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

12/17/2018

Title V Statement of Basis

Owner: Lubrizol Advanced Materials, Inc.

Source: Lubrizol Advanced Materials, Inc.

Plant Location: 4200 Bells Lane, Louisville, Kentucky 40211-2147

Date Application Received: See Application Documents Table

Date Admin Complete: 9/1/06, 6/4/07, 1/29/09, 6/4/10, 12/20/10, 6/29/11, 11/16/12, 1/6/17, and 2/27/18

Date of Draft Permit: 09/22/2018

Date of Proposed Permit: 09/22/2018

District Engineer: Virginia Rhodes

Permit No: O-0082-18-V

Plant ID: 0082 **SIC Code:** 2821 **NAICS**: 325211

Introduction:

This permit will be issued pursuant to: (1) Regulation 2.16, (2) Title 40 of the Code of Federal Regulations Part 70, and (3) Title V of the Clean Air Act Amendments of 1990. Its purpose is to identify and consolidate existing District and Federal air requirements and to provide methods of determining continued compliance with these requirements.

This permit action is a permit renewal.

Jefferson County is classified as an attainment area for lead (Pb), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), carbon monoxide (CO), 1 hour and 8 hour ozone (O_3), and particulate matter less than 10 microns (PM_{10}); and is unclassifiable for the 2012 standard for particulate matter less than 2.5 micron ($PM_{2.5}$) and partial non-attainment area for sulfur dioxide (SO_2) .

Application Type/Permit Activity:
[ ] Initial Issuance

[ ] Permit Revision
- [ ] Administrative
- [ ] Minor
- [ ] Significant

[X] Permit Renewal

Compliance Summary:
[X] Compliance certification signed
[ ] Source is out of compliance
[ ] Compliance schedule included
[X] Source is operating in compliance

I. Source Information

1. Product/Process Description: The source manufactures synthetic resins (chlorinated resin, polyvinyl chloride latex and co-polymer latex) and resin compounds.

2. Process Description: This source produces synthetic resins and compounds including chlorinated poly vinyl chloride (CPVC), compounding of resin products into powder and pellet products, and polymerization of various monomers, including vinyl chloride monomer (VCM). Raw materials are reacted and/or mixed to make these products. Final products can be temporarily stored on-site or shipped off-site in either packaged or bulk form.

3. Site Determination: There are no other facilities that are contiguous or adjacent and under common control.

4. Emission Unit Summary:

a. **U-RES:** This emission unit produces chlorinated poly vinyl chloride (CPVC Resin). Resin slurry is reacted with chlorine to produce chlorinated resin slurry. This slurry material is further processed and then dried into chlorinated resin.

b. **U-CMP:** This emission unit compounds resins into powder or pellet products.

c. **U-LTX:** This emission unit involves the polymerization of various monomers, including production of vinyl chloride monomer (VCM) latex. Monomers are mixed with water, catalyst, intermediates, additives and latex in polymerizer where it reacts to form latex.

d. **U-MSC:** Miscellaneous equipment such as parts washers.

e. **U-ICE:** Emergency Generators

5. Permit Revisions:

Permit No.	Issue Date	Public Notice Date	Type	Emission Unit	Description
129-97-TV	02/28/2002	01/28/2001	Initial	Entire Permit	Initial Permit Issuance
O-0082-18-V	12/17/2018	1/14/17, 4/21/18, 09/22/18	Renewal	Entire Permit	Incorporation of Construction Permits, Administrative Changes, and minor permit revisions.

6. Fugitive Sources: The source monitors fugitive VCM emissions pursuant to 40 CFR 63 Subpart UU and Board Order 07-03.

7. Construction Permit History

Permit No.	Issue Date	Description
C-0082-1033-16-V	2/13/17	Corrects the PM limit for several existing pieces of equipment in the TempRite resin manufacturing operation
318-92-C & 318-92-C (R1)	2/13/17	Mixer MI-1M-1 (E-CMP-MI-1M-1) with optional Chute Hopper, HPR-5M-1 (E-CMP-HPR-5M-1) and HPR-1C-2 (E-CMP-HPR-1C-2)
TV-13-1012-C	12/31/14	Plant Expansion Project (Tank TK-104F not built)
35684-12-C	10/12/12	E-MSC-FAC-ZIGEN01, Cummins Model 400DFEH, 755 bHP RICE generator with 850 gallon diesel fuel tank
33716-11-C	12/6/11	New Reactor, E-RES-RE-13D

Permit No.	Issue Date	Description
33415-11-C	11/21/11	Storage Tank E-CMP-TK-3S (New), No.1 Resin Day Bin E-CMP-DB-1M-2, No. 2 Resin Day Bin E-CMP-DB-2M-2, Chute Hopper E-CMP-HPR-3M-2, Chute Hopper E-CMP-HPR-1C-2, Mixer E-CMP-MI-1M-2, Rework Process Filter Receiver E-CMP-SED-11FE-2(New), Cooler ECMP-CLR-2C-2, Day Bin E-CMP-TK-2FE-2, Process Filter Receiver E-CMP-SED-8FE-2(New), Process Filter Receiver E-CMP-SED-9FE-2(New), Process Filter Receiver E-CMPSED-10FE-2(New), and Extruder E-CMP-EXT-4E-2
31809-11-C	4/5/11	Blend Silo (E-CMP-BS-7B-1), Manufacturer Young Industries, Railcar/Truck loading Station (E-CMP-LS-6L-1), Manufacturer Sly Mfg.; Model XP-8 One Baghouse (C-CMP-SED-7B-1), Manufacturer Horizon Systems, Inc.; Model 45SFC9-II
29742-10-C	12/6/10	One auger bagger (Emission Point E-RES-BAGR-2J), make Chantland MHS, model 4190
73-10-C	7/22/10	Six (6) railcar unloading stations, west & east sphere, and tank TK-4F, FTO, FTO scrubber, Recovery System, and Optional Railcar Unloading Line Vacuum Recovery Compressor System consisting of Compressor (CM-1B) and Separator Tank (SE-1B)
221-09-C	12/31/09	Replacement of Blowdown Tanks E-RES-TK-1E and E-RES-TK-2E, venting to optional control device, Scrubber SED-20J
678-08-C	10/31/08	Three existing hydrochloric acid storage tanks (TK-5E, TK-7E, TK-8E) controlled by existing scrubber SED-20J
339-08-C	5/15/08	One new B-39 Central Vacuum Cleaning System Process Cyclone (E-CMP-SED-1D) (2,000 lb/hr), controlled by new Fabric Filter (C-CMP-SED-2D-2) controlling Building 39 which includes the new emission points associated with this project
338-08-C	5/15/08	E-CMP-HPR-15FM-1 SED-15FM-1 Combination Filtered Bulk Bag Unloading System, B-31 Central Vacuum System Filter Receiver
337-08-C	5/15/08	Three (3) existing extruders (E-CMP-EXT-1E-2, E-CMP-EXT-2E-2, and E-CMP-EXT-3E-2) (Later removed from plant site.)
336-08-C	5/15/08	One new Extruder (E-CMP-EXT-4E-2). Superseded by Permit 33415-11-C.
335-08-C	5/31/09	Pellet Dryer DR-1ED-2, Cooling Tower CT-1U-2
334-08-C	5/15/08	E-CMP-TK-1FE-2/ SED-3FE-2, Compound Day Bin with associated process separatorTK-1FE-2/SED-3FE-2
333-08-C	5/15/08	One existing Mixer (E-CMP-MI-1M-2) including existing Hopper (E-CMP-HPR-3M-2) controlled by existing fabric filter (C-CMP-SED-3M-2); new Cooler (E-CMP-CLR-2C-2) including existing Hopper (E-CMP-HPR-1C-2) controlled by existing Fabric Filter (C-CMP-SED-3C-2). Superseded by Permit 33415-11-C
329-08-C	4/30/08	One Wet Scrubber (C-RES-SED-20J) to control HCl emissions from Storage Tanks (E-RES-TK-1E, 2E, 3E. 9E, and 10E), partially superseded by Permit 221-09-C
328-08-C	4/30/08	One Wet Scrubber (C-RES-SED-28J) to control PM emissions from Dryer (E-RES-DR-2J)
23-07-C	3/15/08	E-RES-TK-7J/ SED-27J, Silo 7A with process separator
22-07-C	3/31/08	One Flex-Kleen dust collector (C-RES-SED-26J) and one bin vent filter (C-RES-SED-25J) to control PM emissions from the railcar loading station (E-RES-RRLC)
21-07-C	3/31/08	E-RES-TK-25J/SED-25J, Resin Receiver Hopper with process separator E-RES-RRLC/SED-26J, Resin Railcar Loading Station with process separator
20-07-C	3/31/08	One dust collector (C-RES-SED-23J) to control PM emissions from silo (E-RES-TK-23J) and one dust collector (C-RES-SED-24J) to control PM emissions from silo (E-RES-TK-24J)
19-07-C	3/31/08	E-RES-TK-23J/SED-23J, Silo with process separator E-RES-TK-24J/SED-24J, Silo with process separator
18-07-C	3/31/08	One Niro venturi wet scrubber (C-RES-SED-22J) to control emissions from the A-Train flash dryer (E-RES-DR-3J).

Permit No.	Issue Date	Description
17-07-C	3/31/08	One Niro flash dryer (E-RES-DR-3J) and one flash dryer cyclone (E-RES-SED-21J), model CHE-2650.
427-06-C	1/31/08	Plantwide Synthetic Minor limits for Single & Total HAPs
369-05-C	10/31/06	One fabric filter (C-CMP-SED-RC) to control PM emissions from pellet railcar vacuum system.
368-05-C	10/31/06	Railcar Vacuum System with Process Cyclone SED-RC1 and separator SED-RC2
341-05-C	10/31/06	Bin vent filter (C-RES-SED-20) and one fabric filter (C-RES-SED-19)
340-05-C	10/31/06	Resin Storage Silo (E-RES-TK-20) and railcar loading station (E-RES-RRLS)
377-05-C	10/31/06	B-31 Central Vacuum System Filter Receiver
312-02-C	11/30/03	New Polymerizers (E-LTX-PLY 29/30/39/40/45/47) and two Polymerizers to be relined (E-LTX-PLY-46/48). The eight Polymerizers will replace existing Polymerizers.[1]
31809-11-C(R1)	Xx/xx/xx	Blend Silo with associated Railcar/Truck Loading Station and process separator BS-7B-1 / LS-6L-1/SED-7B-1
C-0082-1034-18-V	Xx/xx/xx	Revising the chloroform STAR limit for Air Stripper (E-RES-SED-103N).

8. Applications and Related Documents

Application	Date	Type
7739	6/4/07	**Title V Renewal Application Revision #1:** Company ownership change from Noveon to Lubrizol
7719/7756	1/29/09	**Title V Renewal Application Revision #2:** Incorporate 18 construction permit and other administrative changes.
	2/2/10	**Title V Renewal Application Revision #3:** RO Change
28663	6/24/10	**Title V Renewal Application Revision #4:** Ownership Change (application 11627) from OxyVinyls to Lubrizol.
30209	12/20/10	**Title V Renewal Application Revision #5:** Incorporate construction permit #221-09-C
30209	12/20/10	TV revision application to include construction permit #221-09-C
33600	6/29/11	**Title V Renewal Application Revision #6:** Incorporate three construction permits, RMP update, and other administrative changes.
33618	6/2/11	Tank Service Conversion
43209	9/4/12	EA Demonstration for Wastewater Generator
51711/51712	11/16/12	**Title V Renewal Application Revision #7:** Incorporate three construction permits and other administrative changes.
58384/58112	1/31/13	Plant Expansion consisting of a new resin line, a new compounding line and new raw material feed systems for an existing compounding line.
61382	12/19/13	Section 502(b)(10) Operational Flexibility for B108 fire pump.
68770/68776	12/31/14	Administrative Application to incorporate TV-13-1012-C into the Title V permit.
72920	8/7/15	Section 502(b)(10) Operational Flexibility to Replace Tank TK-7E
81209	1/6/17	**Title V Renewal Application Revision #8:** RO Change
81986	2/14/17	Updated STAR Risk Modeling Report
81915	2/14/17	Comments on Draft Title V permit O-0082-16-V (PDF version)
81960	2/15/17	Comments on Draft Title V permit O-0082-16-V (Word version)
90887	2/28/18	**Title V Renewal Application Revision #9:** Administrative Application to incorporate 318-92-C(R1) and C-0082-1033-16-V into the Title V permit and RO change.
91567	4/16/18	Blend Silo Email

[1] Only six of the eight polymerizers were actually replaced. E-LTX-PLY-46 and E-LTX-PLY-48 were re-lined but not reconstructed per construction permit 312-02-C.

Application	Date	Type
91671	4/20/18	Application to revise the chloroform STAR limit for Air Stripper (E-RES-SED-103N).

9. Plantwide Emission Summary:

Pollutant	Actual Emissions (tpy) 2016 Data	Pollutant that triggered Major Source Status (based on PTE)
CO	0.36	No
NO_x	0.39	No
SO_2	0.07	No
VOC	2.5	No
PM	2.93	No
PM_{10}	1.54	No
$PM_{2.5}$	1.4	No
Total HAPs	1.7	Yes*
Chlorine	0.25	
Chloroform	0.23	
HCl	0.8	
Vinyl Chloride	0.32	
Vinylidene Chloride	0.05	

*Source has a synthetic minor HAP limit established in permit 427-06-C.

10. Applicable Requirements:

[ ] PSD [X] 40 CFR 60 [X] 40 CFR 63 [X] SIP
[ ] NSR [ ] 40 CFR 61 [X] District-Origin [ ] Other

11. Referenced Federal Requirements: The source is subject to the following federal regulations:

40 CFR 60 Subpart A	General Provisions
40 CFR 60 Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
40 CFR 60 Subpart JJJJ	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
40 CFR 63 Subpart A	General Provisions
40 CFR 63 Subpart UU	National Emission Standards for Equipment Leaks—Control Level 2 Standards
40 CFR 63, Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
40 CFR 63 Subpart DDDDDD	National Emission Standards for Hazardous Air Pollutants for Polyvinyl Chloride and Copolymers Production Area Sources
40 CFR 68 Subparts A through H	Chemical Accident Prevention Provisions
40 CFR 82 Subpart F	Recycling and Emissions Reduction

40 CFR 63 Subpart J was vacated on June 18, 2004, and was replaced with 40 CFR 63 Subpart DDDDDD.

40 CFR 61 Subpart F applied prior to April 17, 2015, and was replaced with 40 CFR 63 Subpart DDDDDD.

40 CFR 61 Subpart V as referenced by 40 CFR 61 Subpart F applied prior to April 17, 2015, and was replaced with 40 CFR 63 Subpart UU as referenced by 40 CFR 63 Subpart DDDDDD.

40 CFR 60 Subpart III (SOCMI) does not apply because Lubrizol processes acrylic acid and formaldehyde purchased from an outside vendor, but does not produce acrylic acid and formaldehyde per 40 CFR 60.610(c).

40 CFR 63 Subparts F, G, H, and I (HON) do not apply because Lubrizol does not manufacture as a primary product any of the chemicals in 40 CFR 63.100(b)(1) nor does Lubrizol have any of the processes listed in 40 CFR 63.190(b).

40 CFR 60 Subpart K as referenced by Section 8 of Regulation 7.12 does not apply to Lubrizol.

40 CFR 63 Subpart EEEE (OLD MACT) does not apply to Lubrizol because Lubrizol accepted synthetic minor limits for HAPs prior to the applicability date.

II. Regulatory Analysis

1. Acid Rain Requirements: The source is not subject to the Acid Rain Program.

2. Stratospheric Ozone Protection Requirements: Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any facility that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. This source does not manufacture, sell, or distribute any of the listed chemicals. The source's use of listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment.

3. Prevention of Accidental Releases 112(r): The source does manufacture, process, use, store, or otherwise handle one or more of the regulated substances listed in 40 CFR Part 68, Subpart F, and District Regulation 5.15, *Chemical Accident Prevention Provisions*, in a quantity in excess of the corresponding specified threshold amount. The required Risk Management Plan was submitted on January 22, 2016.

4. 40 CFR Part 64 Applicability Determination: The source was subject to 40 CFR Part 64 - *Compliance Assurance Monitoring for Major Stationary Sources* per CAM plan dated January 8, 2015, prior to April 17, 2015. As of April 17, 2015, sources vented to the FTO are required to meet the process vent requirements of the National Emission Standard for Hazardous Air Pollutants for Polyvinyl Chloride and Co-polymers Production, 40 CFR 63 Subpart DDDDDD and are no longer subject to CAM per 40 CFR 64.2(b)(1)(i).

5. Basis of Regulation Applicability

a. **Plantwide**

Lubrizol Advanced Materials, Inc. is a major source for PM/PM_{10}/$PM_{2.5}$, VOC, Chlorine, Chloroform, Hydrogen Chloride, Vinyl Acetate, and combined HAPs. Regulation 2.16-Title V Operating Permits establishes requirements for major sources.

Regulations 5.00, 5.01, 5.20, 5.21, 5.22 and 5.23 (STAR Program) establishes requirements for environmental acceptability of toxic air contaminants (TACs) and the requirement to comply with all applicable emission standards.

The TAC emissions from the combustion of natural gas are considered to be "*de minimis* emissions" by the District. This includes all of the emissions from a process or process equipment for which the only emissions are the products of combustion of natural gas, such as from a natural gas-fired boiler or turbine, but does not include the other emissions from a process or process equipment that are not the products of the combustion of natural gas. (Regulation 5.21, section 2.7)

Regulation 2.16, sections 4.1.9.1 and 4.1.9.2 requires sufficient monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit. The owner or operator shall maintain all the required records for a minimum of 5 years and make the records readily available to the District upon request.

Regulation 2.16, section 4.3.5, requires stationary sources for which a Title V is issued to submit an annual compliance certification by April 15. In addition, as required by Regulation 2.16, section 4.1.9.3, the source shall submit compliance reports at least every six months to show compliance with the permit. Compliance reports and compliance certifications shall be signed by a responsible official and shall include a certification statement per Regulation 2.16, section 3.5.11.

Regulation 2.16, section 4.3.1 establishes testing requirements to assure compliance with the terms and conditions of the permit.

The following equipment has been demolished or removed from plant-site:

- E-LTX-TK-301 through E-LTX-TK-031, Tanks TK-301 through TK-307
- E-LTX-TK-4F, controlled by C-LTC-TK-FTO-1, C-LTX-TK-SCR-1
- E-LTX-75, Tank TK-75, E-LTX-DRM-121
- E-CMP-HPR-1L-1, Bulk loading hopper, controlled by C-CMP-1L-1
- E-CMP-SED-1EC-2, 2EC-2 and 5ED-2, Conveying process cyclones
- E-CMP-CLR-1EC-2 and 2EC2, Coolers 1EC-2 and 2EC-2, controlled by C-CMP-SEC-3EC-2 and 4EC-2, respectively.
- Blend Silos E-CMP-BS-1B-2 and E-CMP-BS-2B-2, Blend Silo, controlled by C-CMP-SEC-1B-1
- Combination Rework Box Tipper/Filtered Hopper E-CMP-HPR-1F-2/SED-12FE-2
- E-CMP-CV-1C-2, E-CMP-CV-2C-2, and E-CMP-TK-4FE-2

The following equipment was not built on plant-site:

E-CMP-LS-8B-1, E-CMP-BS-8B-1/SED-8B-1, E-RES-SED-105C (Process Separator), U-CMP-TK-8B-1 (Tank), E-RES-SED-6C (Process Separator), E-RES-TK-103J/SED-103J (Silo), E-RES-SED-104F (Process Separator), E-RES-TK-104F (Tank), E-CMP-BS-8B-1/SED-8B-1 (Silo) and E-CMP-LS-8B-1 (Loading Station).

STAR *De Minimis* Values

The *de minimis* values for the following TACs at the time of permit issuance are as follows:

TAC	*De Minimis*		Averaging Period
	Lb/year	Lb/hr	
Arsenic & Compounds	0.11	0.00012	Annual
Cadmium & Compounds	0.27	0.00030	Annual
Carbon Tetrachloride	81.60	0.092	Annual

TAC	*De Minimis*		Averaging Period
	Lb/year	Lb/hr	
Chlorine	96.00	0.11	Annual
Chloroform	20.64	0.023	Annual
Chromium (VI) & Compounds	0.040	0.000045	Annual
Copper & Compounds	43.80	0.040	8 hr
Vinyl Chloride	110.40	0.12	Annual

b. **Applicable Regulations**

Regulation	Title	Type
2.05	Prevention of Significant Deterioration of Air Quality	SIP
2.16	Title V Operating Permits	SIP
5.00	Standards for Toxic Air Contaminants and Hazardous Air Pollutants	Local
5.01	General Provisions	SIP
5.02	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	Local
5.14	Hazardous Air Pollutants and Source Categories	Local
5.15	Chemical Accident Prevention Provisions	Local
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	Local
5.21	Environmental Acceptability for Toxic Air Contaminants	Local
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	Local
5.23	Categories of Toxic Air Contaminants	Local
6.01	General Provisions (for *Existing Affected Facilities*)	SIP
6.09	Standards of Performance for Existing Process Operations	SIP
6.13	Standard of Performance for Existing Storage Vessels for Volatile Organic Compounds	SIP
6.18	Standards of Performance for Solvent Metal Cleaning Equipment	SIP
6.22	Standard of Performance for Existing Volatile Organic Materials Loading Facilities	SIP
6.24	Standard of Performance for Existing Sources Using Organic Materials	SIP
7.01	General Provisions (for *New Affected Facilities*)	SIP
7.02	Federal New Source Performance Standards Incorporated by Reference	Local
7.08	Standards of Performance for New Process Operations	SIP
7.12	Standard of Performance for New Storage Vessels for Volatile Organic Compounds	SIP
7.25	Standard of Performance for New Sources Using Volatile Organic Compounds	SIP

c. **Basis for Applicability**

Regulation	Basis for Applicability
2.03	Establishes requirements for Permits to Construct and Operate
2.16	Title V source
5.00	Establishes definitions of terms used in the Strategic Toxic Air Reduction Program.
5.01	Establishes general provisions for process equipment from which a toxic air contaminant is or may be emitted.
5.02	Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants
5.14	Hazardous Air Pollutants and Source Categories
5.20	Establishes the methodology for determining the benchmark ambient concentration of a toxic air contaminant.
5.21	Establishes the criteria for determining the environmental acceptability of emissions of toxic air contaminants.
5.22	Establishes the procedures for determining the maximum ambient concentration of a

Regulation	Basis for Applicability
	toxic air contaminant.
5.23	Establishes categories of toxic air contaminants.
6.09	Applies to each process operation that is not otherwise regulated by any other portion of Regulation 6 and was in existence or had a construction permit issued by the District by September 1, 1976.
6.13	VOC storage tanks greater than 250 gallon capacity are subject to Regulation 6.13 for VOC which were installed before September 1, 1976.
6.18	Applies to cold cleaners.
6.22	Applies to loading facilities which load more than 200 gallons of "volatile organic materials" into tank trunks, trailer, or railroad tank cars in any one day, commenced before September 1, 1976.
6.24	Establishes VOC standards for affected facilities constructed before June 13, 1979.
7.01	Applies to new facilities
7.02	Adoption of Federal New Source Performance Standards
7.08	Equipment installed after September 1, 1976 and subject to the PM emission standard.
7.12	Storage tanks with a capacity greater than 250 gallons constructed after April 19, 1972
7.25	Affected facility constructed after June 13, 1979 for VOC.
40 CFR 60 Subpart A	General Provisions
40 CFR 60 Subpart IIII	Applies to stationary CI internal combustion engines that commences construction after July 11, 2005.
40 CFR 60 Subpart JJJJ	Applies to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE).
40 CFR 63 Subpart A	These standards regulate specific categories of stationary sources that emit (or have the potential to emit) one or more hazardous air pollutants.
40 CFR 63 Subpart UU	Applies to the control of air emissions from equipment leaks (pumps, compressors, agitators, pressure relief devices, sampling connection systems, open ended valves or lines, valves, connectors, instrumentation systems, and closed vent systems and control devices) for which 40 CFR 63 Subpart HHHHHHH references the use of 40 CFR 63 Subpart UU.
40 CFR 63 Subpart DDDDDD	Applies to the facility-wide collection of storage vessels, heat exchange systems, surge control vessels, and wastewater and process wastewater treatment systems that are associated with producing polyvinyl chloride and copolymers.
40 CFR 68 Subparts A through H	Establishes requirements for stationary sources that have more than a threshold quantity of a regulated substance in a process. This facility utilizes four chemicals (vinyl chloride, vinylidene chloride, chlorine, and vinyl acetate) regulated under Risk Management program.

d. Emission Unit U-RES

i. Equipment

U-RES Emission Points			
Emission Point ID	**Description**	**Applicable Regulations**	**Control Device**
E-RES-CLST-1	Chlorine Unloading Stations CLST-1 through CLST-6	STAR	C-RES-SCRBR
E-RES-CLST-2			
E-RES-CLST-3			
E-RES-CLST-4			
E-RES-CLST-5			
E-RES-CLST-6			
E-RES-CLST-7	Chlorine Unloading Stations CLST-7 through CLST-9	STAR	C-RES-SCRBR-2
E-RES-CLST-8			
E-RES-CLST-9			

U-RES Emission Points			
Emission Point ID	**Description**	**Applicable Regulations**	**Control Device**
E-RES-TK-4	Tank TK-4	STAR	C-RES-SCRBR
E-RES-TK-5	Tank TK-5		
E-RES-TK-6	Tank TK-6		
E-RES-TK-101D	Tank TK-101D	STAR	C-RES-SCRBR -2
E-RES-TK-102D	Tank TK-102D		
E-RES-TK-103D	Tank TK-103D	5.21	NA
E-RES-SED-16C	Process Separator SED-16C	7.08	N/A
E-RES-TK-9C/SED-9C	Silo with process separator (IA)	6.09	N/A
E-RES-TK-10C/SED-10C	Silo with process separator (IA)	6.09	N/A
E-RES-TK-15C/SED-15C	Silo with process separator (IA)	7.08	N/A
E-RES-SED-17C	Process Separator SED-17C (IA)	7.08	N/A
E-RES-SED-101C	Process Separator SED-101C (IA)	7.08	N/A
E-RES-TK-102C/SED-102C	Silo with Process Separator (IA)	7.08	N/A
E-RES-TK-4C	Tank TK-4C (IA)	7.08	SED-2C
E-RES-TK-6F/SED-2F	Silo & process separator (IA)	6.09	N/A
E-RES-SED-1F	Process Separator SED-1F (IA)	7.08	N/A
E-RES-TK-2F/SED-2C	Tank TK-2F with process separator SED-2C (IA)	7.08	N/A
E-RES-BBU-101F	Bulk Bag Unloader, BBU-101F (IA)	7.08	N/A
E-RES-SED-101F	Process Separator, SED-101F (IA)	7.08	N/A
E-RES-TK-101F	Slurry Tank, TK-101F (IA)	7.08	C-RES-SED-102F
E-RES-SED-5C	Process Separator (IA)	7.08	N/A
E-RES-TK-12C	Tank TK-12C (IA)	7.08	N/A
E-RES-TK-13C	Tank TK-13C (IA)	7.08	N/A
E-RES-RE-3D	Reactor RE-3D	STAR	C-RES-SCRBR
E-RES-RE-4D	Reactor RE-4D	STAR & 7.25	C-RES-SCRBR
E-RES-RE-6D	Reactor RE-6D	STAR	C-RES-SCRBR
E-RES-RE-7D	Reactor RE-7D	STAR	C-RES-SCRBR
E-RES-RE-8D	Reactor RE-8D	STAR	C-RES-SCRBR
E-RES-RE-13D	Reactor RE-13D	STAR & 7.25	C-RES-SCRBR
E-RES-TK-1E	Tank, TK-1E	STAR & 7.25	C-RES-SED-20J &/or N/A
E-RES-TK-2E	Tank, TK-2E	STAR & 7.25	
E-RES-TK-3E	Tank, TK-3E	STAR & 7.25	
E-RES-TK-1F	Tank, TK-1F (IA)	5.21	C-RES-SCRBR &/or N/A
E-RES-TK-1H	Tank, TK-1H (IA)	5.21	N/A
E-RES-TK-2H	Tank, TK-2H (IA)	5.21	N/A
E-RES-TK-6H	Tank, TK-6H (IA)	5.21	N/A
E-RES-TK-7H	Tank, TK-7H (IA)	5.21	N/A
CV-5J	Screw Conveyor (IA)	5.21	N/A
CV-1H	Screw Conveyor (IA)	5.21	N/A
E-RES-DR-3J/SED-21J	Flash Dryer DR-3J with process cyclone SED-21J	STAR, 7.08 & 7.25	C-RES-SED-22J
E-RES-SED-1J2	Process Separator SED-1J2 (IA)	7.08	N/A
E-RES-DR-1J/SED-1J1	Dryer DR-1J with process	STAR	C-RES-SED-1J

U-RES Emission Points			
Emission Point ID	**Description**	**Applicable Regulations**	**Control Device**
/SED-2J1	cyclones SED-1J1 & SED-2J1 (operated in parallel)	7.08 & 7.25	4
E-RES-TK-23J/SED-23J	Silo with process separator (IA)	7.08	N/A
E-RES-TK-24J/SED-24J	Silo with process separator (IA)	7.08	N/A
E-RES-SED-3C	Process Separator (IA)	7.08	N/A
E-RES-SED-4C	Process Separator (IA)	7.08	N/A
E-RES-TK-2C	Tank, TK-2C (IA)	7.08	N/A
E-RES-TK-7C	Tank, TK-7C (IA)	7.08	N/A
E-RES-RE-9D	Reactor RE-9D	STAR & 7.25	C-RES-SCRBR
E-RES-RE-10D	Reactor RE-10D	STAR & 7.25	C-RES-SCRBR
E-RES-RE-11D	Reactor RE-11D	STAR & 7.25	C-RES-SCRBR
E-RES-RE-12D	Reactor RE-12D	STAR & 7.25	C-RES-SCRBR
E-RES-TK-7E	Tank TK-7E	STAR & 7.25	C-RES-SED-20J &/or N/A
E-RES-TK-8E	Tank TK-8E		
E-RES-TK-9E	Tank TK-9E		
E-RES-CL-2E	Stripper CL-2E	STAR & 7.25	N/A
E-RES-TK-12E	Tank, TK-12E	STAR	C-RES-SED-20J &/or N/A
E-RES-TK-10E	Tank, TK-10E	STAR & 7.25	C-RES-SED-20J &/or N/A
E-RES-TK-7F	Tank, TK-7F (IA)	STAR & 7.25	N/A
E-RES-TK-8H	Tank, TK-8H (IA)	STAR & 7.25	N/A
E-RES-TK-9H	Tank, TK-9H (IA)	STAR & 7.25	N/A
CV-2H	Screw Conveyor (IA)	5.21	N/A
E-RES-TK-2J2/SED-2J2	Combination Filtered Bag Dump Station, TK-2J2/SED 2J2 (IA)	7.08	N/A
E-RES-SED-12J	Process Separator SED-12J (IA)	7.08	N/A
E-RES-DR-2J/SED-13J/SED-14J	Dryer DR-2J with process cyclones SED-13J and SED-14J	STAR, 7.08, 2.03 & 7.25	C-RES-SED-15J
E-RES-SCR-2J	Screener SCR-2J (IA)	7.08	N/A
E-RES-TK-16J /SED-16J	Silo with process separator	7.08	N/A
E-RES-TK-17J /SED-17J	Silo with process separator	7.08	N/A
E-RES-B4FUG	Building 4 Fugitive Emissions (IA)	5.21	C-RES-SCRBR or N/A
E-RES-TK-4N/SED-4N	Silo & process separator (IA)	7.08	N/A
E-RES-TK-5E	Tank, TK-5E (IA)	STAR & 7.25	C-RES-SED-20J
E-RES-TK-2N	Tank, TK-2N (IA)	STAR & 7.25	N/A
E-RES-TK-3N	Tank, TK-3N (IA)	STAR & 7.25	N/A
E-RES-TK-5N	Tank, TK-5N (IA)	STAR & 7.25	N/A
E-RES-TK-7N	Tank, TK-7N (IA)	STAR & 7.25	N/A
E-RES-SED-103C	Process Separator SED-103C (IA)	7.08	N/A
E-RES-TK-103C	Tank, TK-103C (IA)	7.08	N/A
E-RES-TK-104C	Tank, TK-104C (IA)	7.08	N/A
E-RES-RE-101D	Reactor RE-101D	STAR & 7.25	C-RES-SCRBR-2
E-RES-RE-102D	Reactor RE-102D		
E-RES-RE-103D	Reactor RE-103D		
E-RES-RE-104D	Reactor RE-104D		
E-RES-TK-101E	Tank, TK-101E	STAR & 7.25	C-RES-SED-10

U-RES Emission Points			
Emission Point ID	**Description**	**Applicable Regulations**	**Control Device**
E-RES-TK-102E	Tank, TK-102E		1E
E-RES-TK-103E	Tank, TK-103E		
E-RES-TK-103F	Tank TK-103F (IA)	STAR	N/A
E-RES-TK-101H	Stripper, TK-101H (IA)	STAR	N/A
E-RES-TK-102H	Stripper, TK-102H (IA)	STAR	N/A
E-RES-TK-103H	Tank, TK-103H (IA)	STAR	N/A
E-RES-DR-101H /SED-101H /SED-102H	Dryer DR-101H with Process Cyclones SED-101H & SED-102H	STAR, 7.08 & 7.25	C-RES-SED-105H
E-RES-TK-105H	Tank, TK-105H (IA)	5.21	N/A
E-RES-SCR-101H	Screener, SCR-101H (IA)	7.08	N/A
E-RES-TK-101J/SED-101J	Silo with Process Separator (IA)	7.08	N/A
E-RES-TK-102J/SED-102J	Silo with Process Separator (IA)		
E-RES-TK-2R/SED-2R	Silo 2A & process separator (IA)	6.09	N/A
E-RES-TK-3R/SED-3R	Silo 3A & process separator (IA)	6.09	N/A
E-RES-TK-1A/SED-3J3	Silo 1A & process separator (IA)	6.09	N/A
E-RES-TK-6A/SED-2J3	Silo 6A & process separator (IA)	7.08	N/A
E-RES-TK-7J/SED-27J	Silo 7A & process separator (IA)	6.09	N/A
E-RES-TK-8J/SED-4J3	Silo 8A & process separator (IA)	6.09	N/A
E-RES-TK-9J/SED-5J3	Silo 9A & process separator (IA)	6.09	N/A
E-RES-TK-13J/SED-6J3	Silo 13 & process separator (IA)	6.09	N/A
E-RES-TK-14J/SED-7J3	Silo 14 & process separator (IA)	6.09	N/A
E-RES-HPR-1J3/SED-1J	Hopper & process separator (IA)	7.08	N/A
E-RES-BAGR-2J	Bagger BAGR-2J	7.08 & 2.05	C-RES-SED-8J
E-RES-TK-25J/SED-25J	Resin Receiver Hopper with process separator (IA)	7.08	N/A
E-RES-RRLC/SED-26J	Resin Railcar Loading Station with process separator (IA)	7.08	N/A
E-RES-B41FUG	Building 41 Fugitive Emissions (IA)	5.21	C-RES-SCRBR2 or NA
E-RES-TK-101N/SED-101N	Silo with Process Separator (IA)	7.08	N/A
E-RES-TK-102N	Tank, TK-102N (IA)	5.21, 7.08 & 7.25	N/A
E-RES-TK-103N	Tank, TK-103N (IA)	5.21 & 7.25	N/A
E-RES-TK-104N	Tank, TK-104N (IA)	5.21 & 7.25	N/A
E-RES-TK-105N	Tank, TK-105N (IA)	5.21 & 7.25	N/A
E-RES-TK-106N	Tank, TK-106N (IA)	5.21 & 7.25	N/A
E-RES-TK-107N	Effluent Pit, TK-107N (IA)	5.21 & 7.25	N/A
E-RES-SED-102N	Inclined Plate Clarifier, SED-102N (IA)	5.21 & 7.25	N/A
E-RES-SED-103N	Air Stripper SED-103N	STAR & 7.25	C-RES-CB-101N & C-RES-CB-102N
E-RES-TK-101WW	Settling Pit, TK-101WW (IA)	5.21	N/A
E-RES-CT-1A	Cooling Tower 1A (IA)	7.08	N/A
E-RES-CT-2A	Cooling Tower 2A (IA)	7.08	N/A

ii. **Standards/Operating Limits**

1) **VOC**

Regulation 7.25 establishes a plantwide VOC limit of 5 tons per year for all affected facilities, unless Best Available Control Technology (BACT) level of control is utilized to reduce the VOC emissions.

2) **HAP**

(a) Permits 73-10-C and 427-06-C establish plantwide limits of less than 10 tons per 12-consecutive month period for any single HAP to be.

(b) Permits 73-10-C and 427-06-C establish plantwide of less than 25 tons per 12-consecutive month period for total HAPs.

3) **TAC**

(a) Per Regulations 5.00 and 5.21, TAC emissions must not exceed environmentally acceptable levels.

(b) Potential controlled emissions for Category 2 TAC Chlorine from processes E-RES-TK-4, E-RES-TK-5, E-RES-TK-6, E-RES-TK-101D, E-RES-TK-102D, and E-RES-SED-103N were demonstrated to be below the *de minimis* thresholds utilizing an alternative measure as defined in Regulation 5.21, section 4.2.3.1. Therefore, pursuant to Regulation 5.21, Section 4.3, an emission standard for Chlorine was established and incorporated in this permit.

(c) Controlled potential emissions for Category 1 TACs Carbon Tetrachloride from E-RES-SED-103N was demonstrated to be below the *de minimis* threshold, utilizing an alternative measure as defined in Regulation 5.21, section4.2.3.1. Therefore, pursuant to Regulation 5.21, Section 4.3, an emission standard of *de minimis* for Carbon Tetrachloride & Chloroform was established and incorporated in this permit.

(d) The company modeled a controlled emission rate of 935 lb chloroform per year. The company requested this limit as an alternative measure to demonstrate environmental acceptability per Regulation 5.21, section 4.1.

4) **PM/PM_{10}/$PM_{2.5}$**

(a) Regulation 7.08, section 3.1.2 establishes PM standards. The PM standard is calculated using the following equation:

$E = 3.59 (\text{Process Weight Rate tons/hr})^{0.62}$

(b) The following construction permits establish PM standards for the following equipment:

Equipment	Construction	PM Standard

	Permit	
E-RES-DR-2J (Dryer DR-2J)	328-08-C effective 4/30/08	1.15 lb/hr
E-RES-DR-3J (Flash Dryer DR-3J) & E-RES-SED-21J (Flash Dryer Process Cyclone SED-21J)	17-07-C effective 3/31/08	13.03 lb/hr
E-RES-BAGR-2J	29742-10-C effective 12/6/10	9.74 lb/hr, 24.9 tons/12 consecutive month period Operate E-RES-SED-8J (fabric filter) at all times E-RES-BAGR-2J is in operation.
E-RES-SED-101H, E-RES-SED-102H, & E-RES-SED-103J	TV-13-1012-C effective 12/13/13	Operate and maintain process separators SED-101H, SED-102H, and SED-103J at all times the associated process equipment is in operation
E-RES-TK-23J/SED-23J (silo with process separator) & E-RES-TK-24J/SED-24J (silo with process separator)	19-07-C effective 3/31/08	13.03 lb/hr each

5) **Opacity**

Regulations 6.09, section 3.1 and 7.08, section 3.1 establish opacity standards.

iii. **Monitoring and Record Keeping**

1) **VOC**

For affected facilities subject to Regulation 7.25 which have not undergone a BACT analysis, the cumulative plantwide potential VOC emissions from affected facilities are 3.66 TPY VOC. Because potential plantwide VOC emissions from all affected facilities subject to Regulation 7.25 are less than 5 TPY VOC, there are no record keeping, monitoring, or reporting requirements for affected facilities subject Regulation 7.25 which have not undergone a BACT analysis.

2) **$PM/PM_{10}/PM_{2.5}$**

Construction Permit 29742-10-C effective 12/6/2010, establishes monitoring and record keeping requirements.

iv. **Reporting**

$PM/PM_{10}/PM_{2.5}$

Construction Permit 29742-10-C effective 12/6/2010, establishes reporting requirements.

e. **Emission Unit U-CMP: Compounding**

i. **Equipment**

U-CMP Emission Points			
Emission Point ID	**Description**	**Applicable Regulation(s)**	**Control Device**
E-CMP-B3WS/SED-4D	B-3 Weigh Station with process separator, B3WS/SED-4D (IA)	5.21 & 7.08	N/A
E-CMP-B31WS/SED-3D	B-31 Weigh Station with process separator, B31WS/SED-3D (IA)	5.21 7.08	N/A

U-CMP Emission Points			
Emission Point ID	**Description**	**Applicable Regulation(s)**	**Control Device**
E-CMP-TK-1S	Storage Tank TK-1S (IA)	7.12	N/A
E-CMP-TK-2S	Storage Tank TK-2S (IA)	7.12	N/A
E-CMP-DB-1M-1/SED-1M-1	Resin Day Bin with process separator (IA)	7.08	N/A
E-CMP-HPR-1M-1	Hopper HPR-1M-1 (IA)	7.08	N/A
E-CMP-DB-2M-1/SED-4M-1	Resin Day Bin was process separator (IA)	7.08	N/A
E-CMP-SED-2M-1	Rework Hopper-Loader HPR-1/SED-2M-1 (IA)	5.21 & 7.08	N/A
E-CMP-HPR-7M-1	Hopper HPR-7M-1 (IA)	7.08	N/A
E-CMP-HPR-1FM-1/SED-1FM-1	No. 1 Combination Filtered Bulk Bag Dump Station (IA)	7.08	N/A
E-CMP-HPR-2FM-1/SED-2FM-1	No. 2 Combination Filtered Bulk Bag Dump Station (IA)	7.08	N/A
E-CMP-HPR-3FM-1/SED-3FM-1	No. 3 Combination Filtered Bulk Bag Dump Station (IA)	7.08	N/A
E-CMP-FE-3FM-3	Feeder, FE-3FM-3 (IA)	7.08	Vent Sock
E-CMP-FE-4FM-1	Loss-in-weight Feeder, FE-4FM-1 (IA)	7.08	N/A
E-CMP-HPR-5FM-1/SED-5FM-1	No. 5 Combination Filtered Bulk Bag Dump Station (IA)	7.08	N/A
E-CMP-FE-6FM-1	Loss-in-weight Feeder (IA)	7.08	N/A
E-CMP-HPR-7FM-1/SED-7FM-1	No. 7 Combination Filtered Bulk Bag Dump Station (IA)	7.08	N/A
E-CMP-FE-8FM-1	Loss-in-weight Feeder, FE-8FM-1 (IA)	7.08	N/A
E-CMP-HPR-9FM-1/SED-9FM-1	No. 9 Combination Filtered Bulk Bag Dump Station (IA)	7.08	N/A
E-CMP-FE-10FM-1	Loss-in-weight Feeder (IA)	7.08	N/A
E-CMP-HPR-11FM-1/SED-11FM-1	No. 11 Combination Filtered Bulk Bag Dump Station (IA)	7.08	N/A
E-CMP-FE-12FM-1	Loss-in-weight Feeder (IA)	7.08	N/A
E-CMP-HPR-13FM-1/SED-13FM-1	No. 13 Combination Filtered Bulk Bag Dump Station (IA)	7.08	N/A
E-CMP-FE-14FM-1	Loss-in-weight Feeder (IA)	7.08	N/A
E-CMP-HPR-15FM-1/SED-15FM-1	Combination Filtered Bulk Bag Unloading System (IA)	7.08	N/A
E-CMP-HPR-17FM-1/SED-17FM-1	No. 17 Combination Filtered Bulk Bag Dump Station (IA)	7.08	N/A
E-CMP-FE-18FM-1	Loss-in-weight Feeder (IA)	7.08	N/A
E-CMP-HPR-2M-1	Hopper HPR-2M-1 (IA)	7.08	N/A
E-CMP-HPR-3M-1	Hopper HPR-3M-1 (IA)	7.08	N/A
E-CMP-HPR-4M-1	Hopper HPR-4M-1 (IA)	7.08	N/A
E-CMP-HPR-6M-1	Hopper HPR-6M-1 (IA)	7.08	N/A
E-CMP-HPR-1R/SED-1R	Combination Filtered Bulk Bag Dump Station (IA)	7.08	N/A
E-CMP-MI-1M-1/E-CMP-HPR-5M-1/E-CMP-HPR-IC-2	Mixer MI-1M-1 with optional Chute Hopper, HPR-5M-1 and HPR-1C-2 (Common Spare)	5.21, 7.08 & 7.25	C-CMP-SED-3M-1
E-CMP-CLR-1C-1	Cooler CLR-1C-1 (IA)	5.21, 7.08 & 7.25	N/A
E-CMP-HPR-1C-1	Hopper HPR-1C-1 (IA)	7.08	N/A
E-CMP-SCR-1C-1	Screener SCR-1C-1 (IA)	7.08	N/A
E-CMP-HPR-2C-1	Hopper HPR-2C-1 (IA)	7.08	N/A
E-CMP-HPR-2P-1/SED-2P-1	Hopper HPR-2P-1 with associated process collector (IA)	5.21 & 7.08	N/A
E-CMP-Line C-P01	Packaging line C-P01 (IA)	7.08	N/A

U-CMP Emission Points			
Emission Point ID	**Description**	**Applicable Regulation(s)**	**Control Device**
E-CMP-DB-1M-2/SED-1M-2	Resin Day Bin DB-1M-2 with associated process separator (IA)	7.08	N/A
E-CMP-HPR-1M-2	Hopper HPR-1M-2 (IA)	7.08	N/A
E-CMP-DB-2M-2/SED-2M-2	Resin Day Bin DB-2M-2 with associated process separator (IA)	7.08	N/A
E-CMP-MI-2C-2 /SED-2C-2	Combination Mixer & Filtered Bag Dump Station (IA)	5.21 & 7.08	N/A
E-CMP-FE-2C-2	Loss-in-weight Feeder (IA)	5.21 & 7.08	N/A
E-CMP-HPR-8FM-2/SED-8FM-2	No. 8 Combination Filtered Bulk Bag Dump Station (IA)	5.21 & 7.08	N/A
E-CMP-FE-8FM-2	Loss-in-weight Feeder FE-8FM-2 (IA)	5.21 & 7.08	N/A
E-CMP-HPR-2M-2	Hopper HPR-2M-2 (IA)	7.08	N/A
E-CMP-TK-1S-2	Tank TK-1S-1, 8 gallons (IA)	1.02, Appendix A, Section 3.24	N/A
E-CMP-TK-1S-2	Tank TK-1S-2, 8 gallons (IA)		N/A
E-CMP-HPR-1FM-2/SED-1FM-2	No. 1 Combination Filtered Bulk Bag Dump Station (IA)	5.21 & 7.08	N/A
E-CMP-HPR-2FM-2/SED-2FM-2	No. 2 Combination Filtered Bulk Bag Dump Station (IA)	5.21 & 7.08	N/A
E-CMP-HPR-3FM-2/SED-3FM-2	No. 3 Combination Filtered Bulk Bag Dump Station (IA)	5.21 & 7.08	N/A
E-CMP-HPR-4FM-2/SED-4FM-2	No. 4 Combination Filtered Bulk Bag Dump Station (IA)	5.21 & 7.08	N/A
E-CMP-HPR-5FM-2/SED-5FM-2	No. 5 Combination Filtered Bulk Bag Dump Station (IA)	5.21 & 7.08	N/A
E-CMP-HPR-6FM-2/SED-6FM-2	No. 6 Combination Filtered Bulk Bag Dump Station (IA)	5.21 & 7.08	N/A
E-CMP-HPR-7FM-2/SED-7FM-2	No. 7 Combination Filtered Bulk Bag Dump Station (IA)	5.21 & 7.08	N/A
E-CMP-HPR-14FM-2	Hopper HPR-14FM-2 (IA)	5.21 & 7.08	N/A
E-CMP-HPR-15FM-2/SED-15FM-2	Combination Filtered Bag Dump Station (IA)	5.21, 7.08 & 7.25	NA
E-CMP-HPR-16FM-2	Hopper HPR-16FM-2 (IA)	5.21 & 7.08	N/A
E-CMP-FE-16FM-2	Hopper and Continuous Loss-in-Weight Feeder (IA)	5.21 & 7.08	N/A
E-CMP-HPR-9FM-2/SED-9FM-2	No. 9 Combination Filtered Bulk Bag Dump Station (IA)	5.21 & 7.08	N/A
E-CMP-HPR-11FM-2/SED-11FM-2	No. 11 Combination Filtered Bulk Bag Dump Station (IA)	5.21 & 7.08	N/A
E-CMP-FE-12FM-2	Loss-in-weight Feeder (IA)	5.21 & 7.08	N/A
E-CMP-MI-1M-2/ E-CMP-HPR-3M-2/ E-CMP-HPR-1C-2	Mixer MI-1M-2, and optional Chute Hoppers HPR-3M-2 and HPR-1C-2 (Common Spare)	5.21, 7.08 & 7.25	C-CMP-SED-3M-2
E-CMP-SED-11FE-2	Rework Process Filter Receiver SED-11FE-2 (IA)	5.21 & 7.08	N/A
E-CMP-CLR-2C-2	Cooler CLR-2C-2	7.08, 7.25 & STAR	Vent Sock
E-CMP-HPR-2C-2	Cooler Discharge Hopper (IA)	5.21, 7.08 & 7.25	NA
E-CMP-SCR-2FE-2	Screener SCR-2FE-2 (IA)	5.21 & 7.08	N/A
E-CMP-HPR-3T-2	Hopper HPR-3T-2 (IA)	5.21 & 7.08	N/A
E-CMP-SCR-1FE-2	Transfer Screener (IA)	5.21 & 7.08	N/A
E-CMP-BS-1B-1 /SED-1B-1	Blending Silo BS-1B-1 with static bin vent (IA)	7.08	N/A
E-CMP-HPR-1P-2/SED-	Hopper with static bin vent (IA)	7.08	N/A

U-CMP Emission Points			
Emission Point ID	**Description**	**Applicable Regulation(s)**	**Control Device**
1P-2			
E-CMP-HPR-1P-1/SED-1P-1	Hopper HPR-1P-1 with associated process collector (IA)	5.21 & 7.08	N/A
E-CMP-Line E-P03	Packaging line C-P03 (IA)	7.08	N/A
E-CMP-MI-1C-2/SED-1C-2	Combination Mixer & Filtered Bag Dump Station (IA)	5.21 & 7.08	N/A
E-CMP-TK-1FM-3/SED-1FM-3	Tank with Process Separator & Feeder (IA)	5.21 & 7.08	N/A
E-CMP-HPR-1FM-3	Hopper, HPR-1FM-3 (IA)	5.21 & 7.08	Vent Sock
E-CMP-HPR-2FM-3/SED-2FM-3	Combination Filtered Bag Dump Station with Feeder & Process Collector (IA)	5.21 & 7.08	N/A
E-CMP-DB-1M-3 /SED-1M-3	Day Bin, DB-1M-3/SED-1M-3 (IA)	7.08	N/A
E-CMP-HPR-1M-3	Hopper, HPR-1M-3 (IA)	7.08	N/A
E-CMP-DB-2M-3/SED-2M-3	Day Bin, DB-2M-3/SED-2M-3 (IA)	7.08	N/A
E-CMP-HPR-2M-3	Hopper, HPR-2M-3 (IA)	7.08	N/A
E-CMP-HPR-1E-2	Hopper HPR-1E-2 (IA)	5.21 & 7.08	N/A
E-CMP-TK-1S-3	Tank, TK-1S-3, 7.5 gallons (IA)	1.02, Appendix A, Section 3.24	N/A
E-CMP-MI-1M-3 /HPR-3M-3	Mixer MI-1M-3 (with associated hand dump station HPR-3M-3)	5.21, 7.08 & 7.25 (BACT)	C-CMP-SED-3M-3
E-CMP-SED-3FM-3	Process Separator, SED-3FM-3 (IA)	5.21 & 7.08	N/A
E-CMP-CLR-1C-3	Cooler, CLR-1C-3 (IA)	5.21 & 7.08	Vent Sock
E-CMP-HPR-1C-3	Hopper, HPR-1C-3 (IA)	5.21 & 7.08	Vent Sock
E-CMP-SCR-1T-3	Screener, SCR-1T-3 (IA)	5.21 & 7.08	N/A
E-CMP-HPR-1T-3	Hopper, HPR-1T-3 (IA)	5.21 & 7.08	Vent Sock
E-CMP-HPR-1P-3/SED-1P-3	Hopper with Process Separator (IA)	5.21 & 7.08	N/A
E-CMP-PCK-1P-3	Packaging Line, PCK-1P-3 (IA)	5.21 & 7.08	Vent Sock
E-CMP-SED-1L-2	Pellet Railcar Loading Process Cyclone (IA)	5.21 & 7.08	N/A
E-CMP-BS-2B-1 /E-CMP-LS-1L-1/SED-2B-1	Blend Silo with Railcar/Truck Loading Station and process separator, BS-2B-1/LS-1L-1/SED-2B-1 (IA)	5.21 & 7.08	N/A
E-CMP-BS-3B-1/E-CMP-LS-2L-1/SED-3B-1	Blend Silo with Railcar/Truck Loading Station and process separator, BS-3B-1/LS-2L-1/SED-3B-1 (IA)	5.21 & 7.08	N/A
E-CMP-BS-4B-1/E-CMP-LS-3L-1/SED-4B-1	Blend Silo with Railcar/Truck Loading Station and process separator, BS-4B-1/LS-3L-1/SED-4B-1 (IA)	5.21 & 7.08	N/A
E-CMP-BS-5B-1/E-CMP-LS-4L-1/SED-5B-1	Blend Silo with Railcar/Truck Loading Station and process separator BS-5B-1/LS-4L-1/SED-5B-1 (IA)	5.21 & 7.08	N/A
E-CMP-BS-6B-1/E-CMP-LS-5L-1/SED-6B-1	Blend Silo BS-6B-1 with Railcar/Truck Loading Station and process separator SED-6B-1 (IA)	5.21 & 7.08	N/A
E-CMP-BS-7B-1/E-CMP-LS-6L-1/CMP-SED-7B-1	Blend Silo with associated Railcar/Truck Loading Station and process separator BS-7B-1 / LS-6L-1/SED-7B-1	7.08	N/A
E-CMP-BS-9B-3/SED-9B-3	Silo with Process Separator, BS-9B-3/SED-9B-3 (IA)	5.21 & 7.08	N/A
E-CMP-BS-10B-2/SED-10B-2	Silo with Process Separator, BS-10B-2/SED-10B-2 (IA)	5.21 & 7.08	N/A
E-CMP-HPR-1FM-4/SE	Combination Filtered Bag Dump Station (IA)	5.21 & 7.08	N/A

U-CMP Emission Points			
Emission Point ID	**Description**	**Applicable Regulation(s)**	**Control Device**
D-1FM-4			
E-CMP-HPR-2FM-4/SED-2FM-4	Combination Filtered Bag Dump Station (IA)	5.21 & 7.08	N/A
E-CMP-HPR-3FM-4/SED-3FM-4	Combination Filtered Bag Dump Station (IA)	5.21 & 7.08	N/A
E-CMP-HPR-4FM-4/SED-4FM-4	Combination Filtered Bag Dump Station (IA)	5.21 & 7.08	N/A
E-CMP-TK-9FM-4/SED-9FM-4	Tank with Process Separator, TK-9FM-4/SED-9FM-4 (IA)	7.08	N/A
E-CMP-HPR-1M-4	Hopper, HPR-1M-4 (IA)	5.21 & 7.08	Vent Sock
E-CMP-HPR-5FM-4/SED-5FM-4	Combination Filtered Bag Dump Station (IA)	5.21 & 7.08	N/A
E-CMP-HPR-6FM-4/SED-6FM-4	Combination Filtered Bag Dump Station (IA)	5.21 & 7.08	N/A
E-CMP-HPR-7FM-4/SED-7FM-4	Combination Filtered Bag Dump Station (IA)	5.21 & 7.08	N/A
E-CMP-HPR-8FM-4/SED-8FM-4	Combination Filtered Bag Dump Station (IA)	5.21 & 7.08	N/A
E-CMP-HPR-2M-4	Hopper, HPR-2M-4 (IA)	5.21 & 7.08	Vent Sock
E-CMP-MI-1M-4/SED-1M-4	Mixer with Process Separator (IA)	5.21 & 7.08	N/A
E-CMP-HPR-3M-4	Hopper, HPR-3M-4 (IA)	5.21 & 7.08	Vent Sock
E-CMP-TK-3S	Storage Tank TK-3S (IA)	5.21 & 7.08	N/A
E-CMP-SED-8FE-2	Process Filter Receiver SED-8FE-2 (IA)	5.21 & 7.08	N/A
E-CMP-SED-9FE-2	Process Filter Receiver SED-9FE-2 (IA)	5.21 & 7.08	N/A
E-CMP-SED-10FE-2	Process Filter Receiver SED-10FE-2 (IA)	5.21 & 7.08	N/A
E-CMP-FE-10FE-2	Loss-in-weight feeder (IA)	5.21 & 7.08	N/A
E-CMP-HPR-1/FE-10FE-2	Hopper HPR-1/FE-10FE-2 (IA)	7.08	N/A
E-CMP-TK-1FE-2/ SED-3FE-2	Compound Day Bin with associated process separator TK-1FE-2/SED-3FE-2 (IA)	5.21 & 7.08	N/A
E-CMP-HPR-1/FE-4FE-2	Compound Feed Hopper (IA)	5.21 & 7.08	N/A
E-CMP-FE-4FE-2	Continuous Loss-in-Weight Feeder (IA)	5.21 & 7.08	N/A
E-CMP-HPR-1/EXT-4E-2	Hopper HPR-1/EXT-4E-2 (IA)	5.21 & 7.08	N/A
E-CMP-BBU-1FE-2	Alternate Resin Bulk Bag Unloading Station (IA)	5.21 & 7.08	N/A
E-CMP-HPR-1/FE-6FE-2	Alternate Resin Feed Hopper (IA)	5.21 & 7.08	N/A
E-CMP-FE-6FE-2	Continuous Loss-in-Weight Feeder (IA)	5.21 & 7.08	N/A
E-CMP-TK-2FE-2/SED-2FE-2	Alternate Resin Day Bin with associated process separator TK-2FE-2/SED-2FE-2 (IA)	5.21 & 7.08	N/A
E-CMP-EXT-4E-2	Extruder EXT-4E-2	5.21 & 7.25	N/A
E-CMP-DR-1ED-2	Pellet Dryer DR-1ED-2 (IA)	7.08	N/A
E-CMP-HPR-2/EXT-4E-2	Hopper HPR-2/EXT-4E-2 (IA)	5.21 & 7.08	N/A
E-CMP-SED-7FE-2	Rework Process Filter Receiver SED-7FE-2 (IA)	5.21 & 7.08	N/A
E-CMP-TK-3FE-2	Rework Tank (IA)	5.21 & 7.08	N/A
E-CMP-HPR-1/ FE-8FE-2	Rework Feed Hopper, HPR-1/FE-8FE-2 (IA)	5.21 & 7.08	N/A
E-CMP-FE-8FE-2	Rework Feeder (IA)	5.21 & 7.08	N/A
E-CMP-SCR-1EC-2	Pellet Screener (IA)	7.08	N/A

U-CMP Emission Points			
Emission Point ID	**Description**	**Applicable Regulation(s)**	**Control Device**
E-CMP-HPR-1EC-2	QC Pellet Hopper No. 1 (IA)	7.08	N/A
E-CMP-HPR-2EC-2	QC Pellet Hopper No. 2 (IA)	7.08	N/A
E-CMP-HE-1T-2	Pellet Transporter/Cooler (IA)	7.08	N/A
E-CMP-P02-PELLET	Pellet Packaging Line (IA)	7.08	N/A
E-CMP-BL-RC-1/E-CMP-SED-RC1/SED-RC2	Railcar Vacuum System with Process Cyclone SED-RC1 & separator SED-RC2 (IA)	7.08	N/A
E-CMP-CT-1U-2	Cooling Tower, CT-1U-2 (IA)	7.08	N/A

ii. **Standards/Operating Limits**

1) **VOC**

(a) Regulation 7.25 establishes a plantwide VOC limit of 5 tons per year for all affected facilities, unless Best Available Control Technology (BACT) level of control is utilized to reduce the VOC emissions. Tanks TK-100 (E-LTX-TK-100) TK-111 (E-LTX-TK-111) can operate controlled or uncontrolled to meet the 5 tpy BACT Regulation 7.25 limit.

(b) For E-CMP-MI-1M-3, an evaluation of Best Available Control Technology (BACT) has been conducted. The results of the BACT analysis show there are no cost effective VOC control measures for mixer MI-1M-3. Therefore, a BACT limit required by Regulation 7.25, section 3.1 was established based on the uncontrolled potential VOC emissions of mixer MI-1M-3. Per Permit TV-13-1012 issued 12/13/2013 and Regulation 7.25, Section 2.1 and 3.1, the VOC standard is 2.10 lb/hr and 9.2 tons per 12-consecuitive month period (BACT Limit).

(c) For E-CMP-MI-1M-2/E-CMP-CLR-2C-2, E-CMP-EXT-1E-2, E-CMP-EXT-2E-2, E-CMP-EXT-3E-2, and E-CMP-EXT-4E-2, the VOC standard is 5.8 tons per 12-consecutive month period combined based on BACT analysis dated March 7, 2008, per Regulation 7.25, section 4 and Permits 333-08-C, and 336-08-C.

(d) Regulation 7.12, section 3.3, establishes the requirement for E-CMP-TK-3S to be equipped with a permanent submerged fill pipe.

2) **HAP**

(a) Permits 73-10-C and 427-06-C establish plantwide limits of less than 10 tons per 12-consecutive month period for any single HAP to be.

(b) Permits 73-10-C and 427-06-C establish plantwide of less than 25 tons per 12-consecutive month period for total HAPs.

3) **TAC**

(a) Per Regulations 5.00 and 5.21, TAC emissions must not exceed environmentally acceptable levels.

(b) Potential emissions for TACs that demonstrated to be below the *de minimis* thresholds when controlled utilized an alternative measure as defined in Regulation 5.21, section4.2.3.1; therefore, pursuant to Regulation 5.21, Section 4.3, an emission standard for TACs with a controlled PTE was established and incorporated in this permit.

4) **PM/PM_{10}/$PM_{2.5}$**

(a) Regulation 7.08, section 3.1.2 establishes PM standards. The PM standard is calculated using the following equation:

$E = 3.59 (\text{Process Weight Rate tons/hr})^{0.62}$

(a) The following construction permits establish PM standards for the following equipment:

Equipment	Construction Permit	PM Standard
E-CMP-MI-1M-2 (Mixer MI-1M-2), E-CMP-HPR-3M-2 (Chute Hopper HPR-3M-2), & E-CMP-HPR-1C-2 (Chute Hopper HPR-1C-2 Common Spare)	33415-11-C effective 11/21/11	12.00 lb/hr combined
E-CMP-CLR-2C-2 (Cooler CLR-2C-2)	33415-11-C effective 11/21/11	12.00 lb/hr

(b) The following construction permits establish PM standards for the following equipment:

5) **Opacity**

Regulation 7.08, section 3.1 establishes opacity standards.

f. **Emission Unit U-LTX:**

i. **Equipment**

U-LTX Emission Points			
Emission Point ID	**Description**	**Applicable Regulation(s)**	**Control Device**
E-LTX-RCU1	Railcar Unloading Stations No.1 through No.6	40 CFR 63 Subpart DDDDDD, STAR & 7.25 (BACT)	C-LTX-TK-FTO-1, C-LTX-TK-SCR-1, or NA
E-LTX-RCU2			
E-LTX-RCU3			
E-LTX-RCU4			
E-LTX-RCU5			
E-LTX-RCU6			
E-LTX-TK-2B (West)	Sphere TK-2B (West Sphere)	40 CFR 63 Subpart DDDDDD, STAR & 6.24	
E-LTX-TK-3B (East)	Sphere TK-3B (East Sphere)		
E-LTX-TFRU	Monomer Railcar Unloading/Loading TFRU	STAR & 6.22	N/A
E-LTX-TK-308	Tank TK-308	40 CFR 63 Subpart DDDDDD, 6.13, STAR	C-LTX-TK-FTO-1, C-LTX-TK-SCR-1, or N/A
E-LTX-TK-309	Tank TK-309		

U-LTX Emission Points			
Emission Point ID	**Description**	**Applicable Regulation(s)**	**Control Device**
E-LTX-TK-310	Tank TK-310	40 CFR 63 Subpart DDDDDD, 6.13, STAR	N/A
E-LTX-TK-311	Tank TK-311		
E-LTX-TK-312	Tank TK-312	6.13	N/A
E-LTX-TK-313	Tank TK-313	6.13	N/A
E-LTX-TK-314	Tank TK-314 (as Pressure Vessel)	6.24, 40 CFR 63 Subpart DDDDDD, & STAR	C-LTX-TK-FTO-1, C-LTX-TK-SCR
	Tank TK-314 (as Fixed Roof Storage Vessel)	40 CFR 63 Subpart DDDDDD & 6.13	
E-LTX-TFTU	Tank Farm Truck Unloading TFTU (IA)	7.25	N/A
E-LTX-B121TU	B-121 Truck Loading/ Unloading B121TU	6.22	N/A
E-LTX-TK-C12	Storage Tank TK-C12 (IA)	STAR	N/A
E-LTX-PH1TK	No. 1 pH Scale Tank (IA)	STAR	N/A
E-LTX-MON1TK	Monomer 1, MON1TK Tank	6.13	N/A
E-LTX-MON2TK	Monomer 2 MON2TK Tank (Methyl Acrylate)	6.13	N/A
E-LTX-MON3TK	Monomer 3, MON3TK Tank	STAR & 6.13	N/A
E-LTX-PLY-4	Tank PLY-4 (IA)	6.13 & STAR	N/A
E-LTX-PLY-7	Tank PLY-7	40 CFR 63 Subpart DDDDDD	C-LTX-TK-FTO-1, C-LTX-TK-SCR-1
E-LTX-PLY-19	Tank PLY-19	STAR & 7.12	N/A
E-LTX-PLY-22	Tank PLY-22	STAR & 7.12	N/A
E-LTX-PLY-20	Tank PLY-20	7.12	N/A
E-LTX-PLY-24	Tank PLY-24	7.12	N/A
E-LTX-TK-100	Miscellaneous Monomer Feed Tank TK-100	7.25 (BACT)	C-LTX-TK-FTO-1, C-LTX-TK-SCR-1
E-LTX-PLY-13	Tank PLY-13 (IA)	STAR & 7.25	N/A
E-LTX-PLY-15	Tank PLY-15 (IA)	STAR & 7.25	N/A
E-LTX-PLY-3	Tank PLY-3 (IA)	STAR & 7.25	N/A
E-LTX-PLY-9	Tank PLY-9 (IA)	STAR & 7.25	N/A
E-LTX-PLY-10	Tank PLY-10 (IA)	STAR & 7.25	N/A
E-LTX-PLY-11	Tank PLY-11 (IA)	STAR & 7.25	N/A
E-LTX-PLY-12	Tank PLY-12 (IA)	STAR & 7.25	N/A
E-LTX-PLY-21	Tank PLY-21 (IA)	STAR & 7.25	N/A
E-LTX-PLY-23	Tank PLY-23 (IA)	STAR & 7.25	N/A
E-LTX-GLS-18TKE	GLS-18 East Tank, 18TKE (IA)	STAR	N/A
E-LTX-GLS-18TKW	GLS-18 West Tank, 18TKW (IA)	STAR	N/A
E-LTX-TK-501	Tank TK-501	7.12	N/A
E-LTX-PLY-17	Tank PLY-17	6.13	N/A
E-LTX-PLY-18	Tank PLY-18	6.13	N/A
E-LTX-TK-SOP-1	Tank TK-SOP-1	7.12	N/A
E-LTX-SCLTK1	Scale Tank No. 1 (IA)	6.13	N/A
E-LTX-SCLTK2	Scale Tank No. 2 (IA)	6.13	N/A
E-LTX-TK-106	Tank TK-106 (Formerly SCLTK3) (IA)	6.13	N/A
E-LTX-SCLTK4	Scale Tank No. 4 (IA)	6.13	N/A
E-LTX-SCLTK5	Scale Tank No. 5 (less than 250 gal) (IA)	6.13 & 1.02	N/A
E-LTX-SCLTK6	Scale Tank No. 6 (less than 250 gal) (IA)	6.13 & 1.02	N/A

U-LTX Emission Points			
Emission Point ID	**Description**	**Applicable Regulation(s)**	**Control Device**
E-LTX-TK-200	TK-200 (formerly SCLTK7) (less than 250 gal) (IA)	6.13 & 1.02	N/A
E-LTX-SCLTK8	Scale Tank No. 8 (less than 250 gal) (IA)	6.13 & 1.02	N/A
E-LTX-TK-110	Tank, TK-110 (IA)	7.12 & STAR	N/A
E-LTX-TK-111	Miscellaneous Monomer Feed Tank TK-111	7.25 (BACT)	C-LTX-TK-FTO-1, C-LTX-TK-SCR-1
E-LTX-PLY-5	Tank, PLY-5 (IA)	STAR & 7.25	N/A
E-LTX-PLY-25	Polymerizer PLY-25	STAR, 6.24 & 40 CFR 63 Subpart DDDDDD	C-LTX-TK-FTO-1, C-LTX-TK-SCR-1
E-LTX-PLY-26	Polymerizer PLY-26		
E-LTX-PLY-27	Polymerizer PLY-27	STAR, 6.24 & 40 CFR 63 Subpart DDDDDD	C-LTX-TK-FTO-1, C-LTX-TK-SCR-1
E-LTX-PLY-28	Polymerizer PLY-28		
E-LTX-PLY-29	Polymerizer PLY-29	STAR, 7.25 (BACT) & 40 CFR 63 Subpart DDDDDD	
E-LTX-PLY-30	Polymerizer PLY-30		
E-LTX-PLY-31	Polymerizer PLY-31	STAR, 6.24 & 40 CFR 63 Subpart DDDDDD	C-LTX-TK-FTO-1, C-LTX-TK-SCR-1
E-LTX-PLY-32	Polymerizer PLY-32		
E-LTX-PLY-37	Polymerizer PLY-37		
E-LTX-PLY-38	Polymerizer PLY-38		
E-LTX-PLY-39	Polymerizer PLY-39	STAR, 7.25 (BACT) & 40 CFR 63 Subpart DDDDDD	C-LTX-TK-FTO-1, C-LTX-TK-SCR-1
E-LTX-PLY-40	Polymerizer PLY-40		
E-LTX-PLY-45	Polymerizer PLY-45		
E-LTX-PLY-46	Polymerizer PLY-46	STAR, 6.24 & 40 CFR 63 Subpart DDDDDD	
E-LTX-PLY-47	Polymerizer PLY-47	STAR, 7.25 (BACT) & 40 CFR 63 Subpart DDDDDD	
E-LTX-PLY-48	Polymerizer PLY-48	STAR, 6.24 & 40 CFR 63 Subpart DDDDDD	C-LTX-TK-FTO-1, C-LTX-TK-SCR-1
E-LTX-STR-6	No. 6 Stripper & Knock-Out Tank		
E-LTX-FKOTK-6			
E-LTX-STR-7	No. 7 Stripper & Knock-Out Tank		
E-LTX-FKOTK-7			
E-LTX-STR-8	No. 8 Stripper & Knock-Out Tank		
E-LTX-FKOTK-8			
E-LTX-STR-9	No. 9 Stripper & Knock-Out Tank		
E-LTX-FKOTK-9			
E-LTX-STR-10	No. 10 Stripper & Knock-Out Tank		
E-LTX-FKOTK-10			
E-LTX-STR-2	No. 2 Stripper & Knock-Out Tank		
E-LTX-FKOTK-2			
E-LTX-PLY-33	Plastic Autoclave PLY-33 (IA)	STAR	N/A
E-LTX-PLY-34	Plastic Autoclave PLY-34 (IA)	STAR	N/A
E-LTX-PLY-35,	Plastic Autoclave PLY-35 (IA)	STAR	N/A
E-LTX-PLY-36	Plastic Autoclave PLY-36 ((IA))	STAR	N/A
E-LTX-#5BRPTK	No. 5 Burp Tank & Knock-Out Tank	STAR, 6.24 & 40 CFR 63 Subpart DDDDDD	C-LTX-TK-FTO-1, C-LTX-TK-SCR-1
E-LTX-#5FKOTK			
E-LTX-TK-13C	Wastewater Accumulator Tank TK-13C		

U-LTX Emission Points			
Emission Point ID	**Description**	**Applicable Regulation(s)**	**Control Device**
E-LTX-18TK	No. 18 Tank (IA)[2]	STAR	N/A
E-LTX-19TK	No. 19 Tank(IA)[2]	STAR	N/A
E-LTX-20TK	No. 20 Tank(IA)[2]	STAR	N/A
E-LTX-8TK	No. 8 Tank (IA) [2]	STAR & 7.25	N/A
E-LTX-9TK	No. 9 Tank (IA) [2]	STAR & 7.25	N/A
E-LTX-10TK	Latex Storage Tank TK-10 through TK-15 (IA)[2]	STAR	N/A
E-LTX-11TK		STAR	N/A
E-LTX-12TK		STAR	N/A
E-LTX-13TK		STAR	N/A
E-LTX-14TK		STAR	N/A
E-LTX-15TK		STAR	N/A
E-LTX-SPBT	South Poly Blend Tank (SPBT) (IA)[2]	STAR	N/A
E-LTX-NPBT	North Poly Blend Tank (NPBT) (IA)[2]	STAR	N/A
E-LTX-21TK	B-125 Latex Storage Tanks #21 through #24 (IA)[2]	STAR	N/A
E-LTX-22TK			
E-LTX-23TK			
E-LTX-24TK			
E-LTX-TK-125	Latex Storage Tank TK-125 (IA)[2]	STAR & 7.25	N/A
E-LTX-BLKLDG	Three (3) Truck & Two (2) Railcar Latex Loading Stations	STAR & 7.25	N/A
E-LTX-DRM-116	B-116 Latex Drumming Line	STAR & 7.25	N/A
E-LTX-FUG	U-LTX Fugitive Emissions	40 CFR 63 Subpart UU & STAR	N/A
U-LTX-VY-CT-01	North Vycar Cooling Tower, Induced Draft (IA)	7.08	N/A
U-LTX-VY-CT-02	South Vycar Cooling Tower, Induced Draft (IA)	7.08	N/A
E-LTX-TK-01Z	Wastewater discharge hold tanks TK-01Z & TK-02Z (IA)	7.25	N/A
E-LTX-TK-02Z			
E-LTX-RCVRY	Custom designed closed pressure/ vacuum system consisting of the following: 1. West Recovery Seal Water Tank, SE-22 2. East Recovery Seal Water Tank, SE-21 3. South Foam Knock-Out Tank, SFKOTK 4. Surge Tank, TK-2L 5. Knock-Out Tank, TK-1L (optional) 6. Tank, TK-3L (optional) 7. Heat Exchanger, HE-1C 8. Heat Exchanger, HE-1D 9. Heat Exchanger, HE-21	40 CFR 63 Subpart DDDDDD, 6.24 & STAR	C-LTX-TK-FTO-1, C-LTX-TK-SCR-1

[2] Tanks E-LTX-8TK though E-LTX-15TK, E-LTX-18TK through E-LTX-24TK, E-LTX-SPBT, E-LTX-NPBT, E-LTX-TK-125 are not considered "in HAP service" as defined by 40 CFR 63.12005 since the contents of the tanks are less than 5% percent HAP by weight.

ii. **Standards/Operating Limits**

1) **VOC**

(a) Regulation 7.25 establishes a plantwide VOC limit of 5 tons per year for all affected facilities, unless Best Available Control Technology (BACT) level of control is utilized to reduce the VOC emissions.

(b) Construction Permit 73-10-C established a limit of 1.0 tons per 12-consecutive month period for EP E-LTX-RCU1 through E-LTX-RCU6.

(c) Construction Permit 43-98-C established the FTO as BACT for E-LTX-TK-100, E-LTX-PLY-29, E-LTX-PLY-30, E-LTX-PLY-39, E-LTX-PLY-40, E-LTX-PLY-45, E-LTX-PLY-47, & E-LTX-TK-111.

(d) Regulation 6.24 limits the pound per hour and pound per day emissions of Class II and Class III solvents, unless the emissions are reduced by at least 85%.

(e) Regulation 6.22 establishes requirements for submerged fill when loading more than 200 gallons, but less than 20,000 gallons per day of volatile organic materials into tank trucks, trailers, or railroad tank cars and a control device with 90% reduction when loading more than 20,000 gallons of volatile organic materials per day.

(f) Regulations 6.13 and 7.12 establish requirements for storage vessels greater than 250 gallons for volatile organic compounds. Regulation 7.12/6.13, section 3.3 require submerged fill if the materials have an as stored vapor pressure of 1.5 psia or greater. There are no applicable emission or equipment standards if the vapor pressure as stored is less than 1.5 psia.

2) **HAP**

(a) 40 CFR 63 Subpart DDDDDD establishes standards for area source vinyl chloride plants.

(b) Permits 73-10-C and 427-06-C established a plantwide 10 tpy limit for Single HAPs and a 25 tpy limit for Total HAPs.

(c) Board Order 07-03 establishes the requirement to install speed switches on each reactor.

3) **$PM/PM_{10}/PM_{2.5}$**

Regulation 7.08, section 3.1.2 establishes PM standards.

4) **Opacity**

Regulation 7.08, section 3.1 establishes opacity standards.

5) **TAC**

(a) Per Regulations 5.00 and 5.21, TAC emissions must not

exceed environmentally acceptable levels.

(b) Potential emissions for TACs that demonstrated to be below the *de minimis* thresholds when controlled utilized an alternative measure as defined in Regulation 5.21, section4.2.3.1; therefore, pursuant to Regulation 5.21, Section 4.3, an emission standard for TACs with a controlled PTE was established and incorporated in this permit.

(c) Regulation 5.21 establishes requirements for TACs that are not *de minimis* to be environmentally acceptable. The emission rate of 300 pounds per 12-consecutive month period is calculated from the pound per hour emission rate in the updated STAR Risk Modeling Report received February 17, 2017, multiplied by 8760 hours per year.

g. **Emission Unit U-ICE:**

i. **Equipment**

Emission Point ID	Description	Applicable Regulation(s)
E-ICE-RES-MSC-GEN01	Building 178 Non-Emergency Propane Generator, 164 bHP, 85 KW, Spark Ignition, 4 stroke lean burn, 5/13/2008	40 CFR 63 Subpart ZZZZ STAR
E-ICE-RES-MSC-GEN02	Building 173 GC Non-Emergency Generator, 164 bHP, 85 KW, Spark Ignition, 4 stroke lean burn, 5/13/2008	
E-ICE-RES-MSC-GEN03	Emergency Natural Gas Generator, MSC-GEN03, 477 BHp, 300 kW, 4 stroke, June 9, 2015	40 CFR 63 Subpart ZZZZ 40 CFR Part 60 Subpart JJJJ STAR
E-ICE-RES-MSC-GEN04	Emergency Natural Gas Generator, MSC-GEN04, 149 BHp, 100 KW, 4 stroke, June 9, 2015	
E-ICE-CMP-MSC-GEN01	Building 31 Non-Emergency Propane Generator, 74 bHP, 55 KW, Spark Ignition, 4 stroke lean burn, 9/4/2005	40 CFR 63 Subpart ZZZZ and STAR
E-ICE-CMP-MSC-GEN02	Building 38 Non-Emergency Propane Generator, 74 bHP, 55 KW, Spark Ignition, 4 stroke lean burn, 9/4/2005	
E-ICE-FAC-Z1GEN02	EOC Non-Emergency Propane Generator, PVC-MSC-GEN, 40 bHP, 30 KW, Spark Ignition, lean burn, manufactured on 11/11/2005	40 CFR 63 Subpart ZZZZ and STAR
E-ICE-LTX-PVC-MSC-GEN	Building 121 Non-Emergency Natural Gas Generator, 176 bHP, 100 KW, Spark Ignition, 4 stroke lean burn, 11/29/2005	
E-ICE-LTX-GEN-01	East Emergency Generator with 670 gallon internal Diesel Tank, GEN-001, 1480 bHP, 1000 KW, 16 cylinder, 1980s	40 CFR 63 Subpart ZZZZ 40 CFR 60 Subpart IIII STAR
E-LTX-GEN-002	North Emergency Generator with two 192 gallon internal Diesel Tanks, GEN-002, 140 bHp, 1,000 KW, 16 cylinders, 1980s	
E-LTX-GEN-003	South Emergency Generator with two 162 gallon internal Diesel Tanks, GEN-003, 140 bHp, 1,000 KW, 16 cylinders, 1980s	

Emission Point ID	Description	Applicable Regulation(s)
E-MSC-FAC-Z1GEN01	Wastewater Non-Emergency Generator (755 bHP, 563 KW) with internal 850 gallon diesel fuel tank.	40 CFR 63 Subpart ZZZZ, 40 CFR 60 Subpart IIII, and STAR
E-MSC-FAC-FIREPUMPS-B108	Building 108 Diesel Fire Pump, FAC-FIREPUMPS-108, 305 bHP, 2013	40 CFR 63 Subpart ZZZZ, 40 CFR 60 Subpart IIII 60.4205(c), 60.4207
E-MSC-FAC-FIREPUMPS-B178	Building 178 Diesel Fire Pump, FAC-FIREPUMPS-178, 175 bHP, 131KW, 1.13 litter/cylinder manufactured February 2007	
E-ICE-FAC-Z1PU9Z	Wastewater Diesel Pump, 110 bHP, 82 KW, 1.13 liter/cylinder manufactured 2010 (IA)	40 CFR 63 Subpart ZZZZ 40 CFR 60 Subpart IIII 60.4204(b) (40 CFR 89.112(a) Table 1 as referenced from 40 CFR 60 Subpart IIII)

ii. **Standards/Operating Limits**

1) **Unit Operation**

(a) Regulations 40 CFR 60 Subpart IIII establishes standards for Applies to stationary CI internal combustion engines that commences construction after July 11, 2005.

(b) 40 CFR 60 Subpart JJJJ establishes standards for manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE).

(c) 40 CFR 63 Subpart ZZZZ establishes standards for national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions.

2) **TAC**

(a) The 400 hours per year (alternative measure per Regulation 5.21, section 4.3) limits the diesel emissions to 53 lb diesel PM/12-consecutive month period which is based on the modeled emission rate of 0.0007664 grams/second (0.006 lb/hr = 53 lb diesel PM/12-consecutive month period) from the EA demonstration received August 31, 2012.

h. **Emission Unit U-MSC:**

i. **Equipment**

U-MSC Emission Processes

Emission Process ID	Description	Applicable Regulation(s)
E-MSC-PRTWSH	Maintenance Parts Washers/Cleaners	6.18

ii. **Standards/Operating Limits**

VOC

Per Regulation 6.18, the owner or operator shall install, maintain, observe specific operating requirements, and shall not operate a cold cleaner using a solvent with a vapor pressure that exceeds 1.0 mm Hg (0.019 psi) measured at 20°C (68°F).

III. Other Requirements

1. Temporary Sources: The source did not request to operate any temporary facilities.

2. Short Term Activities: The source did not report any short term activities.

3. Emissions Trading: The source is not subject to any plantwide emission or operating caps.

4. Alternative Operating Scenarios: The source requested two operating scenarios in its Title V Permit Application. Both operating scenarios, one for raw material flexibility and one for equipment use, allow the source to use new raw materials and move equipment around in the facility as long as TACs remain *de minimis*, do not result in an increase in a non-*de minimis* TAC, the source remains environmentally acceptable, and the new raw material does not trigger a permit modification or a construction permit.

5. Compliance History

Incident	Incident Date(s)	Regulation Violated	Result
830058	3/28/1983	1.07, Section	Settled
		6.07, Section 3	
840056	5/15/1984	1.07, Section 3	Settled
02386	12/21/00	7.18	Settled
02242	6/1/00	5.02 – Vinyl Chloride NESHAP	Board Order 4/18/01
03596	6/25/03	1.09	Settled
03222	10/2/02	5.02 – Vinyl Chloride NESHAP	Board Order 8/15/07
03273	10/7/02	5.02 – Vinyl Chloride NESHAP	
03279	1/09/03	5.02 – Vinyl Chloride NESHAP	
03724	5/21/04	5.02 – Vinyl Chloride NESHAP	
		2.16	
03348	5/9/03	6.14	Board Order 8/15/07
03651	3/3/04	2.16	
03884	11/30/04	5.02	
05317	2/18/10	2.16	Board Order 8/17/11
06058	5/30/11	2.16	Settled

6. Non-Emission Unit-Specific Insignificant Activities

Insignificant Activities	
Description	**Basis**
Portable Maintenance Gasoline/Diesel Fuel Tanks (< 500 gallon capacity each)	1.02, Appendix A, Section 3.23

1) Insignificant Activities identified in District Regulation 1.02 Appendix A may be subject to size or production rate disclosure requirements pursuant to Regulation 2.16 section 3.5.4.1.4.

2) Insignificant Activities identified in District Regulation 1.02 Appendix A shall comply with generally applicable requirements as required by Regulation 2.16 section 4.1.9.4.

3) The Insignificant Activities Table is correct as of the date the permit was proposed for review by U.S. EPA, Region 4.

4) Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.

5) The owner or operator shall submit an updated list of insignificant activities that occurred during the preceding year pursuant to Regulation 2.16 section 4.3.5.3.6.

6) The owner or operator may elect to monitor actual throughputs for each of the insignificant activities and calculate actual annual emissions or use Potential to Emit (PTE) to be reported on the annual emission inventory.

7) The District has determined pursuant to Regulation 2.16 section 4.1.9.4 that no monitoring, record keeping, or reporting requirements apply to the insignificant activities listed, except for the equipment that has an applicable regulation and permitted under an insignificant activity (IA) unit.