

**Louisville Metro Air Pollution Control District**  
**850 Barret Ave., Louisville, Kentucky 40204**

**Title V Statement of Basis**

**Owner:** Michelin North America, Inc.

**Source:** American Synthetic Rubber Company

**Plant Location:** 4500 Camp Group Road, Louisville, Kentucky 40216

**Date Application Received:** 3/02/2011

**Application Number:** 27722

**Public Comment Date:** 3/10/2022; 4/12/2022

**Proposed Permit Date:** 7/01/2022

**District Engineer:** Eva Addison

**Permit No:** O-0011-22-V

**Plant ID:** 0011

**SIC Code:** 2822

**NAICS:** 325212

**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 permitting action is to renew the operating permit and incorporate new requirements effective since the last Title V issuance.

Jefferson County is classified as an attainment area for lead (Pb), nitrogen dioxide (NO<sub>2</sub>), carbon monoxide (CO), particulate matter less than 10 microns (PM<sub>10</sub>); and particulate matter less than 2.5 microns (PM<sub>2.5</sub>). The county is a non-attainment area for ozone (O<sub>3</sub>). This facility is located in the portion of the county that is an attainment area for sulfur dioxide (SO<sub>2</sub>).

**Application Type/Permit Activity:**

Initial Issuance

Permit Revision

Administrative

Minor

Significant

Permit Renewal

**Compliance Summary:**

Compliance certification signed

Compliance schedule included

Source is out of compliance

Source is operating in compliance

**I. Source Information**

1. **Product/Process Description:** The source produces polybutadiene rubber (PBR) and styrene butadiene rubber (SSBR) by solution, and liquid polymer (LP).
2. **Process Description:** Through a continuous operation, the source reacts monomers using a solvent as a chain transfer agent, to produce SSBR and PBR crumb rubber. The crumb rubber is then compressed and baled prior to shipping. Liquid polymer is produced in a batch operation. The source is converting from using toluene as an organic solvent to using a mixture of cyclohexane and methylcyclohexane for the production of all PBR/SSBR. The source produces steam for plantwide use with coal-and gas-fired boilers.
3. **Site Determination:** There are no other facilities that are contiguous or adjacent and under common control.
4. **Emission Unit Summary:**
  - a. **U1/U2 Synthetic Rubber Production:** This production unit, which manufactures polybutadiene (PBR) and solution styrene butadiene rubber (SSBR), is subject to 40 CFR 63 Subpart U.
  - b. **U3 Liquid Polymer Production:** This production unit, which manufactures butadiene-acrylic acid-acrylonitrile polymer, is not subject to 40 CFR 63 Subpart U.
  - c. **U4 Power House:** Two coal fired and two natural gas fired boilers and related equipment.
  - d. **U5 Emergency Generator:** One emergency generator with a rated capacity of 1,005 bhp.
  - e. **UMSC Miscellaneous:** Gasoline fueling, cold solvent parts washers, and wastewater treatment process.
  - f. **Unit IA1:** CI RICE Greater than 500 bhp
  - g. **Unit IA2:** CI RICE Less than 500 bhp
  - h. **Unit IA3:** Cooling Towers
  - i. **Unit IA4:** Insignificant Activity Regulation 7.08 Process Equipment
  - j. **Unit IA5:** VOC Storage Tank
5. **Fugitive Sources:** Fugitive emissions of dust from any part of the plant are subject to Regulation 1.14, Control of Fugitive Particulate Emissions. VOC HAP emissions from component leaks defined in the Polymers and Resins Group I MACT are monitored by the leak detection and repair procedures outlined in 40 CFR 63 Subpart U.
6. **Permit Revisions:**

Revision No.	Permit Number	Issue Date	Public Notice Date	Change Type	Description
Initial	154-97-TV	8/31/2006	9/4/2005	Initial	Initial Permit Issuance
R1	154-97-TV(R1)	8/31/2006	N/A	Admin	Changed the Responsible Official

Revision No.	Permit Number	Issue Date	Public Notice Date	Change Type	Description
N/A	O-0011-22-V	08/16/2022	03/10/2022 04/12/2022	Renewal	Permit Renewal; Incorporation of Construction Permits: 30-06-C (R1), 85-06-C (R1), 86-06-C (R1), 87-06-C (R1), 16-07-C (R1), 599-07-C (R1), 312-05-C(R1), 434-08-C, 33164-11-C(R3), 32687-11-C(R1), 36229-12-C, 35395-12-C(R1) (Phase I), TV-13-1013-C(R1) (Phase II), C-0011-1000-14-V (Phase III), C-0011-1014-16-V (R3); C-0011-1020-18-V; C-0011-21-0017-V; C-0011-21-0043-V; Update the Insignificant Activities List; Incorporation of 40 CFR 60 Subpart IIII, 40 CFR 63 Subpart EEEE, 40 CFR 63 Subpart FFFF, 40 CFR 63 Subpart ZZZZ, and 40 CFR 63 Subpart DDDDD; Incorporate Agreed Board Order No. 09-03 dated June 17, 2009; Incorporate Compliance Assurance Monitoring, and Incorporate STAR Modification

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

Permit No.	Effective Date	Description
30-06-C	2/28/2006	Two (2) 200,000 gallons storage tanks (T-16 & T-17) each equipped with submerged fill
85-06-C	5/10/2006	No. 2 primary stripper vessel and No. 2 secondary stripper vessel (E-U1/U2- No. 2 stripper vessels)
86-06-C	5/10/2006	No. 1 primary stripper vessel and No. 1 secondary stripper vessel (E-U1/U2- No. 1 stripper vessels)
87-06-C	5/10/2006	One (1) Supersack Unloader with process filter cartridge (E-U1/U2-BU-1T)
30-06-C (R1)	2/28/2007	Two (2) 200,000 gallons storage tanks (T-16 & T-17) each equipped with submerged fill
85-06-C (R1)	5/31/2007	No. 2 primary stripper vessel and No. 2 secondary stripper vessel (E-U1/U2- No. 2 stripper vessels)
86-06-C (R1)	5/31/2007	No. 1 primary stripper vessel and No. 1 secondary stripper vessel (E-U1/U2- No. 1 stripper vessels)
87-06-C (R1)	5/31/2007	One (1) Supersack Unloader with process filter cartridge (E-U1/U2-BU-1T)
16-07-C	6/19/2007	One (1) No. 7 Finishing Line (E-U1/U2- No. 7 Line)

Permit No.	Effective Date	Description
599-07-C	10/31/2007	One (1) No. 5 Crumb Tank (E-U1/U2-9E/T), make custom model custom, 47,000 gallon capacity.
16-07-C (R1)	6/30/2008	One (1) No. 7 Finishing Line (E-U1/U2- No. 7 Line)
434-08-C	6/30/2008	One (1) No. 5 Stripper Vessel (E-U1/U2- No. 5 Stripper Vessel), make custom, model custom
599-07-C (R1)	10/31/2008	One (1) No. 5 Crumb Tank (E-U1/U2-9E/T), make custom model custom, 47,000 gallons capacity.
312-05-C(R1)	8/19/2009	Two (2) 212 MMBtu/hr coal-fired, #2 oil-fired, or natural gas fired spreader stoker Boilers (#1 and #2)
33164-11-C	9/21/2011	#4 Stripper Vessels (Emission Point E-U1/U2-No. 4 Stripper Vessels)
32687-11-C	11/22/2011	Phase 1 of the Plant Phased Solvent Conversion Project
35395-12-C	8/15/2012	New replacement Flush tank D-64M (Title V emission point E-U1/U2-D-64M) to be controlled by the existing Flare Thermal Oxidizer (C-FLARE-TO) and/or the existing Flare Control System (C-FLARE)
33164-11-C (R1)	8/20/2012	#4 Stripper Vessels (Emission Point E-U1/U2-No. 4 Stripper Vessels)
36229-12-C	11/8/2012	Total tube replacement for One (1) Boiler #3 of 99 MMBTU/hr capacity and natural gas fired
32687-11-C(R1)	11/30/2012	Phase 1 of the Plant Phased Solvent Conversion Project
33164-11-C(R2)	8/31/2013	#4 Stripper Vessels (Emission Point E-U1/U2-No. 4 Stripper Vessels)
35395-12-C(R1)	8/31/2013	New replacement Flush tank D-64M (Title V emission point E-U1/U2-D-64M) to be controlled by the existing Flare Thermal Oxidizer (C-FLARE-TO) and/or the existing Flare Control System (C-FLARE)
TV-13-1013-C	1/7/2014	New Storage tank as well as the conversion of existing storage tanks and front-end process equipment as part of Phase 2 of a Plant Phased Solvent Conversion Project.
33164-11-C(R3)	8/11/2014	#4 Stripper Vessels (Emission Point E-U1/U2-No. 4 Stripper Vessels)
C-0011-1000-14-V	10/23/2014	Phase 3 of the Plant Phased Solvent Conversion Project
TV-13-1013-C(R1)	1/31/2015	New Storage tank as well as the conversion of existing storage tanks and front-end process equipment as part of Phase 2 of a Plant Phased Solvent Conversion Project.
C-0011-1014-16-V	2/16/2016	One (1) New "In Kind" replacement No. 5 Crumb Tank T-9E/T
C-0011-1014-16-V (R1)	1/05/2018	One (1) New "In Kind" replacement No. 5 Crumb Tank T-9E/T – Revised to incorporate the STAR Modification Request
C-0011-1020-18-V	2/15/2019	Two adsorption columns (C-605A and C-605B) and one VOC storage tank (D-671)

Permit No.	Effective Date	Description
C-0011-1014-16-V (R2)	2/27/2019	One (1) New "In Kind" replacement No. 5 Crumb Tank T-9E/T-Revised to clarify STAR Requirements
C-0011-19-0028-V	1/21/2020	Three new natural gas-fired boilers, B5, B6, and B7, each rated at approximately 200 MMBtu/hr
C-0011-1014-16-V (R3)	4/28/2020	One (1) New "In Kind" replacement No. 5 Crumb Tank T-9E/T-Revised to clarify STAR Requirements
C-0011-19-0028-V (R1)	1/21/2021	Three new natural gas-fired boilers, B5, B6, and B7, each rated at approximately 200 MMBtu/hr, renewal – construction not complete
C-0011-21-0017-V	4/24/2021	Installation of one (1) temporary natural gas-fired boiler with low-NOx burner, rated heat input 99 MMBtu/hr. The boiler will be operated during the source's transition from coal to gas boilers. It is expected to be used for more than six months
C-0011-21-0043-V	1/20/2022	Replacement of one of the existing parts washers in UMSC with a fully enclosed heated parts washer, without a secondary reservoir. The same solvent (an aqueous solution with = to or < 0.8% VOC) will be used in the new unit.
C-0011-19-0028-V (R2)	2/04/2022	Three new natural gas-fired boilers, B5, B6, and B7, each rated at approximately 200 MMBtu/hr second renewal – construction not complete

## 8. Operational Flexibility Approvals

Document Number	Date Approved	Description of the Approved Request
32801 & 32790	2/5/2013	Repair of #5 primary and tertiary Stripper Vessel, no change in emissions as it is a closed system, all the emission are vented through the associated Decanter and accounted for in this emission point.
109395 & 109295	4/15/2014	Repair of #5 Stripper Vessel, no change in emissions as it is a closed system, all the emission are vented through the associated Decanter and accounted for in this emission point.
86911 & 87247	9/5/2017 & 9/14/2017	Replacement of the #4 tertiary Stripper Vessel, no change in emissions as it is a closed system, all the emissions are vented through the associated Decanter and accounted for in this emission point.
98350 & 98356	5/7/2019	Replacement of #3 crumb tank T-9C, no change in emissions as it is a closed system and tank is same size, all the emissions are vented through the associated decanter D-30M and accounted for with the decanter emission point.
217445	5/6/2021	Replacement of the #1 tertiary Stripper Vessel, no change in emissions as it is a closed system, all the emissions are vented through the associated Decanter and accounted for in this emission point.

## 9. Permit Renewal-Related Documents

Document Number	Date Received	Description
2028, 2027, 2026	6/24/2005, 6/30/2005	Construction applications for Supersack unloader, No. 2 stripper vessels, No.1 stripper vessels

Document Number	Date Received	Description
2029	9/29/2005	Construction Application for two 200,000 gallon storage tanks (T-16 & T-17)
3713, 3714	6/27/2006, 6/28/2006	IA equipment – Skimmer Tank application and District approval – no construction permit required
2031	10/30/2006	Finishing Line Replacement Construction Application and related documents
4344, 10392	1/02/2007, 7/02/2007, 12/18/2007	STAR EA Demo – modeling Cat 1 TACs and related correspondence
3715, 3717	3/28/2007, 4/6/2007, 5/22/2007	New Decant Water tank replacement – no construction permit required
2032	6/19/2007	Documents related to issuance of construction permit 16-07-C for the Finishing Line 7 project
2033	9/28/2007	Construction application for No. 5 Crumb Tank
2073	2/28/2008	Addendum to August 25, 2005 Title V Operating Permit Amended Initial Application, Including Application Re-Certification, including request to incorporate construction permit 30-06-C (Storage Tank T-16).
4330	3/31/2008	STAR EA Demo – modeling Cat 2 TACs
2080	4/08/2008, 4/16/2008	Separate System Hot Water tank (T-8T) IA equipment and District response – no permit required
2034	4/29/2008	Construction Application for No. 5 Stripper Vessel
2074	5/30/2008	Addendum to February 28, 2008, Title V Operating Permit Amended Application, Including Application Re-Certification, including request to incorporate construction permits 85-06-C (No. 2 Stripper Vessel expired 5/31/2008), 86-06-C (No. 1 Stripper Vessel expired 5/31/2008), and 87-06-C (One (1) Supersack Unloader with process filter cartridge (E-U1/U2-BU-1T) (expired 5/31/2008).
4340	9/26/2008	District Contingent approval of Category 1 TACs
60046	2/27/2009	Company comments on draft STAR permit
4309	3/17/2009	Application for Fire Water Tanks and District response – no construction permit needed
1977	3/17/2009	112J Application part 1 of 2
1978	5/07/2009	112J Application part 2 of 2
2075	6/10/2009	Application to change SO2 BACT limit for Boilers #1 & #2
2076	6/29/2009	Addendum to May 29, 2008 Title V Operating Permit Application, Including Application Re-Certification, including request to incorporate construction permit 16-07-C for the No. 7 Finishing Line (U1/U2)
50241	8/19/2009	Revised PSD Permit 312-05-C(R1) issued
2078	10/23/2009	Addendum to June 26, 2009 Title V Operating Permit Amended Application, Including Application Re-Certification including request to incorporate construction permit 599-07-C for the No. 5 Crumb Tank (E-U1/U2-T-9E/T)
2036, 2035	2/04/2011	Application for Phase 1 Solvent Conversion Project
2079	3/02/2011	TV Renewal Application
25905	3/15/2011	District Letter requesting additional information related to TV renewal application
26218	3/28/2011	Supplement Application No. 1 to Phase 1 project
27710	4/08/2011	ASRC submittal of PTE for tanks related to solvent conversion project
27732	4/12/2011	Application for Coal Feeder replacements for Boilers #1 & #2
29216	4/27/2011	TAC questions and responses related to Phase 1 Solvent

Document Number	Date Received	Description
		Conversion Project
28994, 28995, 28996	5/09/2011	District Response to Coal Feeder replacement – no construction permit needed
29083	5/10/2011	Supplement No. 2 to Phase 1 Solvent Conversion Project application
29751	5/27/2011	Construction application for No. #4 Stripper Vessels replacement
30434	6/27/2011	ASRC submittal of additional information related to TV renewal application
30915	7/01/2011	TV renewal application deficiency email
30985, 30984, 30983, 30982, 30981, 30980, 30979, 30978	7/29/2011	Documents related to public notice for Phase 1 Solvent conversion project
31512	8/09/2011	ASRC comments on draft permit for No. 4 Stripper Vessels
31302, 31301, 31300, 31299, 31298, 31297, 31296	8/11/2011	Documents related to public notice for No. 4 Stripper Vessels construction permit
31515	8/23/2011	ASRC response to EPA comments on Phase 1 construction permit
31513, 31514	8/29/2011	ASRC submittal to update TV renewal application for admin completeness determination, PTE and Stack information Form F
31607	8/31/2011	District forwards REACT comments to company
31830	9/09/2011	ASRC response to REACT comments on construction permit 32687-11-C – Phase 1
32131, 32132, 32133, 32134	9/21/2011	Documents related to issuance of construction permit 33164-11-C for the #4 Stripper Vessels replacement project
32258	9/26/2011	Legal notice for public comment and hearing on Phase 1 Solvent conversion project
32615, 32617, 32695, 32697	10/04/2011, 10/05/2011	Questions and Answers regarding IA Equipment
34345, 34344, 34277, 34199, 34182, 34180, 34179, 34177	11/28/2011, 11/23/2011, 11/10/2011	Documents related to public notice and hearing on Phase 1 construction project and issuance of the construction permit
37145	4/02/2012	Company response to BAC changes Regulation 5.21
39323	5/17/2012	Construction Application for New replacement Flush Tank, D-64M
40811	6/20/2012, 6/21/2012	Questions and response to D-64M replacement project – BACT and Regulation 7.25
41104, 41151, 41307, 41308, 41309, 41310, 41311,	6/28/2012, 7/03/2012	Documents related to public notice of D-64M construction permit

Document Number	Date Received	Description
41312, 41313		
41392	7/11/2012	Questions and response regarding No. 4 Stripper Vessel construction not complete
42387	8/14/2012	Company application for renewal of Phase 1 solvent conversion project – project not complete
42516, 42515, 42514, 42406, 42405, 42404	8/15/2012	Documents related to the issuance of the construction permit for the Flush tank D-64M
42462, 43007, 43104	8/15/2012, 8/28/2012, 8/31/2012	Company submittal of Plantwide PTE
42631, 42632, 42633	8/20/2012	Renewal of Phase 1 construction permit and related documents– project not complete
43207	8/31/2012	Company resubmittal of 9/26/2005 application for two tanks (T-16 & T-17)
50384	9/25/2012	Construction Application for Boiler modification (natural gas)
51391, 51138, 51139, 51151, 50707, 50705, 50704, 50703, 50702, 50701, 50700	10/05/2012, 10/26/2012	Documents related to public notice and hearing for Boiler #3 modification
51262	10/30/2012	Updated Insignificant Activity list (new items added to list)
51261	10/30/2012	Application for the reissuance of construction permit for Phase 1
51288	10/31/2012	Reissuance of construction permit for Phase 1 as project was not complete 32687-11-C(R1)
51566, 51561, 51564, 51563, 51562	11/08/2012	Documents related to issuance of boiler #3 modification construction permit 36229-12-C
53902, 53891	2/04/2013, 2/05/2013	Company request and District response to repair of two stripper vessels
54548	3/13/2013	Company questions regarding equipment not constructed and STAR analysis of raw material change and District response
55068	3/29/2013	Company Notification of equipment not constructed under Phase 1 construction permit for Solvent conversion project
55067, 55676	3/29/2013, 4/26/2013	Raw material change – STAR analysis for solvent conversion project and District approval of change
55160	4/04/2013, 4/03/2013	Non- VOC tank – IA equipment request and response
55817	5/07/2013	Notification of progress of Phase 1 of the solvent conversion project
56253	5/30/2013, 6/17/2013, 6/19/2013	Correspondence regarding RICE MACT requirements for TV renewal permit
56299	6/21/2013	District request for PTE information for TV renewal
58138	7/30/2013	Notification of progress of Phase 1 of the solvent conversion project
58087, 58063	7/30/2013,	Correspondence related to filing fees and construction renewal fees



Document Number	Date Received	Description
	7/31/2013	
58272	8/08/2013	Application to reissue D-64M tank construction permit – project not complete
58410, 58416	8/13/2013	Documents related to issuance of construction permit for D-64M revision 35395-12-C(R1)
58863	8/29/2013	Construction Application for No. 4 Stripper Vessels “in Kind” replacement project
59102	9/16/2013	Supplement No. 1 to D-64M Flush Tank application
59209	9/16/2013	Company submittal plantwide PTE
59327	9/20/2013	Construction Application to for Phase 2 of the Solvent Conversion Project
60384	10/29/2013, 10/30/2013	Question regarding Day Tanks emission point IDs
60791	11/18/2013	Supplement No. 6 to Phase 1 construction application
60886, 60887, 60888, 60889, 60890, 60891, 60892, 60893, 60894, 60895, 60897, 60904	11/26/2014	Documents related to the public comment period for Phase 2 construction permit TV-13-1013-C
60927	11/27/2013	Addendum to Title V Operating Permit Renewal Application to incorporate construction permit 32687-11-C(R1) (Phase 1)
61062	12/04/2013	District Notification of BAC changes to Regulation 5.21
61198, 91197	12/13/2013	Request and Response related to IA equipment – water tank replacement
61677, 61715, 61566, 61565, 61550, 61549, 61548	1/07/2014, 1/06/2014	Documents related to the issuance of the Phase 2 Solvent Conversion Project permit
61742	1/14/2014	Initial Start-up of D-64M emission point as required by construction permit 35395-12-C(R1)
62080	1/29/2014	Correspondence regarding Phase 1 Solvent Conversion Project – progress
62311, 62196	2/10/2014, 2/04/2014	Request and Response IA equipment T-15T repurposing Tank usage
86257, 63186	3/17/2014, 2/27/2014	Questions and Response RICE MACT equipment
63905, 64288	4/14/2014, 4/23/2014	Questions and Response IA equipment TV renewal permit
63917, 64021	4/15/2014	Question and Response No. #5 Stripper Vessel repair
64097, 64580	4/17/2014, 4/29/2014	Manufacturer Guarantee related to control efficiencies in TV renewal permit
64238, 64480	4/21/2014, 4/28/2014	Questions and response about RMP equipment
86254, 86255, 64722, 64759	4/24/2014, 5/02/2014, 5/08/2014	Company response to questions regarding TV renewal application
65938	6/16/2014	Emergency Generator questions and answers

Document Number	Date Received	Description
65644, 65647, 65649	6/24/2014	Questions and Response to TV renewal regarding blending area tanks
65758	6/27/2014	Addendum to Title V Operating Permit Renewal Application to incorporate construction permit C-0011-1000-14-V (Phase 3)
65940, 65939	6/30/2014, 6/27/2014	Construction Application for Phase 3 Solvent Conversion Project
66055	7/16/2014	Questions and Response for 40 CFR 63 Subpart FFFF (MON MACT)
66233	7/30/2014	Re-Issuance of 33164-11-C(R2) for the "In Kind" replacement of No. 4 Stripper Vessels
66425	8/08/2014	Notification of Normal Operation for Phase 1 construction project 32687-11-C
67670, 67662, 67656, 67657, 67658, 67646, 66601	10/24/2014	Issuance of construction permit C-0011-1000-14-V (Phase 3 of solvent conversion project)
69012, 69011, 69822, 69821	1/23/2015	Issuance of construction permit TV-13-1013-C(R1) (Phase 2 of solvent conversion project)
69184	2/03/2015, 1/30/2015	Boiler MACT compliance questions for TV renewal permit
69253	2/06/2015	Aerosol Can puncturing device IA equipment notification
69477, 69284	2/09/2015, 2/23/2015	STAR EA Goal exceedances notification and company response
69817	2/27/2015, 3/02/2015	Ash and Coal handling equipment questions for TV renewal permit
70234	3/19/2015	District Notification that STAR EA demo limits have been exceeded for 1,3-butadiene
70425, 70416	4/01/2015	Question regarding SOCM I NSPS (40 CFR 60 Subpart III) and company response
70489	4/06/2015	Company correspondence regarding T-BAT for STAR
70932, 70933	4/27/2015	Tank D-37 replacement request and approval of IA.
71018	5/01/2015	Revised EA Modification Request
71136, 71138	5/13/2015	Questions regarding Boiler MACT (40 CFR 63 Subpart DDDDD) and the MON MACT (40 CFR 63 Subpart FFFF)
70458, 71777, 73638	4/02/2015, 5/15/2015, 5/20/2015	Plantwide PTE discussion
72445, 72092, 66466, 66451	6/16/2015, 7/10/2015, 8/11/2014, 8/08/2014	Compliance Assurance Monitoring Plan and related documents
72406	7/10/2015	Company submitted Boiler #4 suggested language for TV permit
72508, 72850	7/14/2015, 8/04/2015	Company Review of Pre-draft TV permit
72565	7/15/2015	STAR EA Modification Compliance Plan Supplement
73522, 73523	9/21/2015	"In Kind" Replacement of No.5 Crumb Tank T-9E/T (Construction Permit 599-07-C) Construction Application
73595	9/23/2015	Revised EA demo
73690	10/01/2015	Company comments on pre-draft TV permit
74011	10/13/2015	#5 Crumb tank questions
73953	10/16/2015	District Letter Regarding STAR EA modification request
74082	10/26/2015	ASRC's request to renew construction permit for Phase 3 solvent

Document Number	Date Received	Description
		conversion
74089, 74090	10/26/2015	Flash Tank and Condensate Receiver IA equipment and District response
74172	11/02/2015	ASRC submitted Plantwide HAP PTE
74238	11/09/2015	ASRC correspondence regarding revised EA demo – modeling and fence line and the plantwide accumulative risk for industrial sources
74355, 74516, 74515	11/18/2015, 12/02/2015	Pre-draft Crumb tank construction permit – company review and company comments and district response to company comments
74550	12/07/2015	Revised EA demo
74582, 74578, 74579, 74580, 74581, 74576, 74577, 74584, 74583	12/10/2015	Public notice documents for Crumb Tank #5 construction permit
75215	1/12/2016	ASRC comments on public noticed Crumb Tank Construction permit
75337, 75335	1/25/2016, 1/20/2016	Regulation 7.25 and Crumb Tank #5 replacement
75336, 75334, 75332	1/26/2016, 1/25/2016, 1/22/2016	Sulfuric Acid Questions and responses
75330, 75331, 75332	2/05/2016, 2/04/2016, 1/28/2016	Finishing Line questions
75329	2/09/2016	Flare Risk for 1-3 butadiene questions
75324	2/12/2016	Certificate of Authority for ASRC
75325, 75326, 75327, 75328	2/16/2016, 2/12/2016	Regulation 7.25 non-BACT equipment questions
75233	2/15/2016	District Response to Phase 3 renewal construction permit – not needed
75267	2/16/2016	Final construction permit issued C-0011-1014-16-V with response to comment document
75751	2/29/2016	Part Washer IA equipment
75893	3/15/2016	Water Tank Replacement – trivial activity
75958	3/17/2016	Boiler MACT Questions and responses
77301, 77235	5/16/2016, 5/18/2016	Parts Washer IA application and District response – no permit required (construction permit)
81743	5/18/2016	Agreed Board Order for STAR Compliance
77457, 77553	5/26/2016, 6/02/2016	Cooling water surge tank replacement
77729	6/10/2016	Draft STAR EA modification document sent company review
77765, 77757, 77756, 77750, 77749	6/13/2016	STAR EA modification questions and responses
82457, 78437	6/15/2016	Legal Notice for STAR Public Comment Period
77945	6/23/2016	Propane Tank IA question
78435	7/18/2016	Company comments on STAR EA modification document
78395, 78499	7/18/2016, 7/22/2016	WWT Digester Information Request and Response

Document Number	Date Received	Description
78500, 78594, 78692	7/21/2016, 7/27/2016, 8/01/2016	Notification of Disabling Fuel Oil backup for Boiler #4
78763	8/04/2016	Nitrogen Tank – Trivial
78810, 78889, 78890, 78974, 79042, 79045	8/05/2016, 8/12/2016, 8/18/2016, 8/24/2016	Propane Tank Application and Fire Pump Application, and District Response that they are both IA equipment
79430, 79851	9/13/2016, 9/26/2016	Acrylonitrile questions for EA modification
79853, 80243, 80242, 80241	10/11/2016, 10/20/2016, 10/25/2016	Correspondence related to STAR EA modification comments received from ASRC
80020	10/13/2016	District Notification of BAC changes to Regulation 5.21
80244	10/25/2016	IA Water Tank Replacement
80591, 80929, 80945, 81175, 81581, 81582, 81583, 81606, 81609, 81610, 81619	11/23/2016, 12/19/2016, 12/20/2016, 12/21/2016, 1/06/2017, 1/31/2017, 2/01/2017, 2/02/2017	Correspondence related to the STAR EA modification
81446	1/25/2017	ASRC correspondence of normal operation for equipment related to construction permits C-0011-1000-14-V (Phase 3)
82041, 82390, 82241, 82242	2/21/2017, 2/23/2017, 2/28/2017, 3/01/2017	ASRC STAR EA Mod concerns
82385, 82386, 82392, 82393, 82437	3/06/2017 & 3/07/2014	Correspondence related to EA demo for Acrylonitrile, Butadiene, and Chrome III
82466, 82467, 82473, 82474, 82475, 82477, 83303, 83304, 83305, 83306, 83310, 83311, 83312, 83466, 86245	3/09/2017, 3/11/2017, 4/04/2017, 4/12/2017, 5/05/2017	Legal Notice for STAR Public Hearing; Invoice and related documents
83691	4/17/2017	APCD correspondence to ASRC concerning EA MOD public hearing
83633	4/17/2017	ASRC correspondence of normal operation for equipment related to construction permits TV-13-1013-C(R1) & 33164-11-C(R3)
83961	5/03/2017	D-84 IA tank replacement
84112	5/09/2017	ASRC PTE and STAR EA Demo

Document Number	Date Received	Description
84114	5/10/2017	Parts Washers – IA equipment question
84215	5/16/2017	Revised STAR Modification Request
84893	6/20/2017	Rupture Disk Information
84892 & 84903	6/21/2017 & 6/22/2017	Leak Sealing Information
84799, 84800, 84801, 84802, 84803, 84844, 84845, 84894, 84931, 85022, 85044, 85045, & 85046	6/15/2017, 6/16/2017, 6/19/2017, 6/20/2017, 6/22/2017, 6/26/2017 & 6/27/2017	Request for LDAR data
84892 & 86018	6/22/2017 & 7/06/2017	Legal Notice for STAR Public Hearing
85602	7/27/2017	Update to IA list
85600	8/01/2017	350 gallon tank – IA equipment permit request
86022, 86019, 86020, & 86021	8/17/2017	Invoice for STAR Public Hearing and related documents
86212	8/17/2017	Enhanced LDAR monitoring question
86265 & 86490	8/23/2017 & 8/28/2017	Application for 350 gallon Storage tank and District Response no construction permit needed
87198	9/8/2017	Propane tank questions
87194	9/12/2017	Aerosol can puncturing device questions
87195 & 87280	9/13/2017 & 9/14/2017	Temporary Exemption questions regarding flare rental
87268 & 87269	9/15/2017	Summarized Public Comments for ASRC EA Modification Request and District Response to comments
87267	9/15/2017	Districts approval -EA Modification Final Determination
87803, 87804, 87805, 87806, 87807, 87808, 87809, 87810, 87811, 87997	9/21/2017, 9/22/2017, 9/27/2017, 10/02/2017, 10/05/2017, 10/11/2017	Questions and company responses regarding Boiler MACT requirements
87621, 87639	9/29/2017	Application and approval of Temporary Flare
88238 & 88239	10/16/2017	Comments received from Legal Counsel for ASRC
88307	10/16/2017	Comments received from Kentucky Resources Council
88781 & 88839	11/03/2017	Questions about the rupture disk
89645	12/18/2017	Raw Material Changes question and District response
89923	1/05/2018	District Response to comments received during public comment period of construction permit
90375	2/02/2018	ASRC Petition for Administrative Hearing on issued construction

Document Number	Date Received	Description
		permit related to STAR regulations
91286, 91269, 91745	3/22/2018, 4/12/2018	Pre-draft Operating permit sent to company for review, Company request for extension on time to review; District response to extension request
92040	5/15/2018	Company comments on pre-draft review
92206	5//21/2018 thru 6/11/2018	District question on company comments and company responses
95099	10/17/2018	Application for two adsorption columns and VOC storage tank
95541	10/31/2018	Questions and company response regarding new VOC storage tank
95964, 95969, 96013, 96122, 96240, 96241	11/14/2018 thru 11/21/2018	Questions and responses related to IA tank D-128
96324	11/21/2018	Application for tank D-128
96328	11/27/2018	District and company questions and responses related to IA determination for tank C-128
96329, 96330, 96388	11/28/2018, 11/29/2018; 12/04/2018	Company comments and District response on draft construction permit for two adsorption columns and VOC storage tank
96415, 96453	12/10/2018, 12/11/2018	District approval of IA tank D-128
96429, 96430, 96432, 96433, 96434, 96436, 96438, 96439	12/11/2018	Public notice documents for Two adsorption columns and VOC storage tank construction permit
96744	1/14/2019	Company comments on draft construction for two adsorption columns and VOC storage tank
96848, 96849, 96850, 96851	1/14/2019 thru 1/18/2019	Correspondence related to wastewater treatment MACT requirements (Subpart U and Subpart FFFF)
96828, 96829, 96830, 96831, 96832, 96847	1/25/2019	Public notice documents for revised STAR requirements contained in construction permit C-0011-1014-16-V (R2)
96819	1/25/2019	Company request for admin changes to boiler NSPS requirements
96989	2/4/2019	District response to Company request for admin changes to boiler NSPS requirements
97081, 97093, 97094, 97095	2/15/2019	Response to comments on construction permit C-0011-1020-18-V, final permit issued
97343, 97344, 97345	2/27/2019	Final revised STAR requirements construction permit C-0011-1014-16-V (R2) issued
97405, 97447, 97448, 97450	2/28/2019 thru 3/4/2019	Correspondence related to the boiler MACT 2018 stack test and the FTO and RTO 2018 stack test
22473	5/1/2019	Notification of replace of tank trival activity
3212	8/1/2019	Application for natural gas boilers
23149	8/06/2019	Email Regarding VOC RACT
90898	8/16/2019	Draft PTE And PSD/NSR Review for Comment

Document Number	Date Received	Description
115261	9/5/2019	Supplement to ASRC Permit Application
115462	9/6/2019	Request for RACT Supplement
115499	9/9/2019	Information for RACT
116583	9/13/2019	Information for RACT
119151	9/25/2019	Draft RACT for Company Review
121090	10/4/2019	Company Comments on RACT Draft
122052	10/9/2019	Construction PTE for Boilers
122051	10/9/2019	District Response to Comments on RACT
122879	10/24/2019	Boiler Pre-draft permit sent to company to review
123848 & 123849	11/1/2019 & 11/5/2019	Questions regarding application for New Amine Storage tank
123949	11/7/2019	Application for construction revision regarding RTO
123952	11/7/2019	Application for Amine Storage Tank
124098	11/8/2019	Company comments on pre-draft permit
(124400, 124359, 124653, 124594)	11/13/2019 thru 11/15/2019	Correspondence related to emission point designation for Amine Storage tank
124652	11/18/2019	Correspondence related to RACT ABO
(124971, 124970, 124964, 124963)	11/21/2019 thru 11/22/2019	Documents related to public notice of the boiler construction permit
126352	12/17/2019	Correspondence related to condensate tanks in U1/U2 as trivial activities
127402; 126794	12/23/2019	Company comments on draft permit
128511	01/21/2020	Company request to rescind their comments
135625; 135670; & 135676	3/23/2020 & 3/24/2020	Public Notice documents
138833	4/27/2020	Comments received during public notice period
(139062, 139063, 139064, 139065)	4/28/2020	Final documents for C-0011-1014-16-V (R3) revision
181985	1/14/2021	Application for construction renewal for new boilers
203006	3/23/2021	Extension Request for 40 CFR 63 Subpart DDDDD
203005	3/23/2021	Application for Temporary Mobile Natural Gas Boiler
245042	8/10/2021	Cooling Tower replacement email
256350	9/10/2021	Cooling Tower application
259346	9/20/2021	District no permit required response to cooling tower application
261322	9/22/2021	District response to company's comments on pre-draft Title V renewal permit
264555	10/04/2021	Application for Emergency Generator
OB266897	10/11/2021	District no permit required response to emergency generator application
286930	10/11/2021	District approved PTE
276689	11/11/2021	Application for Parts Washer
284868 282431	11/17/2021	Application for Parts Washer
287574	12/02/2021	Discussion informing ASRC that new parts washer will require permit and request for make and model with reply from company.
286897	11/30/2021	
305592	1/28/2022	Application for construction renewal for new boilers

Document Number	Date Received	Description
319587 319588 319589 319592 319605 319606	3/08/2022	Public Notice Documents
329599	4/06/2022	Company request to extend public notice
331272 331275 331276 331277 331278	4/07/2022	Official extension notice documents
342381	5/12/2022	Official public comments received from company
351726	6/13/2022	District question regarding comment #13
355531	6/27/2022	Company response to District question regarding comment #13

10. **Plantwide Emission Summary:**

Pollutant	Actual Emissions (tpy) 2020 Data	Pollutant that triggered Major Source Status (based on PTE)
VOC	233.42	Yes
CO	147.14	Yes
NO <sub>x</sub>	240.62	Yes
SO <sub>2</sub>	33.48	Yes
PM	27.10	Yes
PM <sub>10</sub>	5.76	Yes
PM <sub>2.5</sub>	4.88	Yes
<b>Total HAPs</b>	125.77	Yes
1, 3-Butadiene	0.94	Yes
Toluene	117.77	Yes
Styrene	5.21	Yes
Hydrochloric acid	1.31	Yes

11. **Applicable Requirements:**

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

12. **MACT Requirements:** The source is subject to the following MACT regulations:

40 CFR 63, Subpart A	General Provisions
40 CFR 63, Subpart U	National Emission Standards for Hazardous Air Pollutant Emissions: Group I Polymers and Resins
40 CFR 63, Subpart EEEE	National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)
40 CFR 63, Subpart FFFF	National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing
40 CFR 63, Subpart ZZZZ	National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines



40 CFR 63, Subpart DDDDD National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters

13. **Referenced non-MACT Federal Regulations in Permit:**

40 CFR 60 Subpart A General Provisions  
 40 CFR 60 Subpart Db Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units  
 40 CFR 60 Subpart Dc Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units  
 40 CFR 60 Subpart III Standards of Performance for Stationary Compression Ignition Internal Combustion Engines  
 40 CFR 64 Compliance Assurance Monitoring  
 40 CFR 68 Subparts A through H Chemical Accident Prevention Provisions  
 40 CFR 60 Subpart III is not applicable to ASRC since ASRC does not have any air oxidation reactors and the process does not include any ammoxidation or oxychlorination reactions.

**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 June 06, 2019.
4. **40 CFR Part 64 Applicability Determination:** The source is subject to 40 CFR Part 64 - *Compliance Assurance Monitoring for Major Stationary Sources* per CAM plan dated August 8, 2014.
5. **Basis of Regulation Applicability**

a. **Plantwide**

American Synthetic Rubber Company, LLC is a major source for CO, NO<sub>x</sub>, SO<sub>2</sub>, PM<sub>10</sub>, VOC, 1, 3-Butadiene, hydrogen chloride, styrene, toluene, and combined HAPs. Regulation 2.16-Title V Operating Permits establishes requirements for major sources.

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 shall 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 the requirement for permits to contain compliance certification, monitoring, recordkeeping, reporting, and testing requirements to assure compliance with the terms and conditions of the permit. Thus, an EPA Reference Method performance test shall be performed every 10 years to determine the emission rate and control efficiency.

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* 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)

Per Construction Permit 112-04-C, dated August 31, 2004, the supplemental fuel for the Flare Thermal Oxidizer (C-FLARE TO) and Regenerative Thermal Oxidizer (C-U1/U2-RTO-1) shall be natural gas.

Per the May 2004 Enforceable Board Agreement and Construction Permit 112-04-C:

- i. The Flare Thermal Oxidizer (C-FLARE TO) shall be utilized as the primary control device, with the existing Flare Control System (C-FLARE) maintained as a safety device and back-up control for C-FLARE TO.
- ii. The Flare Thermal Oxidizer (C-FLARE TO) shall have the capability to destroy the 1,3-butadiene that cannot be re-introduced into the manufacturing process.
- iii. The Flare Thermal Oxidizer (C-FLARE TO) shall have a minimum destruction efficiency of 99.5%. The company performed a stack test on the C-FLARE TO on May 3, 2006 which showed that the average destruction efficiency was 99.999%. The Company requested in the Environmental Acceptable Demonstration for Category 1 TACS dated January 2, 2007, to increase the destruction efficiency requirement from 99.5% to 99.99% and include a limit of 950 lb/yr of 1,3 Butadiene from the C-FLARE-TO.
- iv. The Flare Thermal Oxidizer (C-FLARE TO) shall be used to combust the process vent stream up to the maximum design gas flow for the Flare Thermal Oxidizer (C-FLARE TO), and any excess of the maximum design gas flow shall be diverted to the Flare Control System (C-FLARE). The company performed a stack test on the C-FLARE TO on May 3, 2006 which showed the maximum gas flow rate was 515 dry ft<sup>3</sup>/min at the inlet and 21,086 dry ft<sup>3</sup>/min at the outlet; and on September 4, 2008, which showed a maximum gas flow rate of 290 dry ft<sup>3</sup>/min at the inlet or 38,884 dry ft<sup>3</sup>/min at the outlet.

- v. The owner or operator shall be allowed to divert any or all of the process vent stream from the Flare Thermal Oxidizer to the Flare Control System for a maximum of 876 hours per 12-consecutive months.

The Company requested in the Environmentally Acceptability Demonstration for Category 1 TACs dated Jan. 2, 2007, to increase this from the destruction efficiency of the Flare Thermal Oxidizer from 99.5% to 99.99% and include a limit of 950 lb/yr of 1,3 Butadiene from the C-FLARE-TO.

The Company requested an emission limit for plantwide fugitive 1,3-butadiene of 4,694 lbs/yr.

The stack test dated September 4, 2008, established a minimum operating temperature of 1,643 degrees F for the Flare Thermal Oxidizer.

The Company has agreed to define a leak for all components in 1,3-butadiene service to 250 ppm and to increase the frequency of LDAR monitoring as follows:

<b>Component Type in Enhanced Monitoring 1,3-butadiene Service</b>	<b>TAC goal modification</b>
Valves	Quarterly
Connectors	Quarterly
Pumps and Agitator Seals	Monthly
Pressure Relief Valves	Monthly
Compressors	Monthly
Closed Vent Systems	Quarterly (Visual, Olfactory, and Auditory Method)
Potentially Open-Ended Lines	Quarterly
Instruments	Quarterly
Components that are designated as “unsafe to monitor” or “difficult-to-monitor”	Annually

- vi. Revised Request for Modification of Certain STAR Program Goals (May 15, 2017) received May 16, 2017
  - 1) Plantwide All TACs / All Processes

<b>Individual Stationary source/all P/PE including new or modified</b>	<b>All Applicable TACS</b>	<b>EAGc (in a million)</b>	<b>ASRC Modeled Potential Cancer Risk (in a million)</b>
Non-Industrial Property	All TACs	7.5	<6.02

Individual Stationary source/all P/PE including new or modified	All Applicable TACS	EAGc (in a million)	ASRC Modeled Potential Cancer Risk (in a million)
Industrial Property	All TACs	75	<74.69

2) Emissions of 1,3-Butadiene from Individual Process/Process Equipment

Individual Stationary source/ Individual existing P/PE	EAGc (in a million) Non-Industrial Property	ASRC Modeled Potential Cancer Risk (in a million) Non-Industrial Property	EAGc (in a million) Industrial Property	ASRC Modeled Potential Cancer Risk (in a million) Industrial Property
Flare TO	1	0.23	10	0.47
Flare	1	0.99	10	1.617
Plant-Wide Fugitive	1	3.04	10	63.36

3) Plantwide All New TACs / All Processes

Individual Stationary source/all P/PE including new or modified	All Applicable TACS	EAGc (in a million)	ASRC Modeled Potential Cancer Risk (in a million)
Non-Industrial Property	All TACs	3.8	0.31
Industrial Property	All TACs	38	1.63

4) Individual Industrial TAC

Individual Industrial <sup>1</sup>									
TAC	CAS	Total		U1/U2		U3		U4	
		Risk < 10	HQ < 3	Risk < 10	HQ < 3	Risk < 10	HQ < 3	Risk < 10	HQ < 3
1,3-Butadiene FLARE TO	106-99-0	0.47	0.01	0.47	0.01	See U1/U2		0.00	0.00
1,3-Butadiene FLARE	106-99-0	1.617	0.026	1.617	0.026	See U1/U2		0.00	0.00
1,3-Butadiene Fugitives	106-99-0	63.36	1.50	63.36	1.50	See U1/U2		0.00	0.00
Acrylonitrile FLARE	107-13-1	0.01	0.0001	0.00	0.00	0.01	0.0001	0.00	0.00
Acrylonitrile Fugitives	107-13-1	9.86	0.074	0.00	0.00	9.86	0.074	0.00	0.00
Arsenic and Compounds	7440-38-2	0.99	0.015	0.00	0.00	0.00	0.00	0.99	0.015
Cadmium & Compounds	7440-43-9	0.05	0.001	0.00	0.00	0.00	0.00	0.05	0.001
Hexavalent Chromium	7440-47-3	0.53	0.005	0.00	0.00	0.00	0.00	0.53	0.005
Formaldehyde	50-00-0	0.0017	0.000014	0.00	0.00	0.00	0.00	0.0017	0.000014

<sup>1</sup> Cobalt and Manganese was not reported in the 2006 TRI.

Individual Industrial <sup>1</sup>									
TAC	CAS	Total		U1/U2		U3		U4	
		Risk < 10	HQ < 3	Risk < 10	HQ < 3	Risk < 10	HQ < 3	Risk < 10	HQ < 3
Hydrochloric Acid	7647-01-0	0	0.003	0	0	0	0	0	0.003
Nickel and Compounds	7440-02-0	0.04	0.011	0.00	0.00	0.00	0.00	0.04	0.011
Sulfuric Acid	7664-93-9	0	0.053	0.00	0.00	0.00	0.00	0	0.053
Styrene RTO-1	100-42-5	0.01	0.000025	0.01	0.000025	0.00	0.00	0.00	0.00
Styrene (NewFin Line 7 only)	100-42-5	1.63	0.00354	1.63	0.003348	0.00	0.00	0.00	0.00

## 5) Individual Non-Industrial

Individual Non-Industrial (Risk < 1.0, HQ < 1.0)									
TAC	CAS	Total		U1/U2		U3		U4	
		Risk < 1	HQ < 1	Risk < 1	HQ < 1	Risk < 1	HQ < 1	Risk < 1	HQ < 1
1,3-Butadiene FLARE TO	106-99-0	0.23	0.004	0.23	0.004	See U1/U2		0.00	0.00
1,3-Butadiene FLARE	106-99-0	0.990	0.0154	0.990	0.0154	See U1/U2		0.00	0.00
1,3-Butadiene Fugitives	106-99-0	3.04	0.050	3.04	0.050	See U1/U2		0.00	0.00
Acrylonitrile FLARE	107-13-1	0.01	0.0001	0.00	0.00	0.01	0.0001	0.00	0.00
Acrylonitrile Fugitives	107-13-1	0.47	0.004	0.00	0.00	0.47	0.004	0.00	0.00
Arsenic and Compounds	7440-38-2	0.59	0.009	0.00	0.00	0.00	0.00	0.59	0.009
Cadmium & Compounds	7440-43-9	0.03	0.001	0.00	0.00	0.00	0.00	0.03	0.001
Hexavalent Chromium	7440-47-3	0.31	0.003	0.00	0.00	0.00	0.00	0.31	0.003
Formaldehyde	50-00-0	0.001	0.000008	0.00	0.00	0.00	0.00	0.001	0.000008
Hydrochloric Acid	7647-01-0	0	0.002	0	0	0	0	0	0.002
Nickel and Compounds	7440-02-0	0.02	0.007	0.00	0.00	0.00	0.00	0.02	0.007
Sulfuric Acid	7664-93-9	0.00	0.031	0.00	0.00	0.00	0.00	0.00	0.031
Styrene RTO	100-42-5	0.001	0.000581	0.001	0.000581	0.00	0.00	0.00	0.00
Styrene (NewFin)	100-42-5	0.31	0.000579	0.31	0.000579	0.00	0.00	0.00	0.00

40 CFR 60.18(c)(1) and 40 CFR 60.18(c)(2) establish requirements for the C-FLARE.

For Regulation 7.25 VOC emissions venting to the Flare Thermal Oxidizer (C-FLARE TO) and/or Flare Control System (C-FLARE), the company submitted a BACT analysis on February 4, 2011, that showed that venting to the Flare

Thermal Oxidizer (C-FLARE TO) and/or the Flare Control System (C-FLARE) is considered BACT. The BACT limit was determined by:

U1/U2	(tpy)	Basis
D-10T	4.4	8/31/12 Plantwide PTE
D-16	15.5	7/1/04 Application
D-16M	2.8	9/20/13 Application
D-16T	2.68	2/4/11 Application
D-60A	0.02042	2/4/11 Application
D-61A	0.02121	2/4/11 Application
D-68M	2.13	2/4/11 Application
D-616	0.096	2/4/11 Application
D-618	0.0055	2/4/11 Application
D-628	0.0077	2/4/11 Application
D-630	0.0083	2/4/11 Application
T-5F	0.33	9/20/13 Application
T-5G	0.28	8/31/12 Plantwide PTE
T-5H	0.28	9/20/13 Application
T-5J	0.28	2/4/11 Application
T-5K	0.24	8/31/12 Plantwide PTE
Total	29.10	tpy for U1/U2

This limit includes the following equipment that each have less than 0.00 tpy controlled PTE:

C-9M	D-19M	D-57M	D-66M	D-680
D-5M	D-20M	D-59M	D-67M	D-686
D-7A	D-28M	D-60M	D-69M	
D-7M	D-28T	D-61M	D-155M	
D-8M	D-56M	D-64M	D-612	

U3  
 T-3(LP), T-2(LP), C-1(LP), T-1(LP) 0.3872 tpy  
 Plantwide PTE dated 8/31/12  
 T-1L 0.0219 tpy 8/31/12 Plantwide PTE  
 Total 0.409 tpy for U3

Total BACT limit for equipment vented to C-FLARE-TO and/or the C-FLARE = 29.09 tpy U1/U2 + 0.409 tpy U3 = 29.5 tpy

**b. Basis of Regulation Applicability**

Regulation	Title	Basis for Applicability
1.05	Compliance with Emission Standards and Maintenance Requirements	Establishes standards for compliance with emission standards and maintenance requirements
2.03	Authorization to Construct or Operate; Demolition/Renovation Notices and Permit Requirements	Establishes requirements for Permits to Construct and Operate
2.04	Construction or Modification or Major Sources In or Impacting Upon Non-Attainment Areas (Emission Offset Requirements)	Establishes requirements for Permits to Construct for sources emitting above significant levels for New Source Review

<b>Regulation</b>	<b>Title</b>	<b>Basis for Applicability</b>
2.05	Prevention of Significant Deterioration of Air Quality	Establishes requirements for Permits to Construct for sources emitting above significant levels for New Source Review/Prevention of Significant Deterioration of Air Quality
2.16	Title V Operating Permits	Title V source
5.00	Standards for Toxic Air Contaminants and Hazardous Air Pollutants	Establishes definitions of terms used in the Strategic Toxic Air Reduction Program.
5.01	General Provisions	Establishes general provisions for process equipment from which a toxic air contaminant is or may be emitted.
5.02	Federal Emission Standards for Hazardous Air Pollutants Incorporated by Reference	Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants
5.15	Chemical Accident Prevention Provisions	Establishes requirement for sources that handle the regulated substances listed in 40 CFR Part 68, Subpart F, and District Regulation 5.15, <i>Chemical Accident Prevention Provisions</i> , in a quantity in excess of the corresponding specified threshold amount.
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant	Establishes the methodology for determining the benchmark ambient concentration of a toxic air contaminant.
5.21	Environmental Acceptability for Toxic Air Contaminants	Establishes the criteria for determining the environmental acceptability of emissions of toxic air contaminants.
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant	Establishes the procedures for determining the maximum ambient concentration of a toxic air contaminant.
5.23	Categories of Toxic Air Contaminants	Establishes categories of toxic air contaminants.
6.09	Standards of Performance for Existing Process Operations	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	Standard of Performance for Existing Storage Vessels for Volatile Organic Compounds	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	Standards of Performance for Solvent Metal Cleaning Equipment	Applies to cold cleaners.
6.22	Standard of Performance for Existing Volatile Organic Materials Loading Facilities	Applies to loading facilities which load more than 200 gallons of "volatile organic materials" into tank trucks, trailer, or railroad tank cars in any one day, commenced before September 1, 1976.
6.24	Standard of Performance for Existing Sources Using Organic Materials	Establishes VOC standards for affected facilities constructed before June 13, 1979.
6.42	Reasonably Available Control Technology Requirements for Major Volatile Organic Compound and Nitrogen Oxides Emitting Facilities	Applies to the NO <sub>x</sub> emissions from all NO <sub>x</sub> -emitting facilities located at all major NO <sub>x</sub> -emitting stationary sources.

<b>Regulation</b>	<b>Title</b>	<b>Basis for Applicability</b>
6.43	Volatile Organic Compound Emission Reduction Requirements	Regulation 6.43 applies to ASRC per Section 7.1
7.01	General Provisions (for <i>New Affected Facilities</i> )	Applies to new facilities
7.02	Federal New Source Performance Standards Incorporated by Reference	Adoption of Federal New Source Performance Standards
7.06	Standards of Performance for New Indirect Heat Exchangers	Applies to each indirect heat exchanger having input capacity of more than one million BTU per hour commenced after September 1, 1976.
7.08	Standards of Performance for New Process Operations	Equipment installed after September 1, 1976 and subject to the PM emission standard.
7.12	Standard of Performance for New Storage Vessels for Volatile Organic Compounds	Storage tanks with a capacity greater than 250 gallons constructed after April 19, 1972
7.15	Standards of Performance for Gasoline Transfer to New Service Station Storage Tanks (Stage I Vapor Recovery)	Applies to the transfer of VOC from transport tanks into storage tanks constructed after June 13, 1979
7.22	Standard of Performance for New Volatile Organic Materials Loading Facilities	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, commencing after June 13, 1979.
7.25	Standard of Performance for New Sources Using Volatile Organic Compounds	Affected facility constructed after June 13, 1979 for VOC.
40 CFR 60 Subpart A	General Provisions	General Provisions
40 CFR 60 Subpart Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units	Applies to each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 29 megawatts (MW) (100 MMBtu/hr).
40 CFR 60 Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	Applies to each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h)
40 CFR 60 Subpart III	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	Applies to stationary CI internal combustion engines that commences construction after July 11, 2005.
40 CFR 63 Subpart A	General Provisions	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 U	National Emission Standards for Hazardous Air Pollutant Emissions: Group I Polymers and Resins	40 CFR Part 63 Subpart U establishes requirements for elastomer product process units (EPPU) and associated equipment
40 CFR 63 Subpart EEEE	National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)	40 CFR Part 63 Subpart EEEE establishes requirements for an organic liquid distribution (OLD) (non-gasoline) operation that is located at a major source of HAP emissions



Regulation	Title	Basis for Applicability
40 CFR 63 Subpart FFFF	National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing	National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing
40 CFR 63 Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	Applies to existing, new, and reconstructed stationary engines. The generators are stationary RICE located at an area source of HAP emissions, therefore 40 CFR 63 Subpart ZZZZ applies.
40 CFR 63 Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters	Establishes requirements for industrial, commercial, or institutional boiler or process heater that is located at, or is part of, a major source of HAP.
40 CFR 64	Compliance Assurance Monitoring	Establishes requirements for pollutant-specific emissions units with pre-control emissions greater than 100 tons per year, uses a control device to achieve compliance with an emission limitation or standard, and is located at a major source.
40 CFR 68	Chemical Accident Prevention Provisions	Establishes requirement for sources that handle the regulated substances listed in 40 CFR Part 68, Subpart F, and District Regulation 5.15, <i>Chemical Accident Prevention Provisions</i> , in a quantity in excess of the corresponding specified threshold amount.

c. **Emission Unit U1/U2**i. **Equipment****U1/U2 Emission Processes/Points**

ID E-U1/U2	Description	Applicable Regulation(s)	Control Device <sup>D</sup>	Stack ID
<b>SSBR/PBR Tank Farm</b>				
General Tank Farm Truck Unloading <sup>A</sup>	General Tank Farm Truck Unloading Early 1990's (Closed System)	1.05	N/A Closed System	N/A
		STAR		
		7.25		
Truck Staining Oil Loading/Unloading <sup>A</sup>	Truck Staining Oil Loading/Unloading (Bottom Load) 1940's (Closed System)	1.05	N/A Closed System	N/A
		STAR		
		6.22 (Loading)		
		6.24 (Unloading)		
Truck Chemical Addition Materials Unloading <sup>A</sup>	Truck Chemical Addition Materials Unloading 1960's (Closed System)	1.05	N/A Closed System	N/A
		STAR		
		6.24		
General Tank Farm Railcar Unloading <sup>A,C</sup>	General Tank Farm Railcar Unloading 1940's (Closed System)	1.05	N/A Closed System	N/A
		STAR		
		6.24		
Railcar Staining Oil Loading/Unloading <sup>A,C</sup>	Railcar Staining Oil Loading/Unloading (Bottom Load) 1940's (Closed System)	1.05	N/A Closed System	N/A
		STAR		
		6.22 (Loading)		
		6.24 (Unloading)		
Railcar	Railcar Chemical	1.05	N/A Closed System	N/A

ID E-U1/U2	Description	Applicable Regulation(s)	Control Device <sup>D</sup>	Stack ID
Chemical Addition Materials Unloading <sup>A,C</sup>	Addition Materials Unloading 1960's (Closed System)	STAR		
		6.24		
Railcar Loading <sup>C</sup>	Railcar Loading (Bottom Load) 1940's (Closed System)	1.05	N/A or Closed System or C-FLARE TO and/or C-FLARE	N/A or S-FLARE TO and/or S-FLARE
		STAR		
		6.22		
Truck/Railcar Solvent Loading <sup>A,C</sup>	Truck/Railcar Solvent Loading (Transfer Rack Loading VOM or Organic Liquid; Bottom Loading) 800,000 gal/yr 1960's (Closed System)	1.05	N/A or Closed System or C-FLARE TO and/or C-FLARE	N/A –Closed System or S-FLARE TO and/or S-FLARE
		STAR		
		6.22		
		40 CFR Part 63 Subpart EEEE		
T-2 <sup>E</sup>	Storage Tank (Submerged Fill) (Surge control vessel) 252,000 gallons, 1961	1.05	N/A or C-FLARE TO and/or C-FLARE	S-U1/U2-T-2 or N/A or S-FLARE TO and/or S-FLARE
		STAR		
		6.13		
		40 CFR 63 Subpart U		
T-2A (Formally Tank T-2M)	(In Process Storage) Tank (Submerged Fill) (Surge control vessel) 100,000 gal, 1987	STAR	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
		1.05, 7.12		
		40 CFR Part 63 Subpart U		
T-2B	(In Process Storage) Tank (Submerged Fill) (Surge control vessel) 100,000 gallons, 1995	1.05	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
		STAR		
		7.12		
		40 CFR 63 Subpart U		
T-2C	(In Process Storage) Tank (Submerged Fill) (Surge control vessel) 100,000 gallons, 1995	1.05		
		7.12		
		STAR		
		40 CFR 63 Subpart U		
T-3	Storage Tank (Submerged Fill) Group 2 Storage vessel 56,000 gallons 1961	1.05		
		STAR		
		6.13		
		40 CFR 63 Subpart U		
T-4	(In Process Storage) Tank, (Submerged Fill) (Surge Control Vessel) 252,000 gallons 1961	STAR	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
		1.05, 6.13		
		40 CFR 63 Subpart U		
T-4A (Formally Tank T-4M)	(In Process Storage) Tank (Surge Control Vessel) (Submerged Fill) 100,000 gallons 1987	STAR		
		1.05, 7.12		
		40 CFR Part 63 Subpart U		
T-4B	(In Process Storage) Tank (Surge Control Vessel) (Submerged Fill) 100,000 gallons 1993	STAR		
		1.05, 7.12		
		40 CFR 63 Subpart U		
T-4C	(In Process Storage) Tank (Submerged Fill)	STAR		
		1.05, 7.12		

ID E-U1/U2	Description	Applicable Regulation(s)	Control Device <sup>D</sup>	Stack ID		
	(Surge Control Vessel) 100,000 gallons, 1995	40 CFR 63 Subpart U				
T-11M <sup>S</sup>	Storage Tank (Submerged Fill) (Surge Control Vessel) 38,000 gallons, 1943	1.05	N/A or C-FLARE TO and/or C-FLARE	S-U1/U2-T-11M or S-FLARE TO and/or S-FLARE		
		STAR				
		6.13				
T-12M <sup>S</sup>	Storage Tank (Submerged Fill) (Surge Control Vessel) 38,000 gallons, 1943	40 CFR 63 Subpart U				
		STAR				
		1.05, 6.13				
T-13M <sup>S</sup>	Storage Tank (Submerged Fill) (Surge Control Vessel) 38,000 gallons, 1943	40 CFR 63 Subpart U				
		STAR				
		1.05, 6.13				
T-13T <sup>S</sup>	Storage Tank (Submerged Fill) (Surge Control Vessel) 38,000 gallons, 1995	40 CFR 63 Subpart U				
		STAR				
		1.05, 7.12				
T-15M	(In Process Storage) Tank (Submerged Fill) (Surge Control Vessel) 10,000 gallons, 1987	40 CFR 63 Subpart U	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE		
		STAR				
		7.12				
T-15T	(In Process Storage) Tank (Submerged Fill) (Surge Control Vessel) 10,000 gallons, 1995	40 CFR 63 Subpart U				
		STAR				
		7.12				
T-16 <sup>S</sup>	(In Process Storage) Tank (Submerged Fill) (Surge Control Vessel) 200,000 gallons, 2006	40 CFR 63 Subpart U			N/A or C-FLARE TO and/or C-FLARE	S-U1/U2-T-16 or S-FLARE TO and/or S-FLARE
		STAR				
		1.05, 7.12				
T-32	(In Process Storage) Tank (Submerged Fill) (Surge Control Vessel) 10,000 gallons, 1995	40 CFR 63 Subpart U			C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
		STAR				
		1.05, 7.12				
T-605	Storage Tank T-605 (Submerged Fill) (Group 1 Storage Vessel) 55,000 gallons 2013	40 CFR 63 Subpart U				
		STAR				
		1.05, 7.12				
DT-2 (Day Tank 2)	Day Tank 2, (In Process Storage) (Surge Control Vessel) (Submerged Fill) 30,000 gallons, 1943	40 CFR 63 Subpart U				
		STAR				
		6.13				
		1.05				

ID E-U1/U2	Description	Applicable Regulation(s)	Control Device <sup>D</sup>	Stack ID
DT-3 (Day Tank 3)	Day Tank 3(In Process Storage) (Surge Control Vessel) (Submerged Fill) 30,000 gallons, 1943	1.05	N/A or C-FLARE TO and/or C-FLARE	S-U1/U2-DTK-4 or S-FLARE TO and/or S-FLARE
		STAR		
		6.13		
		40 CFR 63 Subpart U		
DT-4 (Day Tank 4) <sup>E,F</sup>	Day Tank 4(In Process Storage) (Submerged Fill) (Surge control vessel) 30,000 gallons, 1943	STAR		
		1.05		
		6.13		
		40 CFR 60 Subpart U		
DT-5 (Day Tank 5) <sup>E,F</sup>	Day Tank 5, (In Process Storage) (Submerged Fill) (Surge control vessel) 30,000 gallons, 1943	STAR		
		1.05		
		6.13		
		40 CFR 63 Subpart U		
DT-6 (Day Tank 6) <sup>E,F</sup>	Day Tank 6(In Process Storage) (Submerged Fill) (Surge control vessel) 30,000 gallons, 1943	STAR		
		1.05		
		6.13		
		40 CFR 63 Subpart U		
DT-12 (Day Tank 12) <sup>E,F</sup>	Day Tank 12(In Process Storage) (Submerged Fill) (Surge control vessel) 30,000 gallons, 1952	STAR		
		1.05, 6.13		
		40 CFR 63 Subpart U		
<b>SSBR/PBR Solvent Purification</b>				
C-2 <sup>A</sup>	Drying Column 1999	STAR	N/A Closed System	N/A – Closed System
		1.05, 7.25		
		40 CFR 63 Subpart U		
C-2M <sup>A</sup>	Drying Column 1987	STAR	N/A Closed System	N/A- Closed System
		1.05, 7.25		
		40 CFR 63 Subpart U		
C-2T <sup>A</sup>	Drying Column 13,600 gallons 1995	STAR	N/A Closed System	N/A – Closed System
		1.05, 7.25		
		40 CFR 63 Subpart U		
C-7 <sup>A</sup>	Drying Column 1961	1.05, 6.24	N/A Closed System	N/A – Closed System
		STAR		
		40 CFR 63 Subpart U		
C-604A <sup>A, T</sup>	Process Adsorption Column 8,500 gallons, 2014	1.05, 2.05,	N/A Closed System	N/A – Closed System
		STAR		
		7.25		
		40 CFR 63 Subpart U		
C-605A <sup>A</sup>	Process Adsorption Column, 196 ft3 catalyst volume	1.05	N/A Closed System	N/A – Closed System
		STAR		
		7.25		
		40 CFR 63 Subpart U		
C-605B <sup>A</sup>	Process Adsorption Column, 196 ft3 catalyst volume	1.05	N/A Closed System	N/A – Closed System
		STAR		
		7.25		
		40 CFR 63 Subpart U		

ID E-U1/U2	Description	Applicable Regulation(s)	Control Device <sup>D</sup>	Stack ID
C-615 <sup>A</sup>	Purification Column 24,000 gallons, 2013	1.05, 7.25	NA Closed System	NA – Closed System
		STAR		
		40 CFR 63 Subpart U		
C-623 <sup>A</sup>	Purification Column 120 gallons, 2013	1.05, 7.25	NA Closed System	NA – Closed System
		40 CFR 63 Subpart U		
D-15 <sup>B</sup>	Feed Drum, Group 2 Continuous Front-End Process Vent (TRE > 4.0) 395 gallons, 1961	STAR	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
		1.05, 6.24		
		40 CFR 63 Subpart U		
D-16 <sup>B</sup>	Reflux Accumulator Group 1 Continuous Front-End Process Vent 2,160 gallons 2004	STAR	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
		1.05, 7.25		
		40 CFR 63 Subpart U		
		40 CFR 64 (VOC)		
D-16M <sup>B</sup>	Reflux Accumulator Group 1 Continuous Front-End Process Vent (TRE ≤ 1.0) 2,160 gallons 1987	1.05, 7.25		
		STAR		
		40 CFR 63 Subpart U		
D-16T <sup>B</sup>	Reflux Accumulator Group 1 Continuous Front-End Process Vent 2,160 gallons, 1996	40 CFR 64 (VOC)		
		STAR		
		1.05, 7.25		
D-32 <sup>B</sup>	Accumulator, Group 2 Continuous Front-End Process Vent (TRE > 4.0) 3,050 gallons 1961	40 CFR 63 Subpart U		
		STAR		
		1.05, 6.24		
D-59M <sup>B</sup>	Decanter, Group 2 Continuous Front-End Process Vent (TRE > 4.0) 4,600 gallons 1995	STAR		
		1.05, 7.25		
		40 CFR 63 Subpart U		
D-612	Mix/Run Tank With Associated Hopper Group 2 Continuous Front-End Process Vent (TRE > 4.0) 1,000 gallons, 2013	7.08	N/A	N/A
		1.05, 2.05	C-FLARE TO and/or C-FLARE and NA (particulates)	S-FLARE TO and/or S-FLARE and N/A (particulate)
		7.25		
		STAR		
D-616	Reflux Drum D-616 Group 2 Continuous Front-End Process Vent (TRE > 4.0) 5,000 gallons 2013	40 CFR 63 Subpart U	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
		1.05,		
		7.25		
		STAR		
X-2 <sup>A</sup>	Purification Coalescer 277 gallons, 1961	1.05, 6.24	N/A Closed System	N/A – Closed System
		STAR		
		40 CFR 63 Subpart U		
X-2M <sup>A</sup>	Purification Coalescer 277 gallons, 1987	1.05, 7.25	N/A Closed System	N/A- Closed System
		STAR		
		40 CFR 63 Subpart U		
X-2T <sup>A</sup>	Purification Coalescer 277 gallons, 1996	1.05, 7.25	N/A Closed System	N/A – Closed System
		STAR		
		40 CFR 63 Subpart U		
<b>SSBR/PBR Butadiene Purification</b>				
C-1 <sup>A</sup>	Drying Column 1961	1.05, 6.24	N/A Closed System	N/A Closed System
		STAR		
		40 CFR 63 Subpart U		
C-1A <sup>A</sup>	Drying Column	1.05, 7.25	N/A Closed System	N/A Closed

ID E-U1/U2	Description	Applicable Regulation(s)	Control Device <sup>D</sup>	Stack ID
	1987	STAR		System
		40 CFR 63 Subpart U		
C-1T <sup>A</sup>	Drying Column 1996	1.05, 7.25	N/A Closed System	N/A Closed System
		STAR		
		40 CFR 63 Subpart U		
D-10 <sup>A</sup>	Feed Drum, 2,350 gallons, 1961	1.05, 6.24	N/A Closed System	N/A Closed System
		STAR		
		40 CFR 63 Subpart U		
D-10A <sup>A</sup>	Feed Drum, 2,350 gallons, 1987	1.05, 7.25	N/A Closed System	N/A Closed System
		STAR		
		40 CFR 63 Subpart U		
D-10T	Feed Drum (Closed System or Group 1 Continuous Front-End Process Vent) 2,350 gallons, 1996	1.05, 7.25	N/A or C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
		STAR		
		40 CFR 63 Subpart U		
		40 CFR 64 (VOC)		
<b>SSBR Styrene Purification</b>				
C-9M <sup>B</sup>	Drying Column with Process Absorber, Group 2 Continuous Front-End Process Vent (TRE > 4.0) (C-10M) 1987	1.05, 7.25	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
		STAR		
		40 CFR 63 Subpart U		
<b>SSBR/PBR Chemical Addition</b>				
BU-1T	Supersack Unloader 2006	7.08	C-U1/U2- DC-1T	S-U1/U2- DC-1T
BU-2T	Supersack Unloader 890 lb/supersack, 2013	7.08	C-U1/U2-DC-2T/3T	S-U1/U2-DC-2T/ 3T
BU-3T	Supersack Unloader 1110 lb/supersack, 2013	7.08		
D-1 <sup>R</sup>	Feed Tank with Seal Pot (D-1S) Group 2 Continuous Front-End Process Vent (TRE > 4.0) 2,000 gal 1961	1.05, 6.24	N/A	S-U1/U2- D-1S
		STAR		
		40 CFR 63 Subpart U		
D-3	Storage Tank (Submerged Fill) 17,000 gallons, 1961	1.05, 6.13	N/A	S-U1/U2- D-3
		STAR		
D-5	Mix/Run Tank Group 2 Continuous Front-End Process Vent (TRE > 4.0) 1, 300 gallons, 1961	1.05, 6.24	N/A or C-FLARE TO and/or C-FLARE	S-U1/U2-D-5 or S-FLARE TO and/or S-FLARE
		STAR		
		40 CFR 63 Subpart U		
D-5M <sup>B</sup>	Make-up/Run Tank Group 2 Continuous Front-End Process Vent (TRE > 4.0) 850 gallons 1987	1.05, 7.25	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
		STAR		
		40 CFR 63 Subpart U		
D-6 <sup>R</sup>	Mix/Run Tank with Common Seal Pot (D-6S) Group 2 Continuous Front-End Process Vent (TRE > 4.0) 2,000 gallons 1961	1.05, 6.24	N/A	S-U1/U2- D-6S
		STAR		
		40 CFR 63 Subpart U		
D-6A	Mix/Run Tank (Group 2 Continuous Front-End Process Vent)	1.05	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
		7.25		
		STAR		

ID E-U1/U2	Description	Applicable Regulation(s)	Control Device <sup>D</sup>	Stack ID
	TRE > 4.0) 7,000 gallons 2013	40 CFR 63 Subpart U		
D-7 <sup>B</sup>	Mix/Run Tank, Group 2 Continuous Front-End Process Vent (TRE > 4.0) 1,500 gallons 1961	1.05, 6.24	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
		STAR		
		40 CFR 63 Subpart U		
D-7A	Mix/Run Tank D-7A Group 2 Continuous Front-End Process Vent (TRE > 4.0) 9,000 gallons 2013	1.05		
		7.25		
		STAR		
		40 CFR 63 Subpart U		
D-7M <sup>B</sup>	Make-up/Run Tank Group 2 Continuous Front-End Process Vent (TRE > 4.0) 1,500 gallons 1987	1.05, 7.25		
		STAR		
		40 CFR 63 Subpart U		
D-8 <sup>R</sup>	Mix/Run Tank with Common Seal Pot (D-6S) Group 2 Continuous Front-End Process Vent (TRE > 4.0) 2,300 gallons 1961	1.05, 6.24	N/A	S-U1/U2-D-6S
		STAR		
		40 CFR 63 Subpart U		
D-8A <sup>A, T</sup>	Mix/Run Tank (Closed System) 1,200 gallons, 2014	1.05, 7.25	N/A –Closed System	N/A- Closed System
		STAR		
		40 CFR Part 63 Subpart U		
D-8M <sup>B</sup>	Make-up/Run Tanks Group 2 Continuous Front-End Process Vent (TRE > 4.0) 1,200 gallons each, 1987	1.05, 7.25 STAR 40 CFR 63 Subpart U	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
D-19M <sup>B</sup>	Make-up/Run Tanks Group 2 Continuous Front-End Process Vent (TRE > 4.0) 800 gallons each, 1987			
D-20M <sup>B</sup>	Make-up/Run Tanks Group 2 Continuous Front-End Process Vent (TRE > 4.0) 800 gallons each, 1987			
D-38A	Storage and Feed Tanks Group 2 Continuous Front-End Process Vent (TRE > 4.0) 17,000 gal each, 1961	1.05, 6.24 STAR 40 CFR 63 Subpart U	N/A or C-FLARE TO and/or C-FLARE	S-U1/U2-D-38A/ D-38B or S-FLARE TO and/or S-FLARE
D-38B				
D-39	Storage and Feed Tanks Group 2 Continuous Front-End Process Vent (TRE > 4.0) 7,900 gal each, 1961			N/A
D-44 <sup>R</sup>	Mix/Run Tank with Seal Pot (D-44S), 12,000 gallons, 2004	1.05	N/A	S-U1/U2- D-44S
		7.25		
		STAR		
D-44M <sup>R</sup>	Mix/Run Tanks with Common Seal Pot (D-43M) 1,220 gal each, 1987	1.05, 7.25 STAR	N/A	S-U1/U2- D-43M
D-45M <sup>R</sup>				

ID E-U1/U2	Description	Applicable Regulation(s)	Control Device <sup>D</sup>	Stack ID
D-56M <sup>B</sup>	Make-up/Run Tank Group 2 Continuous Front-End Process Vent (TRE > 4.0) 1,220 gal, 1987	1.05, 7.25	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
		STAR		
		40 CFR 63 Subpart U		
D-57M <sup>B</sup>	Make-up/Run Tank Group 2 Continuous Front-End Process Vent (TRE > 4.0) 476 gal, 1987	1.05, 7.25		
		STAR		
		40 CFR 63 Subpart U		
D-60A <sup>B</sup>	Mix/Run Tank D-60A Group 2 Continuous Front-End Process Vent (TRE > 4.0) 16,000 gal 2013	1.05		
		7.25		
		STAR		
		40 CFR 63 Subpart U		
D-60M <sup>B</sup>	Make-up/Run Tank Group 2 Continuous Front-End Process Vent (TRE > 4.0) 1,500 gal 1996	1.05, 7.25		
		STAR		
		40 CFR 63 Subpart U		
D-61A <sup>B</sup>	Mix/Run Tank D-61A Group 2 Continuous Front-End Process Vent (TRE > 4.0) 18,000 gal 2013	1.05		
		7.25		
		STAR		
		40 CFR 63 Subpart U		
D-61M <sup>B</sup>	Make-up/Run Tank Group 2 Continuous Front-End Process Vent (TRE > 4.0) 1,200 gal 1996	1.05, 7.25		
		STAR		
		40 CFR 63 Subpart U		
D-66M <sup>B</sup>	Mix/Run Tank, 4,000 gallons 1995	1.05		
		STAR		
		7.25		
D-67M <sup>B</sup>	Mix/Run Tank, 7,500 gallons 1995	1.05		
		STAR		
		7.25		
D-68M <sup>B</sup>	Mix/Run Tank, Group 2 Continuous Front-End Process Vent (TRE > 4.0); 7,500 gallons 1995	1.05, 7.25 STAR 40 CFR 63 Subpart U	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
D-69M <sup>B</sup>	Make-up/Run Tank Group 2 Continuous Front-End Process Vent (TRE > 4.0) 7,500 gal 1996	1.05, 7.25 STAR 40 CFR 63 Subpart U	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE



ID E-U1/U2	Description	Applicable Regulation(s)	Control Device <sup>D</sup>	Stack ID
D-155M <sup>B</sup>	Mix/Run Tank, Group 2 Continuous Front-End Process Vent (TRE > 4.0) 2,000 gal 2002	1.05, 7.25		
		STAR		
		40 CFR 63 Subpart U		
D-618 <sup>B</sup>	Mix/Run Tank, Group 2 Continuous Front-End Process Vent (TRE > 4.0) 10,000 gallons 2013	1.05, 7.25 STAR 40 CFR 63 Subpart U		
D-628 <sup>B</sup>	Mix/Run Tank Group 2 Continuous Front-End Process Vent (TRE > 4.0) 13,000 gallons 2013			
D-630 <sup>B</sup>	Mix/Run Tank Group 2 Continuous Front-End Process Vent (TRE > 4.0) 15,000 gallons 2013			
D-645 <sup>B &amp; Q</sup>	Mix/Run Tank 11,500 gallons, 2014	1.05, 7.25 STAR	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
D-641 <sup>R</sup>	Storage Tank with Seal Pot D-643 (Submerged Fill), 900 gallons, 2014	1.05 STAR	N/A	S-U1/U2-D-643/ D-644
D-642 <sup>R</sup>	Storage Tank with Seal Pot D-644 (Submerged Fill) 600 gallons, 2014	7.12	N/A	S-U1/U2-D-643/ D-644
R-651 <sup>A, P</sup>	Mix Tank, 20 gal, 2014	1.05	N/A Closed System	N/A Closed System
R-652 <sup>A, P</sup>	Mix Tank, 90 gal, 2014	STAR		
R-653 <sup>A, P</sup>	Mix Tank, 20 gal, 2014	7.25		
R-654 <sup>A, P</sup>	Mix Tank, 90 gal, 2014	40 CFR 63 Subpart U		
D-655 <sup>Q</sup>	Storage Tank, 16,000 gal, Submerged Fill, 2014	1.05 STAR 7.12	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
D-657 <sup>B</sup>	Run Tank, 5,300 gal, Group 2 Continuous Front End Process Vent (TRE > 4.0) 2014	1.05 STAR		
D-658 <sup>B</sup>	Recycle Tank, 5,300 gal, Group 2 Continuous Front-End Process Vent (TRE > 4.0) 2014	7.25 40 CFR 63 Subpart U		
D-680 <sup>B, T</sup>	Mix/Run Tank 5,000 gal Group 2 Continuous Front-End Process Vent (TRE > 4.0), 2013	1.05, 7.25 STAR 40 CFR 63 Subpart U		
D-686 <sup>B</sup>	Mix/Run Tank, 2,000 gal, 2013	1.05, 7.25 STAR		
T-1 <sup>R</sup>	Storage Tank with Seal Pot (T-1S), 42,000 gal (Submerged Fill), Group 2 Storage vessel, 1961	1.05, 6.13	N/A	S-U1/U2-T-1S
		STAR		
		40 CFR 63 Subpart U.		
T-14	Storage Tank, 7,900 gal	1.05, 7.12	N/A	S-U1/U2-

ID E-U1/U2	Description	Applicable Regulation(s)	Control Device <sup>D</sup>	Stack ID
	Submerged Fill, 1987	STAR		T-14
D-671 <sup>2</sup>	Storage Tank, 1325 gal, Submerged Fill, 2019	1.05, 7.12, STAR	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
<b>SSBR/PBR Polymerization</b>				
Reactor 1 through Reactor 13	Reactor 1 through Reactor 13 4,040 gallons each 1961	1.05	N/A –Closed Pressurized System <sup>P</sup>	N/A –Closed Pressurized System
		STAR		
		6.24		
		40 CFR 63 Subpart U		
Reactor 14 <sup>T</sup>	Reactor 14 4,300 gallons 1996	1.05	N/A –Closed Pressurized System <sup>P</sup>	N/A –Closed Pressurized System
		STAR		
		7.25		
		40 CFR 63 Subpart U		
D-9 <sup>A</sup>	Recovery Stripper with Process Condenser (E-60), 7,930 gallons 1961	1.05, 6.24	N/A Closed System	N/A – Closed System
		STAR		
		40 CFR 63 Subpart U		
D-13	Recovery Decanter Group 2 Continuous Front-End Process Vent (TRE > 4.0) 940 gallons, 1961	1.05, 6.24	N/A	S-U1/U2- D-13
		STAR		
		40 CFR 63 Subpart U		
D-24 <sup>A</sup>	Process Tank, Surge Tank, 8,120 gallons 1961	1.05, 6.24	N/A Closed System	N/A– Closed System
		STAR		
		40 CFR 63 Subpart U		
D-24M <sup>A</sup>	Process Tank, Surge Drum, 7,600 gallons 1987	1.05	N/A Closed System	N/A Closed System
		STAR		
		7.25		
		40 CFR 63 Subpart U		
D-24T <sup>A</sup>	Process Tank, Surge Drum, 7,500 gallons 1996	1.05	N/A Closed System	N/A– Closed System
		STAR		
		7.25		
		40 CFR 63 Subpart U		
<b>SSBR/PBR Concentration</b>				
D-25 <sup>A</sup>	Primary Flash Drum 12,400 gallons 1961	1.05	N/A Closed System	N/A– Closed System
		STAR		
		6.24		
		40 CFR 63 Subpart U		
D-25M <sup>A</sup>	Primary Flash Drum 8,000 gallons <sup>H</sup> 1987	1.05	N/A Closed System	N/A – Closed System
		STAR		
		7.25		
		40 CFR 63 Subpart U		
D-25T <sup>A</sup>	Primary Flash Drum 7,800 gallons 1996	1.05, 7.25	N/A Closed System	N/A– Closed System
		STAR		
		40 CFR 63 Subpart U		
D-26 <sup>A</sup>	Secondary Flash Drum 5,140 gallons 1961	1.05, 6.24	N/A Closed System	N/A– Closed System
		STAR		
		40 CFR 63 Subpart U		
D-26M <sup>A</sup>	Secondary Flash Drum 5,100 gallons 1987	1.05, 7.25	N/A Closed System	N/A– Closed System
		STAR		
		40 CFR 63 Subpart U		

2 Use of the existing Flare Thermal Oxidizer and/or the existing Flare Control System for new Emission Points E-U1/U2 D-671 is not required for compliance with any underlying applicable requirement. Therefore, there are no associated standards, monitoring and record keeping, or reporting requirements for the existing Flare Thermal Oxidizer and/or Flare Control System for new Emission Points E-U1/U2 D-671.

ID E-U1/U2	Description	Applicable Regulation(s)	Control Device <sup>D</sup>	Stack ID
D-26T <sup>A</sup>	Secondary Flash Drum 4,500 gallons 1996	1.05	N/A Closed System	N/A– Closed System
		STAR		
		7.25		
		40 CFR 63 Subpart U		
D-27 <sup>A</sup>	Tertiary Flash Drum 1,960 gallons 1961	1.05	N/A Closed System	N/A– Closed System
		STAR		
		6.24		
		40 CFR 63 Subpart U		
D-28 <sup>A</sup>	Flash Condenser Receiver and Condensate Drain Tank (C-8) with Process Absorber (C-6) (Group 2 Continuous Front-End Process Vent (TRE > 4.0) 5,760 gallons 1961	1.05		
		STAR		
		6.24		
		40 CFR 63 Subpart U		
D-28M <sup>B</sup> (Previously C-8M)	Flash Overhead Surge Tank with Process Absorber C-8M <sup>I</sup> (Group 1 Continuous Front-End Process Vent TRE < 1.0) 6,150 gal, 1987	1.05	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
		STAR		
		7.25		
		40 CFR 63 Subpart U		
D-28T <sup>B</sup>	Flash Overhead Surge Tank with Process Absorber (C-8T) Group 1 Continuous Front-End Process Vent, 6,150 gallons 1996	1.05		
		STAR		
		7.25		
		40 CFR 63 Subpart U.		
D-29 <sup>B</sup>	Recycle Calibration Drum Group 2 Continuous Front-End Process Vent (TRE > 4.0) 2,160 gallons 1961	1.05, 6.24		
		STAR		
		40 CFR 63 Subpart U		
D-64M <sup>B,J</sup>	Flush Tank (Group 2 Continuous Front-End Process Vent TRE >4.0) 1,100 gallons 2013	1.05		
		STAR		
		7.25		
		40 CFR 63 Subpart U		
<b>SSBR/PBR Blending</b>				
T-5A <sup>B</sup>	Blend Tank, Group 2 Continuous Front-End Process Vent (TRE > 1.0 but < or = to 4.0); Considered Group 1 Continuous Front-End Process Vent 84,000 gallons 1961	1.05	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
		STAR		
		6.24		
		40 CFR 63 Subpart U		
T-5B <sup>B</sup>	Blend Tank, Group 2 Continuous Front-End Process Vent (TRE > 1.0 but < or = to 4.0); Considered Group 1 Continuous Front-End Process Vent 84,000 gallons 1961	1.05	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
		STAR		
		6.24		
		40 CFR 63 Subpart U		

<b>ID E-U1/U2</b>	<b>Description</b>	<b>Applicable Regulation(s)</b>	<b>Control Device <sup>D</sup></b>	<b>Stack ID</b>
T-5C <sup>B</sup>	Blend Tank, Group 2 Continuous Front-End Process Vent (TRE > 1.0 but < or = to 4.0); Considered Group 1 Continuous Front-End Process Vent 84,000 gal 1961	1.05	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
		STAR		
		6.24		
		40 CFR 63 Subpart U		
T-5D <sup>B</sup>	Blend Tank, Group 2 Continuous Front-End Process Vent (TRE > 1.0 but < or = to 4.0); Considered Group 1 Continuous Front-End Process Vent 84,000 gallons 1961	1.05	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
		STAR		
		6.24		
		40 CFR 63 Subpart U		
T-5E <sup>B</sup>	Blend Tank, Group 2 Continuous Front-End Process Vent (TRE > 1.0 but < or = to 4.0); Considered Group 1 Continuous Front-End Process Vent) 84,000 gallons 1961	1.05	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
		STAR		
		6.24		
		40 CFR 63 Subpart U		
T-5F <sup>B</sup>	Blend Tank, Group 2 Continuous Front-End Process Vent (TRE > 1.0 but < or = to 4.0); Considered Group 1 Continuous Front-End Process Vent) 84,000 gallons 1987	1.05	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
		STAR		
		7.25		
		40 CFR 63 Subpart U		
T-5G <sup>B</sup>	Blend Tank, Group 2 Continuous Front-End Process Vent (TRE > 1.0 but < or = to 4.0); Considered Group 1 Continuous Front-End Process Vent) 85,000 gallons 1990	1.05	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
		STAR		
		7.25		
		40 CFR 63 Subpart U		
T-5H <sup>B</sup>	Blend Tank, Group 2 Continuous Front-End Process Vent (TRE > 1.0 but < or = to 4.0); Considered Group 1 Continuous Front-End Process Vent) 84,000 gallons 1992	1.05	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
		STAR		
		7.25		
		40 CFR 63 Subpart U		

ID E-U1/U2	Description	Applicable Regulation(s)	Control Device <sup>D</sup>	Stack ID
T-5J <sup>B</sup>	Blend Tank (Group 2 Continuous Front-End Process Vent (TRE > 1.0 but < or = to 4.0); Considered Group 1 Continuous Front-End Process Vent), 85,000 gal, 1995	1.05	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
		STAR		
		7.25		
		40 CFR 63 Subpart U		
	40 CFR 64 (VOC)			
T-5K <sup>B</sup>	Blend Tank (Group 2 Continuous Front-End Process Vent (TRE > 1.0 but < or = to 4.0); Considered Group 1 Continuous Front-End Process Vent) 85,000 gallons 1998	1.05	C-FLARE TO and/or C-FLARE	S-FLARE TO and/or S-FLARE
		STAR		
		7.25		
		40 CFR 63 Subpart U		
	40 CFR 64 (VOC)			
<b>SSBR/PBR Stripping</b>				
No. 1 Stripper Vessels <sup>A</sup>	No. 1 stripper vessels & process condensers (consists of 3 stripping vessels; primary, secondary, and tertiary) 2006	1.05 STAR 7.25 40 CFR 63 Subpart U	N/A Closed System	N/A– Closed System
No. 2 Stripper Vessels <sup>A</sup>	No. 2 stripper vessels & 4 process condensers (consists of 3 stripping vessels; primary, secondary, and tertiary) 2006		N/A Closed System	N/A– Closed System
No. 3 Stripper Vessels <sup>A, K</sup>	No. 3 stripper vessels & process condensers (consists of 3 stripping vessels; primary, secondary, and tertiary) 2003		N/A Closed System	N/A– Closed System
No. 4 Stripper Vessels <sup>A, K, L</sup>	No. 4 stripper vessels & process condensers (consists of 3 stripping vessels; primary, secondary, and tertiary (replaced in 2017 through Operational Flexibility Regulation 2.16, Section 5.8)) 2011		N/A Closed System	N/A– Closed System
No. 5 Stripper Vessels <sup>A</sup>	No. 5 stripper vessels & process condensers (consists of 3 stripping vessels; primary, secondary, and tertiary) 2008		N/A Closed System	N/A– Closed System
D-30	Decanter (Group 2 Continuous Front-End Process Vent (TRE > 4.0)) 9,740 gallons 1984		1.05 STAR 7.25 40 CFR 63 Subpart U	Condenser <sup>G</sup> (C-U1/U2-E-24)

ID E-U1/U2	Description	Applicable Regulation(s)	Control Device <sup>D</sup>	Stack ID
D-30M <sup>M</sup>	Decanter (Group 2 Continuous Front-End Process Vent TRE > 4.0) 9,740 gallons 1995	1.05	Condenser <sup>G</sup> (C-U1/U2-E-24M)	(S-U1/U2-D-30M) or {S-U1/U2-D-30M and S-FLARE TO &/or S-FLARE} or [S-FLARE TO &/or S-FLARE]
		STAR		
		7.25		
D-30T <sup>M</sup>	Decanter Group 2 Continuous Front-End Process Vent (TRE > 4.0) 9,740 gallons 1996	STAR	Condenser <sup>G</sup> (C-U1/U2-E-24T)	(S-U1/U2-D-30T) or {S-U1/U2-D-30T and S-FLARE TO &/or S-FLARE} or [S-FLARE TO &/or S-FLARE]
		1.05, 7.25		
		40 CFR 63 Subpart U		
T-9A <sup>A, N</sup>	Crumb Tank with Process Condenser (E-32A) 47,000 gallons, 2000	1.05, 7.25 STAR 40 CFR 63 Subpart U	N/A Closed System	N/A- Closed System
T-9B <sup>A, N</sup>	Crumb Tank with Process Condenser (E-32B) 47,000 gallons, 2001		N/A Closed System	N/A- Closed System
T-9C <sup>A, N</sup>	Crumb Tank with Process Condenser (E-32C) 47,000 gallons, 2004		N/A Closed System	N/A- Closed System
T-9D <sup>A, N</sup>	Crumb Tank with Process Condenser (E-32D) 47,000 gallons, 2004		N/A Closed System	N/A- Closed System
T-9E/T <sup>A, N</sup>	No. 5 Crumb Tank with Process Condenser (E-32E/T) 47,000 gallons, 2016		1.05, 7.25	N/A Closed System
		STAR		
		40 CFR 63 Subpart U		
<b>SSBR/PBR Finishing<sup>N</sup></b>				
No. 1 Line	No. 1 Finishing Line (Back-End Process Operation), 1989	1.05, 6.43, 7.25 STAR 40 CFR 63 Subpart U 40 CFR 64 (VOC)	C-U1/U2-RTO-1 or Boiler(s) (C-U1/U2-BLR1/2)	S-U1/U2-RTO-1 or S-U4-BLR1/2
No. 2 Line	No. 2 Finishing Line (Back-End Process Operation) 1989			
No. 3 Line	No. 3 Finishing Line (Back-End Process Operation) 1989			
No. 4 Line	No. 4 Finishing Line (Back-End Process Operation) 1995			

ID E-U1/U2	Description	Applicable Regulation(s)	Control Device <sup>D</sup>	Stack ID
No. 5 Line	No. 5 Finishing Line (Back-End Process Operation) 1996			
No. 7 Line	No. 7 Finishing Line (Back-End Process Operation) 2008	1.05, 6.43, 7.25 STAR 40 CFR 63 Subpart U 40 CFR 64 (VOC)	C-U1/U2-RTO-1 or Boiler(s) C-U1/U2-BLR1/2	S-U1/U2-RTO-1 or S-U4-BLR1/2
<b>Miscellaneous Equipment</b>				
Mis Equipment	(200) Drums and Totes (Insignificant)	STAR, 1.05, 7.25	N/A	N/A
D-128 <sup>N3</sup>	Emergency Use Containment Tank (8568 gallons) 2018	STAR, 1.05, 7.25	N/A	S-U1/U2 D-128

**U1/U2 Control Devices**

ID E-U1/U2	Description	Performance Indicator	Efficiency	Stack ID
C-FLARE TO <sup>O</sup>	Flare Thermal Oxidizer System including tanks: D-112, D-113, D-114, D-114A, D-640, D-84, D-84A, D-84T, D-85, D-37, D-37M- D-37T, and D-37½, which are considered part of the flare header system	Combustion Temp and Gas Flow Monitoring	99.99%	S-FLARE TO
C-FLARE <sup>O</sup>	Flare Control System including tanks: D-112, D-113, D-114, D-114A, D-640, D-84, D-84A, D-84T, D-85, D-37, D-37M- D-37T, and D-37½, which are considered part of the flare header system.	Thermocouples Monitoring Presence of Flame	98%	S-FLARE
C-U1/U2-DC-1T	Cartridge Filter Dust Collector	Presence of Filters	98%	S-U1/U2-DC-1T
C-U1/U2-DC-2T/3T	Fabric Filter Dust Collector	Presence of Filters	98%	S-U1/U2-DC-2T/3T
C-U1/U2-E-24	Water-Cooled Condenser, one each on top of D-30, D-30M and D-30T. <sup>G4</sup>	N/A	N/A	S-U1/U2-D-30
C-U1/U2-E-24M				S-U1/U2-D-30M
C-U1/U2-E-24T				D-U1/U2-D30T
C-U1/U2-RTO-1	Regenerative Thermal Oxidizer RTO-1 <sup>5</sup>	Continuous Combustion Temperature (1619 °F Minimum) Monitoring	98.81%	S-U1/U2-RTO-1

3 There are no emissions from this emergency use containment tank during normal operations since the tank will be empty. Only during an unplanned plant wide power outage, where solvent from three existing process decanters (E-U1/U2 D-30, D-30M and D-30T) could be automatically direct to this tank for containment to minimize air emissions and to minimize employee exposure instead of overflowing to a containment dike. The emergency use containment tank, D-128, has its own stack to the atmosphere.

4 The application listed an outlet temperature of 150 degrees F and a control efficiency of 95%.

5 This equipment was tested on October 29, 2003, September 5, 2008, and on October 25, 2018.

ID E-U1/U2	Description	Performance Indicator	Efficiency	Stack ID
C-U1/U2-BLR1/2	Fumes collected from finishing operation are directed to one or both Boiler(s) 1 & 2 as combustion air. C-U1/U2-BLR 1/2 is used as an alternate control to C-U1/U2-RTO-1 for Finishing Building Captured Exhaust	N/A	98%	S-U4-BLR1/2

### Emission Unit U1/U2 Activities Not Currently Regulated

Equipment Description	Qty	Basis
North Butadiene Sphere and South Butadiene Sphere	2	No Known Regulated Emissions
Butadiene Day Tanks 7 through 11 and 13 through 16	9	No Known Regulated Emissions
Chemical Addition Tanks of non-regulated materials and associated truck/railcar loading/unloading	varies	No Known Regulated Emissions
Emergency Relief Vents, Stacks, and Ventilating Systems (not otherwise regulated)	varies	No Known Regulated Emissions
Jupite Tank (T-6)	1	No Known Regulated Emissions
Calcium Chloride Tank (T-7)	1	No Known Regulated Emissions
Condensate Tank D – 137, 1600 gallons which contains water and does not contain VOCs.	1	No Known Regulated Emissions
Two Condensate Tanks, (1) 130 gallon and (1) 60 gallon which contains water and does not contain VOCs.	2	No Known Regulated Emissions
Overhead Accumulator and column system (D-70 and C-11)	1	No Known Regulated Emissions (Closed Tank)
Finishing Building Anti-Stick Agents Usage	various	No Known Regulated Emissions
Finishing Building Caustic Solution Tank (D-36) and associated truck loading/unloading	1	No Known Regulated Emissions
Water Tanks, including East Hot Water Tank (T-8M), West Hot Water Tank (T-8), Separate System Hot Water Tank (T-8T), and associated skimmer tanks (T-7M, T-7, and T-7T)	various	No Known Regulated Emissions
Finished Off-Spec Rubber Product Reclaim Areas	various	No Known Regulated Emissions

Notes: “N/A” is Not Applicable

- A. These emission points do not have a process vent that vents directly to either the Flare Thermal Oxidizer (C-FLARE-TO) and/or the Flare Control System (C-FLARE), or to the atmosphere. These emission points vent indirectly to the Flare Thermal Oxidizer (C-FLARE-TO) and/or the Flare Control System (C-FLARE) by venting to another emission point which ultimately vents directly to the Flare Thermal Oxidizer (C-FLARE-TO) and/or the Flare Control System (C-FLARE). Also, these emission points may have a pressure relief valve that vents to the Flare Thermal Oxidizer (C-FLARE-TO) and/or the Flare Control System (C-FLARE) for safety purposes.
- B. These emission points are process vents that vent directly to the Flare Thermal Oxidizer (C-FLARE-TO) and/or the Flare Control System (C-FLARE).
- C. The nitrogen blanket is used to remove air and moisture and has nothing to do with the closed vent system or creating a closed vent system. A nitrogen blanket can be vented.
- D. In the “Control Device” column, an entry of “N/A” indicates no control device.
- E. These emission points are equipped with optional process coolers not required by any underlying applicable requirement.
- F. Emission Points E-U1/U2-DT-4, E-U1/U2-DT-5, and E-U1/U2-DT-6 were cited in the previous Title V permit, 154-97-TV(R1), as E-U1/U2-Day Tank 4, E-U1/U2-Day Tank 5, and E-U1/U2-Day Tank 6 and were described as Day Tank 4, Day Tank 5, and Day Tank 6, respectively.



- G. The cited control device is not required for compliance with any underlying applicable requirement.
- H. Emission Point E-U1/U2-D-25M is inadvertently cited in the previous Title V permit, 154-97-TV(R1), as having a capacity of 12,400 gallons. The correct capacity of this Emission Point is 8,000 gallons
- I. Emission Point E-U1/U2-D-28M is described in the previous Title V permit, 154-97-TV(R1), as a "Surge Drum". This description has been changed to "Surge Tank" to more accurately reflect this equipment item.
- J. Emission Point E-U1/U2-D-64M processing existing solvent was installed in 2013 under Construction Permit 35395-12-C(R1).
- K. Cited Emission Point has a process vent that vents to Emission Point E-U1/U2-D-30M.
- L. The "in kind" replacement of Emission Point E-U1/U2-No. 4 Stripper Vessels processing existing solvent was originally started in 2011 under Construction Permit 33164-11-C, which was subsequently re-issued three times as Construction Permit 33164-11-C(R1), 33164-11-C(R2), and 33164-11-C(R3).
- M. Vent configuration flexibility was added to Emission Point E-U1/U2-D-30M (Construction Permit TV-13-1013-C) and Emission Point E-U1/U2-D-30T (Construction Permit 32687-11-C), allowing them to be optionally vented in either or the three ways defined in the emission points table.
- N. For applicable regulatory compliance purposes, existing back-end process operations (i.e., Crumb Tanks and Finishing Lines) remain unchanged by the Plant Phased Solvent Conversion Project. Existing back-end process operations Emission Points associated with Phase 2 of this project are Crumb Tanks T-9C and T-9D, and Nos. 1, 2 and 7 Finishing Lines. Existing back-end process operations Emission Points associated with Phase 1 of the project were Crumb Tank T-9E/T and No. 5 Finishing Line.
- O. The following tanks: Phase 1 Tanks D-37T, D-84A, and D-114A; Phase 2 replacement Tank D-37M; and existing tanks D-112, D-113, D-114, D-84, D-85, D-37, D-37M, and D-37½; are considered part of the Flare Control System (C-FLARE) flare header system. Since they are part of the control, there are no regulations applicable to these tanks. There are consequently no monitoring, record keeping, or reporting required for these tanks.
- P. Cited Emission Point is operated as a closed pressurized system. This Emission Point does not vent directly or indirectly to the existing Flare Thermal Oxidizer (C-FLARE-TO) and/or the existing Flare Control System (C-FLARE), or to the atmosphere; rather, it has a pressure relief device that vents to existing C-FLARE-TO and/or existing C-FLARE for safety purposes.
- Q. Use of the existing Flare Thermal Oxidizer and/or the existing Flare Control System for new Emission Points E-U1/U2 D-645 and E-U1/U2 D-655 is not required for compliance with any underlying applicable requirement. Therefore, there are no associated standards, monitoring and record keeping, or reporting requirements for the existing Flare Thermal Oxidizer and/or Flare Control System for new Emission Points E-U1/U2 D-645 and E-U1/U2 D-655.
- R. Potential-to-Emit (PTE) calculated without consideration of the associated Seal Pot. Seal Pot is not required for compliance with any underlying applicable requirement, and it has no associated standards, monitoring and record keeping, or reporting requirements.
- S. Existing Storage Tanks (T-11M, T-12M, T-13M, T-13T, and T-16) are only subject to 40 CFR 63 Subpart U when operated as part of the Plant Phased Solvent Conversion Project. Otherwise, when not operated as part of the Plant Phased Solvent Conversion Project, these tanks are not subject to 40 CFR 63 Subpart U. These existing Emission Points are not required to be controlled by any underlying applicable regulatory requirement when either operated as part of the Plant Phased Solvent Conversion Project or otherwise. C-FLARE-TO and/or C-FLARE is not a required control for compliance with any underlying applicable regulatory requirement, and control of these existing Storage Tanks is optional.
- T. T-602, DT-1, D-624, and D-632 were part of Phase I, but, were not constructed. C-604A and C-604B were originally listed on permit 32687-11-C(R1) (Phase I), but, were never constructed. Then the Company re-applied for C-604A in the Phase III application and this equipment is now listed on construction permit C-001-1000-14-V (Phase III). D-5A listed on permit 32687-11-C(R1) was never constructed. D-8A was not constructed during Phase I

(32687-11-C(R1)), but, was re-permitted under Phase II (TV-13-1013-C(R1)). D-681, D-685, D-687, and D-688 listed on Permit 32687-11-C(R1) were never constructed. Reactors R-15, R-16, R-17 listed on Permit 32687-11-C(R1) were never constructed.

ii. **Standards/Operating Limits**

1) **HAP**

(a) 40 CFR Part 63 Subpart U HAP (Non-LDAR)

- i. Regulation 40 CFR Part 63 Subpart U establishes requirements for Non-LDAR equipment. Regulation 40 CFR Part 63 Subpart U. (Per 40 CFR Part 63 Subpart H, equipment to which 40 CFR Part 63 Subpart H applies that are also subject to the provisions of 40 CFR Part 60 will be required to comply only with the provisions of 40 CFR Part 63 Subpart H. The general control device requirements for a flare found in 40 CFR 60.18(b) of the General Provisions of Subpart A to 40 CFR Part 60 are equivalent to those requirements found in 40 CFR 63.11(b) of the General Provisions of Subpart A to 40 CFR Part 63. Therefore, the District has determined that meeting the requirements of 40 CFR 63.11(b) also meets the requirements of 40 CFR 60.18.)

(b) 40 CFR Part 63 Subpart H HAP (LDAR)

- i. Regulation 40 CFR Part 63 Subpart H establishes requirements for LDAR as referenced by 40 CFR Part 63 Subpart U.

(c) 40 CFR Part 63 Subpart EEEE HAP (Non-LDAR)

- i. Regulation 40 CFR Part 63 Subpart EEEE establishes requirements for Non-LDAR equipment. According to 40 CFR Part 63 Subpart EEEE. (Per 40 CFR 63.502(d)(3), reciprocating pumps in light liquid service are exempt from 40 CFR 63.163 and associated recordkeeping and reporting requirements, if recasting the distance piece or reciprocating pump replacement would be necessary to comply with 40 CFR 63.163. Since 40 CFR 63.163 contains the LDAR monitoring requirements for pumps in light liquid service, such reciprocating pumps are exempt from the LDAR requirements.

(d) 40 CFR Part 63 Subpart FFFF HAP (Non-LDAR)

- i. Regulation 40 CFR Part 63 Subpart FFFF establishes requirements for Non-LDAR equipment. Regulation 40 CFR Part 63 Subpart FFFF. (Per 40 CFR Part 63 Subpart H, equipment to which 40 CFR Part 63 Subpart H applies that are also subject to the provisions of 40 CFR Part 60 will be required to comply only with the provisions of 40 CFR Part 63 Subpart H. The

general control device requirements for a flare found in 40 CFR 60.18(b) of the General Provisions of Subpart A to 40 CFR Part 60 are equivalent to those requirements found in 40 CFR 63.11(b) of the General Provisions of Subpart A to 40 CFR Part 63. Therefore, the District has determined that meeting the requirements of 40 CFR 63.11(b) also meets the requirements of 40 CFR 60.18.)

- (e) 40 CFR Part 63 Subpart H HAP (LDAR)
  - i. Regulation 40 CFR Part 63 Subpart H establishes requirements for LDAR as referenced by 40 CFR Part 63 Subpart FFFF.

2) **Opacity**

- (a) Regulation 7.08, section 3.1 establishes opacity standards.

3) **PM**

- (a) In accordance with Regulation 7.08, Table 1, and per Construction Permit 87-06-C for BU-1T and Construction Permit 32687-11-C(R1) for BU-2T the PM emission standard for each is

$$E = 3.59(1.78 \text{ tons/hr})^{0.62} = 5.13 \text{ lb/hr}$$

- (b) In accordance with Regulation 7.08, Table 1, and per Construction Permit 87-06-C for BU-3T the PM emission standard for each is

$$E = 3.59(2.22 \text{ tons/hr})^{0.62} = 5.88 \text{ lb/hr}$$

- (c) Per Construction Permit 32687-11-C(R1) dated October 31, 2012, and in accordance with Regulation 7.08, Table 1, PM emissions for Emission Point D-612 is 2.34 lb/hr each for process throughput of 1000 lb/hr or less.

4) **TAC**

- (a) See the Plantwide section.

5) **VOC**

- (a) Regulation 7.12, section 3.1 and construction permit TV-13-1013-C(R1) requires that the Flare Thermal Oxidizer (C-FLARE TO) and the Flare Control System (C-FLARE) be maintained and operated for Emission Points T-2A, T-4A, and T-4B.

- (b) Regulation 6.13, section 3.3 requires that Emission Points Day Tank-2 and Day Tank-3 are fixed roof tanks and are required to be equipped with a permanent submerged fill pipe. Based on the vapor pressure and capacity, Emission Points T-2A, T-4A and T-4B may be required by Regulation 7.12 to be controlled by operation of the Flare Thermal Oxidizer and/or the Flare Control System.

- (c) Regulation 7.12, section 3.1 requires that Storage Vessels

T-2, T-2B, T-2C, T-3, T-4, T-4C, T-16 and T-605 be equipped with a floating roof, a vapor recovery system or their equivalents. The District has determined the Flare Thermal Oxidizer (C-FLARE TO) and the Flare Control System (C-FLARE) to be equivalent to a vapor recovery system per Construction Permits 32687-11-C, 30-06-C dated February 28, 2007, and 116-04-C.

- (d) Per Regulations 6.13, there are no equipment standards that apply to Storage Vessel T-1 due to the vapor pressure as stored being less than 1.5 psia.
- (e) Regulations 6.13 and 7.12, section 3.3 requires that Storage Vessels T-15M, T-15T, T-32, DT-2, DT-3, DT-4, DT-5, DT-6, T-11M, T-12M, T-13M, T-13T, T-14, D-3, D-641, D-642, D-655, and DT-12 be equipped with a permanent submerged fill pipe. All of these storage vessels are equipped with submerged fill.
- (f) Per Regulation 6.22, “volatile organic material” loading into any tank truck, trailer, or railroad car must be accomplished by submerged fill, bottom loading, or other equivalent methods approved by the District. (Volatile organic materials (VOMs) are any volatile organic compounds (VOCs) having a true vapor pressure of 1.5 psia or greater under actual storage conditions.) There are no standards if the source loads less than 200 gallons per day of “volatile organic material” in Regulation 6.22. Regulation 6.22, section 3.1 requires submerged fill, bottom loading, or equivalent methods when loading more than 200 gallons but less than 20,000 gallons of volatile organic materials (VOM) in any one day.
- (g) Regulation 6.22, section 3.2 requires Emission Point Truck/Railcar Solvent Loading to be equipped with a device which reduces the emissions of all hydrocarbon vapors and gases by at least 90% by weight when loading more than 20,000 gallons of VOM in any one day. For Emission Point Truck/Railcar Solvent Loading, when operated as a closed system, the District has determined operating this Emission Point as a closed system meets the minimum 90% emission reduction by weight requirement. In addition, the District has determined operating this Emission Point with the Flare Thermal Oxidizer and/or the Flare Control System meets the minimum 90% emission reduction by weight requirement.
- (h) Regulation 6.24, sections 3.2 and 3.3 limit VOC emissions to less than or equal to 40 lb/day and 8 lb/hr for Class II solvents and less than or equal to 3000 lb/day and 450 lb/hr for Class III solvents, unless VOC emissions are reduced by at least 85% by weight. (For Emission Points that are controlled by the Flare Thermal Oxidizer and/or the Flare Control System, the District has determined that each control meets the 85% by weight reduction

requirement of Regulation 6.24. For Emission Point Reactor 1 through Reactor 13, this Emission Points consists of closed pressurized vessels, therefore the District has determined each individual reactor meets the standards in Regulation 6.24.

- (i) Per Regulation 6.43, section 7.1 and 7.2, the exhaust gases from the Finishing Building (No. 1 Line, No. 2 Line, No. 3 Line, No. 4 Line, No. 5 Line, and No. 7 Line) shall be ducted to one or both of the two operating coal-fired boilers (C-U1/U2-BLR1/2) or to the Regenerative Thermal Oxidizer RTO-1 (C-U1/U2-RTO-1). The overall control efficiency (capture and control) of the VOCs from the Finishing Building processes shall be at least 80%. The District has determined the capture efficiency to be a minimum of 90%.
- (j) Regulation 7.25, section 3.1 requires that VOC BACT is utilized for Emission Points : D-10T , C-9M, D-5M, D-7M, D-8M, D-16, D-16M, D-16T, D-19M, D-20M, D-28M, D-28T, D-56M, D-57M, D-59M, D-155M, D-60M, D-61M, D-66M, D-67M, D-68M, D-69M, D-612, D-616, D-7A, D-60A, D-61A, D-628, D-630, D-686, D-680, D-618, T,-5F, T-5G, T-5H, T-5J, and T-5K; and U3 Emission Points: T-3(LP), T-2(LP), C-1(LP), T-1(LP), and T-1L; combined.
  - i. VOC emissions from the above listed emission points are required to be vented to the Flare Thermal Oxidizer (C-FLARE-TO) and/or the Flare Control System (C-FLARE) as required to be BACT Per Regulation 7.25.
- (k) Regulation 7.25, section 3.1 requires that VOC BACT is utilized for Emission Points T-5A, T-5B, D-30, D-30M, D-30T, No. 1 Line, No. 2 Line, No. 3 Line, No. 4 Line, No. 5 Line, and No. 7 Line; the District considers the stripping technology to be VOC BACT.
  - i. Per construction permit 118-89-C and application dated 4/26/1989) Finishing Lines No. 2 Line and No. 3 Line, D-30, T-5A, and T-5B, shall not exceed 519 tpy combined.
  - ii. Per construction permits 23-88-C, 116-89-C, 354-94-C, 58-95-C, and banking permit 168-94-B Finishing Lines No. 1 Line, No. 4 Line, and No. 5 Line shall not exceed 135 tpy each.
  - iii. Per construction permit 16-07-C(R1) Finishing Line No. 7 shall not exceed 95.158 tpy.
- (l) Regulation 7.25 requires for the following emission points Closed or Closed Pressurized System Emission Points: Emission Unit U1/U2 Emission Points: General Tank Farm Truck Unloading, X-2M, C-2M, C-2, X-2T, C-2T, C-615, C-623, C-604A, C-605A, C-605B, C-1A,

D-10A, C-1T, D-8A, R-651, R-652, R-653, R-654, Reactor 14, D-24M, D-24T, D-25M, D-26M, D-25T, and D-26T; U3 Emission Points: General Tank Farm Truck Loading/Unloading (When Unloading), Rail Car Loading/Unloading (When Unloading), D-49LB, DR-2, and DR-3; and UMSC Emission Points: WWT E1; and for Non-VOC BACT Review Emission Points: Emission Unit U1/U2 Emission Points D-44, D-44M, D-45M, D-6A, D-645, D-657, D-658, D-64M, D-128, and Insignificant Activity List Miscellaneous Drums and Totes for U1/U2, U3, and UMSC, the combined emissions are limited to 5.0 tons per 12-consecutive month as a BACT analysis has not been submitted.

- (m) Per Regulation 7.25 and Construction Permits 85-06-C and 86-06-C, VOC emissions from Emission Points (No. 1 Stripper Vessel). (No. 2 Stripper Vessel). T-9A (Crumb Tank with Process Condenser (E-32A)), T-9B (Crumb Tank with Process Condenser (E-32B)), and Decanter (D-30) combined, the owner or operator shall limit the VOC emissions vented out of Decanter (E-U2/U2-D-30) to less than 0.832 tons per 12 consecutive month period.
- (n) Per Regulation 7.25 and Construction Permits 434-08-C and 33164-11-C(R3), VOC emissions from Emission Points (No. 3 Stripper Vessel), (No. 4 Stripper Vessels), T-9C (Crumb Tank with Process Condenser (E-32C)), T-9D (Crumb Tank with Process Condenser (E-32D)), and Decanter (D-30M) combined, the owner or operator shall limit the VOC emissions vented out of Decanter (E-U2/U2-D-30M) to less than 0.832 tons per 12 consecutive month period.
- (o) Per Regulation 7.25 and Construction Permit C-0011-1014-16-V(R3), VOC emissions from Emission Points (No. 5 Stripper Vessels), T-9E/T (No. 5 Crumb Tank with Process Condenser (E-32E/T)), and Decanter (D-30T) combined, the owner or operator shall limit the VOC emissions vented out of Decanter (E-U2/U2-D-30T) to less than 0.689 tons per 12 consecutive month period.
- (p) Per Regulation 2.05 and Construction Permits 32687-11-C(R1), TV-13-1013-C(R1), and C-0011-1000-14-V the following emission points combined: Phase 1 equipment T-605, D-612, C-615, D-616, C-623, D-7A, D-60A, D-61A, D-628, D-630, D-686, D-680, D-6A, and D-618; Phase 2 equipment D-8A; and Phase 3 equipment C-604A, D-645, D-641, D-642, R-651, R-652, R-653, R-654, D-657, D-658, and D-655; are limited to combined VOC emissions of less than 40 tons per 12 consecutive month period in order to avoid PSD/Non-attainment NSR. The company submitted a BACT analysis on February 4, 2011 that showed that venting to the Flare Thermal Oxidizer and/or the Flare Control System is considered BACT. The

District accepted the BACT determination.

iii. **Monitoring and Record Keeping**

1) **HAP**

(a) 40 CFR Part 63 Subpart U HAP (Non-LDAR)

- i. The source is required to comply with applicable monitoring and record keeping requirements of 40 CFR Part 63 Subpart U.

(b) 40 CFR Part 63 Subpart H HAP (LDAR)

- i. The source is required to comply with applicable monitoring and record keeping requirements of 40 CFR Part 63 Subpart H as required by 40 CFR 63 Subpart U.

(c) 40 CFR Part 63 Subpart EEEE HAP (Non-LDAR)

- i. The source is required to comply with applicable monitoring and record keeping requirements of 40 CFR Part 63 Subpart EEEE.

(d) 40 CFR Part 63 Subpart FFFF HAP (Non-LDAR)

- i. The source is required to comply with applicable monitoring and record keeping requirements of 40 CFR Part 63 Subpart FFFF.

(e) 40 CFR Part 63 Subpart H HAP (LDAR)

- i. The source is required to comply with applicable monitoring and record keeping requirements of 40 CFR Part 63 Subpart H as required by 40 CFR 63 Subpart FFFF.

iv. **Reporting**

1) **HAP**

(a) 40 CFR Part 63 Subpart U HAP (Non-LDAR)

- i. The source is required to comply with applicable reporting requirements of 40 CFR Part 63 Subpart U.

(b) 40 CFR Part 63 Subpart H HAP (LDAR)

- i. The source is required to comply with applicable reporting requirements of 40 CFR Part 63 Subpart U.

(c) 40 CFR Part 63 Subpart EEEE HAP (Non-LDAR)

- i. The source is required to comply with applicable reporting requirements of 40 CFR Part 63 Subpart EEEE.

(d) 40 CFR Part 63 Subpart FFFF HAP (Non-LDAR)

- i. The source is required to comply with applicable reporting requirements of 40 CFR Part 63 Subpart FFFF.

- (e) 40 CFR Part 63 Subpart H HAP (LDAR)
  - i. The source is required to comply with applicable reporting requirements of 40 CFR Part 63 Subpart FFFF.

**d. Emission Unit U3: Liquid Polymer Production**

**i. Equipment**

**U3 Emission Processes/Points**

<b>ID E-U3</b>	<b>Description</b>	<b>Applicable Regulation(s)</b>	<b>Control</b>	<b>Stack ID</b>
Truck Loading/ Unloading	Truck Loading/ Unloading (Bottom Loaded) 1977/1978	1.05 STAR 6.24 (Unloading), 7.22 (Loading)	N/A	N/A
General Tank Farm Truck Loading/ Unloading <sup>6</sup>	General Tank Farm Truck Loading/Unloading (Bottom Loaded) Early 1990's	1.05 STAR	N/A-	N/A
Railcar Loading/ Unloading <sup>6</sup>	Railcar Loading/ Unloading (Bottom Loaded) 1983	7.22 (Loading), 7.25 (Unloading)	N/A-	N/A
T-5	Storage Tank (Submerged Fill) Group 2 Storage Vessel 30,000 gallons 1961	1.05 STAR 6.13 40 CFR 63 Subpart FFFF	Two parallel carbon canisters C-U3-T-5N & C-U3-T-5S	S-U3-T-5N & S-U3-T-5S
T-6L <sup>7</sup>	Weigh Tank, 400 gallons 1977/1978		Closed System	N/A
D-49LA <sup>6</sup>	Weigh Scale, 1,040 gallons 1977/1978	1.05 STAR 6.24 40 CFR 63 Subpart FFFF	N/A – Closed System or Vents indirectly to the C-FLARE-TO and/or the C-FLARE by venting to another emission point	N/A

<sup>6</sup> These Emission Points do not have a process vent that vents directly either to the Flare Thermal Oxidizer (C-FLARE TO) and/or Flare Control System (C-FLARE) or to the atmosphere. These Emission Points vent indirectly to the Flare Thermal Oxidizer (C-FLARE TO) and/or Flare Control System (C-FLARE) by venting to another Emission Point which ultimately vents to the Flare Thermal Oxidizer (C-FLARE TO) and/or Flare Control System (C-FLARE). Also, these Emission Points may have a pressure relief valve that vents to the Flare Thermal Oxidizer (C-FLARE TO) and/or Flare Control System (C-FLARE) for safety purposes.

<sup>7</sup> This Emission Point does not have a vent that vents directly to the atmosphere. This Emission Point (T-6L) vents back to associated Emission Point (T-5).



ID E-U3	Description	Applicable Regulation(s)	Control	Stack ID
D-49LB	Weigh Scale 1,040 gallons 1990	1.05 STAR 7.25 40 CFR 63 Subpart FFFF	N/A -Closed System or Vents indirectly to the C-FLARE-TO and/or the C-FLARE by venting to another emission point	N/A
DR-1 <sup>6</sup>	Reactor/Dryer #1 with Knock-Out Bottle DK-1 3,750 gallons, 1977/1978		N/A – Closed System or Vents indirectly to the C-FLARE-TO and/or the C-FLARE by venting to another emission point	N/A
R-2 <sup>6</sup>	Reactor/Dryer #2 with Knock-Out Bottle DK-2 3,750 gallons, 1977/1978		N/A – Closed System or Vents indirectly to the C-FLARE-TO and/or the C-FLARE by venting to another emission point	N/A
R-3 <sup>6</sup>	Reactor/Dryer #3 with Knock-Out Bottle DK-3 3,750 gallons, 1977/1978	1.05 STAR 6.24 40 CFR 63 Subpart FFFF	N/A – Closed System or Vents indirectly to the C-FLARE-TO and/or the C-FLARE by venting to another emission point	N/A
R-4 <sup>6</sup>	Reactor/Dryer #4 with Knock-Out Bottle DK-4 3,750 gallons, 1977/1978		N/A – Closed System or Vents indirectly to the C-FLARE-TO and/or the C-FLARE by venting to another emission point	N/A

ID E-U3	Description	Applicable Regulation(s)	Control	Stack ID
R-5 <sup>6</sup>	Reactor/Dryer #5 with Knock-Out Bottle DK-5 3,750 gallons, 1977/1978		N/A – Closed System or Vents indirectly to the C-FLARE-TO and/or the C-FLARE by venting to another emission point	N/A
R-6 <sup>6</sup>	Reactor/Dryer #6 with Knock-Out Bottle DK-6 3,750 gallons, 1977/1978		N/A – Closed System or Vents indirectly to the C-FLARE-TO and/or the C-FLARE by venting to another emission point	N/A
DR-2	Dryer #2 3,750 gallons, 1983	1.05 STAR	N/A -	N/A
DR-3 <sup>6</sup>	Dryer #3 3,750 gallons, 1983	7.25 40 CFR 63 Subpart FFFF	N/A -	N/A
AA-101	Storage Tank (Submerged Fill) Group 2 Storage Vessel 5,600 gallons each, 1986	1.05, 7.12 STAR 40 CFR 63 Subpart FFFF	N/A	S-U3-AA-101
AA-102			N/A	S-U3-AA-102
AA-103			N/A	S-U3-AA-103
T-71	Storage Tank (Submerged Fill) 15,275 gallons 1994	1.05 STAR 7.12	N/A	S-U3-T-71
DDM-2 <sup>6</sup>	Weigh Tanks 108 gallons each, 1977/1978	1.05 STAR 6.24	N/A or Vents indirectly to the C-FLARE-TO and/or the C-FLARE by venting to another emission point	N/A
DDM-4 <sup>6</sup>				
DDM-5 <sup>6</sup>				
DDM-6 <sup>6</sup>				

ID E-U3	Description	Applicable Regulation(s)	Control	Stack ID
[T-1(LP), T-2(LP), C-1(LP), T-3(LP)] <sup>8</sup>	LP Monomer Removal System consisting of Tank T-3(LP) (3,750 gallons) (vents directly to C-FLARE-TO); Accumulator T-2(LP); Column C-1(LP); and a Vaporizer T-1 (LP), 1997 Group 2 Batch Front-End Process Vent (TRE > 4.0); however, designated as Group 1 Batch Process Vents	1.05 STAR 7.25 40 CFR 63 Subpart FFFF 40 CFR 64 (VOC)	C-FLARE TO and/or C-FLARE	S-FLARE TO or S-FLARE
D-3 <sup>8</sup>	Receiver with Process Condenser (C-7L) 317 gallons 1977/1978 Group 2 Batch Front-End Process Vent (TRE > 4.0); however, designated as Group 1 Batch Process Vent		C-FLARE TO and/or C-FLARE	S-FLARE TO or S-FLARE
D-6 <sup>6</sup>	Vacuum Pump Knock-Out Tank 829 gallons, 1977/1978	1.05 STAR 6.24 40 CFR 63 Subpart FFFF	N/A or Vents indirectly to the C-FLARE-TO and/or the C-FLARE by venting to another emission point	N/A
D-53L	Charge Tank (Group 2 Batch Front-End Process Vent) 420 gallons, 1977/1978		N/A	S-U3-D-53L
T-1L <sup>8</sup>	Decant Tank Group 2 Batch Front-End Process Vent (TRE > 4.0) 10,350 gallons, 1982; however designated as Group 1 Batch Process Vent	1.05 STAR 7.25 40 CFR 63 Subpart FFFF	C-FLARE TO and/or C-FLARE	S-FLARE TO or S-FLARE
Mis Equipment	(100) Drums and Totes (Insignificant)	1.05, STAR 7.25	N/A	N/A

### U3 Control Devices

ID E-U3	Description	Control Efficiency	Stack ID
C-U3-T-5N & C-U3-T-5S	Two parallel carbon canisters	95% <sup>9</sup>	S-U3-T-5N & S-U3-T-5S
C-FLARE TO	Flare Thermal Oxidizer	99.99%	S-FLARE TO
C-FLARE	Flare Control System including tanks D-83L and D-82L that are considered part of the flare header system.	98%	S-FLARE

### Emission Unit U3 Activities Not Otherwise Regulated

Equipment Description	Qty	Basis
-----------------------	-----	-------

<sup>8</sup> These Emission Points are process vents that vent directly to the Flare Thermal Oxidizer (C-FLARE TO) and/or Flare Control System (C-FLARE).

<sup>9</sup> The Company listed a control efficiency of 99.9% on the Form 9400 for this control device, but did not provide stack test data; therefore, the control efficiency will be assume to be 95%.

<b>Equipment Description</b>	<b>Qty</b>	<b>Basis</b>
Chemical Addition Tanks of non-regulated materials and associated truck loading/unloading	varies	No Known Regulated Emissions
Emergency Relief Vents, Stacks, and Ventilating Systems (not otherwise regulated)	varies	No Known Regulated Emissions
Water Tanks	various	No Known Regulated Emissions
Soap Tanks (T-72, T-73, and D-135L)	3	No Known Regulated Emissions
Condensate Receivers (D-1L and D-2L)	2	No Known Regulated Emissions (Closed Tank)
Five (5) Hold Tanks (HT-1 through HT-5) and Knock-out Tank (KOT) (Non-regulated materials)	6	No Known Regulated Emissions
Thirteen (13) Blend Tanks (BT-1 through BT-13) and Knock-out Tank (D-76L) (Non-regulated materials)	14	No Known Regulated Emissions
LP Brine Storage Tank (D-65L) and associated truck loading/unloading	1	No Known Regulated Emissions

ii. **Standards/Operating Limits**

1) **HAP**

(a) Regulation 40 CFR Part 63 Subpart FFFF establishes requirements.

2) **TAC**

(a) See the Plantwide section.

3) **VOC**

(a) Regulations 6.13 and 7.12, section 3.3 requires that Storage Vessels T-5, AA-101, AA-102, AA-103, and T-71 be equipped with a permanent submerged fill pipe. All of these storage vessels are equipped with submerged fill.

(b) Regulation 6.24, sections 3.2 and 3.3 limit VOC emissions to less than or equal to 40 lb/day and 8 lb/hr for Class II solvents and less than or equal to 3000 lb/day and 450 lb/hr for Class III solvents, unless VOC emissions are reduced by at least 85% by weight. For Emission Point D-3 controlled by the Flare Thermal Oxidizer and/or the Flare Control System, the District has determined that each control meets the 85% by weight reduction requirement of Regulation 6.24. For Emission Points T-6L, D-49LA, DR-1, R-2, R-3, R-4, R-5, R-6, DDM-2, DDM-4, DDM-5, DDM-6, and D-6, these Emission Points consists of closed pressurized vessels, therefore the District has determined each individual reactor meets the standards in Regulation 6.24. For Truck Loading/Unloading (when unloading) and D-53L, these emission points cannot exceed the standards uncontrolled.

(c) Per Regulation 7.22, “volatile organic material” loading into any tank truck, trailer, or railroad car must be accomplished by submerged fill, bottom loading, or other equivalent methods approved by the District. (Volatile organic materials (VOMs) are any volatile organic compounds (VOCs) having a true vapor pressure of 1.5

psia or greater under actual storage conditions.) There are no standards if the source loads less than 200 gallons per day of “volatile organic material” in Regulation 7.22. Regulation 7.22, section 3.1 requires submerged fill, bottom loading, or equivalent methods when loading more than 200 gallons but less than 20,000 gallons of volatile organic materials (VOM) in any one day.

- (d) Regulation 7.25, section 3.1 requires that VOC BACT is utilized for Emission Points: D-10T , C-9M, D-5M, D-7M, D-8M, D-16, D-16M, D-16T, D-19M, D-20M, D-28M, D-28T, D-56M, D-57M, D-59M, D-155M, D-60M, D-61M, D-66M, D-67M, D-68M, D-69M, D-612, D-616, D-7A, D-60A, D-61A, D-628, D-630, D-686, D-680, D-618, T,-5F, T-5G, T-5H, T-5J, and T-5K; and U3 Emission Points: T-3(LP), T-2(LP), C-1(LP), T-1(LP), and T-1L; combined.
- i. VOC emissions from the above listed emission points are required to be vented to the Flare Thermal Oxidizer (C-FLARE-TO) and/or the Flare Control System (C-FLARE) as required to be BACT Per Regulation 7.25.
- (e) Regulation 7.25 requires for the following emission points Closed or Closed Pressurized System Emission Points: Emission Unit U1/U2 Emission Points: General Tank Farm Truck Unloading, X-2M, C-2M, C-2, X-2T, C-2T, C-615, C-623, C-604A, C-605A, C-605B, C-1A, D-10A, C-1T, D-8A, R-651, R-652, R-653, R-654, Reactor 14, D-24M, D-24T, D-25M, D-26M, D-25T, and D-26T; U3 Emission Points: General Tank Farm Truck Loading/Unloading (When Unloading), Rail Car Loading/Unloading (When Unloading), D-49LB, DR-2, and DR-3; and UMSC Emission Points: WWT E1; and for Non-VOC BACT Review Emission Points: Emission Unit U1/U2 Emission Points D-44, D-44M, D-45M, D-6A, D-645, D-657, D-658, D-64M, D-128; and Insignificant Activity List Miscellaneous Drums and Totes for U1/U2, U3, and UMSC, the combined emissions are limited to 5.0 tons per 12-consecutive month as a BACT analysis has not be submitted.

iii. **Monitoring and Record Keeping**

1) **HAP**

(a) 40 CFR Part 63 Subpart FFFF HAP

- i. The source is required to comply with applicable monitoring and record keeping requirements of 40 CFR Part 63 Subpart FFFF.

iv. **Reporting**

1) **HAP**

(a) 40 CFR Part 63 Subpart FFFF HAP

- i. The source is required to comply with applicable reporting requirements of 40 CFR Part 63 Subpart FFFF.

e. **Emission Unit U4: Power House**

i. **Equipment**

**U4 Emission Processes/Points**

ID E-U4	Description	Applicable Regulation(s)	Control Device	Stack ID
Truck Lime Unloading	Truck Lime Unloading 1990	7.08	N/A - Closed system	N/A
Boiler #1 & Boiler #2	Boiler #1 and Boiler #2 Two coal-fired spreader stoker boilers; 212 MM Btu/Hr each 1990, with the ability to control emissions (process gas) from finishing lines in U1/U2.	2.04, 2.05 STAR 6.42, 7.06 40 CFR 60 Subpart Db 40 CFR 63 Subpart DDDDD 40 CFR 64 (PM, SO <sub>2</sub> ,)	Dry scrubber (C-U4-SDR) and Fabric Filter (C-U4-BAGHOUSE)	S-U4-BLR1/2
Boiler #3	Boiler #3 Natural gas fired boiler; 99 MM Btu/Hr, 2012	2.04, 2.05 STAR 6.42, 7.06 40 CFR 60 Subpart Dc 40 CFR 63 Subpart DDDDD	N/A	S-U4-BLR3/4
Boiler #4	Boiler #4 Natural gas-fired boiler; 99 MM Btu/Hr 1990	2.04, 2.05 STAR 6.42, 7.06 40 CFR 60 Subpart Dc 40 CFR 63 Subpart DDDDD	N/A	S-U4-BLR3/4
Ash Handling System	One (1) Silo, 1990	2.05, 7.08 STAR	Fabric Filter (C-U4-ASHSILO)	S-U4-ASHSILO
Ash Load-Out System	One (1) conveyor, 1996	7.08 STAR	Fabric Filter (C-U4-ASHLOAD)	S-U4-ASHLOAD (vents indoors)
Lime Handling System	One (1) Silo and one (1) lime/water Makeup Tank 1990	2.05, 7.08	Fabric Filter (C-U4-LIMESILO)	S-U4-LIMESILO
Coal Handling System	Coal Handling System consisting of one (1) Silo, two (2) Hoppers, and 12 indoor Conveyors – 1990	2.05, STAR 7.08	Bin Vent Filter (C-U4-COALSILO)	S-U4-COALSILO

**U4 Control Devices**

ID E-U4	Description	Performance Indicator	Control Efficiency	Stack ID
C-U4-SDR	Dry Scrubber for control of Sulfur Dioxide in series with a	CEMS & COMs	90%	S-U4-BLR1/2
C-U4-BAGHOUSE	12-Module Baghouse for control of PM <sup>10</sup>	Pressure Drop 1.5 – 10 in H <sub>2</sub> O On each baghouse module	99.6% <sup>11</sup>	S-U4-BLR1/2
C-U4-ASHSILO	Ash Silo Baghouse (Pulse-Jet) Model 9-768-64-100R	NA	98%	S-U4-ASHSILO
C-U4-ASHLOAD	Ash Load-Out Vacuolader Filter (Reverse Pulse Baghouse)	N/A	98%	S-U4-ASHLOAD

10 Construction permit 193-90-C was replaced by Construction Permit 314-05-C.

11 The control efficiency is based on the 10/14/09 stack test.

ID E-U4	Description	Performance Indicator	Control Efficiency	Stack ID
C-U4-LIMESILO	Lime Silo Baghouse (Pulse-Jet)	NA	98%	S-U4-LIMESILO
C-U4-COALSILO	Bin Vent Filter	NA	90%	S-U4-COALSILO

Emission Unit U4 Activities Not Otherwise Regulated

Equipment Description	Qty	Basis
Emergency Relief Vents, Stacks, and Ventilating Systems (not otherwise regulated)	varies	No Known Regulated Emissions
Chemical Addition Tanks of non-regulated materials and associated truck loading/unloading	various	
Power House Caustic Solution Tank and associated truck loading/unloading	1	No Known Regulated Emissions
Steam Turbine	1	
Boiler Water Chemical Treatment (Storage and truck loading/unloading)	various	
Steam and Water Tanks	various	
Lime Handling System Liquid Lime Tanks	2	
Power House Brine Storage Tank and associated truck loading/unloading	1	

ii. **Standards/Operating Limits**

1) **CO**

- (a) Per Regulation 2.05 for Boiler #1 and Boiler #2 combined, the CO emissions limit of 90.6 pounds per hour is from the BACT analysis submitted with the PSD final determination on October 24, 1990.
- (b) Per Regulation 2.05 for Boiler #1 and Boiler #2, the CO emissions limit of 0.21 lb/MMBtu heat input based on a 30-day rolling average is from the BACT analysis submitted with the PSD final determination on October 24, 1990.
- (c) Per Regulation 2.05 for Boiler #3 and #4 each, the CO emissions limit of 3.58 pounds per hour is from the BACT analysis submitted with the PSD final determination on October 24, 1990.
- (d) Per Regulation 2.05 for Boiler #3 and #4, the CO emissions limit to not to exceed 0.036 lb/MM BTU heat input based on a 30-day rolling average is from the BACT analysis submitted with the PSD final determination on October 24, 1990.

2) **HAP**

- (a) Regulation 40 CFR Part 63 Subpart DDDDD establishes requirements.

3) **Lead (Pb)**

- (a) Per Regulation 2.05 for Boiler #1 and Boiler #2 combined, the Lead (Pb) emissions limit not to exceed 0.00114 lb/hr is from the BACT analysis submitted with

the PSD final determination on October 24, 1990.

- (b) Per Regulation 2.05 for Boiler #3 and Boiler 4 each, the Lead (Pb) emissions limit not to exceed 0.0055 lb/hr is from the BACT analysis submitted with the PSD final determination on October 24, 1990.

4) **NO<sub>x</sub>**

- (a) For Boilers #1 and #2, when combusting coal, the 254.4 pounds per hour based on a 3 hour averaging period is based on the limit from the BACT analysis submitted with the PSD final determination on October 24, 1990 as required by Regulation 2.05.
- (b) For Boilers #1 and #2, when combusting coal, per 40 CFR 60.44b(a)(3)(ii) and 60.44b(i), the 0.60 lb/MMBtu of heat input based on a 30-day rolling average.
- (c) For Boilers #1 and #2, when combusting coal, the 0.50 lb/MMBtu of heat input, based upon a 30-day rolling average is from Regulation 6.42, section 4.3, which requires NO<sub>x</sub> RACT. This limit applies at all times, including periods of startup, shutdown, or malfunction. The NO<sub>x</sub> RACT Plan contained this limit in Element 1, which was effective on January 1, 2001.
- (d) For Boiler #3 and #4 each, the 29.7 pounds per hour based on a 3 hour averaging period and the 0.30 lb/MMBTU of heat input based on a 30-day rolling average is based on the limit from the BACT analysis submitted with the PSD final determination on October 24, 1990 as required by Regulation 2.05. For Boiler #3 and #4 each, the 0.20 lb/MMBTU of heat input, based upon a 30-day rolling average is from Regulation 6.42, section 4.3, which requires NO<sub>x</sub> RACT. This limit applies at all times, including periods of startup, shutdown, or malfunction. The NO<sub>x</sub> RACT Plan contained this limit in Element 4, which was effective on January 1, 2001.
- (e) The less than 40 tpy limit is for PSD avoidance required by Regulation 2.05 and construction permit 36229-12-C for Boiler #3.

5) **Opacity**

- (a) Per Regulation 2.05, construction permit 312-05-C(R1), 40 CFR 60.43b(f), and 40 CFR 60.43b(g) for Boiler #1 and Boiler #2, when combusting coal, the limit of 20% opacity (6 minute average) except one 6 minute period per hour of not more than 27% opacity.
- (b) Per Regulation 7.06 section 4.2 for Boilers #1, #2, #3, and #4 when combusting coal or natural gas, the limit of 20% opacity except, two consecutive minutes in a 60 consecutive minute period of not more than 40% opacity.
- (c) For the Ash Handling System, Ash Load-Out System, Lime Handling System, & Coal Handling System, the



limit of 20% opacity is from Regulation 7.08, section 3.1.1.

6) **PM**

- (a) For Boilers #1 and #2, when combusting coal, the PM emissions combined limit of 12.72 pounds per hour is from the BACT analysis submitted with the PSD final determination on October 24, 1990 as required by Regulation 2.05.
- (b) For Boilers #1 and #2, when combusting coal, the PM emissions limit of 0.030 lb/MM Btu heat input based on a 30-day rolling average is from the BACT analysis submitted with the PSD final determination on October 24, 1990 as required by Regulation 2.05.
- (c) The PM emissions limit from Boiler #1 and Boiler #2 of 0.051 lb/MM Btu heat input is from 40 CFR 60.43b(a)(1)(i) and 60.43b(g). This standard applies at all times, except during periods of start-up, shutdown or malfunction.
- (d) The PM emissions limit from Boiler #1 and Boiler #2 of 0.10 lb/MM Btu actual heat input is from Regulation 7.06, section 4.1.2.
- (e) Per Regulation 2.05 for Boilers 3 & 4 each, the PM emissions limit of 1.43 pounds per hour is from the BACT analysis submitted with the PSD final determination on October 24, 1990.
- (f) Per Regulation 2.05 for Boiler 3 & 4, the PM emissions limit of 0.014 lb/MM BTU heat input is from the BACT analysis submitted with the PSD final determination on October 24, 1990.
- (g) For Boiler 3 & 4, the PM emissions limit of 0.10 lb/MM BTU actual heat input is from Regulation 7.06, section 4.1.2.
- (h) Per Regulation 2.05 and PSD Permits 195-90-C, dated August 27, 1990, and 316-05-C, dated December 31, 2005, the PM limits are 1.278 lb/hr and 1.4 tons per calendar year for Emission Point (Ash Handling System).
- (i) Per Regulation 7.08, section 3.1.2 for Emission Point (Ash Load-Out System), the PM emission limit is 3.2 lb/hr.
- (j) Per Regulation 2.05 and PSD Permits 198-90-C, dated August 27, 1990, and 318-05-C, dated December 31, 2005, the PM limits are 0.3 lb/hr and 0.075 tons per calendar year for Emission Point (Lime Handling System).
- (k) Per Regulation 2.05 and PSD Permits 197-90-C, dated August 27, 1990, and 317-05-C, dated December 31, 2005, the PM limits are 0.154 lb/hr and 0.109 tons per calendar year for Emission Point (Coal Handling

System).

- (l) For Emission Point (Truck Lime Unloading), the Emission Point is a closed system, and there is no PM requirement for Regulation 7.08.

7) **SO<sub>2</sub>**

- (a) For Boilers #1 and #2, when combusting coal, per 40 CFR 60.42b(k)(4), 60.42b(e) and 60.42b(g), the limits on the exhaust gas cannot contain SO<sub>2</sub> in excess of 10 % (0.10) of the potential SO<sub>2</sub> emission rate (90 % reduction) or contain sulfur dioxide in excess of 0.20 lbs/MM Btu. Both the percent reduction requirement and the emission limit are based on a 30-day rolling average. The sulfur dioxide emission limits and percent reduction requirements apply at all times, including periods of startup, shutdown, and malfunction.
- (b) For Boilers #1 and #2, when combusting coal, per Regulation 7.06, section 5.1.2., the 1.2 lbs/MM Btu actual heat input based on a 30-day rolling average limit is from Regulation 7.06, section 5.1.2.
- (c) For Boilers #1, and #2, when combusting coal, the 0.20 lb/MMBtu actual heat input based on a 30 day rolling average limit is from the BACT required by Regulation 2.05.
- (d) The maximum sulfur content limit to meet the definition of low sulfur coal (1.0%S or less) is from the BACT required by Regulation 2.05.
- (e) The requirement to institute an Initial Operator Training and Certification Program, which involves 3 - 6 months of training and testing, and includes a formal written module on the mechanical aspects of the spray reactor atomizer drives, lube oil unit, and the operation of the SO<sub>2</sub> scrubbing process is from the BACT required by Regulation 2.05.
- (f) The requirement to recertify all operators of the SO<sub>2</sub> Removal System and Baghouse every three (3) years after initial certification is from the BACT required by Regulation 2.05.
- (g) The requirement to review and upgrade the Operator Training and Certification Program at least every 2 years as recommended by a root cause analysis team is from the BACT required by Regulation 2.05.
- (h) The requirement to have a formal written Operation and Maintenance Plan for the SO<sub>2</sub> Removal System and Baghouse is from the BACT required by Regulation 2.05.
- (i) For Boiler #3 and #4 each, the 51.0 lb/hr based on a 3-day rolling average limit is from the BACT required by Regulation 2.05.
- (j) For Boiler #3 and #4 each, the 0.515 lb/MMBTU on a

30-day rolling average is from the BACT required by Regulation 2.05.

- (k) For Boiler #3 and #4 each, the 0.8 lbs/MM BTU actual heat input based on a 30-day rolling average limit is from Regulation 7.06, section 5.1.2.

8) **Sulfuric Acid (H<sub>2</sub>SO<sub>4</sub>)**

- (a) Per Regulation 2.05 for Boiler #1 and Boiler #2 combined when combusting coal, the Sulfuric Acid (H<sub>2</sub>SO<sub>4</sub>) emissions limit not to exceed 1.73 lb/hr is from the BACT analysis submitted with the PSD final determination on October 24, 1990. The District has determined the Spray Dryer Reactor, C-U4-SDR, for sulfur dioxide control, meets the PSD BACT requirements for H<sub>2</sub>SO<sub>4</sub>. Therefore, SO<sub>2</sub> is used as a surrogate for H<sub>2</sub>SO<sub>4</sub>.
- (b) Per Regulation 2.05 for Boiler #1 and Boiler #2 when combusting coal, the Sulfuric Acid (H<sub>2</sub>SO<sub>4</sub>) emissions limit not to exceed 0.00408 lb/MMBtu heat input capacity is from the BACT analysis submitted with the PSD final determination on October 24, 1990. The District has determined the Spray Dryer Reactor, C-U4-SDR, for sulfur dioxide control, meets the PSD BACT requirements for H<sub>2</sub>SO<sub>4</sub>.

9) **TAC**

- (a) See the Plantwide section.

10) **VOC**

- (a) Per Regulation 2.04 for Boiler #1 and Boiler #2 combined, the VOC emissions limit to not exceed 1.27 lbs/hr is from the BACT analysis submitted with the PSD final determination on October 24, 1990.
- (b) Per Regulation 2.04 for Boiler #3 and Boiler #4 each, the VOC emissions limit to not exceed 0.145 lb/hr is from the BACT analysis submitted with the PSD final determination on October 24, 1990.

iii. **Monitoring and Record Keeping**

1) **HAP**

- (a) Regulation 40 CFR Part 63 Subpart DDDDD establishes monitoring and record keeping requirements.

2) **NO<sub>x</sub>**

- (a) The requirement to install, calibrate, maintain and operate a continuous monitoring system, and record the output of the system, for measuring nitrogen oxides emissions discharged to the atmosphere is from 40 CFR 60.48b(b)(1) and Regulation 6.42.
- (b) The requirement to maintain records of the amount of coal fuel combusted during each day and calculate the annual capacity factor individually for coal for the

reporting period is from 40 CFR 60.49b(d). The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

- (c) The requirement to maintain records contained in 40 CFR 60.49b(g) for each steam generating unit operating day is from 40 CFR 60.49b(g).
- (d) The requirement to maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the boilers; any malfunction of the air pollution control equipment; or any periods during which a CEMS or monitoring device is inoperative is from 40 CFR 60.7(b).
- (e) The requirement to keep a record identifying all deviations from the requirements of the NO<sub>x</sub> RACT Plan is from Regulation 6.42, section 4.3, which requires NO<sub>x</sub> RACT. The NO<sub>x</sub> RACT Plan contained this requirement in Element 7, which was effective on January 1, 2001.

3) **Opacity**

- (a) The requirement to install, calibrate, maintain and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere and record the output of the system is from 40 CFR 60.48b(a).

4) **SO<sub>2</sub>**

- (a) The requirement to install, calibrate, maintain and operate a continuous emission monitoring system (CEMs) for measuring SO<sub>2</sub> concentrations and carbon dioxide (CO<sub>2</sub>) concentrations and record the output of the systems is from 40 CFR 60.47b(a). The SO<sub>2</sub> and carbon dioxide concentrations shall both be monitored at the inlet and outlet of the SO<sub>2</sub> control device.
- (b) The requirement to maintain records of the information contained in 40 CFR 60.49b(k) for each steam generating unit operating day is from 40 CFR 60.49b(k).

iv. **Reporting**

1) **Quarterly Requirements:**

- (a) **NO<sub>x</sub>**
  - i. The requirement to report quarterly the information contained in 40 CFR 60.49b(g), (k), and (m) is from 40 CFR 60.49b(w).
- (b) **SO<sub>2</sub>**
  - i. The requirement to report quarterly the information contained in 40 CFR 60.49b(g), (k), and (m) is from 40 CFR 60.49b(w).

2) **Semiannual Requirements:**

(a) **HAP**

i. Regulation 40 CFR Part 63 Subpart DDDDD establishes reporting monitoring and record keeping requirements.

(b) **NOx**

i. The requirement to submit the NOx RACT Plan Semiannual report is from Regulation 6.42, section 4.3, which requires NOx RACT. The NOx RACT Plan contained this requirement in Element 7, which was effective on January 1, 2001.

f. **Emission Unit U5: Emergency Generator**

i. **Equipment**

U5 Emission Processes/Points		
ID E-U5	Description	Applicable Regulation(s)
#5 Line Generator	One (1) Caterpillar emergency generator set, model SR-4B, powered by a Caterpillar diesel fuel engine, model 3508 DITA, with a rated capacity of 1,106 bhp (825 kW), installed in 1995	5.00, 5.01, 5.20, 5.21, 5.22, 5.23 40 CFR 63 Subpart ZZZZ

ii. **Standards/Operating Limits**

1) **HAP**

(a) Regulation 40 CFR 63 Subpart ZZZZZ establishes requirements for engines.

2) **TAC**

(a) See plantwide section.

g. **Emission Unit UMSC: Miscellaneous**

i. **Equipment**

**UMSC Emission Processes/Points**

ID E-UMSC	Description	Applicable Regulation(s)	Control Device	Stack ID
Gasoline Tank	Stage I Vapor Recovery System Above-Ground Unleaded Gasoline Storage Tank 550 gallons 1995	1.05, STAR 7.15	N/A	S-UMSC-GASTK
Parts Washers	Solvent Metal Cleaning Equipment not equipped with secondary reservoirs (5 parts washers/cold cleaners)	1.05, STAR 6.18	N/A	N/A
PWFN01	Make Safety Kleen, model 81.8 heated washer with tank capacity 168 gallons, without a secondary Reservoir (installed 2021)	1.05, STAR. 6.18	N/A	N/A

ID E-UMSC	Description	Applicable Regulation(s)	Control Device	Stack ID
WWTP Truck Unloading	WWTP Truck Unloading 1975 <sup>12</sup>	STAR	Closed System	N/A
D-203	WWTP Storage Tank 7,000 gal, Late 1990's <sup>13</sup>	STAR	N/A	S-UMSC-D-203
WWT E1	One (1) Aerobic Biological Reactor, 1985	1.05, STAR, 7.25, 40 CFR 63 Subpart FFFF	NA	N/A
WWT E2	Wastewater Treatment System consisting of (1975): Four (4) Settling basins One (1) pH control basin One (1) clarifier One (1) aeration basin	1.05, STAR, 40 CFR 63 Subpart U	N/A	N/A
Mis. Equipment (IA)	Twelve (12) Miscellaneous Drums and Totes	1.05, STAR 7.25	NA	N/A
Refrigeration (IA) <sup>14</sup>	Plant Refrigeration System Receivers (3): 1950's (1) and 1990's (2)	STAR	Closed System	N/A

### Emission Unit UMSC Activities Not Otherwise Regulated

Equipment Description	Qty	Basis
Emergency Relief Vents, Stacks, and Ventilating Systems (not otherwise regulated)	varies	No Known Regulated Emissions
Large Storm Water Basin, 1950's	1	No Known Regulated Emissions
Small Surge Control Storm Water Basin	1	No Known Regulated Emissions
Bio-Reactor Caustic Solution Tank (D-80L) and associated truck loading/unloading	1	No Known Regulated Emissions

#### ii. Standards/Operating Limits

##### 1) HAP

- (a) Regulation 40 CFR Part 63 Subpart FFFF establishes requirements for Group 1 wastewater treatment.
- (b) Regulation 40 CFR Part 63 Subpart U establishes requirements for Group 2 wastewater treatment.

##### 2) TAC

- (a) See plantwide section.

##### 3) VOC

- (a) Regulation 7.15 establishes equipment requirements for gasoline fueling operations.

<sup>12</sup> The only materials unloaded are caustic and sulfuric acid, therefore, the STAR regulation are the only applicable regulations that apply.

<sup>13</sup> The only material stored in this tank is sulfuric acid, therefore, the STAR regulations are the only applicable regulations that apply.

<sup>14</sup> The ammonia refrigeration system is an insignificant activity based on PTE, therefore it is de minimis for STAR per Regulation 5.21, section 2.3.

- (b) Regulation 6.18 establishes equipment and operating requirements for cold cleaners.
- (c) Regulation 7.25 requires for the following emission points Closed or Closed Pressurized System Emission Points: Emission Unit U1/U2 Emission Points: General Tank Farm Truck Unloading, X-2M, C-2M, C-2, X-2T, C-2T, C-615, C-623, C-604A, C-605A, C-605B, C-1A, D-10A, C-1T, D-8A, R-651, R-652, R-653, R-654, Reactor 14, D-24M, D-24T, D-25M, D-26M, D-25T, and D-26T; U3 Emission Points: General Tank Farm Truck Loading/Unloading (When Unloading), Rail Car Loading/Unloading (When Unloading), D-49LB, DR-2, and DR-3; and UMSC Emission Points: WWT E1; and for Non-VOC BACT Review Emission Points: Emission Unit U1/U2 Emission Points D-44, D-44M, D-45M, D-6A, D-645, D-657, D-658, D-64M, D-128; and Insignificant Activity List Miscellaneous Drums and Totes for U1/U2, U3, and UMSC, the combined emissions are limited to 5.0 tons per 12-consecutive month as a BACT analysis has not be submitted.

iii. **Monitoring and Record Keeping**

1) **HAP**

- (a) 40 CFR Part 63 Subpart FFFF HAP
  - i. The source is required to comply with applicable monitoring and record keeping requirements of 40 CFR Part 63 Subpart FFFF.
- (b) 40 CFR Part 63 Subpart U HAP
  - ii. The source is required to comply with applicable monitoring and record keeping requirements of 40 CFR Part 63 Subpart U.

iv. **Reporting**

1) **HAP**

- (a) 40 CFR Part 63 Subpart FFFF HAP
  - i. The source is required to comply with applicable reporting requirements of 40 CFR Part 63 Subpart FFFF.
- (b) 40 CFR Part 63 Subpart U HAP
  - ii. The source is required to comply with applicable reporting requirements of 40 CFR Part 63 Subpart U.

h. **Emission Unit IA1: CI RICE Greater than 500 bhp**

**i. Equipment**

<b>IA1 Emission Processes/Points</b>		
<b>ID E-IA1</b>	<b>Description</b>	<b>Applicable Regulation</b>
ELEC2B	One (1) One emergency generator set, model DFEJ, powered by a Cummins diesel fuel engine, model QSX15-G9, with a rated capacity of 450 kW, installed in 2021	STAR 40 CFR 63 Subpart ZZZZ, 40 CFR 60 Subpart III

**ii. Standards/Operating Limits**

**1) HAP**

(a) Regulation 40 CFR 63 Subpart ZZZZZ establishes requirements for engines.

**2) TAC**

(a) See plantwide section.

**3) Unit Operation**

(a) Regulation 40 CFR 60 Subpart IIII establishes requirements for engines.

**iii. Monitoring and Record Keeping**

**1) Unit Operations**

(a) Regulation 40 CFR 60 Subpart IIII establishes monitoring and record keeping requirements for engines.

**i. Emission Unit IA2: CI RICE Less than 500 bhp**

**i. Equipment**

<b>IA2 Emission Processes/Points</b>		
<b>ID E-IA2</b>	<b>Description</b>	<b>Applicable Regulation</b>
Bioreactor Generator	One (1) Onan emergency generator set, model 680FDR5056BB, powered by a Cummins diesel fuel engine, model KT-1150-GS, with a rated capacity of 489 bhp (365 kW), installed in 1976	5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 40 CFR 63 Subpart ZZZZ
Waukesha Generator	One (1) Waukesha emergency generator set, model W5900DS, powered by a Scania diesel fuel engine, model DS14A01, with a rated capacity of 268 bhp (200 kW), installed in 1976	5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 40 CFR 63 Subpart ZZZZ
#2 Stormwater Pump	One (1) Cummins diesel fuel engine, model KT 855 P 235, #2 SW 10575438, used to power 10,000 GPM Stormwater Pump #1 in emergency situations, installed in 1977	5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 40 CFR 63 Subpart ZZZZ
#3 Stormwater Pump	One (1) Cummins diesel fuel engine, model #3 SW 60529257 (1981) Recon, used to power 10,000 GPM Stormwater Pump #2 in emergency situations, installed in 1977	5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 40 CFR 63 Subpart ZZZZ
#1 Stormwater Pump	One (1) Cummins diesel fuel engine, model KY 1150 P 450 #1 SW 31103223, used to power 20,000 GPM Stormwater Pump #1 in emergency	5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 40



<b>IA2 Emission Processes/Points</b>		
<b>ID E-IA2</b>	<b>Description</b>	<b>Applicable Regulation</b>
	situations, installed in 1977	CFR 63 Subpart ZZZZ
#4 Stormwater Pump	One (1) Cummins diesel fuel engine, model 31103223 #4 SW 31103412, used to power 20,000 GPM Stormwater Pump #2 in emergency situations, installed in 1977	5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 40 CFR 63 Subpart ZZZZ
Booster Fire Pump (R&H)	One (1) Cummins diesel fuel engine, model CFP7E-F50 4-cycle, rated at 234 HP, used to power Booster Fire Pump (R&H) in emergency situations, manufactured in 2016, installed 2016	5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 40 CFR 60 Subpart IIII, 40 CFR 63 Subpart ZZZZ
Water Treatment Fire Pump 240C	One (1) John Deere diesel fuel engine, model JW6H-UF60, rated at 375 Hp used to power Water Treatment Fire Pump 240C in emergency situations, installed in 2004	5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 40 CFR 63 Subpart ZZZZ
SW Fire Water Pump 240A	One (1) John Deere diesel fuel engine, model JW6H-UF60, rated at 375 Hp used to power SW Fire Water Pump 240A in emergency situations, installed in 2004	5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 40 CFR 63 Subpart ZZZZ
NW Fire Water 240B	One (1) John Deere diesel fuel engine, model JW6H-UF60, rated at 375 Hp used to power NW Fire Water 240B in emergency situations, installed in 2004	5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 40 CFR 63 Subpart ZZZZ

ii. **Standards/Operating Limits**

1) **HAP**

(a) Regulation 40 CFR 63 Subpart ZZZZZ establishes requirements for engines.

2) **TAC**

(a) See plantwide section.

3) **Unit Operations**

(a) Regulation 40 CFR 60 Subpart IIII establishes requirements for engines.

iii. **Monitoring and Record Keeping**

1) **HAP**

(a) Regulation 40 CFR 63 Subpart ZZZZ, establishes monitoring and record keeping requirements for engines.

2) **Unit Operations**

(a) Regulation 40 CFR 60 Subpart IIII establishes monitoring and record keeping requirements for engines.

iv. **Reporting**

1) **HAP**

- (a) Regulation 40 CFR 63 Subpart ZZZZ establishes reporting requirements for engines.

j. **Emission Unit IA3: Cooling Towers**

i. **Equipment**

<b>ID E-Cooling Tower</b>	<b>Description</b>	<b>Applicable Regulation</b>
Main 1	Main 1 Induced Draft Cooling Tower, non-chromium treated water equipped with drift eliminator.	5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 7.08
5 Line	5 Line Counter Flow Cooling Tower, non-chromium treated water equipped with drift eliminator.	5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 7.08
7 Line	7 Line Counter Flow Cooling Tower, non-chromium treated water equipped with drift eliminator.	5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 7.08
New Finishing East Cooling Tower	Marley, Model AV6805, Induced Draft	5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 7.08
Steam	Steam Counter Flow Cooling Tower, non-chromium treated water equipped with drift eliminator.	5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 7.08
Ammonia	Ammonia Counter Flow Cooling Tower, non-chromium treated water equipped with drift eliminator.	5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 7.08

ii. **Standards/Operating Limits**

1) **Opacity**

- (a) Regulation 7.08, section 3.1 establishes opacity standards.

2) **PM**

- (a) In accordance with Regulation 7.08, Table 1, the PM emissions limit for each cooling tower is 2.34 lb/hr each for process throughput of 1000 lb/hr or less.

3) **TAC**

- (a) See plantwide section.

k. **Emission Unit IA4: Insignificant Activity Regulation 7.08 Process Equipment**

i. **Equipment**

<b>ID E- PM-Equipment</b>	<b>Description</b>	<b>Applicable Regulation</b>
IA4-1	Six (6) Brazing, soldering, or welding equipment.	5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 7.08

<b>ID E- PM-Equipment</b>	<b>Description</b>	<b>Applicable Regulation</b>
IA4-2	Two (2) Blast Cleaning (using a suspension of Abrasive in Water)	5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 7.08

ii. **Standards/Operating Limits**

1) **Opacity**

(a) Regulation 7.08, section 3.1 establishes opacity standards.

2) **PM**

(a) In accordance with Regulation 7.08, Table 1, the PM emissions limit for each cooling tower is 2.34 lb/hr each for process throughput of 1000 lb/hr or less.

3) **TAC**

(a) See plantwide section.

1. **Emission Unit IA5: VOC Storage Tank**

i. **Equipment**

<b>Emission Point</b>	<b>Description</b>	<b>Applicable Regulation</b>
IA5- Tank 1	Four (4) Fire Pump diesel fuel tanks consisting of (1) 350 gallon and (3) 500 gallon Installation date unknown	1.05, 5.00, 5.01, 5.20, 5.21, 5.22, 5.23
IA5- Tank 2	Four (4) Storm water diesel pumps with one (1) fuel tank consisting of (1) 250 gallons Installation date unknown	1.05, 5.00, 5.01, 5.20, 5.21, 5.22, 5.23
IA5- Tank 3	Four (4) Emergency generators with five (5) diesel fuel tanks consisting of (1) 300 gallon, (1) 350 gallon, (2) 500 gallon, and (1) 1000 gallon Installation date unknown	1.05, 5.00, 5.01, 5.20, 5.21, 5.22, 5.23
IA5- Tank 4	Four (4) mobile diesel tanks consisting of (2) 400 gallon, (1) 350 gallon, (1) 300 gallon Installation date unknown	1.05, 5.00, 5.01, 5.20, 5.21, 5.22, 5.23
IA5- Tank 5	Two (2) Portable Diesel or Gasoline Storage Tank <500 gal capacity	1.05, 5.00, 5.01, 5.20, 5.21, 5.22, 5.23, 7.12
IA5- Tank 6	One (1) Neutralizing Amine Tank for boilers, 1500 gal capacity	1.05, 7.12

ii. **Standards/Operating Limits**

1) **TAC**

(a) See plantwide section.

2) **VOC**

- (a) Regulation 7.12 establishes equipment requirements for storage tanks.

**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 does participate in emissions trading, and has an existing Emissions Bank credit of 654.82 tpy for VOC.
4. **Alternative Operating Scenarios:**

**Emission Unit U1/U2**

**Emission Points identified as subject to 40 CFR 63 Subpart U**

A construction permit application has been submitted for new equipment that will be placed in methyl cyclohexane/cyclohexane service. That application also provides for certain existing equipment in toluene service to be converted to methyl cyclohexane/cyclohexane service. ASRC will convert equipment currently in toluene service and combined toluene/styrene service to methyl cyclohexane/cyclohexane service and combined methyl cyclohexane/cyclohexane/styrene service in phases, and will retain the capability to convert the equipment back to toluene service and combined toluene/styrene service.

**Alternative Operating Scenario 1**

Under this alternative operating scenario (AOS), the equipment identified in this application as currently in toluene service will be converted to methyl cyclohexane/cyclohexane service in phases. ASRC will retain the capability to convert the equipment back to toluene service. Because toluene is a Hazardous Air Pollutant (HAP) but methyl cyclohexane and cyclohexane are not, this AOS will cause the requirements of 40 CFR 63 Subpart U to no longer apply to this equipment while in methyl cyclohexane/cyclohexane service. All other underlying Applicable Requirements will continue to apply while the equipment is in methyl cyclohexane/cyclohexane service. Methyl cyclohexane/cyclohexane has a lower vapor pressure than toluene, so all existing equipment in toluene service is adequate for methyl cyclohexane/cyclohexane service. Pursuant to 40 CFR 40 CFR 70.6(a)(9)(i), ASRC will record each change from one operating scenario to another in a log book at the time of the change.

5. **Compliance History**

Incident Date(s)	Regulation Violated	Result
4/11/2007, 4/3/2007	2.03, 2.16	Board Order
1/15/2009	5.15	Settled
1/6/2009, 3/25/2009, 9/29/2009	2.16, 1.09, 1.13	Board Order
5/27/2010	2.16	Board Order
3/27/2013	2.16	Settled
1/29/2010, 9/3/2010, 7/15/2011, 1/21/2013, 3/4/2013, 1/8/2014, 3/22/2014	2.16, 1.07	Board Order
1/29/2015	2.16	Settled
11/13/2015	1.05	Settled
4/15/2015, 9/29/2017, 5/25/2018	5.01, 5.15, 5.21	Board Order

6. **Calculation Methodology or Other Approved Method:** 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. The following emission factors and calculation methodology shall be used unless other methods or emission factors are approved in writing by the District.

**Unit U1/U2: Synthetic Rubber Production**

<b>Emission Point</b>	<b>Equipment</b>	<b>Control Device</b>	<b>Acceptable Emission Factor Sources</b>
<b>SSBR/PBR Tank Farm</b>			
General Tank Farm Truck Unloading	General Tank Farm Truck unloading Early 1990's	N/A Closed System or Vents indirectly to the C-FLARE-TO or the C-FLARE by Venting to Another Emission Point	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or Emission accounted for in the working losses for storage tanks using AP-42 evaporative losses
Truck Staining Oil Loading/ Unloading	Truck Staining Oil Loading/Unloading (Bottom Load)	N/A Closed System or Vents indirectly to the C-FLARE-TO or the C-FLARE by Venting to Another Emission Point	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or AP-42 Emission Factors from Chapter 5.2, Section 5.2.2.1.1, Loading Losses
Truck Chemical Addition Materials Unloading	Truck Chemical Addition Materials Unloading	N/A Closed System or Vents indirectly to the C-FLARE-TO or the C-FLARE by Venting to Another Emission Point	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or Emission accounted for in the working losses for storage tanks using AP-42 evaporative losses
General Tank Farm Railcar Unloading	General Tank Farm Railcar Unloading	N/A Closed System or Vents indirectly to the C-FLARE-TO or the C-FLARE by Venting to Another Emission Point	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or Emission accounted for in the working losses for storage tanks using AP-42 evaporative losses.
Railcar Staining Oil Loading/ Unloading	Railcar Staining Oil Loading/Unloading (Bottom Load)	N/A Closed System or Vents indirectly to the C-FLARE-TO or the C-FLARE by Venting to Another Emission Point	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or AP-42 Emission Factors from Chapter 5.2, Section 5.2.2.1.1, Loading Losses
Railcar Chemical Addition Materials Unloading	Railcar Chemical Addition Materials Unloading	N/A Closed System or Vents indirectly to the C-FLARE-TO or the C-FLARE by Venting to Another Emission Point	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or Emission accounted for in the working losses for storage tanks using AP-42 evaporative losses
Railcar Loading	Railcar Loading (Bottom Load)	N/A or Closed System or C-FLARE TO and/or C-FLARE	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or AP-42 Emission Factors from Chapter 5.2, Section 5.2.2.1.1, Loading Losses
Truck/Railcar Solvent Loading	Truck/Railcar Solvent Loading 800,000 gal/yr	N/A or Closed System or C-FLARE TO and/or C-FLARE	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or AP-42 Emission Factors from Chapter 5.2, Section 5.2.2.1.1, Loading Losses

<b>Emission Point</b>	<b>Equipment</b>	<b>Control Device</b>	<b>Acceptable Emission Factor Sources</b>
T-2	Storage Tank (Submerged Fill) 252,000 gallons	NA or C-FLARE TO and/or C-FLARE	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
T-2A	Storage Tanks (Submerged Fill) 100,000 gallons each	C-FLARE TO and/or C-FLARE	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
T-2B			
T-2C			
T-3	Storage Tank (Submerged Fill) 56,000 gallons		
T-4	Storage Tank (Submerged Fill) 252,000 gallons		
T-4A	Storage Tank Submerged Fill), 100,000 gallons		
T-4B	Storage Tanks (Submerged Fill), 100,000 gallons each		
T-4C			
T-11M	Storage Tank (Submerged Fill) 38,000 gallons each	NA or C-FLARE TO and/or C-FLARE	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
T-12M			
T-13M			
T-13T			
T-15M	Storage Tank (Submerged Fill) 10,000 gallons	C-FLARE TO and/or C-FLARE	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
T-15T	Storage Tank (Submerged Fill) 10,000 gallons		
T-16	Storage Tank (Submerged Fill) 200,000 gallons	NA or C-FLARE TO and/or C-FLARE	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
T-32	Storage Tank (Submerged Fill) 10,000 gallons	C-FLARE TO and/or C-FLARE)	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
T-605	Storage Tank T-605 (Submerged Fill) 55,000 gal		
DT-2	Day Tank 2 (Surge Control Vessel) (Submerged Fill), 30,000 gallons		
DT-3	Day Tank 3 (Surge Control Vessel) (Submerged Fill), 30,000 gallons		
DT-4	Day Tanks, Submerged Fill, 30,000 gallons each	N/A or C-FLARE TO and/or C-FLARE	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
DT-5			
DT-6			
DT-12			
<b>SSBR/PBR Solvent Purification</b>			
C-2	Drying Column	N/A Closed System or	Measurements of flow and concentration

<b>Emission Point</b>	<b>Equipment</b>	<b>Control Device</b>	<b>Acceptable Emission Factor Sources</b>
C-2M	Drying Column	Vents indirectly to the C-FLARE-TO or the C-FLARE by Venting to Another Emission Point	of gases going to the C-FLARE-TO/C-FLARE or EIIP Volume II, Chapter 16, - Methods for Estimating Air Emissions from Chemical Manufacturing Facilities
C-2T	Drying Column, 13,600 gallons		
C-7	Drying Column		
C-604A	Process Adsorption Column 8,500 gallons	N/A Closed System or Vents indirectly to the C-FLARE-TO or the C-FLARE by Venting to Another Emission Point	Measurements of flow and concentration of gases going to the C-FLARE-TO/C-FLARE or EIIP Volume II, Chapter 16, - Methods for Estimating Air Emissions from Chemical Manufacturing Facilities
C-605A	Process Adsorption Column 8,500 gallons		
C-605B	Process Adsorption Column 8,500 gallons		
C-615	Purification Column, 24,000 gallons each		
C-623			
D-15	Feed Drum, 395 gallons	C-FLARE TO and/or C-FLARE	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
D-16	Accumulator, 2,160 gallons		
D-16M	Accumulator, 2,160 gallons		
D-16T	Accumulator, 2,160 gallons		
D-32	Accumulator, 3,050 gallons		
D-59M	Decanter, 4,600 gallons		
D-612	Mix/Run Tank With Associated Hopper	C-FLARE TO and/or C-FLARE	Measurements of flow and concentration of gases going to the C-FLARE-TO/C-FLARE or EIIP Volume II, Chapter 8, Emission Model for Surface Evaporation, Equation 8.4-22
		N/A (Particulates)	Use Paint and Varnish Manufacturer AP 42 Section 6.4 Table 6.4.1 to maintain consistency with permit application for Phase 1 Solvent Conversion.
D-616	Reflux Drum D-616 5,000 gallons	C-FLARE TO and/or C-FLARE	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE
X-2	Coalescer, 277 gallons	N/A Closed System or Vents indirectly to the Flare Thermal Oxidizer (C-FLARE-TO) or the Flare Control System (C-FLARE) by Venting to Another Emission Point	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or EIIP Volume II, Chapter 16, - Methods for Estimating Air Emissions from Chemical Manufacturing Facilities
X-2M	Coalescer, 277 gallons		
X-2T	Coalescer, 277 gallons		
<b>SSBR/PBR Butadiene Purification</b>			
C-1	Drying Column	N/A Closed System or Vents indirectly to the Flare Thermal Oxidizer (C-FLARE-TO) or the Flare Control System (C-FLARE) by Venting to Another Emission Point	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or EIIP Volume II, Chapter 16, - Methods for Estimating Air Emissions from Chemical Manufacturing Facilities
C-1A	Drying Column		
C-1T	Drying Column		
D-10	Feed Drum, 2,350 gallons		
D-10A	Feed Drum, 2,350 gallons	NA or C-FLARE TO and/or C-FLARE	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
D-10T	Feed Drum, 2,350 gallons		

<b>Emission Point</b>	<b>Equipment</b>	<b>Control Device</b>	<b>Acceptable Emission Factor Sources</b>
<b>SSBR/PBR Styrene Purification</b>			
C-9M	Drying Column with Process Absorber (C-10M)	C-FLARE TO and/or C-FLARE	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or EIIP Volume II, Chapter 16, - Methods for Estimating Air Emissions from Chemical Manufacturing Facilities
<b>SSBR/PBR Chemical Addition</b>			
BU-1T	Supersack Unloader	Cartridge Filter Dust Collector (C-U1/U2-DC-1T)	0.1% Loss (District Default)
BU-2T	Supersack Unloader, 890 lb/supersack	Fabric Filter Dust Collector	0.1% Loss (District Default)
BU-3T	Supersack Unloader 1110 lb/supersack	C-U1/U2-DC-2T/3T	0.1% Loss (District Default)
D-1	Feed Tank with Seal Pot (D-1S) 2,000 gallons	N/A	Emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
D-3	Storage Tank (Submerged Fill) 17,000 gallons		
D-5	Mix/Run Tank 1, 300 gallons	N/A or C-FLARE TO and/or C-FLARE	EIIP Volume II, Chapter 8, Emission Model for Surface Evaporation, Equation 8.4-22 or Emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses or Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE
D-5M	Make-up/Run Tank 850 gallons	C-FLARE TO and/or C-FLARE	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
D-6	Mix/Run Tank with Common Seal Pot (D-6S) 2,000 gallons	N/A	EIIP Volume II, Chapter 8, Emission Model for Surface Evaporation, Equation 8.4-22 or Emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
D-6A	Mix/Run Tank 7,000 gallons	C-FLARE TO and/or C-FLARE	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or EIIP Volume II, Chapter 8, Emission Model for Surface Evaporation, Equation 8.4-22
D-7	Mix/Run Tank 1,500 gallons		
D-7A	Mix/Run Tank D-7A 9,000 gal		
D-7M	Make-up/Run Tank 1,500 gal		
D-8	Mix/Run Tank with common Seal Pot (D-6S) 2,300 gallons	NA	EIIP Volume II, Chapter 8, Emission Model for Surface Evaporation, Equation 8.4-22 or Emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.



<b>Emission Point</b>	<b>Equipment</b>	<b>Control Device</b>	<b>Acceptable Emission Factor Sources</b>
D-8A	Mix/Run Tank 1,200 gallons	N/A – Closed System or Vents indirectly to the Flare Thermal Oxidizer (C-FLARE-TO) or the Flare Control System (C-FLARE) by Venting to Another Emission Point	Measurements of flow & concentration of the gases going to the C-FLARE-TO/C-FLARE or EIIP Volume II, Chapter 8, Emission Model for Surface Evaporation, Equation 8.4-22 or Emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
D-8M	Make-up/Run Tank 1,200 gal	C-FLARE TO and/or C-FLARE	Measurements of flow & concentration of the gases going to the C-FLARE-TO/C-FLARE or EIIP Volume II, Chapter 8, Emission Model for Surface Evaporation, Equation 8.4-22
D-19M	Mix/Run Tank 800 gallons		
D-20M	Mix/Run Tank 800 gallons		
D-38A	Storage and Feed Tanks 17,000 gallons each	N/A or C-FLARE TO and/or C-FLARE	EIIP Volume II, Chapter 8, Emission Model for Surface Evaporation, Equation 8.4-22 or Emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses or Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE
D-38B			
D-39	Mix/Run Tank with Seal Pot (D-39S) 7,900 gallons	N/A	EIIP Volume II, Chapter 8, Emission Model for Surface Evaporation, Equation 8.4-22 or Emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
D-44	Mix/Run Tank with Seal Pot (D-44S), 12,000 gallons	N/A	
D-44M	Mix/Run Tank with Common Seal Pot (D-43M) 1,220 gal	N/A	
D-45M		N/A	
D-56M	Make-up/Run Tank 1,220 gal	C-FLARE TO and/or C-FLARE	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or EIIP Volume II, Chapter 8, Emission Model for Surface Evaporation, Equation 8.4-22
D-57M	Make-up/Run Tank 476 gallons		
D-60A	Mix/Run Tank 16,000 gallons		
D-60M	Make-up/Run Tank 1,500 gal		
D-61A	Mix/Run Tank 18,000 gallons		
D-61M	Make-up/Run Tank 1,200 gal		
D-66M	Mix/Run Tank 4,000 gallons		
D-67M	Mix/Run Tank 7,500 gallons		
D-68M	Mix/Run Tank 7,500 gallons		
D-69M	Make-up/Run Tank 7,500 gal		
D-155M	Mix/Run Tank 2,000 gallons		
D-618	Mix/Run Tank 10,000 gallons		
D-628	Mix/Run Tank 13,000 gallons		
D-630	Mix/Run Tank 15,000 gallons		
D-680	Mix/Run Tank 5,000 gallons		
D-686	Mix/Run Tank 2,000 gallons		
D-645	Mix/Run Tank, 11,500 gallons		
R-651	Mix Tank, 20 gallons	N/A Closed System or Vents indirectly to the C-FLARE-TO or the C-FLARE by Venting to Another Emission Point	Measurements of flow and concentration of gases going to the C-FLARE-TO/C-FLARE or EIIP Volume II, Chapter 16, - Methods for Estimating Air Emissions from Chemical Manufacturing Facilities
R-652	Mix Tank, 90 gallons		
R-653	Mix Tank, 20 gallons		
R-654	Mix Tank, 90 gallons		

<b>Emission Point</b>	<b>Equipment</b>	<b>Control Device</b>	<b>Acceptable Emission Factor Sources</b>
D-657	Run Tank	C-FLARE TO and/or C-FLARE	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or EIIP Volume II, Chapter 8, Emission Model for Surface Evaporation, Equation 8.4-22
D-658	Recycle Tank		
D-655	Storage Tank (Submerged Fill) 16,000 gallons	C-FLARE TO and/or C-FLARE	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
D-641	Storage Tank with Seal Pot D-643 (Submerged Fill) 900 gal	N/A	Emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
D-642	Storage Tank with Seal Pot D-644 (Submerged Fill) 600 gal		
T-1	Storage Tank with Seal Pot T-1S (Submerged Fill) 42,000 gal		
T-14	Storage Tank (Submerged Fill) 7,900 gallons		
D-671	Storage Tank (Submerged Fill) 1,325 gallons	C-FLARE TO and/or C-FLARE	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
<b>SSBR/PBR Polymerization</b>			
Reactor 1 -13	Reactor 1 through Reactor 13 4,040 gallons each	N/A – Closed Pressurized System or Vents indirectly to the C-FLARE-TO or the C-FLARE by venting to another emission point	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or EIIP Volume II, Chapter 16, Section 3.0 Basic Air Emission Models
Reactor 14	Reactor 14, 4,300 gallons		
D-9	Stripper with Process Condenser (E-60), 7,930 gallons	N/A – Closed System or Vents indirectly to the C-FLARE-TO or the C-FLARE by venting to another emission point	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE
D-13	Decanter 940 gallons	N/A	Emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
D-24	Surge Tank 8,120 gallons	N/A – Closed System or Vents indirectly to the C-FLARE-TO or the C-FLARE by venting to another emission point	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
D-24M	Surge Drum 7,600 gallons		
D-24T	Surge Drum 7,500 gallons		
<b>SSBR/PBR Concentration</b>			
D-25	Flash Drum 12,400 gallons	N/A – Closed System or Vents indirectly to the Flare Thermal Oxidizer (C-FLARE-TO) or the Flare Control System	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or emissions accounted for in the working losses for storage tanks using AP-42 evaporative
D-25M	Flash Drum 8,000 gallons		
D-25T	Flash Drum 7,800 gallons		
D-26	Flash Drum 5,140 gallons		
D-26M	Flash Drum 5,100 gallons		

<b>Emission Point</b>	<b>Equipment</b>	<b>Control Device</b>	<b>Acceptable Emission Factor Sources</b>
D-26T	Flash Drum 4,500 gallons	(C-FLARE) by venting to another emission point	losses.
D-27	Flash Drum 1,960 gallons		
D-28	Receiver and Drain Tank (C-8) with Process Absorber (C-6) 5,760 gallons	C-FLARE TO and/or C-FLARE	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
D-28M	Flash Overhead Surge Tank with Process Absorber C-8M 6,150 gallons		
D-28T	Surge Tank with Process Absorber (C-8T) 6,150 gallons		
D-29	Recycle Calibration Drum 2,160 gallons		
D-64M	Flush Tank 1,100 gallons		
<b>SSBR/PBR Blending</b>			
T-5A	Blend Tank 84,000 gallons	C-FLARE TO and/or C-FLARE	Measurements of flow & concentration of the gases going to the C-FLARE-TO/C-FLARE or EIIP Volume II, Chapter 8, Emission Model for Surface Evaporation, Equation 8.4-22
T-5B	Blend Tank 84,000 gallons		
T-5C	Blend Tank 84,000 gallons		
T-5D	Blend Tank 84,000 gallons		
T-5E	Blend Tank 84,000 gallons		
T-5F	Blend Tank 84,000 gallons		
T-5G	Blend Tank 85,000 gallons		
T-5H	Blend Tank 84,000 gallons		
T-5J	Blend Tank 85,000 gallons		
T-5K	Blend Tank 85,000 gallons		
<b>SSBR/PBR Stripping</b>			
No. 1 – 5 Stripper Vessels & process condensers	No. 1 Stripper Vessels	N/A Closed System or Vents indirectly to the C-FLARE-TO or the C-FLARE	Formula per Regulation 1.05 Plan: Emissions = ((Production x Adjusted Residual VOC) – (Production x Average Bale Residual VOC)) x (1 – Efficiency) or Emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
	No. 2 Stripper Vessels	N/A Closed System or Vents indirectly to the C-FLARE-TO or the C-FLARE	
	No. 3 Stripper Vessels	N/A Closed System or Vents indirectly to the C-FLARE-TO or the C-FLARE	
	No. 4 Stripper Vessels	N/A Closed System or Vents indirectly to the C-FLARE-TO or the C-FLARE	
	No. 5 Stripper Vessels	N/A Closed System or Vents indirectly to the C-FLARE-TO or the C-FLARE	
D-30	Decanter 9,740 gallons	Condenser (C-U1/U2- E-24)	Formula per Regulation 1.05 Plan or emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
D-30M	Decanter 9,740 gallons	Condenser (C-U1/U2- E-24M)	Formula per Regulation 1.05 Plan

<b>Emission Point</b>	<b>Equipment</b>	<b>Control Device</b>	<b>Acceptable Emission Factor Sources</b>
D-30T	Decanter 9,740 gallons	Condenser (C-U1/U2-E-24T)	Emissions = ((Production x Adjusted Residual VOC) – (Production x Average Bale Residual VOC)) or emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
T-9A	Crumb Tanks with Process Condenser, 47,000 gal each	N/A Closed System or Vents indirectly to the C-FLARE-TO or the C-FLARE	Formula per Regulation 1.05 Plan: Emissions = [(Production × Adjusted Residual VOC/HAP) – (Production × Average Bale Residual VOC/HAP)] × (Capture Efficiency (90%)) × (1 – Control Efficiency) or Emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
T-9B		N/A Closed System or Vents indirectly to the C-FLARE-TO or the C-FLARE	
T-9C		N/A Closed System or Vents indirectly to the C-FLARE-TO or the C-FLARE	
T-9D		N/A Closed System or Vents indirectly to the C-FLARE-TO or the C-FLARE	
T-9E/T		N/A Closed System or Vents indirectly to the C-FLARE-TO or the C-FLARE	
<b>SSBR/PBR Finishing</b>			
No. 1 Line	No. 1 Finishing Line	C-U1/U2-RTO-1 or Boiler(s) (C-U1/U2-BLR1/2)	Formula per Regulation 1.05 Plan: VOC emissions = [(Production amount) (Adjusted residual VOC)– (Production amount) (Adjusted bale residual VOC)] (0.9) (1 – Control Efficiency) + [(Production amount) (Adjusted residual VOC) – (Production amount) (Adjusted bale residual VOC)] (0.1), Correction Factors of: 1.18 Toluene, 1.03 Dimer, 1.16 Styrene
No. 2 Line	No. 2 Finishing Line		
No. 3 Line	No. 3 Finishing Line		
No. 4 Line	No. 4 Finishing Line		
No. 5 Line	No. 5 Finishing Line		
No. 7 Line	No. 7 Finishing Line		
<b>Miscellaneous Equipment</b>			
Mis Equipment	(200) Drums and Totes	N/A	Emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
D-128	Emergency Containment Tank (8565 gallons)	N/A	Emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.

<b>U1/U2 Control Devices</b>	
C-FLARE TO (Flare Thermal Oxidizer)	
Results	Stack Test Date
	10/25/2018
Destruction Efficiency	99.99%
Combustion Chamber Temperature ° F	1,686
Retention Time (seconds)	6.04
Volumetric Flow Rate Inlet (dscfm)	384

U1/U2 Control Devices			
Volumetric Flow Rate Outlet (dscfm)		16,135	
Inlet (lb VOC/hr)		1134	
Outlet (lb VOC/hr)		0.064	
Natural Gas Combustion		AP-42 Emission Factor Table 1.4-2	
ID	Description	Efficiency	Basis
C-FLARE	Flare Control System	98%	Not yet Tested
C-U1/U2-DC-1T	Cartridge Filter Baghouse	98%	
C-U1/U2-DC-1T	Fabric Filter Baghouse	98%	
C-U1/U2-E-24	Condenser on top of D30A	N/A	
C-U1/U2-E-24M	Condenser on top of D-30M	N/A	
C-U1/U2-E-24T	Condenser on top of D-30T	N/A	
C-U1/U2-RTO-1	Regenerative Thermal Oxidizer RTO-1	98.81% Destruction Eff. at Combustion Chamber Temperature of 1619 degrees F Average Capacity: 59,380 lb/hr Inlet: 311 lb VOC/hr, Outlet: 3.69 lb VOC/hr Inlet: 5.24 lb VOC/1,000 lb product Outlet: 0.062 lb VOC/1,000 lb product	Stack Test: Oct. 24, 2018
C-U1/U2-BLR1/2	Fumes collected from finishing operation are directed to one or both Boiler(s) 1 & 2 as combustion air. C-U1/U2-BLR ½ is used as an alternate control to C-U1/U2-RTO-1 for Finishing Building Captured Exhaust	98%	Not yet Tested

**Unit U3: Liquid Polymer Production**

Equipment	Emission Point	Control Device	Emission Factor Source
General Tank Farm Truck Loading/ Unloading	General Tank Farm Truck Loading/Unloading (Bottom Loaded)	N/A or Vents indirectly to the Flare Thermal Oxidizer (C-FLARE-TO) or the Flare Control System (C-FLARE) by venting to another emission point	AP-42 Emission Factors from Chapter 5.2, Section 5.2.2.1.1, Loading Losses
Truck Loading/ Unloading	Truck Loading/ Unloading (Bottom Loaded)	N/A	AP-42 Emission Factors from Chapter 5.2, Section 5.2.2.1.1, Loading Losses
Railcar Loading/ Unloading	Railcar Loading/ Unloading (Bottom Loaded)	N/A or Vents indirectly to the Flare Thermal Oxidizer (C-FLARE-TO) or the Flare Control System (C-FLARE) by venting to another emission point	AP-42 Emission Factors from Chapter 5.2, Section 5.2.2.1.1, Loading Losses
T-5	Storage Tank (Submerged Fill) 30,000 gallons	C-U3-T-5N & C-U3-T-5S	Emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
T-6L	Weigh Tank 400 gallons	Closed Tank	Emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
D-49LA	Weigh Scale 1,040 gallons	N/A – Closed System or Vents indirectly to the C-FLARE-TO or the C-FLARE by venting to another emission point	Measurements of flow and concentration of gases going to the C-FLARE-TO/C-FLARE or EIIP Volume II, Chapter 16, Section 3.0 Air Emission Models
D-49LB	Weigh Scale 1,040 gallons		
DR-1	Reactor/Dryers with Knock-Out Bottles, 1, 3,750 gallons each		
R-2			
R-3			
R-4			
R-5			

Equipment	Emission Point	Control Device	Emission Factor Source
R-6			
DR-2	Dryer #2 3,750 gallons		
DR-3	Dryer #3 3,750 gallons		
AA-101	Storage Tank (Submerged Fill) 5,600 gallons each	N/A	Emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
AA-102		N/A	
AA-103		N/A	
T-71	Storage Tank (Submerged Fill) 15,275 gallons	N/A	
DDM-2	Weigh Tank 108 gallons	N/A – Closed System or Vents indirectly to the C-FLARE-TO or the C-FLARE by venting to another emission point	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
DDM-4	Weigh Tank 108 gallons		
DDM-5	Weigh Tank 108 gallons		
DDM-6	Weigh Tank 108 gallons		
[T-1(LP), T-2(LP), C-1(LP), T-3(LP)]	LP Monomer Removal System consisting of Tank T-3(LP) (3,750 gal); Accumulator T-2(LP); Column C-1(LP); & a Vaporizer T-1 (LP)	C-FLARE TO and/or C-FLARE	
D-3	Receiver with Process Condenser (C-7L) 317 gallons		
D-53L	Charge Tank 420 gallons	N/A	Emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
T-1L	Decant Tank 10,350 gallons	C-FLARE TO and/or C-FLARE	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
D-6	Vacuum Pump Knock-Out Tank 829 gallons	N/A – Closed System or Vents indirectly to the Flare Thermal Oxidizer (C-FLARE-TO) or the Flare Control System (C-FLARE) by venting to another emission point	Measurements of flow and concentration of the gases going to the C-FLARE-TO/C-FLARE or EIIP Volume II, Chapter 16, Single Stage Vent Devices: Vacuum Pumps
Mis Equipment	(100) Drums and Totes	N/A	Emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
<b>U3 Control Devices</b>			
C-U3-T-5N & C-U3-T-5S	Two parallel carbon canisters	95%	Not Yet Tested
C-FLARE TO	Flare Thermal Oxidizer	99.99%	Oct. 25, 2018, Stack Test See Appendix F, Table 1 Unit U1/U2 Control Devices
C-FLARE	Flare Control System	98%	Not yet Tested

**Unit U4: Power House**

Equipment	Emission Point	Pollutant	Emission Factor	Determination Method
Truck Lime Unloading	Truck Lime Unloading	PM	N/A	N/A
Boiler #1 and Boiler #2	Boiler #1 and	NOx	CEMS (Actual) or 11 lbs/ton coal burned (potential)	CEMS (Actual) or AP-42 Table 1.1-3 (Spreader Stoker,

Equipment	Emission Point	Pollutant	Emission Factor	Determination Method
Two coal-fired/Process Gas spreader stoker boilers; 212 MM Btu/Hr each	Boiler #2	SO <sub>2</sub>	CEMS (Actual) or 38.00 lbs/Ton Coal Burned (Potential where Sulfur Content is 1% by Weight (S))	Bituminous)
		CO	CEMS (Actual)	CEMS (Actual)
		PM	0.029 PM lbs/MMBtu controlled for Boiler 1 & 2 Combined	(Spreader Stoker – Baghouse) July 10-11, 2019 Stack Test
		Opacity	COMs	COMs
		H <sub>2</sub> SO <sub>4</sub>	0.43*(% Sulfur in coal (ASRC uses 0.90 or if the data is available the actual sulfur content of the coal))	Emergency Planning and Community Right-to-Know Act – Section 313 – Guidance for Reporting Sulfuric Acid (acid aerosols including mists, vapor, gas, fog, and other airborne forms of any particle size
		Mercury	4.4 x 10 <sup>-7</sup> lbs/MMBtu controlled for Boiler 1 & 2 Combined	(Spreader Stoker – Baghouse) July 10-11, 2019 Stack Test
		HCl	0.000029 lbs/MMBtu controlled for Boiler 1 & 2 Combined	(Spreader Stoker – Baghouse) July 10-11, 2019 Stack Test
AP-42, Chapter 1.1				
Boiler #3 Natural gas-fired boiler; 99 MM Btu/Hr	Boiler #3	Natural Gas Combustion AP-42, Chapter 1.4, Tables 1.4-1 through 1.4-4		
		NO <sub>x</sub> <sup>15</sup>	0.107 lbs/MMBtu 0.157 lbs/MMBtu 0.138 lb/MMBtu 0.127 lbs/MMBtu 0.143 lbs/MMBtu 0.146 lbs/MMBtu 0.167 lbs/MMBtu	July 23, 2020 stack test
		VOC	0.0007 lbs/MMBtu	March 2, 2004, stack test
		CO	0.002 lbs/MMBtu	March 2, 2004, stack test
Boiler #4 Natural gas-fired boiler; 99 MM Btu/Hr	Boiler #4	Natural Gas Combustion AP-42, Chapter 1.4, Table 1.4-1 through Table 1.4-4		
		NO <sub>x</sub> <sup>15</sup>	0.112 lbs/MMBtu 0.143 lbs/MMBtu 0.128 lbs/MMBtu 0.123 lbs/MMBtu 0.121 lbs/MMBtu 0.145 lbs/MMBtu	July 23, 2020 stack test
		VOC	0.0006 lbs/MMBtu	March 2, 2004, stack test
		CO	0.003 lbs/MMBtu	March 2, 2004, stack test
Ash Handling System including Silo and Associated Ash Collection	Ash Handling System	PM	0.0089 lbs PM/ton (Controlled)	Section 11.12 of AP-42
Ash Load-Out System	Ash Load-Out System	PM	0.0089 lbs PM/ton (Controlled)	Section 11.12 of AP-42
Lime Handling System including Silo & Makeup Tank	Lime Handling System	PM	0.0036 lbs PM/1000 lbs Throughput (Controlled)	Section 11.26-1 of AP-42

<sup>15</sup> Use the most current emission factor to calculate emissions

Equipment	Emission Point	Pollutant	Emission Factor	Determination Method
Coal Handling System including Silo, Hoppers, Conveyor Systems, and Crushers	Coal Handling System	PM	0.0014 lbs PM/ton (Controlled) or 0.003 lbs PM/ton (Uncontrolled) for each transfer point. Apply control efficiency if controlled.	Section 11.19.2-2 of AP-42
<b>U4 Control Devices<sup>16</sup></b>				
C-U4-SDR	Dry Scrubber for control of Sulfur Dioxide in series with a 12-Module Baghouse for control of PM equipped with woven fiberglass bags (or equivalent)		90% HF <sup>17</sup>	Not Yet Tested
C-U4-BAGHOUSE			99.6% PM	October 14, 2009 -Stack Test for PM
			0.000029 lb HCl/MMBtu	July 10-11 2019 –MACT Stack Test for PM filterable, HCl & Hg
			4.4 x 10 <sup>-7</sup> lb Hg/MMBtu	
		0.029 lb PM/MMBtu		
C-U4-ASHSILO	Ash Silo Baghouse (Pulse-Jet) Model 9-768-64-100R		98%	Not Yet Tested
C-U4-ASHLOAD	Ash Load-Out Vacuolader Filter (Reverse Pulse Baghouse)		98%	Not Yet Tested
C-U4-LIMESILO	Lime Silo Baghouse (Pulse-Jet)		98%	
C-U4-COALSILO	Coal Silo Bin Vent Filter		90%	

**Unit U5: Emergency Generator**

Emission Point	Equipment	Control Device	Emission Factor Source
#5 Line Generator	One (1) Caterpillar emergency generator set, model SR-4B, powered by a Caterpillar diesel fuel engine, model 3508 DITA, with a rated capacity of 1,106 bhp (825 kW), installed in 1995	N/A	AP-42, Chapter 3.4, Tables 3.4-1 through Table 3.4-4

**Unit UMSC: Miscellaneous**

Emission Point	Equipment	Control Device	Emission Factor Source
Gasoline Tank	Above-Ground Unleaded Gasoline Storage Tank, 550 gallons, 1995	N/A	Emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
Parts Washers	Solvent Metal Cleaning Equipment (6 parts washers/cold cleaners)	N/A	EIIP Volume II, Chapter 8.4, Emission Model for Surface Evaporation, Equation 8.4-22
WWTP Truck Unloading	WWTP Truck Unloading, 1975	Closed System	Emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
D-203	WWTP Storage Tank, 7,000 gal Late 1990's	N/A	Emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
WWT E1 (IA)	One (1) Aerobic Biological Reactor, 1985	N/A	Toxchem V4.3 Technical Guidance

<sup>16</sup> Control efficiencies vary with inlet loading. The values presented in this table are not fixed and do not represent permit limits. Rather, these approximate control efficiencies serve as the basis for emission calculations in the absence of more specific information.

<sup>17</sup> The 90% control efficiency documented in this table is used to estimate emissions of HF. For SO<sub>2</sub>, ASRC uses the post-control CEMS data to quantify emissions.



Emission Point	Equipment	Control Device	Emission Factor Source
WWT E2 (IA)	Wastewater Treatment System consisting of (1075): Four (4) Settling Basins One (1) Basin for pH Control One (1) Clarifier One (1) Aeration basin	N/A	Toxchem V4.3 Technical Guidance
Mis. Equipment (IA)	Twelve (12) Miscellaneous Drums and Totes	N/A	If the drums or totes are equipped with a pressure relief valve then Emissions accounted for in the standing losses for storage tanks using AP-42 evaporative losses. If the drums or totes are not equipped with a pressure relief valve then the emissions are "0"
Refrigeration	Plant Refrigeration System Receivers (3) 1950's (1) and 1990's (2)	Closed System	Mass Balance or Leak Rate Emission Factor from EPA's Greenhouse Gas Inventory Protocol Core Module Guidance

**Unit IA1: CI RICE Greater than 500 bhp**

Emission Point	Equipment	Control Device	Emission Factor Source
ELEC2B	One (1) One emergency generator set, model DFEJ, powered by a Cummins diesel fuel engine, model QSX15-G9, with a rated capacity of 450 kW, installed in 2021	N/A	AP-42, Chapter 3.4, Table 3.4-1, 3.4-2, 3.4-3 & Table 3.4-4

**Unit IA2: CI RICE Less than 500 bhp**

Emission Points	Equipment	Control Device	Emission Factor Source
Bioreactor Generator	One (1) Onan emergency generator set, model 680FDR5056BB, powered by a Cummins diesel fuel engine, model KT-1150-GS, with a rated capacity of 489 bhp (365 kW), installed in 1976	N/A	AP-42, Chapter 3.3, Table 3.3-1 & Table 3.3-2
Waukesha Generator	One (1) Waukesha emergency generator set, model W5900DS, powered by a Scania diesel fuel engine, model DS14A01, with a rated capacity of 268 bhp (200 kW), installed in 1976	N/A	
#2 Stormwater Pump	One (1) Cummins diesel fuel engine, model KT 855 P 235, #2 SW 10575438, used to power 10,000 GPM Stormwater Pump #1 in emergency situations, with a rated capacity of 255 hp installed in 1977	N/A	
#3 Stormwater Pump	One (1) Cummins diesel fuel engine, model #3 SW 60529257 (1981) Recon, used to power 10,000 GPM Stormwater Pump #2 in emergency situations, with a rated capacity of 255 hp installed in 1977	N/A	
#1 Stormwater Pump	One (1) Cummins diesel fuel engine, model KY 1150 P 450 #1 SW 31103223, used to power 20,000 GPM Stormwater Pump #1 in emergency situations, with a rated capacity of 450 hp installed in 1977	N/A	
#4 Stormwater Pump	One (1) Cummins diesel fuel engine, model 31103223 #4 SW 31103412, used to power 20,000 GPM Stormwater Pump #2 in emergency situations, with a rated capacity of 450 hp installed in 1977	N/A	
Booster Fire Pump (R&H) P-240-D	One (1) Cummins diesel fuel engine, model CFP7E-F50 4-cycle, rated at 234 hp, used to power Booster Fire Pump (R&H) in emergency situations, manufactured in 2016, installed 2016	N/A	
Water Treatment Fire Pump 240C P-240-C	One (1) John Deere diesel fuel engine, model JW6H-UF60 rated at 375 hp, used to power Water Treatment Fire Pump 240C in emergency situations, installed in 2004	N/A	

<b>Emission Points</b>	<b>Equipment</b>	<b>Control Device</b>	<b>Emission Factor Source</b>
SW Fire Water Pump 240A	One (1) John Deere diesel fuel engine, model JW6H-UF60 rated at 375 hp, used to power SW Fire Water Pump 240A in emergency situations, 2004	N/A	
NW Fire Water 240B P-240-B	One (1) John Deere diesel fuel engine, model JW6H-UF60 rated at 375 hp, used to power NW Fire Water 240B in emergency situations, installed in 2004	N/A	

**Unit IA3: Cooling Towers**

<b>ID E-Cooling Tower</b>	<b>Description</b>	<b>Control ID</b>	<b>Emission Factor Source</b>
Main 1	Main 1 Induced Draft Cooling Tower, non-chromium treated water equipped with drift eliminator.	N/A	AP-42 Emission Factors Chapter 13.4, Table 13.4-1
5 Line	5 Line Counter Flow Cooling Tower, non-chromium treated water equipped with drift eliminator.	N/A	
7 Line	7 Line Counter Flow Cooling Tower, non-chromium treated water equipped with drift eliminator.	N/A	
New Finishing East Cooling Tower	Marley, Model AV6805, Induced Draft	N/A	
Steam	Steam Counter Flow Cooling Tower, non-chromium treated water equipped with drift eliminator.	N/A	
Ammonia	Ammonia Counter Flow Cooling Tower, non-chromium treated water equipped with drift eliminator.	N/A	

**Unit IA4: Regulation 7.08 Process Equipment**

<b>ID E-Emission Points</b>	<b>Description</b>	<b>Control ID</b>	<b>Emission Factor Source</b>
IA4-1	Six (6) Brazing, soldering, or welding equipment.	N/A	AP-42 Emission Factors Chapter 12.19, Tables 12.19-1 & 12.19-2
IA4-2	Two (2) Blast Cleaning (using a suspension of Abrasive in Water)	N/A	AP-42 Emission Factors Chapter 13.2, Table 13.2.6-1

**Unit IA5: VOC Storage Tank**

<b>ID E-Emission Points</b>	<b>Description</b>	<b>Control ID</b>	<b>Emission Factor Source</b>
IA5- Tank 1	Four (4) Fire Pump diesel fuel tanks consisting of (1) 350 gallon and (3) 500 gallon Installation date unknown	N/A	Emissions accounted for in the working losses for storage tanks using AP-42
IA5- Tank 2	Four (4) Storm water diesel pumps with one (1) fuel tank consisting of (1) 250 gallons Installation date unknown	N/A	

ID E-Emission Points	Description	Control ID	Emission Factor Source
IA5- Tank 3	Four (4) Emergency generators with five (5) diesel fuel tanks consisting of (1) 300 gallon, (1) 350 gallon, (2) 500 gallon, and (1) 1000 gallon Installation date unknown	N/A	evaporative losses.
IA5- Tank 4	Four (4) mobile diesel tanks consisting of (2) 400 gallon, (1) 350 gallon, (1) 300 gallon Installation date unknown	N/A	
IA5- Tank 5	Two (2) Portable Diesel or Gasoline Storage Tank <500 gal capacity	N/A	Emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses.
IA5- Tank 6	One (1) Neutralizing Amine Tank for boilers, 1500 gal capacity	N/A	Emissions accounted for in the working losses for storage tanks using AP-42 evaporative losses

7. Insignificant Activities

Equipment	Quantity	PTE (tpy)	Reg. Basis
Fixed Internal combustion engines (Emission Unit IA1 and IA2) consisting of the following:	11 Which includes 3 emergency generators	See Individual engines below	1.02, Appendix A
Bioreactor Generator		2.934 NOx; 0.672 CO; 0.078 VOC; 0.049 PM	
Waukesha Generator		1.608 NOx; 0.369 CO; 0.043 VOC; 0.027 PM	
#2 Stormwater Pump		1.530 NOx; 0.351 CO; 0.041 VOC; 0.025 PM	
#3 Stormwater Pump		1.530 NOx; 0.351 CO; 0.041 VOC; 0.025 PM	
#1 Stormwater Pump		2.700 NOx; 0.619 CO; 0.072 VOC; 0.045 PM	
#4 Stormwater Pump		2.700 NOx; 0.619 CO; 0.072 VOC; 0.045 PM	
Booster Fire Pump (R&H)		1.404 NOx; 0.322 CO; 0.038 VOC; 0.023 PM	

Equipment	Quantity	PTE (tpy)	Reg. Basis
Water Treatment Fire Pump 240C		2.25 NOx; 0.516 CO; 0.060 VOC 0.037 PM	
SW Fire Water Pump 240A		2.25 NOx; 0.516 CO; 0.060 VOC 0.037 PM	
NW Fire Water 240B		2.25 NOx; 0.516 CO; 0.060 VOC 0.037 PM	
Electric Shop Emergency Use Generator ELEC2B		3.30 NOx; 0.88 CO; 0.090 VOC 0.33 PM	
Brazing, soldering, or welding equipment (Emission Unit IA4)	6	0.0816 tpy PM combined	1.02, Appendix A
Blast Cleaning (using a suspension of Abrasive in Water) (Emission Unit IA4)	2	0.27 tpy PM combined	1.02, Appendix A
Portable Diesel or Gasoline Storage Tank <500 gal capacity (Emission Unit IA5)	2	0.18 tpy VOC combined	1.02, Appendix A
Diesel Fuel Oil Storage Tanks (Emission Unit IA5)	14	0.070 tpy VOC combined	1.02, Appendix A
Amine Storage Tank (Emission Unit IA5)	1	0.0002 VOC	Reg. 1.02
Laboratory ventilating and exhausting systems which are not used for radioactive air contaminants	10	PTE 0.0088 tpy VOC combined	Reg. 1.02, Appendix A
Main 1 Induced Draft Cooling Tower, non-chromium treated water (Emission Unit IA3)	1	3.29 tpy PM <sub>10</sub>	Reg. 1.02
5 Line Counter Flow Cooling Tower, non-chromium treated water (Emission Unit IA3)	1	2.63 tpy PM <sub>10</sub>	Reg. 1.02
7 Line Counter Flow Cooling Tower, non-chromium treated water (Emission Unit IA3)	1	2.63 tpy PM <sub>10</sub>	Reg. 1.02
New Finishing East Cooling Tower, Marley, Model AV6805, Induced Draft (Emission Unit IA3)	1	1.40 tpy PM <sub>10</sub>	Reg. 1.02
Steam Counter Flow Cooling Tower, non-chromium treated water (Emission Unit IA3)	1	2.63 tpy PM <sub>10</sub>	Reg. 1.02
Ammonia Counter Flow Cooling Tower, non-chromium treated water (Emission Unit IA3)	1	2.63 tpy PM <sub>10</sub>	Reg. 1.02
Air Conditioner Units	120	Closed System	40 CFR 82 Subpart F
Plant Refrigeration Systems Receivers (Emission Unit UMSC)	3	3.06 tpy Ammonia combined	Reg. 1.02
<b>Emission Unit U1/U2 Associated Insignificant Activities</b>			
Miscellaneous Drums and Totes	About 200 or varies	0.78 tpy VOC combined	Reg. 1.02
Emergency Use Containment Tank (D-128)	1	0.557 tpy VOC	Reg. 1.02
<b>Emission Unit U3 Associated Insignificant Activities</b>			
Miscellaneous Drums and Totes	About 100 or varies	0.39 tpy VOC combined	Reg. 1.02
<b>Emission Unit UMSC Associated Insignificant Activities</b>			

Equipment	Quantity	PTE (tpy)	Reg. Basis
Miscellaneous Drums and Totes	About 12 or varies	0.0468 tpy VOC combined	Reg. 1.02

- 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 submit an updated list of Insignificant Activities whenever changes in equipment located at the facility occur that cause changes to the plant wide emissions.

Source-Wide Activities Not Otherwise Regulated <sup>18</sup>		
Equipment	Quantity	Reg. Basis
Maintenance Sand Blasting	various	EPA White Papers
Maintenance Painting	various	EPA White Papers
Machine Shop Maintenance Lathes	various	No Known Regulated Emissions
Emergency relief vents, stacks, and ventilating systems (not otherwise regulated)	12	No Known Regulated Emissions
Plant Refrigeration System, excluding Receivers (3), but including associated chilled water tanks, 350 gallon ammonia tank, compressors, condensers, piping, and heat exchangers	1	Closed System
Truck/Railcar Loading/Unloading of non-regulated materials	various	No Known Regulated Emissions
Catalyst Suppressant Storage Tank (1) and Truck Loading/Unloading (2)	1	No Known Regulated Emissions
Liquid Nitrogen Storage Tank 1580 gallons	1	No Known Regulated Emissions
Nitrogen Generator	1	No Known Regulated Emissions
Water Tanks, including chilled water tanks	various	No Known Regulated Emissions
Fire Water Reservoir	1	No Known Regulated Emissions
Pre-Landfill Non-Hazardous Waste De-watering Pad	1	No Known Regulated Emissions
Concrete and other debris material storage area	1	No Known Regulated Emissions
Air Compressors	various	No Known Regulated Emissions
Electrical Transformer Coolants (non-PCB)	various	No Known Regulated Emissions
Hydraulic Oil Systems	various	No Known Regulated Emissions (Closed Systems)

<sup>18</sup> This table is for informational purposes only.

<b>Source-Wide Activities Not Otherwise Regulated<sup>18</sup></b>		
<b>Equipment</b>	<b>Quantity</b>	<b>Reg. Basis</b>
Gas Chromatographs and associated validation tanks/cylinder standards	various	No Known Regulated Emissions
Large Storm Water Basin, 1950's (Emission Unit UMSC)	1	No Known Regulated Emissions
Small Surge Control Storm Water Basin (Emission Unit UMSC)	1	No Known Regulated Emissions
Propane Pressurized Storage Tank for fire training purposes (1000 gallons)	1	PTE 0.002 tpy VOC and no regulations that are applicable
Woodworking, not including conveying, hogging or burning of saw dust or wood waste	2	EPA White Papers