



Louisville Metro Air Pollution Control District
701 West Ormsby Avenue, Suite 303
Louisville, Kentucky 40203-3137



Title V Construction Permit

Permit No.: C-0062-0032-21-V

Plant ID: 0062

Effective Date: MM/DD/2021

Expiration Date: MM/DD/2022

Source: The Chemours Company FC, LLC
4200 Camp Ground Road
Louisville, KY 40216

Owner: The Chemours Company FC, LLC
1007 North Market Street
Wilmington, DE 19898

is authorized to install the described process equipment by the Louisville Metro Air Pollution Control District. Authorization is based on information provided with the application submitted by the company and in accordance with applicable regulations and the conditions specified herein.

Process equipment description:

HFC-23 (trifluoromethane) Reduction Project, including installing a pressurized chloroform feed tank, an HFC-23 recovery tower including a vent condenser (Emission Point 3003); an HCl stripping column with an associated flash tank; aqueous HCl pump tank and graphite heat exchangers; and a vacuum pump for the HFC-23 dryers, along with associated piping components.

Public Notice Date: 11/14/2021

Permit writer: Shannon Hosey

Air Pollution Control Officer
{date1}

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Construction Permit Revisions and Changes

Permit No.	Public Notice Date	Issue Date	Change Type	Description/Scope
C-0062-0032-21-V	11/14/2021	MM/DD/YYYY	Initial	HFC-23 (trifluoromethane) Reduction Project, including installing a pressurized chloroform feed tank, an HFC-23 recovery tower including a vent condenser; an HCl stripping column with an associated flash tank; aqueous HCl pump tank and graphite heat exchangers; and a vacuum pump for the HFC-23 dryers, along with associated piping components.

Application and Related Documents

Document Number	Date	Description
253355	08/31/2021	Application 100A Construction Operating
253368	08/31/2021	Public Application
253370	08/31/2021	Public Appendix A PTE
253373	08/31/2021	Confidential Application
253374	08/31/2021	Confidential Appendix A PTE
259337	08/31/2021	Confidential Excel version of PTE from company
265186	10/07/2021	Public Excel version of PTE from company
266910	10/12/2021	Updated TRE Calculation
277010	11/01/2021	Source comments on the draft permit

Abbreviations and Acronyms

AP-42	- AP-42, <i>Compilation of Air Pollutant Emission Factors, published by U.S.EPA</i>
APCD	- Louisville Metro Air Pollution Control District
BAC	- Benchmark Ambient Concentration
BACT	- Best Available Control Technology
Btu	- British thermal unit
CEMS	- Continuous Emission Monitoring System
CFR	- Code of Federal Regulations
CO	- Carbon monoxide
District	- Louisville Metro Air Pollution Control District
EA	- Environmental Acceptability
gal	- U.S. fluid gallons
GHG	- Greenhouse Gas
HAP	- Hazardous Air Pollutant
Hg	- Mercury
hr	- Hour
in.	- Inches
lbs	- Pounds
l	- Liter
LMAPCD	- Louisville Metro Air Pollution Control District
mmHg	- Millimeters of mercury column height
MM	- Million
(M)SDS	- (Material) Safety Data Sheet
NAICS	- North American Industry Classification System
NO _x	- Nitrogen oxides
PM	- Particulate Matter
PM ₁₀	- Particulate Matter less than 10 microns
PM _{2.5}	- Particulate Matter less than 2.5 microns
ppm	- parts per million
PSD	- Prevention of Significant Deterioration
psia	- Pounds per square inch absolute
QA	- Quality Assurance
RACT	- Reasonably Available Control Technology
SIC	- Standard Industrial Classification
SIP	- State Implementation Plan
SO ₂	- Sulfur dioxide
STAR	- Strategic Toxic Air Reduction
TAC	- Toxic Air Contaminant
UTM	- Universal Transverse Mercator
VOC	- Volatile Organic Compound
w.c.	- Water column
year	- Any period of twelve consecutive months, unless "calendar year" is specified
yr	- Year, or any 12 consecutive-month period, as determined by context

Preamble

This permit covers only the provisions of Kentucky Revised Statutes Chapter 77 Air Pollution Control, the regulations of the Louisville Metro Air Pollution Control District (District) and, where appropriate, certain federal regulations. The issuance of this permit does not exempt any owner or operator to whom it has been issued from prosecution on account of the emission or issuance of any air contaminant caused or permitted by such owner or operator in violation of any of the provisions of KRS 77 or District regulations. Any permit shall be considered invalid if timely payment of annual fees is not made. The permit contains general permit conditions and specific permit conditions. General conditions are applicable unless a more stringent requirement is specified elsewhere in the permit.

General Conditions

- G1. The owner or operator of the affected facility covered by this permit shall notify the District of any process change, equipment change, material change, or change in method or hours of operation. This requirement is applicable to those changes (except equipment changes) that may have the potential for increasing the emission of air contaminants to a level in excess of the applicable limits or standards specified in this permit or District regulations.
- G2. The owner or operator shall obtain new or revised permits from the District in accordance with District Regulation 2.16 for Title V sources, District Regulation 2.17 for FEDOOP sources or District Regulation 2.03 for other sources including:
 - a. The company relocates to a different physical address.
 - b. The ownership of the company is changed.
 - c. The name of the company as shown on the permit is changed.
 - d. Permits are nearing expiration or have expired.
- G3. The owner or operator shall submit a timely application for changes according to G2. Timely renewal is not always achievable; therefore, the company is hereby authorized to continue operation in compliance with the latest District permit(s) until the District issues the renewed permit(s).
- G4. The owner or operator shall not be authorized to transfer ownership or responsibility of the permit. The District may transfer permits after appropriate notification (Form AP- 100A) has been received and review has been made.
- G5. The owner or operator shall pay the required permit fees within 45 days after issuance of the SOF by the District, unless other arrangements have been proposed and accepted by the District.
- G6. This permit allows operation 8,760 hours per year unless specifically limited elsewhere in this permit.
- G7. The owner or operator shall submit emission inventory reports as required by Regulation 1.06.
- G8. The owner or operator shall timely report abnormal conditions or operational changes, which may cause excess emissions as required by Regulation 1.07.
- G9. Unless specified elsewhere in this permit, the owner or operator shall complete required monthly record keeping within 30 days following the end of each calendar month.
- G10. If a change in the Responsible Official (RO) occurs during the term of this permit, the owner or operator shall provide written notification (Form AP-100A) to the District within 30 calendar days of the date the RO change occurs.

- G11. **Other Applicable Regulations** - The owner or operator shall comply with all applicable requirements of the following:

Regulation	Title
1.01	General Application of Regulations and Standards
1.02	Definitions
1.03	Abbreviations and Acronyms
1.04	Performance Tests
1.05	Compliance with Emissions Standards And Maintenance Requirements
1.06	Source Self-Monitoring, Emission Inventory Development and Reporting
1.07	Excess Emissions During Startups, Shutdowns, and Upset Conditions
1.08	Administrative Procedures
1.09	Prohibition of Air Pollution
1.10	Circumvention
1.11	Control of Open Burning
1.14	Control of Fugitive Particulate Emissions
1.18	Rule Effectiveness
1.19	Administrative Hearings
2.01	General Application (Permit Requirements)
2.02	Air Pollution Regulation Requirements and Exemptions
2.03	Authorization to Construct or Operate; Demolition/Renovation Notices and Permit Requirements
2.04	Construction or Modification of Major Sources in or Impacting Upon Non-Attainment Areas (Emission Offset Requirements)
2.05	Prevention of Significant Deterioration
2.06	Permit Requirements – Other Sources
2.07	Public Notification for Title V, PSD, and Other Offset Permits; SIP Revisions; and Use of Emission Reduction Credits
2.09	Causes for Permit Modification, Revocation, or Suspension
2.10	Stack Height Considerations
2.11	Air Quality Model Usage
3.01	Ambient Air Quality Standards
4.01	General Provisions for Emergency Episodes
4.02	Episode Criteria
4.03	General Abatement Requirements
4.04	Particulate and Sulfur Dioxide Reduction Requirements
4.05	Hydrocarbon and Nitrogen Oxides Reduction Requirements
4.06	Carbon Monoxide Reduction Requirements
4.07	Episode Reporting Requirements
6.01	General Provisions (Existing Affected Facilities)
6.02	Emission Monitoring for Existing Sources
7.01	General Provisions (New Affected Facilities)

District Only Enforceable Regulations:

Regulation	Title
1.12	Control of Nuisances
1.13	Control of Objectionable Odors
2.08	Emission Fee, Permit Fees and Permit Renewal Procedures
2.16	Title V Operating Permits
5.00	Definitions
5.01	General Provisions
5.02	Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants
5.14	Hazardous Air Pollutants and Source Categories
5.15	Chemical Accident Prevention Provisions
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant
5.21	Environmental Acceptability for Toxic Air Contaminants
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant
5.23	Categories of Toxic Air Contaminants
7.02	Adoption and Incorporation by Reference of Federal New Source Performance Standards

Emission Unit U3: Freon™ 22/Freon™ 23 Process**Applicable Regulations**

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
40 CFR 60 Subpart VVa	Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry	§60.482-2a, §60.486a(a)(3)
40 CFR 63 Subpart VVVVVV	National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources	§63.11495(3) §63.11496(h), §63.11496(b), (b)(2), §63.9(b)

DISTRICT ONLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
5.00	Definitions	1, 2
5.01	General Provisions	1 through 2
5.15	Chemical Accident Prevention Provisions	1
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	1 through 6
5.21	Environmental Acceptability for Toxic Air Contaminants	1 through 5
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	1 through 5
5.23	Categories of Toxic Air Contaminants	1 through 6
STAR regulations are 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23		

Equipment

Emission Point	Description	Install Date	Applicable Regulations	Control ID	Release ID
TF-5	Pressurized Chloroform Feed Tank, 9,000 gallons ¹	2022	40 CFR 60 Subpart VVa, 40 CFR 63 Subpart VVVVVV	NA	NA
TR-4	HFC-23 Recovery Tower ²	2022	40 CFR 63 Subpart VVVVVV	NA	NA
3003	Chloroform Vent Condenser, VC-1	2022	STAR, 40 CFR 63 Subpart VVVVVV	NA	S-VC-1
3009	Fugitive components in chloroform service (pumps, connectors, valves)	NA	STAR, 40 CFR 60 Subpart VVa, 40 CFR 63 VVVVVV	NA	F-1

Equipment Not Regulated³

Emission Point	Description
HFC-23	Vacuum Pump ⁴
TF-4	Aqueous HCl Pump Tank ⁵
SP-1	HCl Stripping Column ⁶
KP-1	HCl Flash Tank ⁷
CO-2 and CO-3	Graphite Heat Exchangers ⁸

¹ Vented to the recovery tower.

² Vented to the vent condenser.

³ This equipment has no emissions.

⁴ On the outlet of the HFC-23 dryers, routed to F-23 Purification Process.

⁵ Routes liquid from the HCl Cooler Absorbers to the new HCl Stripping Column.

⁶ Added to the HCl absorption process. This column will serve to strip out HFC-23 from the existing HCl Column/Condenser's HFC-23/HCl process gas stream before it enters the existing HCl Cooler Absorbers.

⁷ Will receive liquid from the new HCl Stripping Column.

⁸ Will receive liquid from the new Flash Tank and route it to the existing HCl Air Stripper.

U3 Specific Conditions

S1. Standards

[Regulation 2.03, section 6.1]

a. HAP

- i. The owner or operator shall not allow or cause the plantwide emissions of any single HAP to equal or exceed 10 tons during any consecutive 12-month period. [Regulation 2.16, section 4.1.1]
- ii. The owner or operator shall not allow or cause the plantwide total HAP emissions to equal or exceed 25 tons during any consecutive 12-month period. [Regulation 2.16, section 4.1.1]
- iii. Management practices. The owner or operator shall comply with the following paragraphs for components in chloroform service. [40 CFR 63 Subpart VVVVVV]
 - (1) You must conduct inspections of process vessels and equipment for each CMPU in organic HAP service or metal HAP service, as specified in paragraphs (a)(3)(i) through (v) of §63.11495, to demonstrate compliance with paragraph (a)(1) of §63.11495 and to determine that the process vessels and equipment are sound and free of leaks. Alternatively, except when the subject CMPU contains metal HAP as particulate, inspections may be conducted while the subject process vessels and equipment are in VOC service, provided that leaks can be detected when in VOC service. [40 CFR 63.11495(a)(3)]
 - (a) Inspections must be conducted at least quarterly. [40 CFR 63.11495(a)(3)(i)]
 - (b) For these inspections, detection methods incorporating sight, sound, or smell are acceptable. Indications of a leak identified using such methods constitute a leak unless you demonstrate that the indications of a leak are due to a condition other than loss of HAP. If indications of a leak are determined not to be HAP in one quarterly monitoring period, you must still perform the inspection and demonstration in the next quarterly monitoring period. [40 CFR 63.11495(a)(3)(ii)]
 - (c) As an alternative to conducting inspections, as specified in paragraph (a)(3)(ii) of this section, you may use Method 21 of 40 CFR part 60, appendix A-7, with a leak definition of 500 ppmv to detect leaks. You may also use Method 21 with a leak definition of 500 ppmv to determine if indications of a leak identified during an inspection conducted in accordance with paragraph (a)(3)(ii) of this

- section are due to a condition other than loss of HAP. The procedures in this paragraph (a)(3)(iii) may not be used as an alternative to the inspection required by paragraph (a)(3)(ii) of §63.11495 for process vessels that contain metal HAP as particulate. [40 CFR 63.11495(a)(3)(iii)]
- (d) Inspections must be conducted while the subject CMPU is operating. [40 CFR 63.11495(a)(3)(iv)]
 - (e) No inspection is required in a calendar quarter during which the subject CMPU does not operate for the entire calendar quarter and is not in organic HAP service or metal HAP service. If the CMPU operates at all during a calendar quarter, an inspection is required. [40 CFR 63.11495(a)(3)(v)]
- (2) You must repair any leak within 15 calendar days after detection of the leak, or document the reason for any delay of repair. For the purposes of this paragraph (a)(4), a leak will be considered “repaired” if a condition specified in paragraph (a)(4)(i), (ii), or (iii) of §63.11495 is met. [40 CFR 63.11495(a)(4)]
- (a) The visual, audible, olfactory, or other indications of a leak to the atmosphere have been eliminated, or [40 CFR 63.11495(a)(4)(i)]
 - (b) No bubbles are observed at potential leak sites during a leak check using soap solution, or [40 CFR 63.11495(a)(4)(ii)]
 - (c) The system will hold a test pressure. [40 CFR 63.11495(a)(4)(iii)]
- iv. Emission Point TF-5 meets the definition of a surge control vessel, defined in §63.2550. For each surge control vessel and bottoms receiver that meets the applicability criteria for storage tanks specified in Table 5 to §63.11496, you must meet the emission limits and control requirements specified in Table 5 to §63.11496.⁹ [40 CFR 63.11496(h)]
 - v. Emission Point 3003 meets the definition of a continuous process vent, defined in §63.101. Organic HAP emissions from continuous process vents must comply with the requirements in paragraphs (b)(1) through (3) of 40 CFR §63.11496 for organic HAP emissions from your continuous process vents for each CMPU subject to this subpart using Table 1 organic HAP.¹⁰ [40 CFR 63.11496(b)]

⁹ As a surge control vessel, the Pressurized Chloroform Feed Tank does not have any requirements listed in Table 5 since its storage capacity is less than 20,000 gallons.

¹⁰ Since the TRE is greater than 4.0 (76.40), the emission limits and other requirements of Table 3 of Subpart VVVVVV, as well as the requirements of 63.11496(b)(3), will not apply.

- (1) If the current TRE index value is greater than 1, you must recalculate the TRE index value before you make any process or operational change that affects parameters in the calculation. If the recalculated TRE is less than or equal to 1.0, then you must comply with one of the compliance options for continuous process vents in Table 3 to this subpart before operating under the new operating conditions. You must maintain records of all TRE calculations.
[40 CFR 63.11496(b)(2)]

b. VOC

i. For Emission Point 3009:

- (1) Standards: Pumps in light liquid service. Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in §60.485a(b), except as provided in §60.482-1a(c) and (f) and §60.482-2a(d), (e), and (f). A pump that begins operation in light liquid service after the initial startup date for the process unit must be monitored for the first time within 30 days after the end of its startup period, except for a pump that replaces a leaking pump and except as provided in §60.482-1a(c) and §60.482-2a(d), (e), and (f) of. [40 CFR 60.482-2a(a)(1)]
- (2) Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal, except as provided in §60.482-1a(f). [40 CFR 60.482-2a(a)(2)]
- (3) The instrument reading that defines a leak is specified in paragraphs (b)(1)(i) and (ii) of §60.482-2a. [40 CFR 60.482-2a(b)(1)]
 - (a) 5,000 parts per million (ppm) or greater for pumps handling polymerizing monomers; [40 CFR 60.482-2a(b)(1)(i)]
 - (b) 2,000 ppm or greater for all other pumps.
[40 CFR 60.482-2a(b)(1)(ii)]
- (4) Standards: Valves in gas/vapor service and in light liquid service. Each valve shall be monitored monthly to detect leaks by the methods specified in § 60.485a(b) and shall comply with §60.482-7a(b) through (e), except as provided in paragraphs (f), (g), and (h), § 60.482-1a(c) and (f), and §§ 60.483-1a and 60.483-2a.
[40 CFR 60.482-7a(a)(1)]
- (5) Standards: Connectors in gas/vapor service and in light liquid service. The owner or operator shall initially monitor all connectors in the process unit for leaks by the later of either 12 months after the compliance date or 12 months after initial startup. If all connectors in the process unit have been monitored for leaks prior to the compliance date, no initial monitoring is required provided either no process changes have been made since the

monitoring or the owner or operator can determine that the results of the monitoring, with or without adjustments, reliably demonstrate compliance despite process changes. If required to monitor because of a process change, the owner or operator is required to monitor only those connectors involved in the process change.

[40 CFR 60.482-11a(a)]

- (6) When a leak is detected pursuant to paragraphs (a) and (b) of §60.482-11a, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §60.482-9a. A first attempt at repair as defined in this subpart shall be made no later than 5 calendar days after the leak is detected.

[40 CFR 60.482-11a(d)]

c. TAC

The owner or operator shall not allow emissions of any TAC to exceed environmentally acceptable (EA) levels, whether specifically established by modeling or determined by the District to be *de minimis*. (See Comment 1.) [Regulations 5.00 and 5.21]

d. District Regulation 5.15 Regulated Substance [40 CFR Part 68, Subpart G]

If any toxic substances listed in Tables 1 through 4 to 40 CFR 68.130 are present at the stationary source in an amount greater than the threshold quantity specified in Regulation 5.15, the owner or operator shall comply with the requirements specified in Regulation 5.15. [Regulation 5.15, Section 2]

S2. Monitoring and Record Keeping

[Regulation 2.03, section 6.1]

The owner or operator shall maintain the following records for a minimum of five years and make the records readily available to the District upon request.

a. HAP

- i. The owner or operator shall, monthly, calculate and record the plantwide consecutive 12-month emissions of each single HAP and total HAP for each month in the reporting period. The determination must include all Emission Points. Where appropriate, the specific Emission Point control efficiencies and/or emission factors shall be applied. The determination shall be performed as follows unless otherwise approved in writing by the District:

$$HAP_A = \sum_1^x \{[U_x \times (1 - C_{Conx})]\}$$

Where:

HAP_A = Total plantwide emissions of an individual HAP (A)

U_x = Uncontrolled HAP emission from each Emission Point (x)
 C_{Conx} = Control Efficiency of each control device for each Emission Point (x)

- ii. For each CMPU subject to 40 CFR 63 Subpart VVVVVV, you must keep the records specified in paragraphs (c)(1)(i) through (viii) of §63.11501. [40 CFR 63.11501(c)(1)]
- (1) Records of management practice inspections, repairs, and reasons for any delay of repair, as specified in §63.11495(a)(5). [40 CFR 63.11501(c)(1)(i)]
 - (2) Records of all TRE calculations for continuous process vents as specified in §63.11496(b)(2). [40 CFR 63.11501(c)(1)(iv)]

b. VOC

- i. For Emission Point 3009:
- (1) The owner or operator shall record the information specified in paragraphs (a)(3)(i) through (v) of §60.486a for each monitoring event required by §§60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a. [40 CFR 60.486a(a)(3)]
 - (a) Monitoring instrument identification. [40 CFR 60.486a(a)(3)(i)]
 - (b) Operator identification. [40 CFR 60.486a(a)(3)(ii)]
 - (c) Equipment identification. [40 CFR 60.486a(a)(3)(iii)]
 - (d) Date of monitoring. [40 CFR 60.486a(a)(3)(iv)]
 - (e) Instrument reading. [40 CFR 60.486a(a)(3)(v)]
 - (2) When each leak is detected as specified in §§60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following requirements apply: [40 CFR 60.486a(b)]

- (a) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. [40 CFR 60.486a(b)(1)]
 - (b) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in §60.482-7a(c) and no leak has been detected during those 2 months. [40 CFR 60.486a(b)(2)]
 - (c) The identification on a connector may be removed after it has been monitored as specified in §60.482-11a(b)(3)(iv) and no leak has been detected during that monitoring. [40 CFR 60.486a(b)(3)]
 - (d) The identification on equipment, except on a valve or connector, may be removed after it has been repaired. [40 CFR 60.486a(b)(4)]
- (3) When each leak is detected as specified in §§60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location: [40 CFR 60.486(c)]
- (a) The instrument and operator identification numbers and the equipment identification number, except when indications of liquids dripping from a pump are designated as a leak. [40 CFR 60.486(c)(1)]
 - (b) The date the leak was detected and the dates of each attempt to repair the leak. [40 CFR 60.486(c)(2)]
 - (c) Repair methods applied in each attempt to repair the leak. [40 CFR 60.486(c)(3)]
 - (d) Maximum instrument reading measured by Method 21 of appendix A-7 of this part at the time the leak is successfully repaired or determined to be nonrepairable, except when a pump is repaired by eliminating indications of liquids dripping. [40 CFR 60.486(c)(4)]
 - (e) “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak. [40 CFR 60.486(c)(5)]
 - (f) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown. [40 CFR 60.486(c)(6)]
 - (g) The expected date of successful repair of the leak if a leak is not repaired within 15 days. [40 CFR 60.486(c)(7)]
 - (h) Dates of process unit shutdowns that occur while the equipment is unrepaired. [40 CFR 60.486(c)(8)]

- (i) The date of successful repair of the leak.
[40 CFR 60.486(c)(9)]

c. TAC

The owner or operator shall maintain records sufficient to demonstrate environmental acceptability, including, but not limited to, SDS, analysis of emissions, and/or modeling results.

d. District Regulation 5.15 Regulated Substance [40 CFR Part 68, Subpart G]

If any toxic substances listed in Tables 1 through 4 of 40 CFR 68.130 are present at the stationary source in an amount greater than the threshold quantity specified in Regulation 5.15, the owner or operator shall monitor the processes and keep records required by Regulation 5.15.

S3. Reporting

[Regulation 2.03, section 6.1]

The owner or operator shall submit semi-annual compliance reports that include the information in this section. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. The compliance reports shall be postmarked within 60 days following the end of each reporting period. All compliance reports shall include the following certification statement per Regulation 2.16, section 3.5.11.

- “Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete”.
- Signature and title of the responsible official of the company.

The compliance reports are due on or before the following dates of each calendar year:

<u>Reporting Period</u>	<u>Report Due Date</u>
January 1 through June 30	August 29
July 1 through December 31	March 1 of the following year

a. HAP

- i. The owner or operator shall report the consecutive 12-month plantwide emissions of each individual HAP for each month in the reporting period.
- ii. The owner or operator shall report the consecutive 12-month plantwide emissions of total HAP for each month in the reporting period.

b. VOC

- i. For Emission Point 3009:

- (1) Each owner or operator subject to 40 CFR 60 Subpart VVa shall submit semiannual reports to the District beginning 6 months after the initial startup date. [40 CFR 60.487a(a)]
- (2) The initial semiannual report to the District shall include the following information in §60.487a(b)(1) through (5):
[40 CFR 60.487a(b)]
 - (a) Process unit identification. [40 CFR 60.487a(b)(1)]
 - (b) Number of valves subject to the requirements of §60.482-7a, excluding those valves designated for no detectable emissions under the provisions of §60.482-7a(f).
[40 CFR 60.487a(b)(2)]
 - (c) Number of pumps subject to the requirements of §60.482-2a, excluding those pumps designated for no detectable emissions under the provisions of §60.482-2a(e) and those pumps complying with §60.482-2a(f).
[40 CFR 60.487a(b)(3)]
 - (d) Number of connectors subject to the requirements of §60.482-11a. [40 CFR 60.487a(b)(5)]
- (3) All semiannual reports to the District shall include the following information, summarized from the information in §60.486a:
[40 CFR 60.487a(c)]
 - (a) Process unit identification. [40 CFR 60.487a(c)(1)]
 - (b) For each month during the semiannual reporting period,
[40 CFR 60.487a(c)(2)]
 - (i) Number of valves for which leaks were detected as described in §60.482-7a(b) or §60.483-2a,
[40 CFR 60.487a(c)(2)(i)]
 - (ii) Number of valves for which leaks were not repaired as required in §60.482-7a(d)(1),
[40 CFR 60.487a(c)(2)(ii)]
 - (iii) Number of pumps for which leaks were detected as described in §60.482-2a(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii), [40 CFR 60.487a(c)(2)(iii)]
 - (iv) Number of pumps for which leaks were not repaired as required in §60.482-2a(c)(1) and (d)(6),
[40 CFR 60.487a(c)(2)(iv)]
 - (v) Number of connectors for which leaks were detected as described in §60.482-11a(b)
[40 CFR 60.487a(c)(2)(vii)]
 - (vi) Number of connectors for which leaks were not repaired as required in §60.482-11a(d), and

[40 CFR 60.487a(c)(2)(viii)]

(vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible. [40 CFR 60.487a(c)(2)(xi)]

(c) Dates of process unit shutdowns which occurred within the semiannual reporting period. [40 CFR 60.487a(c)(3)]

(d) Revisions to items reported according to §60.487a(b) if changes have occurred since the initial report or subsequent revisions to the initial report. [40 CFR 60.487a(c)(4)]

c. TAC

Any TAC emissions that were greater than the de minimis level or a negative declaration.

d. District Regulation 5.15 Regulated Substance [40 CFR Part 68, Subpart G]

If any toxic substances listed in Tables 1 through 4 of 40 CFR 68.130 are present at the stationary source in an amount greater than the threshold quantity specified in Regulation 5.15, the owner or operator shall comply with the reporting requirements specified in Regulation 5.15.

Comment

- The facility submitted the TAC Environmental Acceptability (EA) Demonstration to the District on August 31, 2021. Based on AERMOD, the maximum off-site Hazard Quotient for all process/process equipment is less than 1.0. The carcinogenic risk is less than 3.8 for non-industrial property and is less than 38 for all new process/process equipment. The carcinogenic risk for all process/process equipment is less than 7.5 for non-industrial property and less than 75 for industrial property.¹¹

Cancer and Non-Cancer Risk – (Chloroform and Chlorine)

Emission Point	TAC	Risk (EAG _C)		HQ (EAG _{NC})	
		Non-Adjusted	Industrial	Non-Adjusted	Industrial
		EAG _C ≤ 1.0	EAG _C ≤ 10.0	EAG _{NC} ≤ 1.0	EAG _{NC} ≤ 3.0
U2, 2001 -CHCl ₃ Tanks 1 & 2	Chloroform	0.35	1.66	4.99E-05	2.38E-04
U2, 2002 - CHCl ₃ Tank Fugs	Chloroform	0.46	4.34	6.62E-05	6.22E-04
U3, 3003 - HFC-23 Recover Tower Vent Condenser	Chloroform	0.16	0.61	2.34E-05	8.69E-05
U3, 3009 - HCFC-22 Process Unit Fugs	Chloroform	0.43	1.48	6.10E-05	2.12E-04
	Chlorine	-	-	1.40E-01	0.50
U3, 3001 - Freon™ Unit Vaporizer Scrubber	Chlorine	-	-	0.46	1.95
Plantwide R _c for new processes:	--	0.82 (<3.8)	5.56 (<38)	--	--
Plantwide R _c for all Processes: ¹²	--	0.95 (≤ 7.5)	5.73 (75)	--	--
R _{NC} for all Processes:	--	--	--	Chloroform 0.000144 Chlorine 0.6	Chloroform 0.00082 Chlorine 2.45

Note: The results for All processes new and existing is not additive because the modeling maximum does not occur at the same receptor.

¹¹ With this construction permit, HCl emissions will now be de minimis.

¹² Value from ChemR06-2-21.isc and ChemR06-2021ni.isc.