extruders operate at a maximum of 450 °F. The lines are cooled and taken up at the end of the process. Sioplas extruded at Plastic Extrusion Lines 810 and 890 is placed into either vulcanizer to cure. There are six (6) individual emission points within the emission unit.

Control Device: None

Construction Commenced:
Emission Point 810 installed in 1969
Emission Point 880 installed in 1999
Emission Point 890 installed in 1988
Emission Point 891 installed in 2008
Emission Point 7860 installed in 1977
Emission Point 7866 installed in 2008

Maximum Capacities:
Plastic Extrusion: 49656 tons/year
PVC Extrusion: 16685 tons/year
Sioplas extrusion: 2500 tons/year

APPLICABLE REGULATIONS:

401 KAR 59:010, *New process operations.* Applies to EPs 880, 890, 891, 7860, & 7866
401 KAR 61:020, *Existing process operations.* Applies to EP 810

~~**STATE-ORIGIN REQUIREMENTS:**~~

401 KAR 63:020, *Potentially hazardous matter or toxic substances.* Applies to hydrogen chloride, vinyl chloride, and methanol emissions.

1. **Operating Limitations:**
   Refer to **SECTION D.**

2. **Emission Limitations:**
   a. ***Mass Emission Standard for Emission Point 810:*** The permittee shall not cause, suffer, allow or permit the emission in the open air of particulate matter from any affected facility which is in excess of the quantity specified in 401 KAR 59:010, Appendix A. [401 KAR 61:020, Section 3(2)(a)]
      i. For process weights < 0.5 tons/hour: $E = 2.58$
      ii. For process weights < 30 tons/hour: $E = 4.10P^{0.67}$
      Where:
      E is the rate of emission in lb/hour and
      P is the process weight rate in tons/hour.

   b. ***Mass Emission Standard for Emission Point 880, 890, 891, 7860, & 7866:*** The permittee shall not cause, suffer, allow or permit the emission into the open air of particulate matter

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

from any affected facility which is in excess of the quantity specified in 401 KAR 59:010, Appendix A. [401 KAR 59:010, Section 3(2)]

i. For process weights < 0.5 tons/hour: $E = 2.34$

ii. For process weights < 30 tons/hour: $E = 3.59P^{0.62}$

Where:

E is the rate of emission in lb/hour

P is the process weight rate in tons/hour.

c. ***VOC ~~& HAP~~ Emission Standard:*** Refer to **SECTION D** for source-wide emission limitations.

d. ***Opacity Standard for Emission Point 810:*** The permittee shall not cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than forty (40) percent opacity. [401 KAR 61:020, Section 3(1)(a)]

e. ***Opacity Standard for Emission Points 880, 890, 891, 7860, & 7866:*** The permittee shall not cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity. [401 KAR 59:010, Section 3(1)(a)]

f. The permittee shall not allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants. [401 KAR 63:020]

Compliance Demonstration Method:

a. The source shall demonstrate compliance with the production-based mass emission limit in 401 KAR 61:020 and **2. Emission Limitations (a)** by complying with the production-based mass emission in limit in 401 KAR 59:010 using the combined production-based mass from all four (4) plastic extrusion lines in Emission Unit 3.1. Refer to **Compliance Demonstration Method (b)**.

b. The emission points listed above are assumed to be in compliance with the combined production-based mass emission limit for all four plastic extrusion lines and two vulcanizers in **2. Emission Limitations (b)** when the plastic extrusion lines and vulcanizers are operating and properly maintained. Refer to **4. Specific Monitoring Requirements (a)** and **5. Specific Recordkeeping Requirements (b)**.

c. For compliance with the VOC ~~& HAP~~ emission in standard in **2. Emission Limitations (c),** refer to **SECTION D**.

d. For compliance with **2. Emission Limitations (d)** and **(e)**, refer to **4. Specific Monitoring Requirements (b)** and **5. Specific Recordkeeping Requirements (a)**.

e. The Cabinet determines that the source is in compliance with 401 KAR 63:020 based on the emission rates of hydrogen chloride, vinyl chloride, and methanol determined by the

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Cabinet using information provided in the application and supplemental information submitted by the source.

3. **Testing Requirements:**
Pursuant to 401 KAR 59:005, Section 2(2), 401 KAR 61:005, Section 2(2), and 401 KAR 50:045, Section 1, performance testing using the reference methods specified in 401 KAR 50:015 shall be conducted if required by the Division.

4. **Specific Monitoring Requirements:**
   a. The permittee shall monitor the following: [401 KAR 52:0320, Section 10]
      i. The monthly total product weight of polyethylene, polyvinyl chloride (PVC), polypropylene, and Sioplas coated product;
      ii. The monthly hours of operation;
      iii. The monthly and 12-month rolling total emissions of VOC.

   b. The permittee shall perform a qualitative visual observation of the opacity of emissions from the stack no less frequently than once every 7 days while the affected facility is operating. If visible emissions from the stack are observed (not including condensed water in the plume), then the permittee shall determine the opacity using U.S. EPA Reference Method 9. In lieu of determining the opacity using U.S. EPA Reference Method 9, the permittee shall immediately perform a corrective action which results in no visible emissions (not including condensed water in the plume). [401 KAR 52:020, Section 10]

   c. Refer to **SECTION F** for general monitoring requirements.

5. **Specific Recordkeeping Requirements:**
   a. The permittee shall retain records of the qualitative visual observations required by 4. **Specific Monitoring Requirements (b)**, including the date, time, initials of observer, whether any emissions were observed (yes/no), any Method 9 readings taken, and any corrective action taken including results due to observed emissions. [401 KAR 52:020, Section 10]

   b. The permittee shall maintain records of the following: [401 KAR 52:030, Section 10]
      i. The monthly total product weight of polyethylene, polyvinyl chloride (PVC), polypropylene, and Sioplas coated product;
      ii. The monthly hours of operation;
      iii. The monthly and 12-month rolling total emissions of VOC.

   c. Refer to **SECTION F** for general recordkeeping requirements.

6. **Specific Reporting Requirements:**
Refer to **SECTION F** for general reporting requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Unit 4.1 (EPs IJ~~3~~ 4 – IJ15 & OP~~1~~ 2 – OP12) – Cable Printing

Processes Description:

Cables are coated with applicable electrical information at the print lines. Cables are printed with manufacturer identification codes at the inkjet printers. There are total of ~~twenty five (25)~~ **twenty three (23)** individual emission points as noted above, ~~13~~ **12** Inkjet Printers (IJ) and ~~12~~ **11** Offset Printers (OP). These printers are portable within the plant.

Control Device: None

Construction Commenced:

Emission Points OP~~1~~ **2** – OP10 installed 1983 to
2013 Emission Points OP11 & OP12 installed July
2016 Emission Points IJ~~3~~ **4** – IJ11 installed 1999 to
2013 Emission Points IJ12 & IJ13 installed July
2016 Emission Points IJ14 & IJ15 installed in 2019

Maximum Capacities:

Ink: 1000 gallons/year
Thinner: 1200 gallons/year

APPLICABLE REGULATIONS:

~~**STATE-ORIGIN REQUIREMENTS:**~~

401 KAR 63:020, *Potentially hazardous matter or toxic substances.* Applicable to cyclohexanone, ethylbenzene, methyl ethyl ketone, toluene, and xylene emissions.

1. **Operating Limitations:**
   a. Total ink usage shall not exceed 1,000 gallons of ink per year on a 12-month rolling basis. [To preclude 401 KAR 52:020]

   b. Total thinner usage shall not exceed 1,200 gallons per year on a 12-month rolling basis. [To preclude 401 KAR 52:020]

   c. Refer to **SECTION D**.

   Compliance Demonstration Method:
   For compliance with **1. Operating Limitations (a)** and **(b)**, refer to **4. Specific Monitoring Requirements (a).**

2. **Emission Limitations:**
   a. ***VOC ~~& HAP~~ Emission Standard:*** Refer to **SECTION D** for source-wide emission limitations.

   b. The permittee shall not allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants. [401 KAR 63:020]

   Compliance Demonstration Method
   a. Refer to **SECTION D** for compliance with the VOC ~~& HAP~~ emission standard.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b. The Cabinet determines that the source is in compliance with 401 KAR 63:020 based on the emission rates of cyclohexanone, ethylbenzene, methyl ethyl ketone, toluene, and xylene determined by the Cabinet using information provided in the application and supplemental information submitted by the source.

3. **Testing Requirements:**
Pursuant to 401 KAR 50:045, Section 1, performance testing using the reference methods specified in 401 KAR 50:015 shall be conducted if required by the Division.

4. **Specific Monitoring Requirements:**
   a. The permittee shall monitor the following: [401 KAR 52:030, Section 10]
      i. The monthly and 12-month rolling total of ink usage in gallons for the inkjet and offset printing processes;
      ii. The monthly and 12-month rolling total of thinner usage in gallons for the inkjet and offset printing processes;
      iii. The monthly hours of operation;
      iv. The monthly and 12 month rolling total emissions of VOC.

   b. Refer to **SECTION F** for general recordkeeping requirements.

5. **Specific Recordkeeping Requirements:**
   a. The permittee shall maintain records of the following: [401 KAR 52:030, Section 10]
      i. The monthly and 12-month rolling total of ink usage in gallons for the inkjet and offset printing processes;
      ii. The monthly and 12-month rolling total of thinner usage in gallons for the inkjet and offset printing processes;
      iii. The monthly hours of operation;
      iv. The monthly and 12 month rolling total emissions of VOC.

   b. Refer to **SECTION F** for general recordkeeping requirements.

6. **Specific Reporting Requirements:**
Refer to **SECTION F** for general reporting requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Unit 7.1 – Boiler #1

Description:

One natural gas fired boiler that provides steam for both process heating and building heat for the plant. The unit primarily burns natural gas, except during periods of curtailment or supply interruption, when #2 fuel oil may be burned.
Make/Model: Erie City 5M Keystone
Rated Capacity: 21 MMBtu/hour
Construction Commenced: 07/1969
Control Device: None

APPLICABLE REGULATIONS:
401 KAR 61:015, *Existing indirect heat exchangers*

STATE-ORIGIN REQUIREMENTS:
401 KAR 63:020, *Potentially hazardous matter or toxic substances*

PRECLUDED REGULATIONS:
401 KAR 63:002, Section 2(4)(jjjjj), 40 C.F.R. 63.11193 to 63.11237, Tables 1 to 8 (Subpart JJJJJJ), *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers Area Sources.* Precluded by meeting the definition of "gas-fired boiler" as defined in 40 CFR 63.11237.

1. **Operating Limitations:**
   a. To meet the definition of gas-fired boiler in 40 CFR 63.11237, and preclude the application of 40 CFR 63, Subpart JJJJJJ, the permittee shall use liquid fuel only during periods of gas curtailment, gas supply interruption, startups, and periodic testing. [40 CFR 63.11237]

   b. Periodic testing of the boiler while using liquid fuel shall not exceed a combined total of 48 hours during any calendar year. [40 CFR 63.11237]

   c. Refer to **SECTION D.**

   Compliance Demonstration Method:
   The permittee shall demonstrate compliance by meeting the requirements in **4. Specific Monitoring Requirements (c), 5. Specific Recordkeeping Requirements (b),** and **6. Specific Reporting Requirements**.

2. **Emission Limitations:**
   a. ***Mass Emission Standard:*** The permittee shall not cause emissions of particulate matter in excess of 0.537 lb/MMBtu. [401 KAR 61:015, Section 4(1)(a)]

   b. ***VOC Emission Standard:*** Refer to **SECTION D** for source-wide emission limitations.

   c. ***Opacity Standard:*** The permittee shall not cause emissions of particulate matter in excess of 40 percent. [401 KAR 61:015, Section 4(1)(c)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

d. ***SO_2 Standard:*** The permittee shall not cause emissions of gases that contain sulfur dioxide in excess of 5 lbs/MMBtu. [401 KAR 61:015, Section 5(1)]

e. The permittee shall not allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants. [401 KAR 63:020]

Compliance Demonstration Method:

a. For **2. Emission Limitations (a),** the source is assumed to be in compliance with the capacity based mass emission limit when the boilers are burning natural gas and are properly maintained. Refer to **4. Specific Monitoring Requirements (a)** and **(b)**. When #2 fuel oil is used, the permittee shall demonstrate compliance by comparing the allowable rate to the actual rate for particulate matter as calculated below

$$E_{PM} = \frac{P \times EF_{PM}}{T}$$

Where:

E_{PM} is particulate emissions in lbs/hour, P is the monthly #2 Fuel oil usage in gallons, EF_{PM} is the KYEIS particulate emission factor in lbs/gallon of #2 fuel oil, and T is the monthly number of hours #2 fuel oil was used.

b. Refer to **SECTION D** for compliance with the VOC emission standard.

c. For compliance with **2. Emission Limitations (c),** refer to **4. Specific Monitoring Requirements (c)** and **5. Specific Recordkeeping Requirements (a)**.

d. For **2. Emission Limitations (d),** the source is assumed to be in compliance with the capacity based sulfur dioxide emission limit when the boilers are burning natural gas and are properly maintained. Refer to **4. Specific Monitoring Requirements (a)** and **(b)**. When #2 fuel oil is used, the permittee shall demonstrate compliance by comparing the allowable rate to the actual rate for sulfur dioxide as calculated below:

$$E_{SO_2} = \frac{P \times EF_{SO_2}}{T}$$

Where E_{SO2} is particulate emissions in lbs/hour, P is the monthly #2 fuel oil usage in gallons, EF_{SO2} is the KYEIS sulfur dioxide emission factor in lbs/gallon of #2 fuel oil, and T is the monthly number of hours #2 fuel oil used.

e. The Cabinet determines that the source is in compliance with 401 KAR 63:020 based on the rate of emissions of airborne toxics determined by the Cabinet using information provided in the application and any supplemental information submitted by the source.

3. Testing Requirements:

Pursuant to 401 KAR 61:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using reference methods specified in 401 KAR 50:015 shall be conducted if required by the Division.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. **Specific Monitoring Requirements:**
   a. For all periods of natural gas usage in each boiler, the permittee shall monitor: [401 KAR 52:030, Section 10]
      i. The monthly natural gas usage in million cubic feet;
      ii. The monthly and total annual hours of natural gas use.

   b. The monthly natural gas usage for each boiler shall be calculated using the overall throughput for the boilers determined from the monthly boiler room gas utility meter readings to calculate a weighted average based on monthly hours of operation and the capacity rating for each boiler. [401 KAR 52:020, Section 10]

   c. For all periods of #2 fuel oil usage in the boiler, the permittee shall monitor: [401 KAR 52:030, Section 10]
      i. The heat content and sulfur content for the #2 fuel oil used;
      ii. The monthly and total annual hours of #2 fuel oil use;
      iii. The reason for #2 fuel oil use;
      iv. The monthly #2 fuel oil usage in gallons

   d. The permittee shall monitor the monthly and 12 month rolling total emissions of VOC. [401 KAR 52:030, Section 10]

   e. The permittee shall perform a qualitative visual observation of the opacity of emissions from the stack no less frequently than once every 7 days while the affected facility is operating. If visible emissions from the stack are observed (not including condensed water in the plume), then the permittee shall determine the opacity using U.S. EPA Reference Method 9. In lieu of determining the opacity using U.S. EPA Reference Method 9, the permittee shall immediately perform a corrective action which results in no visible emissions (not including condensed water in the plume). [401 KAR 52:020, Section 10]

   f. Refer to **SECTION F** for general monitoring requirements.

5. **Specific Recordkeeping Requirements:**
   a. The permittee shall retain records of the qualitative visual observations required by 4. **Specific Monitoring Requirements** (e), including the date, time, initials of observer, whether any emissions were observed (yes/no), any Method 9 readings taken, and any corrective action taken including results due to observed emissions. [401 KAR 52:020, Section 10]

   b. The permittee shall maintain records of the following: [401 KAR 52:030, Section 10]
      i. The monthly natural gas usage in million cubic feet;
      ii. The monthly and annual hours of natural gas use;
      iii. The heat content and sulfur content for the #2 fuel oil used;
      iv. The monthly and total annual hours of #2 fuel oil use;
      v. The reason for #2 fuel oil use;
      vi. The monthly #2 fuel oil usage in gallons;
      vii. The monthly and 12 month rolling total emissions of VOC.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

~~c. Refer to **SECTION F** for general recordkeeping requirements.~~

~~6. **Specific Reporting Requirements:**~~

~~a. If the permittee uses liquid fuel for reasons other than gas curtailment, gas supply interruption, startups, or periodic testing, the permittee is no longer exempt from the requirements of 40 CFR 63, Subpart JJJJJJ and must provide notice of the date upon which the fuels were switched within 30 days of the change. The notification must identify: [40 CFR 63.11225(g)]~~

~~i. The name of the owner or operator of the affected source, the location of the source, the boiler(s) that have switched fuels, and the date of the notice. [40 CFR 63.11225(g)(1)]~~

~~ii. The date upon which the fuel switch occurred. [40 CFR 63.11225(g)(2)]~~

~~b. If the permittee switches fuels or makes a physical change to a boiler that results in the applicability of a different subcategory within 40 CFR 63, Subpart JJJJJJ, or the boiler becoming subject to 40 CFR 63, Subpart JJJJJJ, the permittee shall demonstrate compliance within 180 days of the effective date of the fuel switch or the physical change. Notification of such changes must be submitted according to 40 CFR 63.11225(g). [40 CFR 63.11210(h)]~~

c. ~~Refer to **SECTION F** for general reporting requirements~~.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Units ~~7.6,~~ 7.7, 7.8, 7.9, & 8.0 – New Indirect Heat Exchangers

Description:

~~One natural gas fired boiler and~~ eleven makeup air handler units

~~**Emission Unit 7.6 – Front Office Boiler**~~
~~**Rated Capacity:** 1.8 MMBtu/hour~~
~~**Construction Commenced:** 1986~~
~~**Control Device:** None~~

Emission Unit 7.7 – MAU 1-3 Makeup Air Handling Units
Rated Capacity: 2.8 MMBtu/hour each
Construction Commenced: 2016
Control Device: None

Emission Unit 7.8 – MAU 5 –Makeup Air Handler Unit
Rated Capacity: 2.0 MMBtu/hour
Construction Commenced: 2016
Control Device: None

Emission Unit 7.9 – MAU 6-8 Makeup Air Handler Units
Rated Capacity: 3.521 MMBtu/hour each
Construction Commenced: 2016
Control Device: None

Emission Unit 8.0 – MAU 9-12 Makeup Air Handler Units
Rated Capacity: 5.2 MMBtu/hour each
Construction Commenced: 1998
Control Device: None

APPLICABLE REGULATIONS:
401 KAR 59:015, *New indirect heat exchangers*

~~**STATE-ORIGIN REQUIREMENTS:**~~
401 KAR 63:020, *Potentially hazardous matter or toxic substances*

1. **Operating Limitations:**
   None

2. **Emission Limitations:**
   a. ***Mass Emission Standard:*** The permittee shall not cause emissions of particulate matter in excess of the following: [401 KAR 59:015, Section 4(1)(c)]
      ~~i. For EU 7.6: 0.40 lb/MMBtu.~~
      ii. For EU 7.7: 0.31 lb/MMBtu.
      iii. For EU 7.8: 0.31 lb/MMBtu.
      iv. For EU 7.9: 0.31 lb/MMBtu.
      v. For EU 8.0: 0.36 lb/MMBtu.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b. ***VOC Emission Standard:*** Refer to **SECTION D** for source-wide emission limitations.

c. ***Opacity Standard:*** The permittee shall not cause emissions of particulate matter in excess of 20 percent. [401 KAR 59:015, Section 4(2)]

d. ***SO_2 Standard:*** The permittee shall not cause emissions of gases that contain sulfur dioxide in excess of the following: [401 KAR 59:015, Section 5(1)(c)(2.)]
~~i. For EU 7.6: 1.64 lb/MMBtu.~~
ii. For EU 7.7: 1.09 lb/MMBtu.
iii. For EU 7.8: 1.09 lb/MMBtu.
iv. For EU 7.9: 1.09 lb/MMBtu.
v. For EU 8.0: 1.40 lb/MMBtu.

Compliance Demonstration Method:

a. The source is assumed to be in compliance with the PM, Opacity, and SO_2 limits when the emission units listed above are burning natural gas and are properly maintained.

b. Refer to **SECTION D** for compliance with the VOC emission standard.

c. The Cabinet determines that the source is in compliance with 401 KAR 63:020 based on the rate of emissions of airborne toxics determined by the Cabinet using information provided in the application and any supplemental information submitted by the source.

3. **Testing Requirements:**
Pursuant to 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1, performance testing using the reference methods specified in 401 KAR 50:015 shall be conducted if required by the Division.

4. **Specific Monitoring Requirements:**
a. The permittee shall use a fuel metering device to continuously monitor the amount of natural gas (MMscf) fed to the makeup air handling units. The permittee may use a combined meter for multiple emission units, as long as 100% of the total natural gas emissions are appointed to each emission point based on usage. [401 KAR 52:030, Section 10]

b. Refer to **SECTION F** for general monitoring requirements.

5. **Specific Recordkeeping Requirements:**
a. The permittee shall maintain records of the following: [401 KAR 52:030, Section 10]
i. The monthly natural gas usage in million cubic feet;
ii. The monthly and 12-month rolling total emissions of VOC.

b. Refer to **SECTION F** for general recordkeeping requirements.

6. **Specific Reporting Requirements:**
Refer to **SECTION F** for general reporting requirement.

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:0~~3~~20, Section 6. Although these activities are designated as insignificant the permittee must comply with the applicable regulation. Process and emission control equipment at each insignificant activity subject to an opacity standard shall be inspected monthly and a qualitative visible emissions evaluation made. Results of the inspection, evaluation, and any corrective action shall be recorded in a log.

Description	Generally Applicable Regulation
1. Plastic Line Extruders (Using Polyethylene and/or Polypropylene)	None
2. Lacquer Application Line ~~7870 & 7837~~ **7815**	401 KAR 63:020
3. Two Non-Contact Cooling Towers	401 KAR 59:010
4. Two Aluminum Cladding Lines with Two Welders (Con't Lox Armor)	401 KAR 61:020
5. Wire Stranding Lines ~~804,~~ 803, ~~812~~, 864, 829, 865, 7201, 7202, & 7203	None
6. Wire Tin Line 841 (Heater rated at 0.75 MMBtu)	401 KAR 63:010 401 KAR 63:020
7. Glue Line 7870 & 7837	None
8. Storage Silos for PVC or Polyethylene Pellets	401 KAR 63:010
9. No. 2 Fuel Oil Tank (20,000 gal)	None
10. Roll Mill Line 7101	None
11. Stolberger KOA Strander	None
12. SKET Central Strander	None
13. Three Evaporators (Model 240G) (0.285 MMBtu, each)	401 KAR 63:020
14. Front Office Hot Water Heater (0.199 MMBtu)	401 KAR 63:020
15. Wire Drawing Lines 800, 801, 802, 7102, & 7103 With Eight Oil Mist Eliminators	None
16. Breakroom Space Heater (0.2 MMBtu)	401 KAR 63:020
17. Cabler Lines 867 & 863	None

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

Description	Generally Applicable Regulation
18. Shield Lines 846, 848, 7501, & 7502	None
19. Three Non-oil Powder Applicators	None
20. SKET Drum Twister Cablers 7401 & 7402	None
21. PowderTech Electrostatic Dusting Machines (4)	401 KAR 63:020
22. Silicone Applicator for Extruder 891	None

SECTION D – SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing ~~Federally Enforceable Title V~~ Permits ~~for Non-Major Sources~~* incorporated by reference in 401 KAR 52:0~~3~~20, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.

2. PM, SO_2, VOC, HAP, Acetophenone, and Opacity emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.

3. Source-wide VOC emissions shall not exceed 90 tons/year based on a 12-month rolling total. [To preclude 401 KAR 52:020]

   Compliance Demonstration Method:
   The permittee shall calculate, monthly, the source-wide VOC emissions using the following equation.

$$\sum_{j=1}^{n} \left(\frac{P_{ij} * EF_j}{2000}\right) * \frac{A_j}{100} * \left[1 - \left(\frac{B_j}{100}\right)\right] = X_i$$

$$\sum_{i=1}^{12} X_i \leq 90\ TPY$$

   Where:
   i is the month
   j is the emission point
   n is the total number of emission points
   P_{ij} is the hourly process rate for month i at emission point j,
   EF_j is the approved VOC emission factor at emission point j in lbs/process rate unit,
   A_j is the capture efficiency at emission point j,
   B_j is the control efficiency of any control device at emission point j, and
   X_i is the source-wide total tons per month of VOC emissions.
   This calculation includes all emission points in Section B that emit VOCs and any insignificant activities that emit VOCs.

~~4. Source-wide acetophenone emissions shall not exceed 9 tons/year based on a 12-month rolling total. [To preclude 401 KAR 52:020]~~

   ~~**Compliance Demonstration Method:**~~
   ~~The permittee shall calculate, monthly, the source-wide acetophenone emissions using the following equation.~~

SECTION D – SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

$$\sum_{j=1}^{n} \left(\frac{P_{ij} * EF_j}{2000}\right) * \frac{A_j}{100} * \left[1 - \left(\frac{B_j}{100}\right)\right] = X_i$$

$$\sum_{i=1}^{12} X_i \leq 9\ TPY$$

Where:
i is the month
j is the emission point
n is the total number of emission points
P_{ij} is the hourly process rate for month i at emission point j,
EF_j is the approved VOC emission factor at emission point j in lbs/process rate unit,
A_j is the capture efficiency at emission point j,
B_j is the control efficiency of any control device at emission point j, and
X_i is the source-wide total tons per month of VOC emissions.
This calculation includes all emission points in Section B that emit VOCs and any insignificant activities that emit VOCs.

5. The source is in compliance with 401 KAR 63:020 based on the emission rates of acetophenone, alpha methylstyrene, cyclohexanone, ethylbenzene, hydrogen chloride, methanol, methyl ethyl ketone, methyl methacrylate, trimethylamine, toluene, vinyl chloride, and xylenes given in the application and supplemental information submitted by the source and provided the emission limits for acetophenone above are met. [401 KAR 63:020]