



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



13 March 2018

Title V Statement of Basis

Owner: Allnex USA, Inc.

Source: Allnex USA, Inc.

Plant Location: 4730 Crittenden Drive, Louisville, Kentucky 40209

Date Application Received: See Table 8

Date Admin Complete: 03/11/2016

Date of Draft Permit: 03/05/2017; 01/25/2018

Date of Proposed Permit: 05 March 2017

District Engineer: Randy Schoenbaechler

Permit No: O-0185-17-V(R1)

Plant ID: 0185

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 administrative revision is to update the company name and ownership. The STAR Risk table is being updated to remove risk values for equipment no longer at the company.

Jefferson County is classified as an attainment area for lead (Pb), nitrogen dioxide (NO₂), carbon monoxide (CO), 1 hr and 8 hr ozone (O₃), and particulate matter less than 10 microns (PM₁₀); and is unclassifiable for the 2012 standard for particulate matter less than 2.5 microns (PM_{2.5}) and partial non-attainment area for sulfur dioxide (SO₂).

Application Type/Permit Activity:

- Initial Issuance
- Permit Revision
 - Administrative
 - Minor
 - Significant
- Permit Renewal

Compliance Summary:

- Compliance certification signed
- Source is out of compliance
- Compliance schedule included
- Source is operating in compliance

I. Source Information

1. **Product Description:** Allnex USA, Inc. manufactures synthetic resins including Acrylic, Alkyd, Polyester, Amino and Copolymer.
2. **Process Description:** Liquid raw materials such as solvents, acids, oils, and polyols are used in the production of resins. Bulk liquid raw materials are stored in outdoor above-ground storage tanks. Raw solid materials are received in drum quantities and stored in the onsite raw material warehouse. The resin manufacturing process consists of mixing solvents, monomers, and catalysts in a reactor. The contents of the reactor are heated to a set point temperature for a specified length of time to achieve a complete reaction. The resin is transferred to a thindown tank where additional solvent is added to adjust product quality. The resin is filtered and transferred to tank wagons, storage tanks or 55 gallon drums. Raw materials include solvents, resins, pigments and additives. The process includes premix, pigment grinding and dispersing, thindown and product fill-off.
3. **Site Determination:** There are no other facilities that are contiguous or adjacent and under common control.
4. **Emission Unit Summary:**

Emission Unit	Equipment Description
Plantwide	Conditions applicable to the facility plantwide
U3	Resin production facility for amino and alkyd resins
U4	Resin production facility for synthetic resins including Acrylic, Alkyd, Polyester, and Copolymer
U5	Resin production facility for synthetic resins including Acrylic, Alkyd, Polyester, and Copolymer
U6	Resin production facility for synthetic resins including Acrylic, Alkyd, Polyester, and Copolymer
U7	Thindown tanks
U8	Bulk Storage Tanks
U9	Resin Filtering
U10	Bulk loading facility for loading various resin products and organic compounds into tank trucks
U14	Building 3, Mix & Blend Resin Facility (Formerly PD2 Building Coating Manufacturing)
U15	Natural Gas Fired Boilers
U17	Drum Filling Station for loading various resin products and organic compounds into drums

5. **Fugitive Sources:** There are fugitive emissions from Resin Filtering, Resin Product Fill-off, and Equipment Leaks at this source.

6. **Permit Revisions:**

Revision No.	Permit No.	Issue Date	Public Notice Date	Change Type	Change Scope	Description
Initial	120-97-TV	10/05/2000	6/25/2000	Initial	Entire Permit	Initial Permit Issuance
R1	120-97-TV	09/04/2009	NA	Admin Revision	Entire Permit	Incorporating Construction permits 85-01, 125-02, and 126-02. Adding 40 CFR 63 Subpart OOO conditions, deleting unit U12 (Solvent recovery), and changing responsible official
R2	120-97-TV	07/15/2011	02/12/2011	Renewal	Entire Permit	Changed permit from FEDOOP back to Title V. Changed U21 cold solvent parts washer to cleaning operation.
NA	O-0185-17-V	04/07/2017	03/05/2017	Renewal	Entire Permit	Permit Renewal; Rolled in 2 construction permits both for natural gas heat exchangers (E170 and E246) in Unit 15; and installation two new storage tanks (E254 and E255) in Unit 8.
R1	O-0185-17-V	03/13/2018	01/25/2018	Admin Revision	Cover page; and STAR tables in Plantwide Emission Unit.	Plant/Facility ownership/name change to Allnex USA, Inc., formerly Nuplex Industries. Corrected Star Risk Table

7. Construction Permit History since Last Title V Permit Renewal:

Permit No.	Effective Date	Description
TV-14-1011-C	08/20/2011	One (1) 10.0 MMBtu/hr natural gas Boiler, Model TH2500, manufactured by Performance designated as Emission Point E246.
33830-11-C	12/21/2011	One (1) 10.46 MMBtu/hr natural gas boiler, manufactured by Sellers designated at Emission Point E170

8. Permit Renewal-Related Documents

Application No.	Date	Description
75498	2/26/2016	Title V Permit Renewal Application
75846	3/11/2016	TV Application Completeness Letter
76983	5/03/2016	Construction Application for two storage tanks
77242	5/12/2016	Information request for storage tanks
77632	6/06/2016	IA Determination for storage tanks
78495	7/11/2016	PTE submittal
78497	7/14/2016	PTE questions
80607	7/29/2016	MACT applicability correspondence
78842	8/08/2016	Revised PTE with PM and responses
79055	8/24/2014	PTE responses
79649	9/27/2016	Revised PTE with clarifications
80143	10/17/2016	Revised PTE including IA calculations
80728	12/5/2016	Revised PTE and explanations
80854	12/5/2016	District approved Plantwide PTE
81144	1/06/2017	Information request
81273	1/10/2017	Insignificant Activities update request
81339	1/17/2017	Updated IA list
81344	1/18/2017	Updated IA form
82215	2/23/2017	Pre-Draft review of TV permit and SofB
82260	3/02/2017	Company Name info
82265	3/02/2017	Company comments on Draft Title V Permit and Statement of Basis for review prior to public notice
82275	3/02/2017	Response to Comments on draft Title V permit ID 185
82276	3/02/2017	Draft Title V Permit and Statement of Basis for review prior to public notice
90018	01/05/2018	Administrative Change: Plant/Facility change of name and ownership

Application No.	Date	Description
90091 & 90092	01/17/2018	Company Comments and District Response

9. Emission Summary:

Pollutant*	District Calculated Actual Emissions (tpy) 2016 Data	Pollutant that triggered Major Source Status (based on PTE)
CO	2.466	No
NO _x	2.94	No
SO ₂	0.0176	No
PM ₁₀	0.0631	No
VOC	5.4411	No
Total HAPs	1.72	No
Single HAP > 1 tpy		
Toluene	0.95	No
Greenhouse Gas	8,165** CO ₂ e	No

*This company is Title V due to the EPA “once in always in” policy for 40 CFR 63 Subpart OOO

**This is the plantwide PTE for greenhouse gases.

10. Applicable Requirements:

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

11. Referenced MACT Federal Regulations: This plant is a major source for HAPs that manufactures amino resins and is subject to 40 CFR Part 63, Subpart OOO - Amino/Phenolic Resin Manufacturing.

40 CFR Part 63 Subpart A General Provisions
 40 CFR Part 63 Subpart OOO Amino/Phenol Resin Manufacturing

12. Referenced non-MACT Federal Regulations:

40 CFR Part 60 Subpart A General Provisions
 40 CFR Part 60 Subpart Dc—Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
 40 CFR Part 60 Subpart Kb Standards of Performance for Volatile Organic Liquid Storage Vessels for Petroleum Liquids (After July 23, 1984)

40 CFR Part 68 Subparts A-H Chemical Accident Prevention Provisions

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 use, store, or 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. The source accepted a limit for ammonia in order to be exempt from Regulation 5.15.
4. **40 CFR Part 64 Applicability Determination:** Allnex USA, Inc. is not subject to 40 CFR Part 64 - Compliance Assurance Monitoring for Major Stationary Sources.
5. **Basis of Regulation Applicability**

- a. **Plantwide**

Allnex USA, Inc. is a Title V major source due to the EPA "once in always in" policy for 40 CFR 63 Subpart OOO and subject to Regulation 2.16 - *Title V Operating Permits which* establishes requirements for major sources.

With the issuance of this Title V permit, the source is subject to a plantwide individual HAP emission limit of less than 10 tons during any consecutive 12-month period. The source is also subject to a plantwide total combined HAP emission limit of less than 25 tons during any consecutive 12-month period. The source shall maintain monthly records including calculations that show the calendar month and rolling 12-month plantwide emissions of each individual HAP and total HAP emissions. The source shall report the monthly and consecutive 12-month plantwide emissions of each individual HAP and total HAP for each month in the reporting period. The HAP emission limits were taken to avoid applicability of 40 CFR 63 Subpart FFFF Miscellaneous Organic NESHAP(MON). The limits will ensure that the source remains a synthetic minor source for HAPs for future standards promulgated under 40 CFR 63. The source is subject to 40 CFR 63 Subpart OOO, National Emission Standards for Hazardous Air Pollutant Emissions: Manufacture of Amino/Phenolic Resins.

Per District operating permit 40-08-F effective 2/29/2008 the source is subject to a plantwide VOC emission limit of less than 50 tons during any consecutive 12-month period. The source shall calculate, record and report the plantwide monthly and consecutive 12-month total VOC emissions for each month in the reporting period.

Per District operating permit 40-08-F effective 2/29/2008 the source is subject to a plantwide PM/PM₁₀ emission limit of 50 tons during any consecutive 12-month period. The source shall calculate, record and report the plantwide monthly and consecutive 12-month total PM emissions for each month in the reporting period.

Regulation 7.25 limits the plantwide VOC emissions, including all coatings, additives, catalysts, solvents, thinners, and cleaners to less than 25 tons during any consecutive 12-month period.

This permit establishes monitoring, record keeping, and reporting requirements to demonstrate compliance with the requirements of District Regulation 1.13 - Control of Objectionable Odors in the Ambient Air.

Regulations 5.00 5.20, 5.21, 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 STAR Category 1 TAC EA Demonstration was received on December 22, 2006 and subsequent requested information was submitted on June 19, 2007 and October 17, 2008. The STAR Category 2 TAC EA Demonstration was received on April 2, 2008. Upon review by the District the following table demonstrates that the carcinogen risk and non-carcinogen risk values comply with the STAR EA goals required in Regulation 5.21. Modeling values and determinations of *de minimis* emission values by the company were reported based on uncontrolled potential to emit with one “primary” condenser for each reactor considered a process condenser and any secondary or tertiary condensers considered to be control devices.

Plantwide Sum	All P/PE		All new P/PE	
Industrial Total R _C	0.23	< 75	0	< 38
Non-Ind. Total R _C	0.01	< 7.5	0	< 3.8
Industrial Total R _{NC} (max)*	0.002	< 3.0		
Non-Ind. Total R _{NC} (max)	0.0001	< 1.0		

	Building 4 Fugitives				Bulk UF-85 Storage Tank				Reactor K6			
	Industrial		Non-Ind.		Industrial		Non-Ind.		Industrial		Non-Ind.	
TAC	R _C	R _{NC}	R _C	R _{NC}	R _C	R _{NC}	R _C	R _{NC}	R _C	R _{NC}	R _C	R _{NC}

	Building 4 Fugitives				Bulk UF-85 Storage Tank				Reactor K6			
	Industrial		Non-Ind.		Industrial		Non-Ind.		Industrial		Non-Ind.	
Plant-wide Total Risk	3E-02		1E-03		2E-02		1E-03		2E-01		8E-03	
Formaldehyde	3E-02	3E-04	1E-03	1E-05	2E-02	2E-04	1E-03	1E-05	2E-01	1E-03	8E-03	7E-05

Regulation 2.16, section 4.1.9.1 and 4.1.9.2 requires 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 shall submit an annual compliance certification by April 15 of the following calendar year. 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.

b. Emission Units

Emission Unit U3: Resin Production Facility for Amino and Alkyd Resins

Emission Point	Description	Installation Date	Applicable Regulation
E12	One (1) 850 gallon K6 weigh tank, TK-60	1980	STAR*, 7.25, 40 CFR 63 Subpart OOO
E13	One (1) 2,100 gallon K6 weigh tank, TK-62	1953	STAR*, 6.24, 40 CFR 63 Subpart OOO
E14	One (1) 3,000 gallon K6 recycle tank, TK-63	1953	STAR*, 6.24, 40 CFR 63 Subpart OOO
E15	One (1) 5,000 gallon K6 reactor, RX-06, with reflux condenser C5	1967	STAR*, 6.09, 6.24, 40 CFR 63 Subpart OOO
E10	One (1) 7,800 gallon K6 catch tank KO-50	1983	STAR*, 7.25, 40 CFR 63 Subpart OOO
E214	One (1) 500 gallon K6 recycle weigh tank, TK-61	1953	STAR*, 7.25, 40 CFR 63 Subpart OOO

Emission Point	Description	Installation Date	Applicable Regulation
E15-a	One (1) packed tower separator system to recycle alcohols back into the process from K6 reactor	1967	STAR*, 7.25, 40 CFR 63 Subpart OOO
BLDG4	Building 4 fugitive emissions	NA	STAR*

* Strategic Toxic Air Reduction (Includes District Regulations 5.00, 5.01, 5.20, 5.21, 5.22, & 5.23)

Emission Unit U4: Resin production facility for synthetic resins including Acrylic, Alkyd, Polyester, and Copolymer

Emission Point	Description	Installation Date	Applicable Regulation
E16	One (1) 200 gallon K8/K9 catalyst tank, TK-81	1996	STAR*, 7.25
E17	One (1) 2,500 gallon K8 weigh tank, TK-80	1980	STAR*, 7.25
E18	One (1) 5,500 gallon K8 reactor, RX-08, with reflux condenser C6	1973	STAR*, 6.09, 6.24
E19	One (1) 10,000 gallon K8/K9 catch tank, KO-80, 1996	1967	STAR*, 7.25

* Strategic Toxic Air Reduction (Includes District Regulations 5.00, 5.01, 5.20, 5.21, 5.22, & 5.23)

Emission Unit U5: Resin Production Facility for Synthetic Resins including Acrylic, Alkyd, Polyester, and Copolymer

Emission Point	Description	Installation Date	Applicable Regulation
E20	One (1) 1,500 gallon K9 weigh tank, TK-90	1980	STAR*, 7.25
E21	One (1) 2,230 gallon heated weigh tank, TK-91	1980	STAR*, 7.25
E23	One (1) 3,000 gallon K9 reactor, RX-09, with reflux condenser C7	1993	STAR*, 7.08, 7.25

* Strategic Toxic Air Reduction (Includes District Regulations 5.00, 5.01, 5.20, 5.21, 5.22, & 5.23)

Emission Unit U6: Resin production facility for synthetic resins including Acrylic, Alkyd, Polyester, and Copolymer

Emission Point	Description	Installation Date	Applicable Regulation
E24	One (1) 1,200 gallon K10 weigh tank, TK-10	1980	STAR*, 7.25

Emission Point	Description	Installation Date	Applicable Regulation
E25	One (1) 1,600 gallon K10 reactor, RX-10, with reflux condenser C9	1995	STAR*, 7.08, 7.25
E26	One (1) 1,600 gallon K10 catch tank, KO-10	1996	STAR*, 7.25

* Strategic Toxic Air Reduction (Includes District Regulations 5.00, 5.01, 5.20, 5.21, 5.22, & 5.23)

Emission Unit U7: Thindown Tanks

Emission Point	Description	Installation Date	Applicable Regulation
E83	One (1) Thindown tanks, TT-01, TT-02 & TT-03, 8,000 gallons each	1988	STAR*, 7.25
E84	One (1) Thindown tanks, TT-01, TT-02 & TT-03, 8,000 gallons each	1988	STAR*, 7.25
E85	One (1) Thindown tanks, TT-01, TT-02 & TT-03, 8,000 gallons each	1988	STAR*, 7.25
E86	One (1) Thindown tanks, TT-04, TT-05 & TT-06, 8,500 gallons each	1988	STAR*, 6.24
E87	One (1) Thindown tanks, TT-04, TT-05 & TT-06, 8,500 gallons each	1988	STAR*, 6.24
E88	One (1) Thindown tanks, TT-04, TT-05 & TT-06, 8,500 gallons each	1988	STAR*, 6.24
E31	One (1) Thindown tanks, TT-07, TT-08 & TT-09, 5,076 gallons each	1966	STAR*, 6.24, 40 CFR 63 Subpart OOO
E32	One (1) Thindown tanks, TT-07, TT-08 & TT-09, 5,076 gallons each	1966	STAR*, 6.24, 40 CFR 63 Subpart OOO
E33	One (1) Thindown tanks, TT-07, TT-08 & TT-09, 5,076 gallons each	1966	STAR*, 6.24, 40 CFR 63 Subpart OOO
E34	One (1) 5,076 gallon Thindown tank, TT-10	1966	STAR*, 6.24
E35	One (1) Thindown tank, TT-11 10,486 gallons	1966	STAR*, 6.24
E36	One (1) storage tank, 10,486 gallons	1966	STAR*, 6.24
E172	One (1) 8,500 gallon Thindown tank, TT-13	1988	STAR*, 7.25

* Strategic Toxic Air Reduction (Includes District Regulations 5.00, 5.01, 5.20, 5.21, 5.22, & 5.23)

Emission Unit U8: Bulk Storage Tanks

Emission Point	Description	Installation Date	Applicable Regulation
E176-E194	Nineteen (19) storage tanks, ST-01 - ST-19, 7,800 gallons each	1998	STAR*, 7.12
E195-E200	Six (6) storage tanks, ST-20 - ST-25, 7,800 gallons each	1998	STAR*, 7.12, 40 CFR 63 Subpart OOO
E220	One (1) 15,000 gallon storage tank, HW-01	1980	STAR*, 6.13
E163-E168	Six (6) storage tanks, RT-106 - RT-111, 5,890 gallons each	1974	STAR*, 6.13
E230-E231	Two (2) storage tanks, BT-01 & BT-02, 2,611 gallons each	1950	STAR*, 6.13
E215	One (1) 5,200 gallon storage tank, BT-04	1950	STAR*, 6.13
E216	One (1) 6,372 gallon storage tank, BT-05	1950	STAR*, 6.13
E40-E41	Two (2) storage tanks, BT-A and BT-B, 4,200 gallons each	1950	STAR*, 6.13
E43	One (1) 2,573 gallon storage tank, BT-D	1950	STAR*, 6.13
E44-E46	Three (3) storage tanks, BT-E, BT-F & BT-G, 2,573 gallons each	1974	STAR*, 6.13
E48	One (1) 5,100 gallon storage tank, BT-I	1974	STAR*, 6.13
E47, E49	Two (2) storage tanks, RM-H & RM-J, 5,100 gallons each	1950	STAR*, 6.13
E96-E97	Two (2) storage tanks, RT-112 and RT-113, 10,000 gallons each	1966	STAR*, 6.13
E99	One (1) 8,000 gallon storage tank, RT-116	1971	STAR*, 6.13
E100-E101	Two (2) storage tanks, RM-20 - RM-21, 10,000 gallons each	1946	STAR*, 6.13
E102-E117	Sixteen (16) storage tanks, RM-22 - RM-37, 10,000 gallons each	1941	STAR*, 6.13

Emission Point	Description	Installation Date	Applicable Regulation
E217-E219	Three (3) raw material storage tanks, RM-38, RM-39 & RM-40, 15,000, 11,000 and 11,000 gallons, respectively	2000	STAR*, 7.12, 40 CFR 60 Subpart Kb
E11	One (1) 15,300 gallon formaldehyde (UF-85) storage tank, RM-41	1989	STAR*, 7.12, 40 CFR 63 Subpart OOO, 40 CFR 68 Subpart G
E249	One (1) 12,230 gallon storage tank, RM-42	1999	STAR*, 7.12, 40 CFR 60 Subpart Kb
E244-E245	Two (2) storage tanks, WW-05 & WW-06, 20,238 gallons each	1980	STAR*, 6.13
E254	One (1) storage tank, 6,400 gallons	2016	STAR*, 7.12
E255	One (1) storage tank, 6,400 gallons	2016	STAR*, 7.12

* Strategic Toxic Air Reduction (Includes District Regulations 5.00, 5.01, 5.20, 5.21, 5.22, & 5.23)

Emission Unit U9: Resin Filtering

Emission Point	Description	Installation Date	Applicable Regulation
E50	One (1) Filter press #2	1953	STAR*, 6.24
E51	One (1) Filter press #6	1967	STAR*, 6.24, 40 CFR 63 Subpart OOO
E52	One (1) Filter press #7	1996	STAR*, 7.25

* Strategic Toxic Air Reduction (Includes District Regulations 5.00, 5.01, 5.20, 5.21, 5.22, & 5.23)

Emission Unit U10: Bulk Loading Facility for Loading Various Resin Products and Organic Compounds into Tank Trucks

Emission Point	Description	Installation Date	Applicable Regulation
E53	One (1) Bulk Volatile Organic Materials Loading Facility	1975	STAR*, 6.22

Emission Unit U14: Building 3, Mix & Blend Resin Facility (Formerly PD2 Building Coating Manufacturing)

Emission Point	Description	Installation Date	Applicable Regulation
E133, E135	Two (2) Tanks, L1 & L3, 2,172 gallons each	1974	STAR*, 7.25
E137, E139, E141	Three (3) Tanks, L5, L7, L9, 2,287 gallons each	1974	STAR*, 7.25
E143	One (1) 4,272 gallon mixing tank, M11	1974	STAR*, 7.25
E146	One (1) 4,678 gallon mixing tank, M15	1985	
E147	One (1) 4,678 gallon mixing tank, M16	1974	STAR*, 708, 7.25
E150, E151	Two (2) mixing tanks, M1-A & M1-B (D-1 & D-2), 1,304 gallons each	1974	STAR*, 7.25
E152, E153	Two (2) mixing tanks, M3-A & M3-B, 667 gallons each	1974	STAR*, 7.25
E154	One (1) 1,300 gallon mixing tank, M-2	1979	STAR*, 7.25

Emission Unit U15: Natural Gas Fired Boilers

Emission Point	Description	Installation Date	Applicable Regulation
E171	One (1) Kewanee boiler, 10.46 MMBtu/hr each	1973	STAR*, 7.06
E22	One (1) Fulton, 4.0 MMBtu/hr hot oil heater HT-01	1993	
E247	One (1) Fulton, 4.0 MMBtu/hr hot oil heater HT-02	1995	
E170	One (1) Sellers boiler, 10.46 MMBtu/hr each	2011	STAR*, 7.06, 40 CFR 60 Dc
E246	One (1) Performance boiler/hot oil heater, TH2500, 10 MMBtu/hr HT-03	2014	

Emission Unit U17: Drum Filling Station for Loading Various Resin Products and Organic Compounds into Drums

Emission Point	Description	Installation Date	Applicable Regulation
E2011	One (1) Drum Filling Station, maximum rated capacity of 75 gpm	1998	STAR*, 7.25

c. **Basis for Applicability**

Applicable Regulation	Basis for Applicability
STAR*	Applicable to process equipment emitting TACs
5.14	Applicable to affected facilities emitting HAPs
5.15, 40 CFR 68	Applicable to a stationary source that has more than a threshold quantity of a regulated substance in a process
6.09	Applicable to affected facilities constructed before September 1, 1976 for PM
6.13	Applicable to each storage vessel greater than 250 gallons constructed before September 1, 1976
6.22	Applicable to each loading facility loading more than 200 gallons/day of volatile organic material commenced before July 14, 1976
6.24	Applicable to affected facilities constructed before June 13, 1979 for VOC
7.06	Applicable to each indirect heat exchanger of more than 1 MMBtu/hr constructed after April 19, 1972 for facilities with a capacity \leq 250 MMBtu/hr
7.08	Applicable to affected facilities constructed after September 1, 1976 for PM
7.12	Applicable to each storage vessel greater than 250 gallons constructed after April 19, 1972
7.25	Applicable to affected facilities constructed after June 13, 1979 for VOC
40 CFR 60 Subpart Dc	Applies to steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and has a maximum design heat input capacity of 100 MMBtu/h or less, but greater than or equal to 10 MMBtu/h
40 CFR 60 Subpart Kb	Applicable to VOC storage vessels for constructed after July 23, 1984
40 CFR 63 Subpart OOO	Applicable to processes that produce amino/phenolic resins

* Strategic Toxic Air Reduction (Includes District Regulations 5.00, 5.01, 5.20, 5.21, 5.22, & 5.23)

1 Emission Unit U17 was included in permit 65-08-C.

d. **Standards/Operating Limits**

i. **HAP**

- 1) 40 CFR 63 Subpart OOO establishes additional requirements for equipment used in manufacturing of Amino/Phenolic Resins.
- 2) See Plantwide

ii. **NO_x**

- 1) Regulation 6.09 limits emissions from Reactor K6.

iii. **Opacity**

- 1) Regulation 6.09 section 3.1, 7.06 section 4.2 and 7.08 section 3.1.1 establish an opacity standard of less than 20%.

iv. **PM/PM₁₀**

- 1) In accordance with Regulation 6.09, Table 1, PM standards are determined by the following equations:

$$E = 4.10(P)^{0.67} \quad \text{if } P \leq 30 \text{ tons/hr}$$

$$E = 55.0(P)^{0.11} - 40 \quad \text{if } P > 30 \text{ tons/hr}$$

- 2) In accordance with Regulation 7.08, Table 1, PM standards are determined by the following equations:

$$E = 3.59(P)^{0.62} \quad \text{if } P \leq 30 \text{ tons/hr}$$

$$E = 17.31(P)^{0.16} \quad \text{if } P > 30 \text{ tons/hr}$$

- 3) PM emissions shall not exceed the limits required by Regulation 7.06 for indirect heat exchangers.

v. **SO₂**

- 1) Regulation 7.06, establish requirements for combustion sources E171, E22, E247, E170, and E246.
- 2) 40 CFR 60 Subpart Dc establish requirements for emissions from Boilers E170 and E246.

vi. **TAC**

- 1) See Plantwide.

vii. **VOC**

- 1) Regulations 6.13 section 3.3, 6.22 section 3.1, 6.24 sections 3.2-3.3, 7.12 section 3.3 and 7.25 sections 2.1&3.1 establish emission standards.
- 2) 40 CFR 60 Subpart Kb sets requirements for storage tanks E217-E219, and E249.

viii. District Regulation 5.15 Regulated Substance (40 CFR Part 68)

Subpart G)

- 1) For E11, the owner or operator shall comply with the Risk Management Plan for Regulation 5.15, which has been submitted to the District and U.S. EPA.

e. **Monitoring and Recordkeeping**i. **SO₂**

- 1) 40 CFR 60 Subpart Dc establishes additional Monitoring and Recordkeeping requirements for Boilers E170 and E246.

ii. **HAP**

- 1) 40 CFR 63 Subpart OOO establishes additional Monitoring and Recordkeeping requirements for equipment used in manufacturing of Amino/Phenolic Resins.

iii. **VOC**

- 1) 40 CFR 60 Subpart Kb establishes additional Monitoring and Recordkeeping requirements for storage tanks E217-E219, and E249.

f. **Reporting**i. **HAP**

- 1) 40 CFR 63 Subpart OOO establishes additional Reporting requirements for equipment used in manufacturing of Amino/Phenolic Resins.

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:** N/A
4. **Operational Flexibility:** The source did not request operational flexibility for any equipment.
5. **Compliance History:**

Date	Regulation Violated	Result
4/05/1993	Reg. 2.03 General Permits	Settled
7/19/1993	Reg. 1.13, Control of objectionable odors	Settled
3/09/1995	Reg. 1.13, Control of objectionable odors	Settled
7/07/1997	Reg. 1.13, Control of objectionable odors	Settled
4/29/1998	Reg. 1.13, Control of objectionable odors	Settled
2/4/2000	Reg. 2.16, TV operating permit, Reg. 6.13 and Reg. 7.12	Board Order
10/16/2002	Reg. 2.16, TV operating permit	Board Order
12/18/2007	Reg. 1.13, Section 02	Settled
3/16/2011	Reg. 1.13, Section 02	Board Order
2/27/2011	Reg. 1.13, Section 02	Board Order
6/19/2014	Reg. 1.13, Section 02	Settled

6. Calculation Methodology or Other Approved Method:

Generally, emissions are calculated by multiplying the throughput (ton, MMCF, gallons, etc) or hours of operation of the equipment by the appropriate emission factor and 1 minus any control device's efficiency.

Unit ID	Emission Point Description	Pollutants	Emission Factor Description
U3-U10, U14, and U17	The emissions calculations due to resin manufacturing operations (e.g. charging, heating, mixing, drum filling, etc.)	VOC, HAP, and TAC	USEPA's Emission Inventory Improvement Program (EIIP), Volume 2, Chapters 8 and 16. The source utilizes commercial software, EMACT Database © Greenfield Environmental Inc. 1999 which utilizes formulas and algorithms from the EIIP.
U3-U6, and U14	Reactor E15, E18, E23, E25 and mixers E143, E146, E147, E150, E151, E152, E153, E154	PM/PM10	Solids throughput applying 0.5% loss.
U15	Natural Gas combustion heat exchangers	NOx, CO, SO2, VOC, PM, PM10, PM2.5, HAP, and CO2e	Emission factors from AP-42, 1.4
IA unit	Cold Parts Cleaners	VOC	Equation 8.5-12 of EIIP Volume II, Chapter 8
IA unit	Welding	PM/PM10 and HAP	AP 42, Chapter 12.19 Electric Arc Welding, Tables 12.19-1 for PM-10 and Table 12.19-2 for HAPs
IA unit	R&D	VOC, HAP, and TAC	Emissions from the lab glassware reactors plus K11 reactor

7. Insignificant Activities

Equipment	Quant.	PTE (tpy)	Regulation Basis
Brazing, Soldering or Welding Equipment	1	0.0028 PM10	Regulation 1.02, Appendix A, Section 3.4
Emergency relief vents, stacks and ventilating systems (two(2) hot oil expansion tanks)	2	N/A	Regulation 1.02, Appendix A, Section 3.10
Lab Ventilating & Exhausting Systems, Non-Radioactive Materials	2	N/A	Regulation 1.02, Appendix A, Section 3.11
Cold solvent parts cleaners (for glass) with secondary reservoirs	3	0.17 VOC (total)	Regulation 1.02, Appendix A, Section 3.22
Research & Development (R&D) Activities	1	0.0054 VOC	Regulation 1.02, Appendix A, Section 3.27

- 1) Insignificant Activities identified in District Regulation 1.02 Appendix A may be subject to size or production rate disclosure requirements.
- 2) Insignificant Activities identified in District Regulation 1.02 Appendix A shall comply with generally applicable requirements.
- 3) Activities identified in Regulation 1.02, Appendix A, may not require a permit and may be insignificant with regard to application disclosure requirements but may still have generally applicable requirements that continue to apply to the source and must be included in the permit.
- 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) In lieu of recording annual throughputs and calculating actual annual emissions, the owner or operator may elect to report the pollutant Potential To Emit (PTE) quantity listed in the Insignificant Activities table, as the annual emission for each piece of equipment.
- 6) The Insignificant Activities Table is correct as of the date the permit was proposed for review by U.S. EPA, Region 4.
- 7) The owner or operator shall annually submit an updated list of insignificant activities, including an identification of the additions and removals of insignificant activities that occurred during the preceding year, with the compliance certification due April 15th.