



MECKLENBURG COUNTY  
Land Use and Environmental Services Agency  
*- AIR QUALITY -*

March 7, 2022

[Issued Via Email]

Raj Bhadauria, Plant Manager  
IGM Resins USA – Charlotte  
3300 Westinghouse Boulevard  
Charlotte, NC 28273  
[r.bhadauria@igmresins.com](mailto:r.bhadauria@igmresins.com)

RE: Air Quality Permit to Construct/Operate No. 22-01V-590

Dear Mr. Bhadauria:

In accordance with your application dated March 25, 2021, and supplementary information, Mecklenburg County Air Quality (MCAQ) forwards herewith Permit to Construct/Operate (Permit) No. 22-01V-590 for the construction/operation of air pollution emission sources or abatement equipment. This issuance will renew your Title V Permit for five years.

Review the permit and attached enclosures carefully. Please note the following:

- **Facility Category:** The category for this facility is “Title V.” This category is based on the information supplied to MCAQ and is used to determine appropriate annual and application processing fees.
- **Permit Expiration:** This Permit expires on March 7, 2027. In accordance with Mecklenburg County Air Pollution Control Ordinance Regulation 1.5513 - “Permit Renewal and Expiration,” the expiration of a Title V permit terminates a facility’s right to operate unless a complete renewal application has been submitted at least six months before the date of permit expiration. To ensure the next renewal application is timely and complete, the application shall be submitted one year prior to the permit expiration date, thus due to MCAQ on March 7, 2026.
- **Permit Conditions and Limitations:** Part 1 of this Permit contains Facility Conditions and Limitations, which are applicable to your facility. Part 2 of this Permit contains Emission Source Conditions and Limitations, which are applicable to emission sources as identified in the Emission Source Table.
- **Appendix A** contains information related to toxic air pollutants emissions at your facility. Please refer to Part 1, Condition and Limitation B-5 of this Permit and/or Part 2, Condition and Limitations E-2 and E-3 to comply with the air toxics requirement.
- This Permit maintains facility-wide emission limits for certain pollutants.

- This Permit is transferable to future owners and operators only through action of the Director of MCAQ and shall be subject to the conditions and limitations as specified therein.

If any new or revised parts, requirements, or limitations contained in this Permit are unacceptable to you, you have the right to a hearing before the Air Quality Commission upon written demand to the Director within thirty (30) days following receipt of this Permit. The hearing request must identify the specific issues to be contended as described in MCAPCO Regulation 1.5306 - "Hearings," Paragraph (b). Unless such demand is made, this Permit shall be final and binding.

If there are any questions regarding this matter, please do not hesitate to contact me at 704/336-5430.

Sincerely,



Donna Cavaliere  
Sr. Air Quality Specialist

DCS:smh

Enclosures (2)  
Permit No. 22-01V-590  
Appendix A

C: Matthew Murray, EHS Manager, IGM Resins USA – Charlotte, [m.murray@igmresins.com](mailto:m.murray@igmresins.com)



## AIR QUALITY TITLE V PERMIT

Permit No.	Effective Date	Expiration Date	Modification Date(s)	Replaces Permit No(s)
22-01V-590	March 7, 2022	March 7, 2027		17-02V-590

In accordance with the provisions of the Mecklenburg County Air Pollution Control Ordinance, and by the authority granted under the North Carolina General Statute (NCGS) Chapter 143, Article 21B, and until such time as this permit expires or is modified or revoked, the Permittee is hereby authorized to construct/operate emission sources and control devices as outlined in Parts 1 and 2 of this permit. The purpose of this permit is to assure compliance with the requirements of Title V of the Clean Air Act (CAA) and 40 CFR Part 70.

**Permittee Name:** IGM Resins USA, Inc.  
**Site Name (if different):** IGM Resins USA - Charlotte

**Permitted Facility Location:** 3300 Westinghouse Blvd.  
**City, State, Zip:** Charlotte, NC 28273

**Facility Mailing Address:** 3300 Westinghouse Blvd.  
**City, State, Zip:** Charlotte, NC 28273

**Primary SIC Code:** 2899

**Renewal Application Due:** March 7, 2026

*Jason Rayfield*

03/07/2022

Program Manager, Air Quality Program

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There are no Federal Only requirements for this Permit.

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# **PART 1**

## **Facility Conditions and Limitations**

# PART 1

## Facility Conditions and Limitations

The entire facility is subject to the conditions and limitations contained in Part 1 (below). The facility shall comply with all applicable Air Quality rules and regulations whether or not these regulations are specifically identified in the permit.

### **A. LOCAL AND FEDERAL REQUIREMENTS**

Mecklenburg County Air Quality (MCAQ) and the United States Environmental Protection Agency (EPA) have the authority to enforce the terms, conditions, and limitations contained in this section.

### **ADMINISTRATIVE PROVISIONS**

#### **A-1. Applicability**

The facility shall be operated in accordance with the Mecklenburg County Air Pollution Control Ordinance (MCAPCO) **Regulations 1.5211 - “Applicability”** and **1.5502 - “Applicability”**. An owner or operator shall have received a permit from the Department and shall comply with the conditions of such permit before constructing, modifying or operating any air pollution source or entering into a contract to construct or install any air cleaning device. This permit does not relieve the facility from the responsibility of acquiring any other permits that may be required.

#### **A-2. Permit Application**

In accordance with **MCAPCO Regulation 1.5508 - “Permit Content” Subparagraph (i)(16)**, the construction and operation of emission sources and control devices listed in this permit shall be in accordance with all plans, specifications, operating parameters, and other information submitted and which is the basis for the issuance of this permit. The facility shall comply with all applicable Air Quality rules and regulations whether or not these rules and regulations are included as part of the permit.

Applications shall be submitted in accordance with **MCAPCO Regulations 1.5212 - “Applications”, 1.5505 - “Application Submittal Content”, and 1.5507 - “Applications”** and shall be accompanied by the appropriate fee as listed in **MCAPCO Regulation 1.5231 - “Air Quality Fees”**. The owner or operator of a new or modified facility may choose to obtain a construction and operation permit pursuant to **MCAPCO Regulation 1.5504 - “Option for Obtaining Construction and Operation Permit”**.

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information. The Permittee shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete renewal application was submitted but prior to release of a draft permit.



**A-3. General Duties and Powers of the Director**

In accordance with **MCAPCO Regulation 1.5104 - “General Duties and Powers of the Director, with Approval of the Board”**, the Director or his authorized representative may request performance testing of any emission source to ensure compliance.

**A-4. Confidential Information**

In accordance with **MCAPCO Regulation 1.5217 - “Confidential Information”**, the Permittee may request that submitted information be treated as confidential. The Permittee must make this request at the time of submittal and include both confidential and public copies of the information for MCAQ files.

**A-5. Retention of Permit**

In accordance with **MCAPCO Regulation 1.5219 - “Retention of Permit at Permitted Facility”**, a copy of this permit shall be retained at the facility.

**A-6. Property Rights**

In accordance with **MCAPCO Regulation 1.5508 - “Permit Content” Subparagraph (i)(8)**, this permit does not convey property rights of any sort, or any exclusive privileges.

**A-7. Annual Fee Payment**

In accordance with **MCAPCO Regulation 1.5508 - “Permit Content” Subparagraph (i)(10)**, the Permittee shall pay fees required by **MCAPCO Regulation 1.5231 - “Air Quality Fees”**.

**A-8. Inspection and Entry**

In accordance with **MCAPCO Regulation 1.5508 - “Permit Content” Paragraph (l)**, the Permittee shall allow authorized representatives of MCAQ and the EPA to:

- a. enter the Permittee’s premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept by the conditions of the permit;
- b. have access to and copy any records that are required to be kept by the conditions of the permit;
- c. inspect any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required by the permit; and
- d. sample or monitor substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

## **PERMIT CHANGES**

### **A-9. Changes Not Requiring a Permit Modification**

a. Section 502(b)(10) Changes:

Changes allowed under Section 502(b)(10) of the federal Clean Air Act are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements. In accordance with **MCAPCO Regulation 1.5523 - “Changes Not Requiring Permit Revisions”** Paragraph (a), the Permittee may make changes without having this permit revised if:

1. the changes are not a modification as defined pursuant to **MCAPCO Article 2.0000** or Title I of the federal Clean Air Act;
2. the changes do not cause the allowable emissions in the permit to be exceeded;
3. the Permittee notifies the Director and EPA in writing as described in **MCAPCO Regulation 1.5523- “Changes Not Requiring Permit Revisions”** Subparagraph (a)(2) at least seven days before the change is made; and,
4. the Permittee shall attach the notice to the relevant permit.

b. Off-Permit Changes:

In accordance with **MCAPCO Regulation 1.5523 - “Changes Not Requiring Permit Revisions”** Paragraph (b), the Permittee may make changes in his operation or emissions without revising the permit if:

1. the change affects only insignificant activities and the activities remain insignificant after the change,
2. the change is not covered by any applicable requirement, and,
3. the change would not render existing permit compliance terms and conditions irrelevant.

c. Emissions Trading:

To the extent that emissions trading is allowed pursuant to **MCAPCO Article 2.0000**, emissions trading shall be allowed without permit revisions provided that:

1. all applicable requirements are met,
2. the Permittee complies with all terms and conditions of the permit in making the emissions trade, and,
3. the Permittee notifies the Director and EPA with written notification as described in **MCAPCO Regulation 1.5523 - “Changes Not Requiring Permit Revisions”** Subparagraph (c)(3) at least seven days before making the emissions trade.

### **A-10. Permit Modifications and Administrative Amendments**

a. Administrative Permit Amendments shall be made in accordance with **MCAPCO Regulation 1.5514 - “Administrative Permit Amendments”**.

b. Transfer of Ownership or Operation:

Transfer of ownership or operations shall be made in accordance **with MCAPCO Regulation 1.5524 - “Ownership Change”** which states that applications for ownership change shall contain information as required in **MCAPCO Regulation 1.5505 - “Application Submittal Content” Paragraph (4)** and shall follow the procedures described in **MCAPCO Regulation 1.5212 - “Applications” Paragraph (e)**.

c. Minor Permit Modifications shall be made in accordance with **MCAPCO Regulation 1.5515 - “Minor Permit Modifications”**.

- d. Significant Permit Modifications shall be made in accordance with **MCAPCO Regulation 1.5516 - “Significant Permit Modification”**.

#### **A-11. Reopening for Cause**

In accordance with **MCAPCO Regulation 1.5517 - “Reopening for Cause”, Paragraph (a)**, a permit shall be reopened and revised under the following circumstances:

- a. additional requirements become applicable to a facility with a remaining permit term of three or more years. Such a reopening shall be completed no later than 18 months after promulgation of the applicable requirement, and no such reopening is required if the effective date of requirement is later than the expiration date of this permit;
- b. MCAQ or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
- c. MCAQ or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

#### **A-12. Termination, Modification, Revocation of Permits**

A permit may be terminated, revoked, or modified as outlined in **MCAPCO Regulations 1.5232 - “Issuance, Revocation, and Enforcement of Permits”, 1.5231 - “Air Quality Fees”, and/or 1.5519 - “Termination, Modification, Revocation of Permits”**.

In accordance with the above-referenced regulations, MCAQ may terminate, modify, or revoke and reissue a permit if:

- a. the information contained in the application or presented in support thereof is determined to be incorrect;
- b. the regulations or conditions under which the permit or permit renewal was granted have changed;
- c. permit conditions have been violated;
- d. construction of the permitted equipment does not commence within 18 months of permit issuance or, once construction has begun, it ceases prior to completion for a period of 18 consecutive months;
- e. operation of a permitted facility or process ceases permitted activities for a period of 18 consecutive months;
- f. the permit holder fails to pay fees required within 30 days after being billed;
- g. the Permittee refuses to allow the Director or authorized representative to enter the premises where a source of emissions is located, have access to records required to be kept by the terms and conditions of the permit, inspect any source of emissions, control equipment, and monitoring equipment or methods required in the permit, or collect samples from any emission source; or,
- h. the EPA requests that the permit be revoked pursuant to **40 CFR Part 70.7 (g) or 70.8(d)**.

### **A-13. Permit Renewal and Expiration**

In accordance with **MCAPCO Regulation 1.5513 - “Permit Renewal and Expiration”**, permit expiration shall terminate the facility’s right to operate unless a complete renewal application has been submitted at least six months before the date of permit expiration. To ensure the application is timely and complete, the *renewal application shall be submitted one year prior to the permit expiration date*. The renewal application should include the complete application forms for all permitted equipment and any modifications. Permits being renewed are subject to the procedural requirements of **MCAPCO Section 1.5500 - “Title V Procedures”**, including those for public participation and affected States and EPA review. Upon receipt of a timely and complete application for renewal, the Permittee may continue to operate under the conditions of this permit, subject to final action by MCAQ on the renewal application. If a complete renewal application is not received as required, the permit will expire at the end of its term.

## **NOTIFICATIONS AND REPORTS**

### **A-14. Commencement of Operation**

The facility shall be operated in accordance with **MCAPCO Regulation 1.5214 - “Commencement of Operation”**. Upon completion of construction, alteration or installation pursuant to this permit, the permit holder shall notify the Director in writing of such completion and of the holder’s intent to commence operation.

### **A-15. Malfunction and Excess Emissions Provisions:**

In accordance with **MCAPCO Regulation 1.5508 - “Permit Content”** Subparagraph (f)(2), the Permittee shall report malfunctions, emergencies, and other upset conditions promptly as prescribed in **MCAPCO Regulations 2.0524 - “New Source Performance Standards”**, **2.0535 - “Excess Emissions Reporting and Malfunctions”** (except Paragraph (g)), **2.1110 - “National Emission Standards for Hazardous Air Pollutants”**, or **2.1111 - “Maximum Achievable Control Technology”**.

The permittee shall report to the Director within two business days after becoming aware of any deviation not covered by **MCAPCO Regulations 2.0524 - “New Source Performance Standards”**, **2.0535 - “Excess Emissions Reporting and Malfunctions”** (except Paragraph (g)), **2.1110 - “National Emission Standards for Hazardous Air Pollutants”**, or **2.1111 - “Maximum Achievable Control Technology”**.

All reports of deviations and excess emissions shall be certified by a responsible official. After a malfunction or breakdown has been corrected, the Director may require the source to conduct a performance test to demonstrate compliance.

***MCAPCO Regulation 2.0535 – “Excess Emissions Reporting and Malfunctions” Paragraph (g) is not a SIP enforceable provision and therefore the conditions and allowances allowed therein are considered as Local only requirements (see Facility Condition and Limitation No. B-8).***

**A-16. Monitoring Data Recordkeeping and Reporting**

In accordance with **MCAPCO Regulation 1.5508 - “Permit Content” Paragraph (f):**

- a. The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. (Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation and copies of all reports required by the permit.)
- b. The Permittee shall submit reports of any required monitoring as listed in Part 2 of this Permit to MCAQ at least every six months. The reports should include a summary of data and observations, identification of any deviations from normal operating parameters, and any corrective action taken to return the monitored emission source to normal operating conditions. Normal operating parameters shall be determined from information on file and any operating ranges listed in Part 2 of this permit.

**A-17. Annual Emissions Reporting**

In accordance with **MCAPCO Regulation 1.5508 - “Permit Content” Subparagraph (i)(14)**, the Permittee shall submit annual reports of actual and potential emissions as required pursuant to **MCAPCO Regulation 1.5111 - “General Recordkeeping, Reporting and Monitoring Requirements”** and as specified in the Permit.

**A-18. Duty to Provide Information**

In accordance with **MCAPCO Regulation 1.5508 - “Permit Content” Subparagraph (i)(9)**, the Permittee shall furnish to MCAQ, in a timely manner, any information that MCAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. The Permittee shall furnish to MCAQ copies of records required to be kept by the permit when such copies are requested by the Director.

**A-19. Submissions**

In accordance with **MCAPCO Section 1.5500 - “Title V Procedures”**, any document submitted shall be certified by a responsible corporate official as being true, accurate and complete. Reports, test data, monitoring data, notifications and requests for renewal shall be submitted to:

Director  
Mecklenburg County Air Quality  
2145 Suttle Avenue  
Charlotte, NC 28208-5237

**A-20. Information Submittal**

The owner or operator shall submit all reports or information as may be required by MCAQ.

## **OPERATIONAL REQUIREMENTS/STANDARDS**

### **A-21. Equipment and Control Device Operation**

Unless otherwise specified by this permit, no equipment may be operated without the concurrent operation of the permitted air emissions control devices.

### **A-22. National Emission Standards for Hazardous Air Pollutants**

The facility shall be operated in accordance with **MCAPCO Regulation 2.1110 - “National Emission Standards for Hazardous Air Pollutants”**, which refers to Title 40 of the Code of Federal Regulations Part 61.140 to 61.157, Subpart M, National Emission Standard for Asbestos, when conducting any renovation or demolition activities.

### **A-23. Visible Emissions**

The facility shall be operated in accordance with **MCAPCO Regulation 1.5107 - “Control and Prohibition of Visible Emissions”**, such that visible emissions shall not be more than 20% opacity for an aggregate of more than six (6) minutes in any one hour or more than twenty (20) minutes in any 24-hour period.

Facilities subject to a visible emission standard as specified by applicability to **MCAPCO Regulations 2.0524 - “New Source Performance Standards”**, or **2.1110 - “National Emission Standards for Hazardous Air Pollutants”**, shall comply with the more stringent standard, but, in no case shall the source’s visible emissions exceed 20% opacity.

### **A-24. Dust and Related Material**

The facility shall be operated in accordance with **MCAPCO Regulation 1.5108 - “Dust and Related Material”**, such that dust shall not be discharged into the atmosphere in such quantities that the ambient air quality standards are exceeded at the property line or in such quantities or of such toxic or corrosive nature that may be injurious to humans or animals or may cause damage to the property of others.

### **A-25. Fugitive Dust Emission Sources**

As required by **MCAPCO Regulation 2.0540 - “Particulates from Fugitive Dust Emission Sources”**, the permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints.

- a. If fugitive dust emissions cause or contribute to substantive complaints, the permittee shall:
  1. within 30 days upon receipt of written notification from the Director of a second substantive complaint in a 12-month period, submit to the Director a written report that includes the identification of the probable source(s) of the fugitive dust emissions causing complaints and what immediate measures can be made to abate the fugitive emissions;
  2. within 60 days of the initial report submitted under Subparagraph (1) of this Paragraph, submit to the Director a control plan as described in Paragraph (f) of this Regulation; and
  3. within 30 days after the Director approves the plan, be in compliance with the plan.

- b. The Director may require that the permittee develop and submit a fugitive dust control plan as described in MCAPCO 2.0540(f) if:
  - 1. ambient air quality measurements or dispersion modeling as provided in Paragraph (e) of MCAPCO Regulation 2.1106 – “Determination of Ambient Air Concentrations” show violation or potential for a violation of an ambient air quality standard for particulates in MCAPCO Section 2.0400 - “Ambient Air Quality Standards”; or
  - 2. if MCAQ observes excessive fugitive dust emissions from the facility beyond the property boundaries for six minutes in any one hour using Reference Method 22 in 40 CFR 60, Appendix A.

#### **A-26. Protection of Stratospheric Ozone**

In accordance with **MCAPCO Regulation 1.5501 - “Purpose of Section and Requirement for a Permit” Paragraph (d)**, the Permittee is subject to all the applicable requirements and standards for recycling and emissions reduction pursuant to:

- a. **40 CFR Part 82, Subpart F - “Recycling and Emissions Reduction”** including the following:
  - 1. persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant **40 CFR 82.156**;
  - 2. equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to **40 CFR 82.158**;
  - 3. persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to **40 CFR 82.161**;
  - 4. persons disposing of small appliances, motor vehicle air conditioners (MVACs), and MVAC-like appliances (as defined in **40 CFR 82.152**) must comply with recordkeeping requirements pursuant to **40 CFR 82.166**;
  - 5. persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to **40 CFR 82.156**; and
  - 6. owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to **40 CFR 82.166**; and,
- b. **40 CFR Part 82, Subpart B - “Servicing of Motor Vehicle Air Conditioners”**, if the facility maintains, services, repairs, or disposes of MVACs.

#### **A-27. Chemical Accident Prevention Provisions**

In accordance with **40 CFR Part 68.215 - “Permit Content and Air Permitting Authority or Designated Agency Requirements”**, any stationary source subject to the Chemical Accident Prevention Provisions of **40 CFR Part 68** shall comply with such provisions, including but not limited to the submittal of a Risk Management Plan (Subpart G) .

#### **A-28. Insignificant Activities**

The facility shall be operated in accordance with **MCAPCO Regulation 1.5508 - “Permit Content”, Subparagraphs (i)(15) and (i)(16)** such that all insignificant activities as defined in **MCAPCO Regulation 1.5503 - “Definitions”** shall be included in the permit and shall comply with any applicable requirement in MCAPCO.

## **COMPLIANCE PROVISIONS**

### **A-29. Duty to Comply with this Permit**

In accordance with **MCAPCO Regulation 1.5508 - "Permit Content" Subparagraph (i)(3)**, noncompliance with any term, condition, or limitation of this permit is grounds for enforcement action; for permit termination, revocation and reissuance or modification; or for denial of a permit renewal application.

In accordance with **MCAPCO Regulation 1.5508 - "Permit Content" Subparagraph (i)(4)**, a Permittee shall not claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit as a defense in an enforcement action.

### **A-30. Enforcement/Variances/Judicial Review**

Violation of any applicable MCAPCO regulation or condition listed herein could result in administrative fines and/or legal action as prescribed in **MCAPCO Section 1.5300 - "Enforcement; Variances; Judicial Review"**.

### **A-31. Duty to Comply with Other Regulations**

This permit does not relieve the Permittee of the responsibility of complying with all applicable requirements of any Federal, State, or local water quality or land quality control authority.

### **A-32. Determination of Compliance**

This permit contains provisions which require a specific test method, monitoring, or recordkeeping to be used as a demonstration of compliance with permit limits, but are not intended as the only means of demonstration or certifying compliance with permit limits. Unless otherwise specified, the averaging times for all specified emission standards are tied to or based on the run time of the test method(s) used for determining compliance. Compliance with MCAPCO, including the specific conditions herein, shall be determined by source testing, surveillance, visual observations, data review, plant inspections, and any other credible evidence.

### **A-33. Compliance Certification**

In accordance with **MCAPCO Regulation 1.5508 - "Permit Content" Paragraph (n)**, the Permittee shall submit to MCAQ and EPA by April 30 of each year, a compliance certification by a responsible official with all terms and conditions in the permit, including emissions limitations, standards, and work practices. The certification shall specify:

- a. the identification of each term or condition of the permit that is the basis of the certification;
- b. the compliance status as shown by monitoring data and other information reasonably available to the Permittee;
- c. whether compliance was continuous or intermittent;
- d. the methods used for determining the compliance status of the source, currently and over the reporting period; and,
- e. such other facts as the permit may specify to determine the compliance status of the source.



The compliance certification shall identify each deviation and take it into account in the compliance certification. The compliance certification shall comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the federal Clean Air Act.

All compliance certifications shall be submitted to MCAQ and the EPA at the following addresses:

Director	and	Environmental Protection Agency
Mecklenburg County Air Quality		Attn: APTMD Air & EPCRA Enforcement Branch
2145 Suttle Avenue		Atlanta Federal Center
Charlotte, NC 28208-5237		61 Forsyth Street, SW
		Atlanta, GA 30303-3104

In accordance with **MCAPCO Regulation 1.5520 - “Certification by Responsible Official”**, a responsible official shall certify the truth, accuracy, and completeness of the compliance certification. The certification shall state that, based on information and belief formed after reasonable inquiry, statements and information in the document are true, accurate, and complete.

#### **A-34. Permit Shield**

In accordance with **MCAPCO Regulation 1.5512 - “Permit Shield and Application Shield”**, and pursuant to the terms, conditions, and limitations of this permit, the facility shall be deemed in compliance with all applicable requirements as of the date of permit issuance except as follows:

- a. This permit shield shall not apply to any change made at this facility that does not require a permit revision.
- b. This permit shield shall not extend to minor permit modifications made pursuant to **MCAPCO Regulation 1.5515 - “Minor Permit Modifications”**.
- c. Nothing in this permit shall alter or affect:
  1. the power of the Director, Mecklenburg County Air Quality under NCGS 143-215.112 or MCAPCO or EPA under Section 303 of the federal Clean Air Act;
  2. the liability of an owner or operator of a facility for any violation of applicable requirements prior to or at the time of permit issuance;
  3. the applicable requirements under Title IV; or
  4. the ability of MCAQ (or EPA pursuant to Section 114 of the federal Clean Air Act) to obtain information to determine compliance of the facility with its permit.

**A-35. Severability Clause**

In accordance with **MCAPCO Regulation 1.5508 - "Permit Content" Subparagraph (i)(2)**, the provisions of this permit are severable. Upon any administrative or judicial challenge, or if any provision of this permit is held invalid, all permit requirements, except those being challenged, will remain valid and enforceable.

**A-36. Enforcement Clause**

In accordance with **MCAPCO Regulation 1.5508 - "Permit Content" Subparagraph (i)(3)**, noncompliance with any condition of the permit is grounds for enforcement action. In addition, noncompliance with any condition may result in permit termination, revocation and reissuance, modification, or denial of a permit renewal application.

In accordance with **MCAPCO Regulation 1.5508 - "Permit Content" Subparagraph (i)(4)**, the Permittee may not use as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

**B. LOCAL ONLY REQUIREMENTS**

Only Mecklenburg County Air Quality (MCAQ) has the authority to enforce the terms, conditions, and limitations contained in this section. The EPA does not have the authority to enforce the terms, conditions, and limitations contained in this section.

**B-1. Incorrect Information and Facility Operation**

This permit is subject to revocation or modification by MCAQ upon a determination that information contained in the application or presented in the support thereof is incorrect, conditions under which this permit was granted have changed, or violations of conditions contained in this permit have occurred. The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no emission source may be operated without the concurrent operation of its associated air pollution control device(s) and appurtenances.

**B-2. Violations Prior to Effective Permit Date**

This issuance of this permit in no way absolves the Permittee of liability for any potential legal action and/or penalties which may be assessed for violations of local regulations which have occurred prior to the effective date of this permit.

**B-3. Operation and Maintenance Reports**

Reports on the operation and maintenance of the facility shall be submitted by the Permittee to the Director, Mecklenburg County Air Quality at such intervals and in such form and detail as may be required by MCAQ. Information required in such reports may include, but is not limited to, process weight rates, firing rates, hours of operation, and preventive maintenance schedules.

**B-4. Violation of Terms or Conditions**

A violation of any Locally enforceable term or condition of this permit shall subject the Permittee to enforcement pursuant to **MCAPCO Section 1.5300 - “Enforcement; Variances; Judicial Review”**, including assessment of civil penalties.

**B-5. Toxic Air Pollutants**

In accordance with **MCAPCO Section 1.5700 - “Toxic Air Pollutant Procedures”** and/or **MCAPCO Regulation 2.1104 - “Toxic Air Pollutant Guidelines”**, the toxic air pollutants (TAP) emitted by existing processes have been reviewed for regulatory applicability by MCAQ. If applicable, Appendix A lists the relevant permits and associated TAPs.

In accordance with **MCAPCO Regulations 1.5111 - “General Recordkeeping, Reporting and Monitoring Requirements”**, **2.0605 – “General Recordkeeping and Reporting Requirements”**, and/or **2.0903 - “Recordkeeping: Reporting: Monitoring”**, the facility shall report any process additions, modifications or deletions which affect the emissions of any TAP listed in **MCAPCO Section 1.5700 - “Toxic Air Pollutant Procedures”** as prescribed by the following:

- a. If the process modifications will result in a facility-wide TAP emission rate that exceeds the rate listed in **MCAPCO Regulation 1.5711 – “Emission Rates Requiring a Permit”** for any TAP, apply and receive an air toxics permit before the process modification occurs; or
- b. If the process modifications will result in facility-wide TAP emission rates that are below the rates listed in **MCAPCO Regulation 1.5711 - “Emission Rates Requiring a Permit”**, submit the new emission rates to MCAQ 15 days prior to the initial change; or
- c. If the process modifications will not result in a net TAP emission increase, provide MCAQ with demonstration (15 days prior to the initial change) that the proposed modification will not result in a net TAP emission increase at the facility.

The facility is required to maintain documentation such that upon request by MCAQ, the facility can make a demonstration that facility-wide emissions of TAPs have or have not exceeded the rates listed in **MCAPCO Regulation 1.5711**.

**B-6. Nuisance**

The facility shall be operated in accordance with **MCAPCO Regulation 1.5109 - “Nuisance”**. The source shall not discharge any air contaminants or other material to cause injury, detriment, nuisance, annoyance, or endanger the comfort, repose, health or safety of the public or property.

**B-7. Odorous Emissions**

The facility shall be operated in accordance with **MCAPCO Regulation 1.5110 - “Control and Prohibition of Odorous Emissions”**. The owner or operator of a facility shall not operate the facility without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility’s boundary.

If the Director determines that a source or facility is emitting an objectionable odor, the owner or operator shall be responsible for:

- providing the maximum feasible control determination according to the procedures in **MCAPCO Regulation 1.5113 - “Determination of Maximum Feasible Controls for Odorous Emissions”**, and
- implementing maximum feasible controls for the control of odorous emissions.

**B-8. Start-up and Shut-down Excess Emissions Provisions**

In accordance with **MCAPCO Regulation 2.0535 – “Excess Emissions Reporting and Malfunctions”** Paragraph (g), excess emissions during start-up and shut-down shall be considered a violation, if the owner or operator cannot demonstrate that the excess emissions are unavoidable. The Director shall determine if excess emissions are unavoidable considering the items listed in this Regulation. The owner or operator shall operate the source and control and monitoring equipment in a manner to minimize emissions during start-up and shut-down.

**C. FEDERAL ONLY REQUIREMENTS**

Only the EPA has the authority to enforce the terms, conditions, and limitations contained in this section. Mecklenburg County Air Quality does not have the authority to enforce the terms, conditions, and limitations contained in this section.

- THERE ARE NO FEDERAL ONLY REQUIREMENTS FOR THIS PERMIT -

# **PART 2**

## **Emission Source Conditions and Limitations**

## PART 2

### Emission Source Conditions and Limitations

In accordance with MCAPCO Section 1.5500 -"Title V Procedures", the facility shall comply with all applicable rules and regulations whether or not these rules and regulations are specifically identified in the permit. The emission sources and control devices listed in the following table are subject to the Emission Source Conditions and Limitations contained in Part 2 as referenced in the table.

Emission Source ID	Emission Source Description (type, manufacturer, capacity)	Installation (I) / Modification (M) Dates	Control Device Unit or Method (type, model, manufacturer, installation/modification)	Emission Source Conditions and Limitations		
				Local and Federal Requirements	Local Only Requirements	Federal Only Requirements
ES-2	<b>Reaction Process</b> Including: EK-2 reactor EK-3 reactor EK-4 reactor EK-5 reactor EK-7 reactor EK-8 reactor EK-9 reactor ASC-1 stripping column T-711 intermediate charge tank T-703/704 mix tanks T-NN/SN mix tanks T-1285 wash tank T-525/528 stripper feed tanks S-1/2/3/4 filter tanks T-805 T-526 wash hold tank T-125/206/216/312 toluene storage tanks	I = 1971 M= 1972,1976, 1978, 1982, 1983, 1985, 1988, 1989, 1991, 1992, 1993, 1995, 1996, 2001, 2003, 2004, 2009	<b>CD-TO2:</b> Colt Technologies Maxim regenerative thermal oxidizer (RTO) for EK-4, EK-8, EK-9, and ASC-1  <b>CD-CND-2357:</b> Chilled glycol condenser for: EK-2 (via OHC-2 and VPC-2/3), EK-3 (via OHC-3 and VPC-2/3), EK-5 (via OHC-5 and VPC-5) EK-7 (via OHC-7 and VPC-7), vents to atmosphere  <b>CD-CND-8*:</b> Chilled glycol condenser for EK-8 (via OHC-8 and VPC-8), vents to RTO  <b>CD-CND-9*:</b> Chilled glycol condenser for EK-9 (via OHC-9 and VPC-9), vents to RTO  <i>*MON MACT Control Devices</i>  <u>Inherent Condensers (not control devices):</u> <b>OHC-2:</b> Overhead condenser for EK-2, vents to VPC-2/3 <b>OHC-3:</b> Overhead condenser for EK-3, vents to VPC-2/3 <b>OHC-4:</b> Overhead condenser for EK-4, vents to VPC-4 or atmosphere <b>OHC-5:</b> Overhead condenser for EK-5, vents to VPC-5 <b>OHC-7:</b> Overhead condenser for EK-7, vents to VPC-7 <b>OHC-8:</b> Overhead condenser for EK-8, vents	D-3, D-6, D-10, D-11, D-13, D-15, D-16	E-1, E-2, E-3	None

Emission Source ID	Emission Source Description (type, manufacturer, capacity)	Installation (I) / Modification (M) Dates	Control Device Unit or Method (type, model, manufacturer, installation/modification)	Emission Source Conditions and Limitations		
				Local and Federal Requirements	Local Only Requirements	Federal Only Requirements
			to VPC-8 <b>OHC-9:</b> Overhead condenser for EK-9, vents to VPC-9 <b>VPC-2/3:</b> Vacuum pump condenser for EK-2 (via OHC-2) and EK-3 (via OHC-3), vents to CD-CND-2357, then atmosphere <b>VPC-4:</b> vacuum pump condenser for EK-4 (via OHC-4), vents to RTO or atmosphere <b>VPC-5:</b> Vacuum pump condenser for EK-5 (via OHC-5), vents to CD-CND-2357 or to atmosphere <b>VPC-7:</b> Vacuum pump condenser for EK-7 (via OHC-7), vents to CD-CND-2357, then atmosphere <b>VPC-8:</b> vacuum pump condenser for EK-8 (via OHC-8), vents to CD-CND-8, then RTO <b>VPC-9:</b> vacuum pump condenser for EK-9 (via OHC-9), vents to CD-CND-9, then RTO			
ES-4	<b>Compounding Process</b> including: Compounding Tank T-802 Compounding Tank T-806 Compounding Tank T-807 Blend/Mix Tank T-702 – no vent. Blend/Mix Tank T-901 Blend/Mix Tank T-902 Blend/Mix Tank T-903 Blend/Mix Tank T-904 Blend/Mix Tank T-905	I =1972, M=1983, 1988, 1995, 1996, 2001	<b>CD-DM1:</b> Demister (T-802, T-806 and T-807)	D-3, D-10, D-11 D-12, D-16	E-1, E-2, E-3	None
ES-5	<b>Quality Control Laboratory</b>	I = 1972	No Control	D-3, D-10, D-16	E-1, E-2, E-3	None
ES-7	<b>Wastewater Treatment System</b>	I = 1972, M = 1990	No Control	D-3, D-10, D-16	E-1, E-2, E-3	None

Emission Source ID	Emission Source Description (type, manufacturer, capacity)	Installation (I) / Modification (M) Dates	Control Device Unit or Method (type, model, manufacturer, installation/modification)	Emission Source Conditions and Limitations		
				Local and Federal Requirements	Local Only Requirements	Federal Only Requirements
ES-8	<b>Urethane acrylate / oligomer / photomer / UV resin process</b> including: Premix charge tank PMT-11 EK-11 reactor T-808 storage tank	I=2000 M=2001, 2003, 2004	<b>CD-SCR01:</b> Scrubbing vessel/ water pot for vent gas sparging on premix charge tank PMT-11 and EK-11 reactor vents  <u>Inherent Condensers (not control devices):</u> <b>OHC-11:</b> Overhead condenser for EK-11, vents to VPC-11 <b>VPC-11:</b> Vacuum pump condenser for PMT-11, vents to CD-SCR01	D-3, D-6, D-10, D-11, D-12, D-16	E-1	None
ES-9	<b>Pilot Plant</b> including: Reactor DC-25 Reactor DC-24 Reactor DC-9 Reactor DC-2 Mix Tank DB-3	I = 2001	<b>CD-CND-PP01:</b> Chilled Glycol Condenser  <u>Inherent Condensers (not control devices):</u> <b>OHC-DC-2:</b> Overhead condenser for DC-2, vents to VPC-PP <b>OHC-DC-9:</b> Overhead condenser for DC-9, vents to VPC-PP <b>OHC-DC-24:</b> Overhead condenser for DC-24, vents to VPC-PP <b>OHC-DC-25:</b> Overhead condenser for DC-25, vents to VPC-PP <b>VPC-PP:</b> Vacuum pump condenser for OHC-2, 9, 24 and 25, vents to CD-CND-PP01, then atmosphere	D-3, D-6, D-10, D-11, D-13, D-16	E-1, E-2, E-3	None
ES-10	<b>Defoamer Process</b> including: Reactor EK-1 Adjustment Tank T-801 Melt Tank T-601 Myers Tank T-803 Hold Tank T-809	I=2002	No Control	D-3, D-10, D-11, D-16	E-1	None
ES-11	<b>GAX Urethane, Urethane Acrylates, and Rheology Modifier Process</b> including: Reactor EK-12 Reactor EK-13 Premix Tank PMT-12 Premix Tank PMT-13	I=1972	<b>CD-CND-12:</b> Ethylene Glycol Condenser (EK-12)  <u>Inherent Condensers (not control devices):</u> <b>VPC-12:</b> Vacuum pump condenser for EK-12 and PMT-12, vents to CD-CND-12, then atmosphere <b>VPC-13:</b> Vacuum pump condenser for EK-13 and PMT-13, vents to atmosphere	D-3, D-6, D-10, D-11, D-12, D-16	E-1, E-2, E-3	None



Emission Source ID	Emission Source Description (type, manufacturer, capacity)	Installation (I) / Modification (M) Dates	Control Device Unit or Method (type, model, manufacturer, installation/modification)	Emission Source Conditions and Limitations		
				Local and Federal Requirements	Local Only Requirements	Federal Only Requirements
ES-BOIL	Two 26.67 million Btu/hr Cleaver Brooks boilers, Model Delta D-34, fueled by natural gas.	I =1972 M=2009 (Boiler#2)	No Control	D-1, D-2, D-8, D-10, D-11, D-15, D-16	E-1, E-2, E-3	None
ES-DIES	One diesel fire pump (235 HP; 13 gallons per hour fuel firing rate) (175.4 kW)	I = 1971	No Control	D-2, D-7, D-10, D-11, D-16	E-1, E-2, E-3	None
ES-LOAD	Finished Product Loadout	I =1972 M=1999	No Control	D-3, D-4, D-5, D-6, D-10, D-11, D-16	E-1, E-2, E-3	None
ES-STORE	Raw material and finished product storage tanks.	I =1972, 2001 M/R=2000, 2001, 2004	Tk-307 and Tk-308: Two 50-gallon water pots for control of acrylic acid emissions from storage tank T-326 <i>Note: no control efficiency is claimed</i>	D-3, D-5, D-6, D-10, D-12, D-16	E-1, E-2, E-3	None
IA-1	One (1) 49.2 hp natural gas fired emergency generator	I = 2013	No control	N/A	N/A	None
IA-2	R&D laboratory	I = 2013	No control	N/A	N/A	None
	Space heaters		No control	N/A	N/A	None
IA-3	Hot water heaters		No control	N/A	N/A	None
IA-4	Diesel fuel storage tank		No control	N/A	N/A	None

**ALTERNATIVE OPERATING SCENARIOS**

The following alternative operating scenarios (AOS) may be implemented by the facility without providing notification to MCAQ.

Emission Source ID	Emission Source Description	Alternative Operating Scenario No.	AOS Description	Emission Source Conditions and Limitations		
				Local and Federal Requirements	Local Requirements	Federal Requirements
ES-BOIL	Two 26.67 million Btu/hr Cleaver Brooks boilers, Model Delta D-34, fueled by natural gas.	AOS#1	A temporary backup boiler, which is $\leq$ 26.67 mmBtu/hr capacity and fueled by natural gas, may be operated in lieu of one of the permitted boilers. <u>No more than two boilers may be operated at the same time.</u>	D-1, D-2, D-8, D-9, D-10, D-11, D-14, D-15, D-16	ES-1, ES-2, ES-3	N/A

NOTE: If an alternative operating scenario includes construction or installation of new equipment (equipment not currently on-site), the new equipment will be subject to MCAPCO Regulation 1.5232- "Issuance, Revocation, and Enforcement of Permits" Subparagraph (a)(5) which states in part: if "construction of the permitted equipment does not commence within 18 months of permit issuance or once construction has begun, it ceases prior to completion for a period of 18 consecutive months", the permit may be revoked or modified.

## **EMISSION SOURCE CONDITIONS AND LIMITATIONS**

### **D. LOCAL AND FEDERAL REQUIREMENTS**

Mecklenburg County Air Quality (“MCAQ”) and the United States Environmental Protection Agency (“EPA”) have the authority to enforce the terms, conditions, and limitations contained in this section.

- D-1. The facility shall be operated in accordance with **MCAPCO Regulation 2.0503 - “Particulates from Fuel Burning Indirect Heat Exchangers”**, such that the maximum particulate emission rate resulting from the combustion of a fuel shall not exceed the allowable emission rate of 0.389 lb/million Btu input.
- D-2. The facility shall be operated in accordance with **MCAPCO Regulation 2.0516 - “Sulfur Dioxide Emissions from Combustion Sources”**, such that sulfur dioxide emissions from any vent, stack or chimney shall not exceed 2.3 pounds per million Btu input.
- D-3. The facility shall be operated in accordance with **MCAPCO Regulation 2.0958 - “Work Practices For Sources Of Volatile Organic Compounds”**. The owner or operator of emission sources subject to this regulation shall:
- A. store all material, including waste material, containing volatile organic compounds in containers covered with a tightly fitting lid that is free of cracks, holes, or other defects, when not in use,
  - B. clean up spills as soon as possible following proper safety procedures,
  - C. store wipe rags in closed containers,
  - D. not clean sponges, fabric, wood, paper products, and other absorbent materials,
  - E. drain solvents used to clean supply lines and other coating equipment into closable containers and close containers immediately after each use,
  - F. clean mixing, blending, and manufacturing vats and containers by adding cleaning solvent, closing the vat or container before agitating the cleaning solvent. The spent cleaning solvent shall then be poured into a closed container.
- When cleaning parts, the owner or operator of any facility subject to this Regulation shall:
- A. flush parts in the freeboard area,
  - B. take precautions to reduce the pooling of solvent on and in the parts,
  - C. tilt or rotate parts to drain solvent and allow a minimum of 15 seconds for drying or until all dripping has stopped, whichever is longer,
  - D. not fill cleaning machines above the fill line,
  - E. not agitate solvent to the point of causing splashing.

Sources on which a control device was installed to comply with **MCAPCO Regulation 2.0518 - “Miscellaneous Volatile Organic Compound Emissions”** Paragraph (d) (now repealed) shall continue to maintain and operate the control device providing at least 85% control efficiency, unless the Director determines that the removal of the control device shall not cause or contribute to a violation of the ozone ambient standard.

- D-4. The facility shall be operated in accordance with **MCAPCO Regulation 2.0948 - “VOC Emissions from Transfer Operations”**. The owner or operator shall not load in any one day more than 20,000 gallons of any volatile organic compound with a vapor pressure of 1.5 pounds per square inch or greater under actual conditions into any truck-tank, trailer, or railroad tank car from any loading facility unless the loading uses submerged loading through boom loaders that extend down into the compartment being loaded or by other methods demonstrated to the Director to be at least as efficient.
- D-5. The facility shall be operated in accordance with **MCAPCO Regulation 2.1111 - “Maximum Achievable Control Technology”** and **40 CFR Part 63 - “National Emission Standards For Hazardous Air Pollutants For Source Categories”**. The requirements are stated in **40 CFR 63.1 to 63.15 Subpart A - “General Provisions”**, and **40 CFR 63.2330 to 63.2406 (including Tables 1 - 12) Subpart EEEE – “National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)”**, which includes the following pertinent sections:
- A. **63.2330 – “What is the purpose of this subpart?”**
  - B. **63.2334 – “Am I subject to this subpart?”**
  - C. **63.2338 – “What parts of my plant does this subpart cover?”**
  - D. **63.2342 – “When do I have to comply with this subpart?”**
  - E. **63.2343 – “What are my requirements for emission sources not requiring control?”**
  - F. **63.2346 – “What emission limitations, operating limits, and work practice standards must I meet?”**  
*Portions of this Section state that the facility must ensure compliance for storage tanks, transfer racks, and equipment leak components by meeting limits, routing emissions back into the process, using control devices, or using vapor balancing as described in the regulation. The facility must also ensure that organic liquids are loaded only into vapor-tight transport vehicles or ensure that transport vehicles have a current certification in accordance with the U.S. Department of Transportation (DOT) pressure test requirements.*
  - G. **63.2350 – “What are my general requirements for complying with this subpart?”**
  - H. **63.2354 – “What performance tests, design evaluations, and performance evaluations must I conduct?”**
  - I. **63.2358 – “By what date must I conduct performance tests and other initial compliance demonstrations?”**
  - J. **63.2362- “When must I conduct subsequent performance tests?”**
  - K. **63.2366 – “What are my monitoring, installation, operation, and maintenance requirements?”**  
*Refer to 63.2366 and Condition D-11 of this permit for monitoring requirements.*
  - L. **63.2370 – “How do I demonstrate initial compliance with the emission limitations, operating limits, and work practice standards?”**
  - M. **63.2374 – “When do I monitor and collect data to demonstrate continuous compliance and how do I use the collected data?”**  
*Refer to 63.2374 and Condition D-11 of this permit for monitoring requirements.*
  - N. **63.2378 – “How do I demonstrate continuous compliance with the emission limitations, operating limits, and work practice standards?”**
  - O. **63.2382 – “What notifications must I submit and when, and what information should be submitted?”**

*Refer to 63.2382 and Condition D-16 of this permit for notification requirements.*

- P. **63.2386** – “**What reports must I submit and when and what information is to be submitted in each?**”  
*Refer to 63.2386 and Condition D-16 of this permit for reporting requirements.*
- Q. **63.2390** – “**What records must I keep?**”  
*Refer to 63.2390 and Condition D-11 of this permit for recordkeeping requirements.*
- R. **63.2394** – “**In what form and how long must I keep my records?**”
- S. **63.2396** – “**What compliance options do I have if part of my plant is subject to both this subpart and another subpart?**”
- T. **63.2398** – “**What parts of the General Provisions apply to me?**”
- U. **63.2402** – “**Who implements and enforces this subpart?**”
- V. **63.2406** – “**What definitions apply to this subpart?**”

D-6. The facility shall be operated in accordance with **MCAPCO Regulation 2.1111 - “Maximum Achievable Control Technology”** and **40 CFR Part 63 - “National Emission Standards For Hazardous Air Pollutants For Source Categories”**. The requirements are stated in **40 CFR 63.1 to 63.15 Subpart A - “General Provisions”**, and **40 CFR 63.2430 to 63.2550 Subpart FFFF – “National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing”**, which includes the following pertinent sections:

- A. **63.2430** – “**What is the purpose of this subpart?**”
- B. **63.2435** – “**Am I subject to the requirements in this subpart?**”
- C. **63.2440** – “**What parts of my plant does this subpart cover?**”
- D. **63.2445** – “**When do I have to comply with this subpart?**”
- E. **63.2450** – “**What are my general requirements for complying with this subpart?**”
- F. **63.2455** – “**What requirements must I meet for continuous process vents?**”
- G. **63.2460** – “**What requirements must I meet for batch process vents?**”
- H. **63.2465** – “**What requirements must I meet for process vents that emit hydrogen halide and halogen HAP or HAP metals?**”
- I. **63.2470** – “**What requirements must I meet for storage tanks?**”
- J. **63.2475** – “**What requirements must I meet for transfer racks?**”
- K. **63.2480** – “**What requirements must I meet for equipment leaks?**”
- L. **63.2485** – “**What requirements must I meet for wastewater streams and liquid streams in open systems within an MCPU?**”
- M. **63.2490** – “**What requirements must I meet for heat exchange systems?**”
- N. **63.2495** – “**How do I comply with the pollution prevention standard?**”
- O. **62.2500** – “**How do I comply with emissions averaging?**”
- P. **63.2505** – “**How do I comply with the alternative standard?**”
- Q. **63.2515** – “**What notifications must I submit and when?**”  
*Refer to 63.2515 and Condition D-16 of this permit for notification requirements.*

- R. **63.2520 – “What reports must I submit and when?”**  
*Refer to 63.2520 and Condition D-16 of this permit for reporting requirements.*
- S. **63.2525 – “What records must I keep?”**  
*Refer to 63.2525 and Condition D-11 of this permit for recordkeeping requirements.*
- T. **63.2535 – “What compliance options do I have if part of my plant is subject to both this subpart and another subpart?”**
- U. **63.2540 – “What parts of the General Provisions apply to me?”**
- V. **63.2545 – “Who implements and enforces this subpart?”**
- W. **63.2550 – “What definitions apply to this subpart?”**

D-7. The facility shall be operated in accordance with MCAPCO Regulation 2.1111 - “Maximum Achievable Control Technology” and 40 CFR Part 63 - “National Emission Standards For Hazardous Air Pollutants For Source Categories.” The requirements are stated in 40 CFR 63.1 to 63.15 Subpart A - “General Provisions”, and 40 CFR 63.6580 to 63.6675 Subpart ZZZZ - “National Emission Standards from Stationary Reciprocating Internal Combustion Engines” (RICE), including but not limited to:

- A. **63.6580 – “What is the purpose of subpart ZZZZ?”**
- B. **63.6585 - “Am I subject to this subpart?”**  
*This section states in part that you are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions.*
- C. **63.6590 – “What parts of my plant does this subpart cover?”**  
*Portions of this section define existing, new, and reconstructed stationary RICE for the purpose of determining emission control requirements. An affected source that is a new or reconstructed stationary RICE located at an area source must meet the requirements of this subpart by meeting the requirements of 40 CFR 60 Subpart IIII, for compression ignition engines, or 40 CFR 60 Subpart JJJJ, for spark ignition engine.*
- D. **63.6595 – “When do I have to comply with this subpart?”**  
*Portions of this section require that the owner or operator of a new or reconstructed source comply with the requirements of this subpart by January 18, 2008 if startup of the source is before that date, and on startup if startup of the source is after that date. An owner or operator of a source that is an existing non-emergency stationary RICE with a site rating of more than 500 brake HP located at a major source, an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source, or an existing stationary RICE located at an area source must comply with the requirements of this subpart no later than May 3, 2013.*
- E. **63.6600 – “What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?”**
- F. **63.6601 – “What emission limitations must I meet if I own or operate a 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than 500 brake HP located at a major source of HAP emissions?”**
- G. **63.6602 – “What emission limitations must I meet if I own or operate an existing stationary CI RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?”**

- H. **63.6603** – “What emission limitations and operating limitations must I meet if I own or operate an existing stationary CI RICE located at an area source of HAP emissions?”
  - I. **63.6604** – “What fuel requirements must I meet if I own or operate an existing stationary CI RICE?”
  - J. **63.6605** – “What are my general requirements for complying with this subpart?”
  - K. **63.6610** – “By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?”
  - L. **63.6611** – “By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a 4SLB SI stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions?”
  - M. **63.6612** – “By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?”
  - N. **63.6615** – “When must I conduct subsequent performance tests?”
  - O. **63.6620** – “What performance tests and other procedures must I use?”
  - P. **63.6625** – “What are my monitoring, installation, operation, and maintenance requirements?”
  - Q. **63.6630** – “How do I demonstrate initial compliance with the emission limitations and operating limitations?”
  - R. **63.6635** – “How do I monitor and collect data to demonstrate continuous compliance?”
  - S. **63.6640** – “How do I demonstrate continuous compliance with the emission limitations and operating limitations?”
  - T. **63.6645** – “What notifications must I submit and when?”
  - U. **63.6650** – “What reports must I submit and when?”
  - V. **63.6655** – “What records must I keep?”
  - W. **63.6660** – “In what form and how long must I keep my records?”
  - X. **63.6665** – “What parts of the General Provisions apply to me?”
  - Y. **63.6670** – “Who implements and enforces this subpart?”
  - Z. **63.6675** – “What definitions apply to this subpart?”
- D-8. The facility shall be operated in accordance with MCAPCO Regulation 2.1111 - “Maximum Achievable Control Technology” and 40 CFR Part 63 - “National Emission Standards For Hazardous Air Pollutants For Source Categories”. The requirements are stated in 40 CFR 63.1 to 63.15 Subpart A - “General Provisions”, and 40 CFR 63.7480 to 63.7575 (including Tables) Subpart DDDDD - “National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters”, which includes the following pertinent sections:
- A. **63.7480** – “What is the purpose of this subpart?”
  - B. **63.7485** – “Am I subject to this subpart?”
- This section states in part that you are subject to this subpart if you own or operate a an industrial, commercial, or institutional boiler or process heater that is located at a major source of HAP emissions.*

- C. **63.7490** – “What is the affected source of this subpart?”
  - D. **63.7491** – “Are any boilers or process heaters not subject to this subpart?”
  - E. **63.7495** – “When do I have to comply with this subpart?”  
*The compliance date for existing boilers or process heaters is January 31, 2016. New boilers or process heaters (commenced construction after June 4, 2010) must demonstrate compliance by January 31, 2013 or upon startup, whichever is later.*
  - F. **63.7499** – “What are the subcategories of boilers and process heaters?”
  - G. **63.7500** – “What emission limitations, work practice standards, and operating limits must I meet?”  
*Tables 1, 2, 3, 4, 12 and 13 outline emission limits, work practice standards, and operating limits.*
  - H. **63.7501** – “How can I assert an affirmative defense if I exceed an emission limitation during a malfunction?”
  - I. **63.7505** – “What are my general requirements for complying with this subpart?”
  - J. **63.7510** – “What are my initial compliance requirements and by what date must I conduct them?”
  - K. **63.7515** – “When must I conduct subsequent performance tests, fuel analyses, or tune-ups?”
  - L. **63.7520** – “What stack tests and procedures must I use?”
  - M. **63.7521** – “What fuel analyses, fuel specification, and procedures must I use?”
  - N. **63.7522** – “Can I use emissions averaging to comply with this subpart?”
  - O. **63.7525** – “What are my monitoring, installation, operation, and maintenance requirements?”
  - P. **63.7530** – “How do I demonstrate initial compliance with the emissions limitations, fuel specifications, and work practice standards?”
  - Q. **63.7533** – “Can I use emission credits earned from implementation of energy conservation measures to comply with this subpart?”
  - R. **63.7535** – “How do I monitor and collect data to demonstrate continuous compliance?”
  - S. **63.7540** – “How do I demonstrate continuous compliance with the emissions limitations, fuel specifications, and work practice standards?”
  - T. **63.7541** – “How do I demonstrate continuous compliance under the emissions averaging provision?”
  - U. **63.7545** – “What notifications must I submit and when?”
  - V. **63.7550** – “What reports must I submit and when?”
  - W. **63.7555** – “What records must I keep?”
  - X. **63.7560** – “In what form and how long must I keep my records?”
  - Y. **63.7565** – “What parts of the General Provisions apply to me?”
  - Z. **63.7570** – “Who implements and enforces this subpart?”
  - AA. **63.7575** – “What definitions apply to this subpart?”
- D-9. The facility shall be operated in accordance with MCAPCO Regulation 2.0524 - “New Source Performance Standards”. The requirements are stated in 40 CFR 60.1 to 60.19, Subpart A - “General Provisions”, and 40 CFR 60.40c to 60.48c, Subpart Dc - “Standards of Performance for Small Industrial - Commercial - Institutional Steam Generating Units” including but not limited to:
- A. **60.40c** - “Applicability and delegation of authority”



**B. 60.41c - “Definitions”**

**C. 60.48c - “Reporting and recordkeeping requirements”**

*Refer to 60.48c and Emission Source Condition and Limitation No(s). D-11 and D-16 of this permit for all reporting and recordkeeping requirements.*

D-10. The maximum emissions of volatile organic compounds (VOC) from all sources at the facility shall be less than 100 tons per year as determined by any consecutive 12-month period. This limit is assumed by the facility in order to preclude applicability of **MCAPCO Regulation 2.0530 “Prevention of Significant Deterioration”, MCAPCO Regulation 2.0531 “Sources in Non-attainment Areas”, and MCAPCO 1.5500 “Title V Procedures”** for these pollutants.

Emissions for the above-referenced pollutant(s) shall be determined using one or more of the following methods as applicable:

1. Emission rates and control efficiencies obtained through MCAQ-approved emission source testing;
2. Material (mass) balance based on product usage;
3. Emission factors or rates found in the latest edition of the “Compilation of Air Pollutant Emission Factors”, EPA document: AP-42;
4. Other emission factors or rates as approved by MCAQ.

D-11. In accordance with **MCAPCO Regulations 1.5111 - “General Recordkeeping, Reporting and Monitoring Requirements”** and **2.0605 – “General Recordkeeping and Reporting Requirements”** the facility shall monitor and record the following operating parameters for the emission sources and/or control devices as listed below:

EMISSION SOURCE / CONTROL DEVICE	OPERATING PARAMETER	PARAMETER RANGE	MINIMUM MONITORING FREQUENCY (Once per...)
Thermal Oxidizer CD-TO2	1. Chamber Temperature 2. Flow Rate of the VOC stream through the combustion chamber 3. Operating hours 4. Hours of downtime while controlled processes were operating	1. 1500-1800°F 2. < 10,000 scfm	Continuous
Inherent Overhead Condensers: ES-2: OHC-2, 3, 4, 5, 7, 8, 9 ES-8: OHC-11 ES-9: OHC-DC-2, DC-9, DC-24, DC-25 Inherent Vacuum Pump Condensers: ES-8: VPC-11 ES-9: VPC-PP ES-11: VPC-12, VPC-13	Coolant Temperature (Inlet)	< 35°C	Day

EMISSION SOURCE / CONTROL DEVICE	OPERATING PARAMETER	PARAMETER RANGE	MINIMUM MONITORING FREQUENCY (Once per...)	
Inherent Vacuum Pump Condensers: VPC-2/3, 7, 5, 4, 8, 9, Chilled Glycol Control Device Condensers: CD-CND-2357, CD-CND-8, CD-CND-9, CD-CND-12	Coolant Temperature (Inlet)	<10°C	Day	
Chilled Glycol Control Device Condenser: CD-CND-PP01	Coolant Temperature (Inlet)	<15°C	Day	
Chilled Glycol Control Device Condensers: CD-CND-8 (EK-8) CD-CND-9 (EK-9)	Process-side condenser exit temperature	≤ 12°C <i>Note: An excursion under 40 CFR 63 Subpart FFFF occurs when the average temperature is out of range for the operating block.</i>	Continuous (at least once every 15 minutes per 40 CFR 63.998(b)) and in accordance with 40 CFR 63.2460(c)(3).	
Demister CD-DM1	Perform inspection to ensure no liquid breakthrough, structural integrity, proper drainage and proper operation	N/A	Quarter	
ES-DIES	Number of hours the fire pump operated	N/A	Month	
ES-LOAD Product transfer operations	Gallons of VOC products loaded into tank trucks with true vapor pressure ≥ 1.5 psia under actual conditions	If more than 20,000 gallons of are loaded per day, submerged fill must be used (MCAPCO 2.0948)	Day	
All batch reactors	1. Total number, type, and size of batches made in each production vessel 2. Total amount and type of material moved through each storage tank	N/A	Month	
ES-BOIL (AOS#1)	Amount of natural gas combusted in the temporary boiler operated under AOS#1 per 40 CFR 60.48c(g) of NSPS Subpart Dc	N/A	Refer to 40 CFR 60.48c(g) for requirements	
ES-9 (Pilot Plant) and Reactors EK-4, EK-8, and EK-9	Demonstrate overall control efficiency of ≥ 98% for Group 1 batch process vents under 40 CFR 63 Subpart FFFF by concurrent operation of ES-9, EK-4, EK-8 and EK-9 in compliance with the limits in the table below		A log must be maintained and be readily available which documents compliance with these requirements as well as the information required in 40 CFR 63.2525(d).	
	ES-9 manufacturing UV Photomers - single batch (operating block)	15 scf/hr operating mode		30 scf/hr operating mode
	Minimum Number of EK-4 UV Photomer Batches Produced	1.0		1.0
Minimum Number of EK-8 and/or EK-9 UV Photomer Batches Produced (Combined)	2.0	5.0		
<b>40 CFR 63</b> emission sources.	Refer to <b>40 CFR 63 Subparts DDDDD, EEEE, FFFF, and ZZZZ</b> for specific monitoring requirements related to 40 CFR 63 sources		Refer to 40 CFR 63 Subparts DDDDD, EEEE, FFFF, and ZZZZ	

The facility shall maintain the above-specified operating records as well as any maintenance records for activity conducted on the equipment for a period of not less than 2 years (5 years for 40 CFR 63 sources), unless otherwise specified by the permit. The records shall be available for inspection by MCAQ personnel upon request.

D-12. Aside from the terms noted in Emission Source Condition and Limitation No. D-13, all processes shall be operated concurrently with the associated control device(s) specified in this Permit to Construct/Operate except when subject to the provisions of **MCAPCO Regulation 2.0535 - “Excess Emissions Reporting and Malfunctions”**. The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution

D-13. The reactors EK-4, EK-8 and EK-9 in ES-2 and the pilot plant (ES-9) shall be operated concurrently with the associated control device(s) specified in this Permit to Construct/Operate except when:

- ▶ subject to the malfunction provisions contained in the **General Provisions of National Emission Standards for Hazardous Air Pollutants, Subpart A (40 CFR part 63.1 - 63.15)**; or,
- ▶ as specified in the **Subpart FFFF (40 CFR 63.2430 - 63.2550)**.

The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution.

D-14. In accordance with **MCAPCO 1.5508(j)**, the permittee shall be allowed to make changes to its methods of operation provided that such changes are explicitly provided for in this permit. The permittee, contemporaneously with making a change from one operating scenario to another, shall record in a log at the permitted facility, a record of the operating scenario under which it is operating. As allowed in Condition A-34 of this permit, the permit shield may extend to the terms and conditions under each operating scenario. The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution.

D-15. The facility shall, at its own expense and using the most recent versions of the performance test methods contained in **40 CFR Part 60 (Appendix A) or Part 63** or as approved by the Administrator of the USEPA or MCAQ, demonstrate compliance with the appropriate regulatory requirement as follows:

EMISSION SOURCE / CONTROL DEVICE	DEMONSTRATE COMPLIANCE WITH...	SCHEDULED TESTING FREQUENCY
CD-TO2: Regenerative Thermal Oxidizer	40 CFR 63 Subpart FFFF Required Control Efficiency	Initial Test: within 180 days after initial startup of the emission source or following any modification to the emission source or control device  Additional Tests: every 5 years in conjunction with the request for renewal applications for this Title V permit. The test shall be completed prior to submittal of the renewal application, or upon written request by MCAQ or as requested by Permittee
ES-BOIL	40 CFR 63 Subpart DDDDD	Refer to 40 CFR 63.7540 annual tune-up requirements

All performance tests shall be made by, or under the direction of, a person qualified by training and/or experience in the field of air pollution testing and shall be conducted in accordance with **MCAPCO Section 2.2600 – “Source Testing.”** MCAQ shall be notified at least 60 days in advance of the proposed performance test so that it may have a representative present to observe the test at its option. The notification shall include a detailed description of the performance test procedures so that MCAQ may review and approve them. The final performance test results shall be submitted to MCAQ for review within 60 calendar days after completion of on-site testing. The performance test(s) specified in this condition do not preclude MCAQ from requesting performance testing for other emission sources or for other purposes as defined in **MCAPCO Regulation 1.5104 - “General Duties and Powers of the Director, With the Approval of the Board”**, and referenced in Facility Condition and Limitation No. A-3 of this Permit.

D-16. The facility shall be operated in accordance with **MCAPCO Regulation 1.5111 - “General Recordkeeping: Reporting: Monitoring Requirements”**, **2.0605 – “General Recordkeeping and Reporting Requirements”**, and/or **2.0903 - “Recordkeeping: Reporting: Monitoring”** and **MCAPCO Regulation 1.5508 - “Permit Content”**, such that the following specific reports and/or notifications shall be submitted to MCAQ by the specified dates:

(1) NOTIFICATIONS TO MCAQ

POLLUTANT/ PARAMETER	NOTIFICATION REQUIREMENT	SUBMITTAL DATES
Performance test notification report	Detailed description of the proposed test procedures to be used on CD-TO2	60 days prior to proposed test date
Diesel fire pump	If the fire pump operates for more than 500 hours for the calendar year, provide the anticipated number of operating hours and fuel usage for the remaining months of the calendar year.	15 days after exceedance
<b>40 CFR 60 Subpart Dc</b> emission sources (ES-BOIL Alternative Operating Scenario Temporary boiler)	Refer to <b>40 CFR 63.9, 60.48c</b> and <b>Condition and Limitation No. D-9</b> of this permit for all specific notification requirements.	Refer to <b>40 CFR 60.7 and 60.48c</b> . <ul style="list-style-type: none"> <li>• Notification of the date of construction no later than 30 days after such date</li> <li>• Notification of initial startup within 15 days after such date</li> </ul>
<b>40 CFR 63 Subpart DDDDD</b> emission sources (ES-BOIL)	Refer to <b>40 CFR 63.9, 63.7545, 63.7555</b> and <b>Condition and Limitation No. D-8</b> of this permit for all specific notification requirements.	Refer to <b>40 CFR 63.9, 63.7545, and 63.7555</b>
<b>40 CFR 63 Subpart EEEE</b> emission sources (ES-LOAD, ES-STOR)	Refer to <b>40 CFR 63.9, 63.2382, 63.2390</b> and <b>Condition and Limitation No. D-5</b> of this permit for all specific notification requirements.	Refer to <b>40 CFR 63.9, 63.2382 and 63.2390</b>
<b>40 CFR 63 Subpart FFFF</b> emission sources (ES-2, ES-8, ES-11, ES-9, ES-STOR, ES-LOAD)	Refer to <b>40 CFR 63.9, 63.2515 and 63.2525</b> and <b>Condition and Limitation No. D-6</b> of this permit for all specific notification requirements.	Refer to <b>40 CFR 63.9, 63.2515 and 63.2525</b>

**(2) REPORTS TO MCAQ**

<b>POLLUTANT/ PARAMETER</b>	<b>REPORTING REQUIREMENT</b>	<b>EMISSION PERIOD (For previous)</b>	<b>SUBMITTAL DATES (Postmarked by)</b>
PM PM10 PM2.5 SO <sub>2</sub> VOC CO NO <sub>x</sub> HAP	A report of emissions (including fugitive losses) emanating from each emission source listed and facility wide total, listed by month for the emission period, to include, at a minimum, the following information:  All supporting documentation and emission calculations used to estimate actual and potential emissions including but not limited to: 1. Hours of operation of all emission sources; 2. Amount of each product manufactured in each source; and, 3. Amount, type, and sulfur content of fuels combusted in the boilers and fire pump. <i>(Calculations for previously submitted emission periods do not need to be re-submitted)</i>  All emissions, with the exception of HAPs, are to be reported in tons per year. HAPs shall be reported in pounds.	Calendar Year	April 30
Title V Monitoring Reports (MCAPCO 1.5508)	Submit a report, certified by a responsible company official, of all required monitoring parameters as outlined in Facility Condition and Limitation No. A-16 and Emission Source Condition and Limitation No. D-11. The report should include a discussion of monitoring excursions.	6 months	April 30 October 30
<b>40 CFR 63 Subpart DDDDD</b> emission sources (ES-BOIL)	Refer to <b>40 CFR 60.7, 60.7550</b> and <b>Condition and Limitation No. D-8</b> of this permit for all specific reporting requirements	Refer to <b>40 CFR 63.10 and 63.7550</b>	
<b>40 CFR 63 Subpart EEEE</b> emission sources (ES-LOAD, ES-STOR)	Refer to <b>40 CFR 63.10, 63.2386</b> and <b>Condition and Limitation No. D-5</b> of this permit for all specific reporting requirements	Refer to <b>40 CFR 63.10 and 63.2386</b>	
<b>40 CFR 63 Subpart FFFF</b> emission sources (ES-2, ES-8, ES-11, ES-9, ES-STOR, ES-LOAD)	Refer to <b>40 CFR 63.10, 63.2520</b> and <b>Condition and Limitation No. D-6</b> of this permit for all specific reporting requirements	Refer to <b>40 CFR 63.10 and 63.2520</b> Requirements include Semiannual Compliance Reports for: January-June due August 31 <sup>st</sup> , and July-December due February 28 <sup>th</sup> of each calendar year.	
Diesel Fire Pump ES-DIES	Number of hours operated and amount of fuel used for the calendar year	April 30 of the following year	
Performance Test Report	Results of Performance Test Conducted	Within 60 days after test	

**(3) COMPLIANCE CERTIFICATION TO BOTH EPA AND MCAQ**

PARAMETER	REPORTING REQUIREMENT	EMISSION PERIOD (For previous)	SUBMITTAL DATE (Postmarked by)
Certification by Responsible Official	Identify each term and condition of the Permit and the facility's compliance status for each as described in Condition and Limitation No. A-33.	Calendar year	April 30 of the following year

**E. LOCAL ONLY REQUIREMENTS**

Only Mecklenburg County Air Quality has the authority to enforce the terms, conditions and limitations contained in this section. The EPA does not have the authority to enforce the terms, conditions and limitations contained in this Section.

E-1. Permit No. 17-02V-590 shall be void upon issuance of this Permit.

E-2. In accordance with **MCAPCO Regulations 1.5711 - "Emission Rates Requiring a Permit"** and/or **2.1104 - "Toxic Air Pollutant Guidelines"**, the facility shall not emit any of the following toxic air pollutants in such quantities that may cause or contribute beyond the premises to any significant ambient air concentration that may adversely affect human health:

- Toluene
- Ethylene Oxide
- Toluene Diisocyanate, 2,4- (TDI)

To comply with these requirements, the facility shall be operated in accordance with the following emission limitations. The table includes emission limits and the parameters of the air dispersion modeling.

EMISSION LIMITS						STACK PARAMETERS							
Source ID	Description	Toluene		Ethylene Oxide	TDI	Stack Height		Stack Temp.		Stack Velocity		Stack Diam.	
		lb/hr	lb/day	lb/yr	lb/day	m	ft	K	F	m/s	ft/min	m	ft
NEWTO	Reaction Processes (ES-2)	0.33	7.81	---	---	18.30	60.04	500	440.33	6.40	1,259.84	0.97	3.18
1285TANK		8.0E-03	0.19	---	---	18.30	60.04	313	103.73	---	---	0.15	0.49
30KTANK		1.48	35.62	---	---	11.30	37.07	---	---	---	---	0.08	0.26
T312		1.06	25.52	---	---	5.80	19.03	---	---	---	---	0.05	0.16
T206		1.17	28.19	---	---	5.80	19.03	---	---	---	---	0.08	0.26
T216		1.17	28.19	---	---	5.50	18.04	---	---	---	---	0.08	0.26

EMISSION LIMITS						STACK PARAMETERS							
Source ID	Description	Toluene		Ethylene Oxide	TDI	Stack Height		Stack Temp.		Stack Velocity		Stack Diam.	
		lb/hr	lb/day	lb/yr	lb/day	m	ft	K	F	m/s	ft/min	m	ft
EK3COND		0.62	14.86	---	---	12.80	41.99	303	85.73	---	---	0.14	0.46
T125		2.37	56.76	---	---	5.50	18.04	---	---	0.78	153.54	0.30	0.98
COMPOUND	Compounding (ES-4)	0.20	4.76	365.00	---	30.50	100.07	---	---	67.10	13,208.66	0.21	0.69
WWTPFUG*	Wastewater Treatment (ES-7)	0.13	3.18	---	---	5.50	18.04	---	---	---	---	---	---
PROCFUG		2.66	63.93	---	---	---	---	---	---	---	---	---	---
PILOT	Pilot Plant (ES-9)	3.87	92.76	---	1.0E-03	10.70	35.10	---	---	---	---	0.05	0.16
EK12B	GAX Urethane and Urethane Acrylates Process (ES-11)	0.18	4.19	---	1.8E-03	14.90	48.88	313	103.73	---	---	0.15	0.49
EK12V		1.29	31.05	---	3.3E-04	14.90	48.88	---	---	---	---	0.05	0.16
EK-13		---	---	---	0.15	14.9	48.9	353	175.70	29.50	5807	0.05	0.16
BOILER1	Two 26.67 mmBtu/hr natural gas-fired Boilers (ES-BOIL)	4.2E-04	0.01	---	---	10.70	35.10	508	454.73	9.49	1,868.11	0.81	2.66
BOILER2		4.2E-04	0.01	---	---	10.70	35.10	508	454.73	9.49	1,868.11	0.81	2.66
FIRE1	Diesel Fire Pump – 235 hp, 175.4 kW (ES-DIES)	7.4E-04	0.02	---	---	2.70	8.86	672	749.93	---	---	0.13	0.43
Loadout	Finished Product Loadout (ES-LOAD)	0.02	0.57	1.11	---	7.50	24.61	---	---	---	---	0.25	0.82
Bulk Load		---	---	7.37	---								
1301	Raw Material and Finished Product Storage Tanks (ES-STOR)	---	---	0.19	---	3.91	12.8	0.10	0.33	294.50	70.4	3.91	12.8
1302		---	---	0.20	---	3.91	12.8	0.10	0.33	294.50	70.4	3.91	12.8
1303		---	---	0.14	---	3.91	12.8	0.10	0.33	294.50	70.4	3.91	12.8
N408		---	---	0.15	---	3.99	13.1	0.10	0.33	294.50	70.4	3.99	13.1
T107		---	---	1.21	---	7.25	23.8	0.10	0.33	294.50	70.4	7.25	23.8
T108		---	---	0.88	---	7.25	23.8	0.10	0.33	294.50	70.4	7.25	23.8
T109		---	---	0.86	---	7.25	23.8	0.10	0.33	294.50	70.4	7.25	23.8
T121		---	---	1.25	---	7.25	23.8	0.10	0.33	294.50	70.4	7.25	23.8
T124		---	---	1.15	---	7.25	23.8	0.10	0.33	294.50	70.4	7.25	23.8
T125		---	---	0.97	---	7.25	23.8	0.10	0.33	294.5	70.4	7.25	23.8
T126		---	---	3.06	---	7.25	23.8	0.10	0.33	294.5	70.4	7.25	23.8
T128		---	---	0.57	---	7.05	23.1	0.10	0.33	294.5	70.4	7.05	23.1

EMISSION LIMITS						STACK PARAMETERS							
Source ID	Description	Toluene		Ethylene Oxide	TDI	Stack Height		Stack Temp.		Stack Velocity		Stack Diam.	
		lb/hr	lb/day	lb/yr	lb/day	m	ft	K	F	m/s	ft/min	m	ft
T331		---	---	0.41	---	7.25	23.8	0.10	0.33	294.5	70.4	7.25	23.8
F1		---	---	2.50	---	---	---	---	---	---	---	---	---
F2		---	---	2.50	---	---	---	---	---	---	---	---	---
TOTAL		16.57	397.63	389.52	0.15								

\* Area Source: Stack Height = Release Height

Upon written request from MCAQ, the facility shall verify compliance with the above-specified modeling parameters and operating conditions.

- E-3. The facility shall be operated in accordance with **MCAPCO Regulation 1.5111 - “General Recordkeeping: Reporting: Monitoring Requirements”**, **2.0605 – “General Recordkeeping and Reporting Requirements”**, and/or **2.0903 - “Recordkeeping: Reporting: Monitoring”** and **MCAPCO Regulation 1.5508 - “Permit Content”**, such that the following specific reports and/or notifications shall be submitted to MCAQ by the specified dates:

#### REPORTS TO MCAQ

POLLUTANT/ PARAMETER	REPORTING REQUIREMENT	EMISSION PERIOD (For previous)	SUBMITTAL DATES (Postmarked by)
Toluene Ethylene Oxide TDI	A report of annual facility-wide total emissions (including calculations and supporting documentation). Emissions are to be reported in the respective units (lbs/ hr and/or lbs/yr).	Calendar Year	April 30
TAP	In the event that the temporary boiler in Alternative Operating Scenario (AOS) #1 for ES-BOIL is placed in service, the facility must submit a report containing dates and duration of temporary boiler operation, amount and type of fuel combusted by the temporary boiler, and boiler location.	Calendar year	April 30



**F. FEDERAL ONLY REQUIREMENTS**

Only the EPA has the authority to enforce the terms, conditions, and limitations contained in this section. Mecklenburg County Air Quality does not have the authority to enforce the terms, conditions, and limitations contained in this Section.

- THERE ARE NO FEDERAL ONLY REQUIREMENTS FOR THIS PERMIT -



## APPENDIX A: TOXIC AIR POLLUTANT REVIEW

*Facility Name: IGM Resins USA - Charlotte*

*Facility Address: 3300 Westinghouse Blvd, Charlotte NC 28273*

*Date Issued: March 7, 2022*

The facility has been reviewed for toxic air pollutant emissions under MCAPCO Regulation 1.5700 - “Toxic Air Pollutant Procedures” and been found to emit the following substances:

Reviewed Toxic Air Pollutant (TAP)	CAS No.	Is TAP also a Hazardous Air Pollutant (HAP)?	Last Reviewed (Permit Number)	Compliance Demonstration	
				Are Actual Emissions Above TPER?*	Model or Avoidance Limit?
acetaldehyde	75-05-0	Y	17-01V-590	N	NA
acetic acid	64-19-7	N	17-01V-590	N	NA
acrolein	107-02-8	Y	17-01V-590	N	NA
ammonia	7664-41-7	N	17-01V-590	N	Model
aniline	62-53-3	Y	17-01V-590	N	NA
arsenic & inorganic arsenic compounds	N/A	Y	17-01V-590	N	Model
benzene	71-43-2	Y	17-01V-590	N	NA
benzo(a)pyrene	50-32-8	Y	17-01V-590	N	NA
beryllium & compounds	N/A	Y	17-01V-590	N	NA
bromine	7726-95-6	Y	17-01V-590	N	NA
1,3-butadiene	106-99-0	Y	17-01V-590	N	NA
cadmium	7440-43-9	Y	17-01V-590	N	Model
carbon disulfide	75-15-0	Y	17-01V-590	N	NA
chloroform	67-66-3	Y	17-01V-590	N	NA
cresol	1319-77-3	Y	17-01V-590	N	NA
dichlorodifluoromethane	75-71-8	N	17-01V-590	N	NA
dimethyl sulfate	77-78-1	Y	17-01V-590	N	NA
1,4-dioxane	123-91-1	Y	17-01V-590	N	Model
epichlorohydrin	106-89-8	Y	17-01V-590	N	NA
ethyl acetate	141-78-6	N	17-01V-590	N	NA
ethylenediamine	N/A	N	17-01V-590	N	NA
ethylene glycol monoethyl ether	110-80-5	Y	17-01V-590	N	NA
ethylene oxide	75-21-8	Y	22-01V-590	N	Model
fluorides	N/A	N	17-01V-590	N	NA
formaldehyde	50-00-0	Y	17-01V-590	N	Model
n-hexane	110-54-3	Y	17-01V-590	N	NA

Reviewed Toxic Air Pollutant (TAP)	CAS No.	Is TAP also a Hazardous Air Pollutant (HAP)?	Last Reviewed (Permit Number)	Compliance Demonstration	
				Are Actual Emissions Above TPER?*	Model or Avoidance Limit?
hydrogen chloride	7647-01-0	Y	17-01V-590	N	NA
hydrogen sulfide (voluntary)	7783-06-4	N	17-01V-590	N	Model
maleic anhydride	108-31-6	Y	17-01V-590	N	NA
manganese & compounds	N/A	Y	17-01V-590	N	NA
Mercury, aryl & inorganic compounds	N/A	N	17-01V-590	N	NA
methyl chloroform	71-55-6	Y	17-01V-590	N	NA
methylene chloride	75-09-2	Y	17-01V-590	N	NA
methyl isobutyl ketone	108-10-1	Y	17-01V-590	N	NA
nickel, soluble compounds, as nickel	N/A	N	17-01V-590	N	NA
nitric acid	7697-37-2	N	17-01V-590	N	NA
perchloroethylene	127-18-4	Y	17-01V-590	N	NA
phenol	108-95-2	Y	17-01V-590	N	Model
styrene	100-42-5	Y	17-01V-590	N	NA
sulfuric acid	7664-93-9	N	17-01V-590	N	Model
toluene	108-88-3	Y	22-01V-590	Y	Model
toluene-2,4-diisocyanate	584-84-9	Y	22-01V-590	N	Model
trichloroethylene	79-01-6	Y	17-01V-590	N	NA
1,1,2-trichloro-1,2,2-trifluoroethane	76-13-1	N	17-01V-590	N	NA
xylene	1330-20-7	Y	17-01V-590	N	NA

\*The toxic air pollutant permitting emission rates (TPER) for each TAP can be found in MCAPCO Regulation 1.5711 – “Emission Rates Requiring a Permit”. The applicable TPER values depend on release point type and stack characteristics.

## **ATTACHMENT 1**

### **COMMONLY USED ABBREVIATIONS AND ACRONYMS**

BACT	Best Available Control Technology
Btu	British Thermal Unit
CAAA	Clean Air Act Amendments
CAM	Compliance Assurance Monitoring
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
CO	Carbon Monoxide
EPA	Environmental Protection Agency
HAP	Hazardous Air Pollutant
HCFC	Halogenated ChloroFluoroCarbon
MACT	Maximum Achievable Control Technology
MCAPCO	Mecklenburg County Air Pollution Control Ordinance
MCAQ	Mecklenburg County Air Quality
million Btu	Million British Thermal Units
MVAC	Motor Vehicle Air Conditioner
MW	Megawatt
NCGS	North Carolina General Statute
NO <sub>x</sub>	Nitrogen Oxides
NSPS	New Source Performance Standards
NSR	New Source Review
PM	Particulate Matter
PM <sub>10</sub>	Particulate Matter less than 10 micrometers
PM <sub>2.5</sub>	Particulate Matter less than 2.5 micrometers
PSD	Prevention of Significant Deterioration
RACT	Reasonable Available Control Technology
RMP	Risk Management Plan
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO <sub>2</sub>	Sulfur Dioxide
TAP	Toxic Air Pollutant
VOC	Volatile Organic Compound