



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

PIEDMONT REGIONAL OFFICE

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### STATEMENT OF LEGAL AND FACTUAL BASIS

Ashland Specialty Ingredients

Ashland Hopewell Facility

Hopewell, Virginia

Permit No. PRO-50363

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Ashland Specialty Ingredients has applied for a Title V Operating Permit renewal for its Hopewell facility. The Department has reviewed the application and has prepared a draft renewal Title V Operating Permit.

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Date: 9/27/2016

Air Permit Manager:   
James E. Kyle, P.E.

Date: 9/27/2014

Deputy Regional Director:   
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Date: 9/28/14

## **FACILITY INFORMATION**

### Permittee

Ashland Specialty Ingredients  
1111 Hercules Rd.  
Hopewell, Virginia

### Facility

Ashland Hopewell Facility  
1111 Hercules Rd.  
Hopewell, Virginia

County-Plant Identification Number: 51- 041-006

## **SOURCE DESCRIPTION**

NAICS Code: 325199 – All Other Basic Organic Chemical Manufacturing

Ashland Specialty Ingredients owns and operates a manufacturing facility in Hopewell, Virginia. A variety of cellulose products used in the production of a wide range of consumer products and product packaging are manufactured at this facility.

The facility is a Title V major source of VOC and HAPs and is located in an attainment area for all pollutants. The facility currently holds several permits, one for each of the process areas at the plant:

Carboxymethylcellulose (CMC) – December 18, 2014 Minor New Source Review permit

Hydroxyethylcellulose (Natrosol) – January 28, 2011 Minor New Source Review permit

Hydroxypropylcellulose (Klucel) – November 19, 2015 Minor New Source Review permit

Ethyl Cellulose (EC) – February 24, 2006 Minor New Source Review permit

Technical Facility (TF) – December 7, 2009 Minor New Source Review permit

While the facility is a PSD-sized source, it has not been subject to PSD permitting due to emissions netting in the CMC, Natrosol, Klucel, and EC process areas.

The date of initial Title V permit issuance is August 27, 2003 with an effective date of September 1, 2003. The Title V renewal application was received February 25, 2008 and was deemed timely and complete on February 28, 2008. Therefore, the Title V permit application shield is still in place.

## COMPLIANCE STATUS

A full compliance evaluation of this facility, including multiple site visits, has been conducted. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility and DEQ have entered into a Consent Order to resolve a Notice of Violation on October 8, 2015 alleging noncompliance with Condition 7 of the permit dated January 8, 2011. The facility reported three 12-month rolling emissions in excess of the 66.6 tons/yr VOC limit for the Natrosol process area.

## CHANGES TO THE PERMIT

Since the original issuance of this Federal Operating Permit on August 27, 2003, the following changes have taken place to the applicable requirements at this facility (underlined dates are for the current permits, while the permits with the previous dates have been superseded):

- **CMC Process:** 4/7/2006, 12/18/2014 – Installation of 4 CMC dryers, direct neat injection IPA/MCA system, CMC shredder cooling fan, CMC solvent recovery system including 5 distillation columns (two of which were later combined in a 2-stage column), one CMC RECO ammonia chiller and oil cooler system. Replacement of primary cutters that can accept wider rolls of cellulose and installation of an intermediate cellulose storage bin, new air handling units and a chiller system. Permitted particulate emissions have increased by 6.1 tons/yr, and the annual VOC limit for this process remains the same at 422 tons/yr.
- **Natrosol Process:** 12/4/2003, 4/28/2006, 3/14/2007, 12/12/2007, 12/8/2008, 1/28/2011 – Debottlenecking modifications included Viscosity Reduction Vessels (replacement and upgrades), new air packer and product transfer system, the addition of new grinding mills, new cellulose cutters/shredders, a new reslurry tank and a new automated packaging system. The two knockdown towers at the plant were permanently shut down. Permitted particulate emissions have decreased from 19.0 tons/yr to 15.9 tons/yr, and the annual VOC limit for this process has decreased from 170.0 tons/yr to 66.6 tons/yr in the current permit. The 66.6 tons/yr VOC emission limit was selected in order to cap the VOC emissions from the Natrosol process below the PSD significance level for the modifications permitted on 12/4/2003.
- **Klucel Process:** 2/1/2005, 3/14/2007, 9/24/2010, 11/19/2015 – Installation of two new Klucel reactors, cellulose shredders, an acetic acid head tank and transfer system, modifications to Klucel drying, diluent recovery and dry product shredding operations, an automated packaging system with associated feed hopper and conveyor, and the installation of a housekeeping vacuum system. Allowable emissions of particulate matter were calculated to be less than 0.5 ton and were removed with the 2/1/2005 permit. The annual VOC limit for the Klucel process was decreased from 195.0 tons/yr to 181.0 tons/yr to cap the emission increase associated with the 2/1/2005 modification below the 40-ton PSD significance level.

- **EC Process:** 8/2/2004, 4/26/2005, 2/24/2006 – A reaction efficiency project involved new/modified variable speed agitation motor-transmission drives, improved agitator seal technology, reinforced agitator components, and optimized reaction procedures and conditions associated with the modified autoclave agitation systems as well as an automated control system for the EC process area. The VOC 58.0 lbs/hr limit was changed to a 135.6 lbs/batch limit in the 4/26/2005 permit, and the annual VOC limit was reduced from 256.0 tons/yr to 126.0 tons/yr to remain below the PSD significance threshold for the project.
- **MCA:** The MCA production process has not been in operation since 2004. The only remaining permit related to the process, dated 4/3/2003, limits chlorine from the unloading area and has not yet been rescinded. The only applicable requirements from this permit are limits on chlorine, which are included in the State Only Enforceable section of the Title V permit. The facility now receives MCA in flake form and it is dissolved on site. This process is now included in the permit for the CMC process area.
- **Technical Facility:** A permit was issued on 12/7/2009 to allow the facility to construct a pilot plant to produce Methylcellulose (MC). While Methylcellulose is not produced at the Hopewell facility, it is produced at other plants, and the company modified the Technical Facility to allow for MC-related R&D activities. This permit includes State-Enforceable only limits on toluene and methanol, which were not previously emitted by research conducted at the Technical Facility.
- **Cellulose MACT (40 CFR 63, Subpart UUUU):** The Cellulose MACT (40 CFR 63, Subpart UUUU) was promulgated on 6/10/2002, with a compliance date of 6/13/2005. All four processes at the Hopewell facility (CMC, Natrosol, Klucel and EC) are subject to the MACT, but as of 8/27/2003, it had not been definitively determined that the EC process was subject to Subpart UUUU, and it was instead complying with the requirements of 40 CFR 63 Subpart H (Leak Detection and Repair requirements from the HON MACT). For CMC, Natrosol and Klucel, Subpart UUUU was incorporated by reference only into the 2003 Title V permit. After the 2003 Title V permit was issued, it was determined that the EC process was in fact subject to Subpart UUUU, and in its 12/13/2006 Subpart UUUU Cellulose Ethers MACT Compliance Demonstration, Ashland included data from all four processes at the Hopewell facility. Section XI of the Title V permit lists the requirements of Subpart UUUU that are applicable to the facility. MACT Subparts F, G, and H are referenced by MACT Subpart UUUU, but these subparts are applicable only through MACT UUUU and therefore are not individually addressed in the permit (with the exception of Condition 71d of the permit, which references a Subpart G citation requiring the permittee to keep records of tank dimensions/capacity for CMC-TNK-408, KL-TNK-307, and EC-TNK-325).
- **RICE MACT (40 CFR 63, Subpart ZZZZ) and NSPS (40 CFR 60, Subpart IIII):** The source has a portable diesel generator for emergency use, rated at 300 hp. It is not subject to NSR permitting because of its size, but does have applicable NSPS requirements that are included in the Title V permit. Though the emergency generator is subject to the RICE MACT (40 CFR 63, Subpart ZZZZ), §63.6590(c) states that “an affected source that meets any of the criteria in paragraphs (c)(1) through (c)(7) of this section must meet the requirements of this part by meeting

the requirements of 40 CFR part 60 subpart IIII.” As a new compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 bhp, located at a major source of HAP emissions, the emergency generator meets the criteria of §63.6590(c)(7). Therefore, it will show compliance with the RICE MACT by meeting the requirements of NSPS Subpart IIII.

**EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION**

The emission units at the facility consist of the following:

<b>Emission Unit ID</b>	<b>Stack ID</b>	<b>Emission Unit Description</b>	<b>Size/Rated Capacity*</b>	<b>Pollution Control Device (PCD) Description</b>	<b>PCD ID</b>	<b>Pollutant Controlled</b>	<b>Applicable Permit Date</b>
<b>Fuel-Burning Equipment</b>							
EG-AEU-001	EG-ACD-001	Emergency Generator	300 hp	N/A	N/A	N/A	N/A
<b>CMC Production Area</b>							
CM-AEU-001	CM-ACD-001	Primary Cutter #1	---	Cellulose Weigh Bin Baghouse	CM-ACD-001	PM/PM <sub>10</sub>	December 18, 2014
CM-AEU-002	CM-ACD-001	Secondary Cutter #1	---	Cellulose Weigh Bin Baghouse	CM-ACD-001	PM/PM <sub>10</sub>	December 18, 2014
CM-AEU-003	CM-ACD-001	Primary Cutter #2	---	Cellulose Weigh Bin Baghouse	CM-ACD-001	PM/PM <sub>10</sub>	December 18, 2014
CM-AEU-004	CM-ACD-001	Secondary Cutter #2	---	Cellulose Weigh Bin Baghouse	CM-ACD-001	PM/PM <sub>10</sub>	December 18, 2014
CM-AEU-005	CM-ACD-001	Primary Cutter #3	---	Cellulose Weigh Bin Baghouse	CM-ACD-001	PM/PM <sub>10</sub>	December 18, 2014
CM-AEU-006	CM-ACD-001	Secondary Cutter #3	---	Cellulose Weigh Bin Baghouse	CM-ACD-001	PM/PM <sub>10</sub>	December 18, 2014
CM-AEU-007	CM-ACD-001	Primary Cutter #4	---	Cellulose Weigh Bin Baghouse	CM-ACD-001	PM/PM <sub>10</sub>	December 18, 2014
CM-AEU-115	CM-ACD-001	Secondary Cutter #4	---	Cellulose Weigh Bin Baghouse	CM-ACD-001	PM/PM <sub>10</sub>	December 18, 2014
CM-AEU-008	N/A	Vent Intake Filters (4)	---	N/A	N/A	N/A	December 18, 2014
CM-ACD-002	CM-ACD-002	Cellulose Preparation Housekeeping Vacuum System	---	Cellulose Preparation Housekeeping Vacuum Baghouse	CM-ACD-002	PM/PM <sub>10</sub>	December 18, 2014
CM-ACD-003	CM-ACD-003	Cellulose Conveyance System including cyclone and zero point filter	---	Cellulose Conveyance System Zero Point Filter (ZPF)	CM-ACD-003	PM/PM <sub>10</sub>	December 18, 2014
CM-ACD-009	CM-ACD-009	Cellulose Conveyance System – Surge Bin	---	Surge Bin	CM-ACD-009	PM/PM <sub>10</sub>	December 18, 2014

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
CM-AEU-011	CM-ACD-005; CM-ACD-006	Alkali Cellulose Vessel	7,000 gallons	Alkali Cellulose Scrubber (loading); CMC Building Scrubber (all other periods)	CM-ACD-005; CM-ACD-006	VOC	December 18, 2014
CM-AEU-012	CM-ACD-005; CM-ACD-006	Alkali Cellulose Vessel	7,000 gallons	Alkali Cellulose Scrubber (loading); CMC Building Scrubber (all other periods)	CM-ACD-005; CM-ACD-006	VOC	December 18, 2014
CM-AEU-013	CM-ACD-005; CM-ACD-006	Alkali Cellulose Vessel	7,000 gallons	Alkali Cellulose Scrubber (loading); CMC Building Scrubber (all other periods)	CM-ACD-005; CM-ACD-006	VOC	December 18, 2014
CM-AEU-014	CM-ACD-005; CM-ACD-006	Pre-Mixers (2)	---	Alkali Cellulose Scrubber (loading); CMC Building Scrubber (all other periods)	CM-ACD-005; CM-ACD-006	VOC	December 18, 2014
CM-AEU-015	CM-ACD-006	Caustic/IPA Mix Tank	---	CMC Building Scrubber	CM-ACD-006	VOC	December 18, 2014
CM-AEU-016	CM-ACD-006	Caustic/IPA Mix Tank	---	CMC Building Scrubber	CM-ACD-006	VOC	December 18, 2014
CM-AEU-017	CM-ACD-004; CM-ACD-006	Reactor #1	7,000 gallons	Oxygen Scrubber (viscosity reduction); CMC Building Scrubber (all other periods)	CM-ACD-007; CM-ACD-006	VOC	December 18, 2014
CM-AEU-018	CM-ACD-004; CM-ACD-006	Reactor #2	7,000 gallons	Oxygen Scrubber (viscosity reduction); CMC Building Scrubber (all other periods)	CM-ACD-007; CM-ACD-006	VOC	December 18, 2014
CM-AEU-019	CM-ACD-004; CM-ACD-006	Reactor #3	7,000 gallons	Oxygen Scrubber (viscosity reduction); CMC Building Scrubber (all other periods)	CM-ACD-007; CM-ACD-006	VOC	December 18, 2014
CM-AEU-020	CM-ACD-006	Hold Tub	---	CMC Building Scrubber	CM-ACD-006	VOC/HAP	December 18, 2014
CM-AEU-021	CM-ACD-006	Hold Tub	---	CMC Building Scrubber	CM-ACD-006	VOC/HAP	December 18, 2014
CM-AEU-022	CM-ACD-006	Reslurry Tub	---	CMC Building Scrubber	CM-ACD-006	VOC/HAP	December 18, 2014
CM-AEU-023	CM-ACD-006	Reslurry Tub	---	CMC Building Scrubber	CM-ACD-006	VOC/HAP	December 18, 2014
CM-AEU-024	CM-ACD-006	Reslurry Tub	---	CMC Building Scrubber	CM-ACD-006	VOC/HAP	December 18, 2014
CM-AEU-025	CM-ACD-006	Reslurry Tub	---	CMC Building Scrubber	CM-ACD-006	VOC/HAP	December 18, 2014

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
CM-AEU-026	CM-ACD-006	Reslurry Tub	---	CMC Building Scrubber	CM-ACD-006	VOC/HAP	December 18, 2014
CM-AEU-027	CM-ACD-006	Centrifuge	---	CMC Building Scrubber	CM-ACD-006	VOC/HAP	December 18, 2014
CM-AEU-028	CM-ACD-006	Centrifuge	---	CMC Building Scrubber	CM-ACD-006	VOC/HAP	December 18, 2014
CM-AEU-029	CM-ACD-006	Centrifuge	---	CMC Building Scrubber	CM-ACD-006	VOC/HAP	December 18, 2014
CM-AEU-030	CM-ACD-006	Centrifuge	---	CMC Building Scrubber	CM-ACD-006	VOC/HAP	December 18, 2014
CM-AEU-031	CM-ACD-006	Centrifuge	---	CMC Building Scrubber	CM-ACD-006	VOC/HAP	December 18, 2014
CM-AEU-032	CM-ACD-201	#3 Dryer	---	West Dryer Scrubber	CM-ACD-201	VOC/HAP	December 18, 2014
CM-AEU-033	CM-ACD-201	#4 Dryer	---	West Dryer Scrubber	CM-ACD-201	VOC/HAP	December 18, 2014
CM-AEU-036	CM-ACD-201	Dryer Centrifuge #5	---	West Dryer Scrubber	CM-ACD-201	VOC/HAP	December 18, 2014
CM-AEU-037	CM-ACD-201	Dryer Centrifuge #6	---	West Dryer Scrubber	CM-ACD-201	VOC/HAP	December 18, 2014
CM-AEU-038	CM-ACD-201	Blend Tub #5	---	West Dryer Scrubber	CM-ACD-201	VOC/HAP	December 18, 2014
CM-AEU-039	CM-ACD-201	Blend Tub #6	---	West Dryer Scrubber	CM-ACD-201	VOC/HAP	December 18, 2014
CM-AEU-040	CM-ACD-201	Blend Tub #7	---	West Dryer Scrubber	CM-ACD-201	VOC/HAP	December 18, 2014
CM-AEU-041	CM-ACD-201	Blend Tub #8	---	West Dryer Scrubber	CM-ACD-201	VOC/HAP	December 18, 2014
CM-AEU-047	CM-ACD-203	#5 Dryer	---	East Dryer Scrubber	CM-ACD-203	VOC/HAP	December 18, 2014
CM-AEU-048	CM-ACD-203	#6 Dryer	---	East Dryer Scrubber	CM-ACD-203	VOC/HAP	December 18, 2014
CM-AEU-051	CM-ACD-203	Dryer Centrifuge #7	---	East Dryer Scrubber	CM-ACD-203	VOC/HAP	December 18, 2014
CM-AEU-052	CM-ACD-203	Dryer Centrifuge #8	---	East Dryer Scrubber	CM-ACD-203	VOC/HAP	December 18, 2014
CM-AEU-053	CM-ACD-203	Blend Tub #9	---	East Dryer Scrubber	CM-ACD-203	VOC/HAP	December 18, 2014
CM-AEU-054	CM-ACD-203	Blend Tub #10	---	East Dryer Scrubber	CM-ACD-203	VOC/HAP	December 18, 2014
CM-AEU-060-067	CM-ACD-301	Eight Dryer Storage Bins (#1 – #8)	---	Dryer Storage Bin Vent Filter	CM-ACD-301	PM/PM <sub>10</sub>	December 18, 2014
CM-AEU-068	CM-ACD-312	#1 Prescreener	---	#1 Mill Product Baghouse	CM-ACD-312	PM/PM <sub>10</sub>	December 18, 2014
CM-AEU-068	CM-ACD-312	#1 Mill System	---	#1 Mill Product Baghouse	CM-ACD-312	PM/PM <sub>10</sub>	December 18, 2014
CM-AEU-068	CM-ACD-312	#1 Mill Screener	---	#1 Mill Product Baghouse	CM-ACD-312	PM/PM <sub>10</sub>	December 18, 2014
CM-AEU-071-076	CM-ACD-319	Six #1 Mill Blend Bins	30,000 lbs ea	Aspirator Baghouse	CM-ACD-319	PM/PM <sub>10</sub>	December 18, 2014
CM-AEU-077	CM-ACD-313	#2 Prescreener	---	#2 Mill Product Baghouse	CM-ACD-313	PM/PM <sub>10</sub>	December 18, 2014
CM-AEU-078	CM-ACD-313	#2 Mill System	---	#2 Mill Product Baghouse	CM-ACD-313	PM/PM <sub>10</sub>	December 18, 2014
CM-AEU-079	CM-ACD-313	#2 Mill Screener	---	#2 Mill Product Baghouse	CM-ACD-313	PM/PM <sub>10</sub>	December 18, 2014
CM-AEU-080-085	CM-ACD-319	Six #2 Mill Blend Bins	30,000 lbs ea	Aspirator Baghouse	CM-ACD-319	PM/PM <sub>10</sub>	December 18, 2014
CM-AEU-089	CM-ACD-314	Regrind Mill System	---	Regrind Mill Product Baghouse	CM-ACD-314	PM/PM <sub>10</sub>	December 18, 2014

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
CM-AEU-090	CM-ACD-314	Regrind Mill Screener	---	Regrind Mill Product Baghouse	CM-ACD-314	PM/PM <sub>10</sub>	December 18, 2014
CM-AEU-091	CM-ACD-319	Regrind Mill Blend Bin	30,000 lbs	Aspirator Baghouse	CM-ACD-319	PM/PM <sub>10</sub>	December 18, 2014
CM-AEU-092	CM-ACD-319	Regrind Mill Blend Bin	30,000 lbs	Aspirator Baghouse	CM-ACD-319	PM/PM <sub>10</sub>	December 18, 2014
CM-AEU-093	CM-ACD-311	Addback Feed System	---	Regrind Mill Feed Baghouse	CM-ACD-311	PM/PM <sub>10</sub>	December 18, 2014
CM-AEU-094	CM-ACD-315	#1 Airmix Blender	40,000 lbs/hr	#1 AMB Baghouse	CM-ACD-315	PM/PM <sub>10</sub>	December 18, 2014
CM-AEU-095	CM-ACD-316	#2 Airmix Blender	40,000 lbs/hr	#2 AMB Baghouse	CM-ACD-316	PM/PM <sub>10</sub>	December 18, 2014
CM-AEU-096	CM-ACD-317	Custom Blender	10,000 lbs/hr	Custom Blender Baghouse	CM-ACD-317	PM/PM <sub>10</sub>	December 18, 2014
CM-AEU-097	N/A	Packaging System	15,000 lbs/hr	N/A	N/A	N/A	December 18, 2014
CM-ACD-318	CM-ACD-318	Packaging Housekeeping Vacuum System	---	Packaging Housekeeping Vacuum Baghouse	CM-ACD-318	PM/PM <sub>10</sub>	December 18, 2014
CM-AEU-098	CM-ACD-406	C-1 (A365) Distillation System	117,000 lbs/hr mixed solvent-water feed	Field Tank Scrubber	CM-ACD-406	VOC/HAP	December 18, 2014
CM-AEU-109	CM-ACD-406	D-1 (A640) Distillation System	117,000 lbs/hr mixed solvent-water feed	Field Tank Scrubber	CM-ACD-406	VOC/HAP	December 18, 2014
CM-AEU-110	CM-ACD-406	D-1 (A641) Distillation System	117,000 lbs/hr mixed solvent-water feed	Field Tank Scrubber	CM-ACD-406	VOC/HAP	December 18, 2014
CM-AEU-111	CM-ACD-008	MCA Dissolution Mix Tank	3000 gallons	MCA Sewer Scrubber	CM-ACD-008	VOC/HAP	December 18, 2014
CM-AEU-112	CM-ACD-008	MCA Dissolution Mix Tank	3000 gallons	MCA Sewer Scrubber	CM-ACD-008	VOC/HAP	December 18, 2014
CM-TNK-401	CM-ACD-400	MCA Storage Tank	7500 gallons	MCA Tank Scrubber	CM-ACD-400	VOC/HAP	December 18, 2014
CM-TNK-402	CM-ACD-400	MCA Storage Tank	10,000 gallons	MCA Tank Scrubber	CM-ACD-400	VOC/HAP	December 18, 2014
CM-TNK-403	CM-ACD-400	MCA Storage Tank	7500 gallons	MCA Tank Scrubber	CM-ACD-400	VOC/HAP	December 18, 2014
CM-TNK-405a	N/A	Acetic Acid Storage Tank	---	N/A	N/A	VOC	December 18, 2014

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CM-TNK-407	CM-ACD-406	Spent Methanol Tank	106,000 gallons	Field Tank Scrubber	CM-ACD-406	VOC/HAP	December 18, 2014
CM-TNK-408	CM-ACD-406	Swing Tank	---	Field Tank Scrubber	CM-ACD-406	VOC/HAP	December 18, 2014
CM-TNK-409	CM-ACD-406	Spent Methanol Tank	200,000 gallons	Field Tank Scrubber	CM-ACD-406	VOC/HAP	December 18, 2014
CM-TNK-410	CM-ACD-406	Spent Methanol Tank	18,000 gallons	Field Tank Scrubber	CM-ACD-406	VOC/HAP	December 18, 2014
CM-TNK-411	CM-ACD-406	Spent Methanol Tank	18,000 gallons	Field Tank Scrubber	CM-ACD-406	VOC/HAP	December 18, 2014
CM-TNK-412	CM-ACD-406	Spent Methanol Tank	12,000 gallons	Field Tank Scrubber	CM-ACD-406	VOC/HAP	December 18, 2014
CM-TNK-413	CM-ACD-406	Reuse Methanol Tank	40,400 gallons	Field Tank Scrubber	CM-ACD-406	VOC/HAP	December 18, 2014
CM-TNK-414	CM-ACD-406	Reuse Methanol Tank	40,400 gallons	Field Tank Scrubber	CM-ACD-406	VOC/HAP	December 18, 2014
CM-TNK-415	CM-ACD-406	Reuse Methanol Tank	18,000 gallons	Field Tank Scrubber	CM-ACD-406	VOC/HAP	December 18, 2014
CM-TNK-416	CM-ACD-406	Spent IPA Tank	150,000 gallons	Field Tank Scrubber	CM-ACD-406	VOC/HAP	December 18, 2014
CM-TNK-417	CM-ACD-406	Reuse IPA Tank	18,000 gallons	Field Tank Scrubber	CM-ACD-406	VOC/HAP	December 18, 2014
CM-TNK-418	CM-ACD-406	Reuse IPA Tank	21,000 gallons	Field Tank Scrubber	CM-ACD-406	VOC/HAP	December 18, 2014
CM-TNK-419	CM-ACD-406	Reuse IPA Tank	18,000 gallons	Field Tank Scrubber	CM-ACD-406	VOC/HAP	December 18, 2014
CM-TNK-420	CM-ACD-406	Fresh Methanol Tank	150,000 gallons	Field Tank Scrubber	CM-ACD-406	VOC/HAP	December 18, 2014
CM-TNK-421	CM-ACD-406	Brine Tank	---	Field Tank Scrubber	CM-ACD-406	VOC/HAP	December 18, 2014
CM-TNK-422	CM-ACD-406	Fresh IPA Tank	49,000 gallons	Field Tank Scrubber	CM-ACD-406	VOC/HAP	December 18, 2014
CM-TNK-423	CM-ACD-406	Fresh IPA Tank	49,000 gallons	Field Tank Scrubber	CM-ACD-406	VOC/HAP	December 18, 2014

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
MC-TNK-294	N/A	Acetic Acid Storage Tank (T-94)	---	N/A	N/A	N/A	N/A
MC-TNK-295	N/A	Acetic Acid Storage Tank (T-95)	---	N/A	N/A	N/A	N/A
<b>Natrosol Process Area</b>							
NA-AEU-001	NA-ACD-001	#1 Primary Cutter	3,400 lbs/hr	Cellulose Weigh Bin Dust Collector (baghouse)	NA-ACD-001	PM/PM <sub>10</sub>	January 28, 2011
NA-AEU-002	NA-ACD-001	#1 Secondary Cutter	3,400 lbs/hr	Cellulose Weigh Bin Dust Collector (baghouse)	NA-ACD-001	PM/PM <sub>10</sub>	January 28, 2011
NA-AEU-003	NA-ACD-001	#2 Primary Cutter	3,400 lbs/hr	Cellulose Weigh Bin Dust Collector (baghouse)	NA-ACD-001	PM/PM <sub>10</sub>	January 28, 2011
NA-AEU-004	NA-ACD-001	#2 Secondary Cutter	3,400 lbs/hr	Cellulose Weigh Bin Dust Collector (baghouse)	NA-ACD-001	PM/PM <sub>10</sub>	January 28, 2011
NA-AEU-005	NA-ACD-001	#3 Primary Cutter	3,400 lbs/hr	Cellulose Weigh Bin Dust Collector (baghouse)	NA-ACD-001	PM/PM <sub>10</sub>	January 28, 2011
NA-AEU-006	NA-ACD-001	#3 Secondary Cutter	3,400 lbs/hr	Cellulose Weigh Bin Dust Collector (baghouse)	NA-ACD-001	PM/PM <sub>10</sub>	January 28, 2011
NA-AEU-007	NA-ACD-001	Herbold (or equivalent) Cutter	1,200 lbs/hr	Cellulose Weigh Bin Dust Collector (baghouse)	NA-ACD-001	PM/PM <sub>10</sub>	January 28, 2011
NA-AEU-008	NA-ACD-001	Herbold (or equivalent) Cutter	1,200 lbs/hr	Cellulose Weigh Bin Dust Collector (baghouse)	NA-ACD-001	PM/PM <sub>10</sub>	January 28, 2011
NA-AEU-011	NA-ACD-001	Cellulose Weigh Bin	830 ft <sup>3</sup>	Cellulose Weigh Bin Dust Collector (baghouse)	NA-ACD-001	PM/PM <sub>10</sub>	January 28, 2011
NA-AEU-012	NA-ACD-001	Cellulose Weigh Bin	830 ft <sup>3</sup>	Cellulose Weigh Bin Dust Collector (baghouse)	NA-ACD-001	PM/PM <sub>10</sub>	January 28, 2011
NA-AEU-013	NA-ACD-004	Intermediate Cellulose receiver	850 ft <sup>3</sup>	Intermediate Receiver Dust Collector (baghouse)	NA-ACD-004	PM/PM <sub>10</sub>	January 28, 2011
NA-ACD-002	NA-ACD-002	Cellulose Preparation Housekeeping Vacuum System	---	Cellulose Preparation Housekeeping Vacuum Dust Collector (baghouse)	NA-ACD-002	PM/PM <sub>10</sub>	January 28, 2011
NA-ACD-003	NA-ACD-003	Cellulose Reactor Conveyance System including two cyclones	---	Cellulose Reactor Conveyance System ZPF (baghouse)	NA-ACD-003	PM/PM <sub>10</sub>	January 28, 2011

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
NA-AEU-014	NA-ACD-101	Pre-Mixer #1	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-015	NA-ACD-101	Pre-Mixer #2	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-016	NA-ACD-101	#1 Reactor	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-017	NA-ACD-101	#2 Reactor	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-018	NA-ACD-101	#3 Reactor	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-019	NA-ACD-101	#4 Reactor	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-020	NA-ACD-101	#1 Hold Tub	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-021	NA-ACD-101	#2 Hold Tub	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-022	NA-ACD-101	#1 Caustic/TBA Mix Tank	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-023	NA-ACD-101	#2 Caustic/TBA Mix Tank	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-TNK-370	NA-AEE-027	Emergency Blow Tank	---	N/A	N/A	N/A	January 28, 2011
NA-AEU-024	NA-ACD-101	#1 TBA Centrifuge	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-025	NA-ACD-101	#2 TBA Centrifuge	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-026	NA-ACD-101	#1 Reslurry Tank	2,800 gallons	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-027	NA-ACD-101	#2 Reslurry Tank	2,800 gallons	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-028	NA-ACD-101	#3 Reslurry Tank	2,800 gallons	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-029	NA-ACD-101	#4 Reslurry Tank	3,800 gallons	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011

<b>Emission Unit ID</b>	<b>Stack ID</b>	<b>Emission Unit Description</b>	<b>Size/Rated Capacity*</b>	<b>Pollution Control Device (PCD) Description</b>	<b>PCD ID</b>	<b>Pollutant Controlled</b>	<b>Applicable Permit Date</b>
NA-AEU-031	NA-ACD-101	#5 Centrifuge	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-033	NA-ACD-101	Turbilizer	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-034	NA-ACD-101	Allis-Chalmers Washer and Crusher/Drag Chain System	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-035	NA-ACD-101	#1 Dump Tank	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-036	NA-ACD-101	#2 Dump Tank	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-037	NA-ACD-101	#6 Centrifuge	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-038	NA-ACD-101	#7 Centrifuge	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-040	NA-ACD-101	#2 Viscosity Reduction Vessel	3,800 gallons	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-041	NA-ACD-101	#3 Viscosity Reduction Vessel	3,800 gallons	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-042	NA-ACD-101	#4 Viscosity Reduction Vessel	3,800 gallons	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-045	NA-ACD-101	#3 Centrifuge	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-046	NA-ACD-101	#4 Centrifuge	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-047	NA-ACD-101	#1 Blend Tub	11,400 gallons	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-048	NA-ACD-101	#2 Blend Tub	11,400 gallons	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-049	NA-ACD-101	#3 Blend Tub	11,400 gallons	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-050	NA-ACD-101	#4 Blend Tub	11,400 gallons	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
NA-AEU-051	NA-ACD-101	#1 Dryer	100,000 lbs/day	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-052	NA-ACD-101	#2 Dryer	(combined for #1 and #2 Dryers)	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-055	NA-ACD-101	#1 Condensate Tank	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-AEU-060	NA-ACD-101	#2 Condensate Tank	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC/HAP	January 28, 2011
NA-ACD-103	NA-ACD-103	Dryer Unloading Conveyance System including cyclone	---	Dryer Unloading Conveyance System ZPF (baghouse)	NA-ACD-103	PM/PM <sub>10</sub>	January 28, 2011
NA-AEU-062-065	NA-ACD-201a; NA-ACD-202a (parallel)	Four Dryer Storage Bins (DSB) (#1-#4)	---	DSB to South Mill System Dust Collector (baghouse); DSB to East Mill System Dust Collector (baghouse)	NA-ACD-201a; NA-ACD-202a (parallel)	PM/PM <sub>10</sub>	January 28, 2011
NA-AEU-066	NA-ACD-201c	Screener #1 – South Mill System	7,000 lbs/hr	Netzch-Condux Grinding Mill (North) Dust Collector (baghouse)	NA-ACD-201c	PM/PM <sub>10</sub>	January 28, 2011
NA-AEU-067	NA-ACD-201b	Screener #2 – South Mill System	7,000 lbs/hr	Netzch-Condux Grinding Mill (South) Dust Collector (baghouse)	NA-ACD-201b	PM/PM <sub>10</sub>	January 28, 2011
NA-AEU-068	NA-ACD-201c	#1 Mill – South Mill System	7,000 lbs/hr	Netzch-Condux Grinding Mill (North) Dust Collector (baghouse)	NA-ACD-201c	PM/PM <sub>10</sub>	January 28, 2011
NA-AEU-069	NA-ACD-201b	#2 Mill – South Mill System	7,000 lbs/hr	Netzch-Condux Grinding Mill (South) Dust Collector (baghouse)	NA-ACD-201b	PM/PM <sub>10</sub>	January 28, 2011
NA-AEU-070	NA-ACD-202b	Screener #1 – East Mill System	7,000 lbs/hr	Bauermeister Grinding Mill Dust Collector (baghouse)	NA-ACD-202b	PM/PM <sub>10</sub>	January 28, 2011
NA-AEU-071	NA-ACD-202b	Screener #2 – East Mill System	7,000 lbs/hr	Bauermeister Grinding Mill Dust Collector (baghouse)	NA-ACD-202b	PM/PM <sub>10</sub>	January 28, 2011

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
NA-AEU-072	NA-ACD-202b	#1 Mill – East Mill System	7,000 lbs/hr	Bauermeister Grinding Mill Dust Collector (baghouse)	NA-ACD-202b	PM/PM <sub>10</sub>	January 28, 2011
NA-AEU-073	NA-ACD-202b	#2 Mill – East Mill System	7,000 lbs/hr	Bauermeister Grinding Mill Dust Collector (baghouse)	NA-ACD-202b	PM/PM <sub>10</sub>	January 28, 2011
NA-AEU-080	NA-ACD-203; or NA-ACD-204	Six Blend Storage Bins (#1 – #6)	---	Blend Storage Bins Bottom Turnhead ZPF; Blend Storage Bins Top Turnhead ZPF (baghouses)	NA-ACD-203; or NA-ACD-204	PM/PM <sub>10</sub>	January 28, 2011
NA-ACD-205	NA-ACD-205	North (#1) Air Mix Blender Loading Cyclone	---	North (#1) Air Mix Blender Loading ZPF (baghouse)	NA-ACD-205	PM/PM <sub>10</sub>	January 28, 2011
NA-ACD-206	NA-ACD-206	South (#2) Air Mix Blender Loading Cyclone	---	South (#2) Air Mix Blender Loading ZPF (baghouse)	NA-ACD-206	PM/PM <sub>10</sub>	January 28, 2011
NA-AEU-081	NA-ACD-210	#1 Air Mix Blender (AMB)	---	#1 Air Mix Blender Dust Collector	NA-ACD-210	PM/PM <sub>10</sub>	January 28, 2011
NA-AEU-082	NA-ACD-211	#2 Air Mix Blender	---	#2 Air Mix Blender Dust Collector	NA-ACD-211	PM/PM <sub>10</sub>	January 28, 2011
NA-AEU-083	NA-ACD-213	AMB Weigh Bin #1	---	AMB Weigh Bin #1 (North) Bag Filter Breather (baghouse)	NA-ACD-213	PM/PM <sub>10</sub>	January 28, 2011
NA-AEU-084	NA-ACD-214	AMB Weigh Bin #2	---	AMB Weigh Bin #2 (South) Bag Filter Breather (baghouse)	NA-ACD-214	PM/PM <sub>10</sub>	January 28, 2011
NA-AEU-085	NA-ACD-215	AMB Weigh Bin #3	---	AMB Weigh Bin #3 (Southeast) Bag Filter Breather (baghouse)	NA-ACD-215	PM/PM <sub>10</sub>	January 28, 2011
NA-ACD-209	NA-ACD-209	Addback Hopper	---	Addback Hopper Dust Collector (baghouse)	NA-ACD-209	PM/PM <sub>10</sub>	January 28, 2011
NA-ACD-212	NA-ACD-212	Packaging Housekeeping Vacuum System	---		NA-ACD-212	PM/PM <sub>10</sub>	January 28, 2011

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
NA-AEU-100	NA-ACD-208	Packaging System	200,000 lbs/day	Air Mix Blender Unload to Packout ZPF (baghouse)	NA-ACD-208	PM/PM <sub>10</sub>	January 28, 2011
NA-AEU-086	NA-ACD-101	Distillation Column System A-670	21,000 gallons per hour solvent feed combined three columns	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC	January 28, 2011
NA-AEU-087	NA-ACD-101	Distillation Column System A-672	21,000 gallons per hour solvent feed combined three columns	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC	January 28, 2011
NA-AEU-088	NA-ACD-101	Distillation Column System A-673	21,000 gallons per hour solvent feed combined three columns	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC	January 28, 2011
NA-AEU-095	NA-ACD-301	Three Ethylene Oxide Scale Tanks	---	EO/PO Emergency Scrubber	NA-ACD-301	VOC/HAP	January 28, 2011
NA-TNK-330	NA-ACD-301	Ethylene Oxide Storage/Transfer/Inerting System	---	EO/PO Emergency Scrubber	NA-ACD-301	VOC/HAP	January 28, 2011
NA-TNK-341	NA-ACD-101	Spent TBA Tank	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC	January 28, 2011
NA-TNK-342	NA-ACD-101	Fresh TBA Tank	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC	January 28, 2011
NA-TNK-343	NA-ACD-101	Fresh TBA Tank	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC	January 28, 2011
NA-TNK-347	NA-ACD-101	Reuse TBA Tank	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC	January 28, 2011

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
NA-TNK-344	NA-ACD-101	Spent Acetone Tank	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC	January 28, 2011
NA-TNK-348	NA-ACD-101	Reuse Acetone Tank	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC	January 28, 2011
NA-TNK-349	NA-ACD-101	Reuse Acetone Tank	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC	January 28, 2011
NA-TNK-345	NA-ACD-101	Weak Acetone Tank	---	Natrosol Solvent Vent Scrubber	NA-ACD-101	VOC	January 28, 2011
NA-AEU-097	NA-AEU-097	Glyoxal Storage Tank	---	N/A	N/A	N/A	January 28, 2011
<b>Klucel Process Area</b>							
KL-AEU-001	KL-ACD-001	Cellulose Shredder #1 – primary and secondary	---	Klucel Cellulose Bin Fabric Filter	KL-ACD-001	PM/PM <sub>10</sub>	November 19, 2015
KL-AEU-002	KL-ACD-001	Cellulose Shredder #2 – primary and secondary	---	Klucel Cellulose Bin Fabric Filter	KL-ACD-001	PM/PM <sub>10</sub>	November 19, 2015
KL-ACD-002	KL-ACD-002	Process Conveyance System including cyclone	---	Process Conveyance System ZPF (fabric filter)	KL-ACD-002	PM/PM <sub>10</sub>	November 19, 2015
KL-AEU-003	KL-ACD-001	Condux Cutter	---	Klucel Cellulose Bin Fabric Filter	KL-ACD-001	PM/PM <sub>10</sub>	November 19, 2015
KL-AEU-004	KL-ACD-001	Cellulose Weigh Bin	---	Klucel Cellulose Bin Fabric Filter	KL-ACD-001	PM/PM <sub>10</sub>	November 19, 2015
KL-AEU-037	KL-ACD-001	Cellulose Shredder #3 – primary and secondary	---	Klucel Cellulose Bin Fabric Filter	KL-ACD-001	PM/PM <sub>10</sub>	November 19, 2015
KL-AEU-005	KL-ACD-101	Reactor #2	6,600 gallons	Klucel Process Scrubber	KL-ACD-101	VOC/HAP	November 19, 2015
KL-AEU-038	KL-ACD-101	Reactor #3	6,600 gallons	Klucel Process Scrubber	KL-ACD-101	VOC/HAP	November 19, 2015
KL-AEU-006	KL-ACD-102	Ambergum Mix Tank with associated vacuum pump	4,000 gallons	Venturi Scrubber	KL-ACD-102	VOC/HAP	November 19, 2015
KL-AEU-007	KL-ACD-101	Purification Centrifuge #1	---	Klucel Process Scrubber	KL-ACD-101	VOC/HAP	November 19, 2015
KL-AEU-008	KL-ACD-101	Purification Centrifuge #2	---	Klucel Process Scrubber	KL-ACD-101	VOC/HAP	November 19, 2015
KL-AEU-009	KL-ACD-101	Purification Centrifuge #3	---	Klucel Process Scrubber	KL-ACD-101	VOC/HAP	November 19, 2015
KL-AEU-010	KL-ACD-101	Purification Wash Tub #1	---	Klucel Process Scrubber	KL-ACD-101	VOC/HAP	November 19, 2015
KL-AEU-011	KL-ACD-101	Purification Wash Tub #2	---	Klucel Process Scrubber	KL-ACD-101	VOC/HAP	November 19, 2015
KL-AEU-012	KL-ACD-101	Purification Wash Tub #3	5,300 gallons	Klucel Process Scrubber	KL-ACD-101	VOC/HAP	November 19, 2015
KL-AEU-014	KL-ACD-103	Acetic Acid Head Tank and Transfer System	---	Acetic Acid Scrubber	KL-ACD-103	VOC	November 19, 2015

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
KL-AEU-015	N/A	Dryer #1	42" x 60"	N/A	N/A	N/A	November 19, 2015
KL-AEU-016	N/A	Dryer #2	42" x 60"	N/A	N/A	N/A	November 19, 2015
KL-AEU-017	N/A	Dryer Feed Tub	---	N/A	N/A	N/A	November 19, 2015
KL-AEU-018	N/A	Dryer Centrifuge #1	---	N/A	N/A	N/A	November 19, 2015
KL-AEU-019	N/A	Dryer Centrifuge #2	---	N/A	N/A	N/A	November 19, 2015
KL-AEU-044	KL-ACD-101	Dryer Centrifuge #3	---	Klucel Process Scrubber	KL-ACD-101	VOC/HAP	November 19, 2015
KL-AEU-020	N/A	Shredder #1	---	N/A	N/A	N/A	November 19, 2015
KL-AEU-021	N/A	Shredder #2	---	N/A	N/A	N/A	November 19, 2015
KL-AEU-022	N/A	Shredder #3	---	N/A	N/A	N/A	November 19, 2015
KL-AEU-023	N/A	Shredder #4	---	N/A	N/A	N/A	November 19, 2015
KL-AEU-040	N/A	Dryer/Shredder #5	---	N/A	N/A	N/A	November 19, 2015
KL-AEU-024	N/A	Mill #1	---	N/A	N/A	N/A	November 19, 2015
KL-AEU-025	N/A	Mill #2	---	N/A	N/A	N/A	November 19, 2015
KL-AEU-026	N/A	Mill #3	---	N/A	N/A	N/A	November 19, 2015
KL-AEU-027	N/A	Mill #4	---	N/A	N/A	N/A	November 19, 2015
KL-AEU-041	N/A	Mill #5	---	N/A	N/A	N/A	November 19, 2015
KL-AEU-028	KL-ACD-201A	Air Mix Blender #1	---	Blender Fabric Filter #1	KL-ACD-201A	PM/PM <sub>10</sub>	November 19, 2015
KL-AEU-029	KL-ACD-201B	Air Mix Blender #2	---	Blender Fabric Filter #2	KL-ACD-201B	PM/PM <sub>10</sub>	November 19, 2015
KL-AEU-030	KL-ACD-201C	Air Mix Blender #3	---	Blender Fabric Filter #3	KL-ACD-201C	PM/PM <sub>10</sub>	November 19, 2015
KL-AEU-042	KL-ACD-201D	Air Mix Blender #4	---	Blender Fabric Filter #4	KL-ACD-201D	PM/PM <sub>10</sub>	November 19, 2015
KL-AEU-043	KL-ACD-201E	Fluidized mill grinder and product handling	---	Blender Fabric Filter #5	KL-ACD-201E	PM/PM <sub>10</sub>	November 19, 2015
KL-AEU-031	KL-ACD-202	Automated Packaging System including one 50 ft <sup>3</sup> fill hopper and associated conveyor	6,000 lbs/hr	Packaging/Addback Fabric Filter	KL-ACD-202	PM/PM <sub>10</sub>	November 19, 2015
KL-AEU-032	KL-ACD-202	Addback Hopper	---	Packaging/Addback Fabric Filter	KL-ACD-202	PM/PM <sub>10</sub>	November 19, 2015
KL-ACD-202	KL-ACD-202	KPR Process Vacuum System	---	Housekeeping Vacuum Fabric Filter	KL-ACD-202	PM/PM <sub>10</sub>	November 19, 2015

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
KL-ACD-203	KL-ACD-203	Housekeeping Vacuum System	---	Housekeeping Vacuum Fabric Filter	KL-ACD-203	PM/PM <sub>10</sub>	November 19, 2015
KL-AEU-033	KL-ACD-101	Separator	---	Klucel Process Scrubber	KL-ACD-101	VOC/HAP	November 19, 2015
KL-AEU-034	KL-ACD-101	Extraction Column and Feed Tank	---	Klucel Process Scrubber	KL-ACD-101	VOC/HAP	November 19, 2015
KL-AEU-035	KL-ACD-101	Distillation Column (A-671)	27 gallons/min	Klucel Process Scrubber	KL-ACD-101	VOC/HAP	November 19, 2015
KL-AEU-036	KL-ACD-101	Product Cooler	---	Klucel Process Scrubber	KL-ACD-101	VOC/HAP	November 19, 2015
KL-TNK-306	KL-ACD-101	Extraction Feed Tank	---	Klucel Process Scrubber	KL-ACD-101	VOC/HAP	November 19, 2015
KL-TNK-307	KL-ACD-101	Fresh Heptane Tank (T-7)	---	Klucel Process Scrubber	KL-ACD-101	VOC/HAP	November 19, 2015
KL-TNK-337	KL-ACD-101	Fresh Heptane Tank (T-37)	---	Klucel Process Scrubber	KL-ACD-101	VOC/HAP	November 19, 2015
KL-TNK-308	KL-ACD-101	Fresh TBA Tank (T-8)	---	Klucel Process Scrubber	KL-ACD-101	VOC/HAP	November 19, 2015
KL-TNK-322	KL-ACD-101	Spent Solvent Tank (T-22)	---	Klucel Process Scrubber	KL-ACD-101	VOC/HAP	November 19, 2015
KL-TNK-309	KL-ACD-101	Distillation Feed Tank (T-9)	---	Klucel Process Scrubber	KL-ACD-101	VOC/HAP	November 19, 2015
KL-TNK-303	KL-TNK-303	Emergency Blow Tank	---	N/A	N/A	N/A	November 19, 2015
KL-TNK-363	KL-ACD-302	Propylene Oxide Storage Tank	---	EO/PO Emergency Scrubber	KL-ACD-302	VOC/HAP	November 19, 2015
KL-TNK-364	KL-ACD-302	Propylene Oxide Scale Tank	---	EO/PO Emergency Scrubber	KL-ACD-302	VOC/HAP	November 19, 2015
KL-AEU-039	KL-ACD-302	Pressure Bleed for PO Unloading / Storage / Transfer	---	EO/PO Emergency Scrubber	KL-ACD-302	VOC/HAP	November 19, 2015
<b>Ethyl Cellulose (EC) Production Area</b>							
EC-AEU-001	EC-ACD-001	Cellulose Shredder #1	---	Cellulose Conveyance Cyclone	EC-ACD-001	PM/PM <sub>10</sub>	February 24, 2006
EC-AEU-003	EC-ACD-001	#11 Autoclave	4,700 gallons	Vent Scrubber System	EC-ACD-101	PM/PM <sub>10</sub>	February 24, 2006
EC-AEU-004	EC-ACD-001	#12 Autoclave	4,700 gallons	Vent Scrubber System	EC-ACD-101	PM/PM <sub>10</sub>	February 24, 2006
EC-AEU-005	EC-ACD-001	#13 Autoclave	4,700 gallons	Vent Scrubber System	EC-ACD-101	PM/PM <sub>10</sub>	February 24, 2006
EC-AEU-006	N/A	Wetting Screw	---	N/A	N/A	N/A	February 24, 2006
EC-AEU-007	N/A	Loading Screw	---	N/A	N/A	N/A	February 24, 2006
EC-AEU-008	N/A	Leach Tub	3,000 gallons	N/A	N/A	N/A	February 24, 2006
EC-AEU-009	N/A	Leach Tub	3,000 gallons	N/A	N/A	N/A	February 24, 2006
EC-AEU-011	N/A	Wet Grinding Mill #2	---	N/A	N/A	N/A	February 24, 2006

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
EC-AEU-012	N/A	Wash Tub	3,000 gallons	N/A	N/A	N/A	February 24, 2006
EC-AEU-013	N/A	Wash Tub	3,000 gallons	N/A	N/A	N/A	February 24, 2006
EC-AEU-014	N/A	Wash Tub	3,000 gallons	N/A	N/A	N/A	February 24, 2006
EC-AEU-015	N/A	Centrifuge Feed Tubs	---	N/A	N/A	N/A	February 24, 2006
EC-AEU-016	N/A	Centrifuge #2	---	N/A	N/A	N/A	February 24, 2006
EC-AEU-017	N/A	Centrifuge #3	---	N/A	N/A	N/A	February 24, 2006
EC-AEU-018	EC-ACD-201	Vacuum Dryer #1	---	Wet Scrubber Vacuum Vent #1	EC-ACD-201	PM/PM <sub>10</sub>	February 24, 2006
EC-AEU-019	EC-ACD-206	Vacuum Dryer #2	---	Wet Scrubber Vacuum Vent #2	EC-ACD-206	PM/PM <sub>10</sub>	February 24, 2006
EC-AEU-020	EC-ACD-202	Screener System	---	Dryer Unloading ZPF (baghouse)	EC-ACD-202	PM/PM <sub>10</sub>	February 24, 2006
EC-AEU-021	EC-ACD-202	Milling System	---	Dryer Unloading ZPF (baghouse)	EC-ACD-202	PM/PM <sub>10</sub>	February 24, 2006
EC-AEU-022	EC-ACD-205	Air Mix Blender	---	Air Mix Blender ZPF (baghouse)	EC-ACD-205	PM/PM <sub>10</sub>	February 24, 2006
EC-AEU-023	EC-ACD-204	Packaging System	---	Packroom Vacuum Dust Collector (baghouse)	EC-ACD-204	PM/PM <sub>10</sub>	February 24, 2006
EC-AEU-024	EC-ACD-202	Tote Bin Unloading System	---	Dryer Unloading ZPF (baghouse)	EC-ACD-202	PM/PM <sub>10</sub>	February 24, 2006
EU-AEU-029	EC-ACD-101	Stripper Column	---	Vent Scrubber System	EC-ACD-101	VOC/HAP	February 24, 2006
EU-AEU-029	EC-ACD-101	Still Pre-Heater	---	Vent Scrubber System	EC-ACD-101	VOC/HAP	February 24, 2006
EU-AEU-029	EC-ACD-101	Distillation Column	---	Vent Scrubber System	EC-ACD-101	VOC/HAP	February 24, 2006
EU-AEU-029	EC-ACD-101	Scrubber Feed Cooler #A	---	Vent Scrubber System	EC-ACD-101	VOC/HAP	February 24, 2006
EC-TNK-294	EC-TNK-294	Acetic Acid Storage Tank	---	N/A	N/A	N/A	February 24, 2006
EC-TNK-310	EC-ACD-101	Low Wine Feed Tank	---	Vent Scrubber System	EC-ACD-101	VOC/HAP	February 24, 2006
EC-TNK-315	EC-ACD-101	Low Wine Feed Tank	---	Vent Scrubber System	EC-ACD-101	VOC/HAP	February 24, 2006
EC-TNK-301	EC-ACD-101	Low Pressure Residue Tank	---	Vent Scrubber System	EC-ACD-101	VOC/HAP	February 24, 2006
EC-TNK-322	EC-ACD-101	Low Wine Storage Tank	---	Vent Scrubber System	EC-ACD-101	VOC/HAP	February 24, 2006
EC-TNK-325	EC-ACD-101	Low Wine Storage Tank	---	Vent Scrubber System	EC-ACD-101	VOC/HAP	February 24, 2006
EC-TNK-327	EC-ACD-101	Low Wine Storage Tank	---	Vent Scrubber System	EC-ACD-101	VOC/HAP	February 24, 2006
EC-TNK-345	EC-ACD-101	Low Wine High-Pressure Tank #1	---	Vent Scrubber System	EC-ACD-101	VOC/HAP	February 24, 2006

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
EC-TNK-346	EC-ACD-101	Low Wine High-Pressure Tank #2	---	Vent Scrubber System	EC-ACD-101	VOC/HAP	February 24, 2006
EC-TNK-326	EC-ACD-101	Ethyl Chloride Storage Tank	---	Vent Scrubber System	EC-ACD-101	VOC/HAP	February 24, 2006
EC-TNK-328	EC-ACD-101	Ethyl Chloride Storage Tank	---	Vent Scrubber System	EC-ACD-101	VOC/HAP	February 24, 2006
EC-TNK-348	EC-ACD-101	Ethyl Chloride Storage Tank	---	Vent Scrubber System	EC-ACD-101	VOC/HAP	February 24, 2006
<b>Technical Facility</b>							
TF-AEU-001-004	TF-ACD-001	Pilot-Scale 10-gal Reactor Line	---	Process Scrubber	TF-ACD-001	VOC/HAP	December 7, 2009
TF-AEU-007	TF-ACD-001	Hold Tub	---	Process Scrubber	TF-ACD-001	VOC/HAP	December 7, 2009
TF-AEU-008	TF-ACD-001	Effluent Tub	---	Process Scrubber	TF-ACD-001	VOC/HAP	December 7, 2009
TF-AEU-009	TF-ACD-001	Purification Tub	---	Process Scrubber	TF-ACD-001	VOC/HAP	December 7, 2009
TF-AEU-010	TF-ACD-001	Mill	---	Process Scrubber	TF-ACD-001	VOC/HAP	December 7, 2009
TF-AEU-015-017	TF-ACD-001	Three Pulverizers	---	Process Scrubber	TF-ACD-001	VOC/HAP	December 7, 2009
TF-AEU-023-024	TF-ACD-001	Two Screeners	---	Process Scrubber	TF-ACD-001	VOC/HAP	December 7, 2009
TF-AEU-006	TF-ACD-001	250-gal Reactor	---	Process Scrubber	TF-ACD-001	VOC/HAP	December 7, 2009
TF-AEU-011-012	TF-ACD-001	Two Dryers	---	Process Scrubber	TF-ACD-001	VOC/HAP	December 7, 2009
TF-AEU-013		Bepex Dryer	---				N/A
TF-AEU-014		Littleford Mixer	---				N/A
TF-TNK-510	TF-ACD-001	Acetone/Methanol Tank #1	---	Process Scrubber	TF-ACD-001	VOC/HAP	N/A
TF-TNK-520	TF-ACD-001	Acetone/Methanol Tank #2	---	Process Scrubber	TF-ACD-001	VOC/HAP	N/A
TF-TNK-530	TF-ACD-001	Isopropyl Alcohol Tank	---	Process Scrubber	TF-ACD-001	VOC/HAP	N/A
TF-TNK-540	TF-ACD-001	Methanol Tank	---	Process Scrubber	TF-ACD-001	VOC/HAP	N/A
TF-TNK-550	TF-ACD-001	Acetone Tank	---	Process Scrubber	TF-ACD-001	VOC/HAP	N/A
TF-TNK-560	TF-ACD-001	Distilled Solvent Tank	---	Process Scrubber	TF-ACD-001	VOC/HAP	N/A
TF-TNK-570	TF-ACD-001	Spent Solvent Tank	---	Process Scrubber	TF-ACD-001	VOC/HAP	N/A
TF-AEU-050	TF-ACD-001	West Dust Knockdown Pot	---	Process Scrubber	TF-ACD-001	VOC/HAP	N/A
TF-AEU-013-016	TF-ACD-001	Four Mix Tanks	---	Process Scrubber	TF-ACD-001	VOC/HAP	N/A

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
TF-AEU-056	TF-ACD-001	Autoclave	---	Process Scrubber	TF-ACD-001	VOC/HAP	N/A
TF-AEU-005	TF-ACD-001	Blow Tank	---	Process Scrubber	TF-ACD-001	VOC/HAP	N/A
TF-AEU-053-055	TF-ACD-001	Three Purification Vessels	---	Process Scrubber	TF-ACD-001	VOC/HAP	N/A
TF-AEU-020-022	TF-ACD-001	Three Wash Tubs	---	Process Scrubber	TF-ACD-001	VOC/HAP	N/A
TF-AEU-043-044	TF-ACD-001	Two EO/PO Storage Tanks	---	Process Scrubber	TF-ACD-001	VOC/HAP	N/A
<b>Waste Water Operations</b>							
WT-AEU-001	Fugitive	Neutralization/Containment Basin (CDLNS)	---	N/A	N/A	N/A	N/A
WT-AEU-002	Fugitive	HEC/HPC Wet Well	---	N/A	N/A	N/A	N/A
WT-AEU-003	Fugitive	Main Lift Station	---	N/A	N/A	N/A	N/A
WT-AEU-004	Fugitive	Retention Basin	---	N/A	N/A	N/A	N/A
WT-AEU-005	Fugitive	Equalization Basin	---	N/A	N/A	N/A	N/A
WT-AEU-006	Fugitive	Purging Station to Hopewell Regional WWTP	---	N/A	N/A	N/A	N/A
<b>MCA Chlorine Unloading Platform***</b>							
MC-AEU-001	MC-ACD-001	Chlorine Unloading	--	Chlorine Scrubber	MC-ACD-001	Chlorine	April 3, 2003

\*The Size/Rated capacity and PCD efficiency is provided for informational purposes only, and is not an applicable requirement.

\*\*Wastewater operations are subject to recordkeeping requirements of 40 CFR 63, Subpart UUUU only.

\*\*\*Limits on the chlorine unloading area are State Enforceable Only.

**EMISSIONS INVENTORY**

A copy of the 2015 annual emission update is attached. Emissions are summarized in the following tables.

**2015 Actual Emissions**

Emission Unit	2015 Criteria Pollutant Emission in Tons/Year				
	VOC	CO	SO <sub>2</sub>	PM <sub>10</sub>	NO <sub>x</sub>
Natrosol	57.80			5.23	
Klucel	115.62			0.86	
CMC	335.70			4.03	
EC	83.03			0.71	
Tech Facility	0.65			--	
<b>Total</b>	<b>592.80</b>			<b>10.93</b>	

**2015 Facility Hazardous Air Pollutant Emissions**

Pollutant	2015 Hazardous Air Pollutant Emission in Tons/Yr
Ethyl Chloride	38.30
Methyl Chloride	0.01
Ethylene Oxide	0.50
Glycol Ether	0.09
Methanol	148.96
Methyl tert-Butyl Ether	26.25
Propylene Oxide	1.40

## **EMISSION UNIT APPLICABLE REQUIREMENTS**

The source has emission unit specific applicable requirements for six main production areas: the CMC (carboxymethylcellulose) process area, the Natrosol (hydroxyethyl cellulose) process area, the Klucel (hydroxypropyl cellulose) process area, the EC (ethylcellulose) process area and the Technical Facility (small scale Research & Development Operations). In addition, the storage tanks from the entire facility that have applicable requirements have been grouped together in the Title V permit as a storage tank category (Section VII). The sources of applicable requirements for the various areas are as follows:

**CMC** – December 18, 2014 minor New Source Review permit; July 12, 1996 RACT Agreement; and 40 CFR 63 Subparts A and UUUU (MACT standard for cellulose product manufacturing)

**Natrosol** – January 28, 2011 minor New Source Review permit; July 12, 1996 RACT Agreement; and 40 CFR 63 Subparts A and UUUU (MACT standards for cellulose product manufacturing)

**Klucel** – November 19, 2015 minor New Source Review permit; July 12, 1996 RACT Agreement; and 40 CFR 63 Subparts A and UUUU (MACT standard for cellulose product manufacturing)

**EC** – February 24, 2006 minor New Source Review permit; July 12, 1996 RACT Agreement; and 40 CFR 63 Subparts A and UUUU (MACT standard for cellulose product manufacturing)

**MCA** – April 3, 2003 minor New Source Review permit (state-only enforceable) for the chlorine railcar unloading area

**Technical Facility** – December 7, 2009 minor New Source Review permit; July 12, 1996 RACT Agreement

**Storage Tank Group** – Chapter 40 Existing Source Standard for Storage Tanks from Virginia's regulations 9 VAC 5-40-3430; and 40 CFR 63 Subpart G (Storage tanks requirements from HON MACT 40 CFR 63.123(a)—records of tank dimensions only)

**Emergency Generator** – 40 CFR 60, Subpart IIII (New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines) and 40 CFR 63, Subpart ZZZZ (RICE MACT); note that MACT ZZZZ requires that engines subject to NSPS Subpart IIII shall show compliance with the NSPS requirements.

## **EMISSION UNIT APPLICABLE REQUIREMENTS – Cellulose Manufacturing Equipment – CMC PROCESS AREA**

*The basis for the limitations on the CMC process are the operational restrictions listed in the current minor NSR permit dated December 18, 2014 which are based on state BACT requirements. Pollutants limited by the current CMC permit are PM, PM-10 and VOC. State Only Enforceable requirements are listed in the permit for the control of toxic pollutants chloroacetic acid and methanol and are included in the State Only Enforceable section of the Title V Permit and SOB.*

### **Limitations**

- Condition 2 of the 12/18/14 NSR permit (Condition 1 of the Title V permit) requires that particulate matter and PM<sub>10</sub> emissions from the CMC process be controlled by fabric filter. *This is a BACT requirement.*
- Condition 3 of the 12/18/14 NSR permit (Condition 2 of the Title V permit) requires that VOC emissions from the CMC process solvent recovery stream and subsequent wastewater streams shall be controlled by the use of a spiral heat exchanger on the bottom stream of distillation column C-3 and by the use of automatic valves on the vent streams from the CMC distillation columns (C-1, C-2 and C-3). *This is a BACT requirement.*
- Condition 4 of the 12/18/14 NSR permit (Condition 3 of the Title V permit) requires that VOC from point sources in the CMC process area be controlled by scrubbers. Scrubber liquid flow meters are required for each scrubber except the Acetic Acid scrubber and the MCA sewer scrubber. *This is a BACT requirement.*
- Condition 6 of the 12/18/14 NSR permit (Condition 4 of the Title V permit) specifies VOC work practice standards. *This requirement is based on 9 VAC 5-50-20 F, compliance with provisions of 9 VAC 5 Chapter 50 (New and Modified Stationary Sources)*
- Condition 7 of the 12/18/14 NSR permit (Condition 6 of the Title V permit) limits CMC production to 53,000,000 lbs/yr. *This limitation ensures that the BACT standards are met.*
- Condition 8 of the 12/18/14 NSR permit (Condition 5 of the Title V permit) sets an emission standard of 99% VOC control efficiency on a mass basis, calculated monthly as a six-month rolling average. *The 1996 RACT agreement requires 98% VOC control efficiency on a mass basis, calculated monthly as a 6-month rolling average, but the 99% control efficiency is BACT, and the previous 98% standard has been streamlined from the Title V permit. Compliance with the standard is verified by the material balance defined in the condition.*
- Condition 9 of the 12/18/14 NSR permit (Condition 7 of the Title V permit) limits VOC emissions from the operation of the CMC process to 422 tons/yr. *This is a BACT requirement.*

- Condition 10 of the 12/18/14 NSR permit (Condition 8 of the Title V permit) limits particulate matter and PM<sub>10</sub> emissions from each baghouse. The sum of the emissions total 6.0 lb/hr and 18.4 tons/yr. *This is a BACT requirement.*
- Condition 11 of the 12/18/14 NSR Permit (Condition 9 of the Title V permit) sets a visible emission limit of 5% for the baghouses. *This is a BACT requirement.*
- Condition 10 of the Title V Permit establishes scrubber operating parameters to demonstrate continuing compliance with the 99% overall VOC control efficiency required by 40 CFR 63, Subpart UUUU. *This is a requirement based on testing for scrubber parameters used to demonstrate compliance with MACT Subpart UUUU.*

## Monitoring

*Since the CMC Area has uncontrolled VOC/HAP emissions that are above major source threshold levels, are subject to specific emission standards, and need control equipment to meet these emissions standards, the CMC emission units are subject to CAM. However, 40 CFR 64.2(b)(1)(i) states that MACT (40 CFR 63) standards promulgated after November 15, 1990 by default can be considered to include monitoring, recordkeeping, and reporting provisions sufficient to qualify as periodic monitoring without additional requirements. Thus, no additional periodic monitoring discussion is included for 40 CFR 63 Subparts A and UUUU (CMC, Natrosol, Klucel, EC) and 40 CFR Subparts G and H (Storage Tanks and LDAR). No CAM evaluation for particulate matter is required since the control equipment (fabric filters) are considered to be inherent to the process in this area.*

*For all actual monitoring (i.e., opacity checks, monthly/annual inspections, etc.), records shall be kept to verify the occurrence and results of the monitoring. In addition, the source shall submit to DEQ reports of any opacity observations which reveal visible emissions in excess of the applicable standard.*

- Condition 11 (Title V permit): The CMC Process Area VOC still output shall be continuously measured and totalized once per shift. *This requirement is taken from Condition E.10 of the 7/12/96 RACT Agreement. In general, the RACT Agreement specified the procedures (monitoring and recordkeeping) required for Ashland to demonstrate compliance with the RACT emission standards for each process area. For the CMC process area, these consist of Title V Conditions 5 and 11. Taken together, these two monitoring requirements provide a reasonable assurance of compliance with the streamlined BACT/RACT standard cited in Title V Condition 5. In the following sections for the other areas of the Ashland Hopewell Facility, the monitoring specified by the RACT agreement for the RACT emission standards will be listed and, using the rationale stated above, determined to be sufficient to constitute periodic monitoring without further discussion.*
- Condition 12 (Title V permit): A monthly inspection shall be conducted on each fabric filter (including any differential pressure gauges) listed in Condition 8 to ensure the proper operation of each control system. *The requirements contained in Condition 8 had no specific monitoring*

*requirements in the NSR permit itself. Thus, this monitoring requirement was developed under the authority of 9 VAC 5-80-110 E to provide a reasonable assurance of compliance. Monthly inspections (and records of these inspections required by Title V Condition 14e) of the baghouses should be sufficient for this purpose. In the following sections for the other areas of the facility, monthly inspections with recordkeeping is determined to be sufficient periodic monitoring for NSR permit conditions with no other monitoring of this nature without further discussion.*

- Condition 13 (Title V permit): Each baghouse subject to Title V Condition 9 (opacity limit) shall be observed at least once each operating month for at least a brief time period to determine which emission units have any visible emissions. *Under normal operating conditions, there should be no visible emissions from any of the control devices subject to Title V Condition 9, so any of these control devices operating in a malfunctioning or poorly maintained state should be readily identifiable by the presence of visible emissions. As long as there are no visible emissions from any of these units, it can be concluded that they are meeting the opacity limit and should be operating properly. Periodic monitoring for the opacity standard in Title V Condition 9 is therefore determined to be monthly visible emission observations of each emission point (with recordkeeping required by Title V Condition 14g) and deviation reporting (Title V Condition 15) followed by corrective action to any unit where visible emissions were observed. In the following sections for the other areas of the Ashland Hopewell Facility, monthly inspection with recordkeeping and reporting is determined to be sufficient periodic monitoring for NSR permit conditions of this nature (opacity standards) without further discussion.*

## **Recordkeeping**

The permit includes requirements for maintaining records of all monitoring and testing required by the permit. *These conditions are taken from Condition 12 of the 12/18/14 Permit, along with records of periodic monitoring required by Part 70.*

- Conditions 14a–14c, 14f and 14i (Title V permit) list the records required for the VOC material balance, as well as CMC production and VOC and particulate emissions on a 12-month rolling average.
- Condition 14d (Title V permit) requires daily records to demonstrate compliance with the 99% VOC control efficiency based on scrubber parameters established in testing required by MACT Subpart UUUU.
- Conditions 14e & 14g (Title V permit) require records for monthly inspections of control equipment and visible emission surveys.
- Condition 14h (Title V permit) requires records of maximum hourly particulate emissions from the baghouses, calculated at the end of each month for that month as well as supporting information used in the calculations.

- Condition 14j (Title V permit) requires recordkeeping for scheduled and unscheduled maintenance, and operator training.

### **Testing**

*The permit does not require source tests. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard. The source has performed testing to establish parameters that will be monitored for compliance with MACT Subpart UUUU.*

### **Reporting**

- Condition 15 (Title V permit) requires that the permittee report the results of any 40 CFR Part 60 Method 9 opacity test performed as a result of the monthly visible emission checks required by Title V Condition 13. If the test indicates that the facility is out of compliance with the 5% opacity limit, the permittee must also report the length of time associated with the exceedance and any corrective actions taken to correct the exceedance within 7 days of the applicable test. *This requirement was added to assure continuous compliance with the standard.*

### **Notification**

- Condition 14 of the 12/18/14 Permit (Condition 16 of the Title V Permit) requires that the facility provide notification to DEQ of its intention to shutdown or bypass any air pollution control equipment for necessary scheduled maintenance. *This requirement is taken from 5-20-180B.*

### **Streamlined or Obsolete Conditions**

*Condition 1 of the 12/18/14 Permit is the equipment list for the CMC process area. This is included Title V equipment list.*

*Condition 4 of the 12/18/14 Permit included equipment that has been removed (the Acetic Acid Storage Tank controlled by the Acetic Acid Scrubber, and the 6 MCA Storage Tanks with emissions controlled by the MCA Sewer Scrubber). This equipment has been removed from the table in Title V Condition 3 since it has been removed. Additionally the exception for the MCA Sewer scrubber has been removed, since it is no longer on this list.*

*Condition 5 of the 12/18/14 Permit (Test/Monitoring Ports) is included in Condition 79 of the Title V Permit, in Section X (Facility Wide Conditions)*

*Conditions 13, 16 and 17 of the 12/18/14 Permit contain requirements for initial notification and one-time testing that are obsolete once the facility has been constructed and is operating.*

*Condition 20 of the 12/18/14 Permit has to do with maintenance, operating procedures and training, and is included in Condition 78 of the Title V Permit (Facility Wide Conditions).*

*Conditions 15, 18, 19, and 21–24 of the 12/18/14 Permit are included in the General Conditions Section of the Title V Permit, and include Notification of Facility or Control Equipment Malfunction, Right of Entry, Violation of Ambient Air Quality Standard, Permit Suspension/Revocation, Permit Invalidation, Change of Ownership, and a requirement that the permittee keep a copy on the premises of the facility to which it applies.*

## **EMISSION UNIT APPLICABLE REQUIREMENTS – Cellulose Manufacturing Equipment – NATROSOL PROCESS AREA**

### **Limitations**

*The basis for the limitations on the Natrosol process are the operational restrictions listed in the current minor NSR permit dated January 28, 2011, which are based on state BACT requirements. Pollutants limited by the current Natrosol permit are PM, PM-10 and VOC.*

- Condition 2 of the 1/28/11 NSR permit (Condition 17 of the Title V permit) requires that particulate matter and PM<sub>10</sub> emissions from the Natrosol process be controlled by fabric filter. *This is a BACT requirement.*
- Condition 3 of the 1/28/11 NSR permit (Condition 18 of the Title V permit) requires that VOC from point sources in the Natrosol process area be controlled by the Natrosol vent scrubber. A device to measure differential pressure through the scrubber is required. *This is a BACT requirement.*
- Condition 5 of the 1/28/11 NSR permit (Condition 19 of the Title V permit) limits Natrosol production to 22,000 tons/yr. *This limitation ensures that the BACT is met.*
- Condition 6 of the 1/28/11 NSR permit (Condition 20 of the Title V permit) sets an emission standard of 98% VOC control efficiency on a mass basis, calculated monthly as a six-month rolling average. *The 1996 RACT agreement requires 98% VOC control efficiency on a mass basis, calculated monthly as a 6-month rolling average and this is considered BACT for this process. Compliance with the standard is verified by the material balance defined in the condition.*
- Condition 7 of the 1/28/11 NSR permit (Condition 23 of the Title V permit) limits VOC emissions from the operation of the Natrosol process to 66.6 tons/yr. *This is a BACT requirement.*
- Condition 8 of the 1/28/11 NSR permit (Condition 22 of the Title V permit) sets a particulate emission standard of .005 grains/dscf for dust collectors #201b, 201c, 202a and 202b. *This is a BACT requirement.*
- Condition 9 of the 1/28/11 NSR permit (Condition 21 of the Title V permit) limits particulate matter and PM<sub>10</sub> emissions from each baghouse. Hourly and annual emissions for each baghouse are listed for all baghouses with significant emissions. *This is a BACT requirement.*
- Condition 10 of the 1/28/11 NSR Permit (Condition 24 of the Title V permit) sets a visible emission limit of 5% for the baghouses. *This is a BACT requirement.*
- Condition 25 (Title V Permit) establishes scrubber operating parameters to demonstrate continuing compliance with the 99% overall VOC control efficiency required by 40 CFR 63, Subpart

UUUU. *This is a requirement based on testing for scrubber parameters used to demonstrate compliance with MACT Subpart UUUU.*

## **Monitoring**

*Since the Natrosol Area has uncontrolled VOC/HAP emissions that are above major source threshold levels, are subject to specific emission standards, and need control equipment to meet these emissions standards, the Natrosol emission units are subject to CAM. However, 40 CFR 64.2(b)(1)(i) states that MACT (40 CFR 63) standards promulgated after November 15, 1990 by default can be considered to include monitoring, recordkeeping, and reporting provisions sufficient to qualify as periodic monitoring without additional requirements. Thus no additional periodic monitoring discussion is included for 40 CFR 63 Subparts A and UUUU (CMC, Natrosol, Klucel, EC) and 40 CFR Subparts G and H (Storage Tanks and LDAR). No CAM evaluation for particulate matter is required since the control equipment (fabric filters) are considered to be inherent to the process in this area.*

*For all actual monitoring (i.e., opacity checks, monthly/annual inspections, etc.), records shall be kept to verify the occurrence and results of the monitoring. In addition, the source shall submit to DEQ reports of any opacity observations which reveal visible emissions in excess of the applicable standard.*

- *Condition 26 (Title V permit): A monthly inspection shall be conducted on each fabric filter (and associated differential pressure device) and the weigh bins bag filter (and associated pressure device) listed in Condition 17 to ensure the proper operation of each control system. The requirements contained in Conditions 17 and 18 had no specific monitoring requirements in the NSR permit itself. Thus, this monitoring requirement was developed under the authority of 9 VAC 5-80-110 E to provide a reasonable assurance of compliance. Monthly inspections (and records of these inspections required by Title V Condition 29e) of the baghouses, scrubber, and associated monitoring devices should be sufficient for this purpose.*
- *Condition 27 (Title V permit): Each baghouse subject to Title V Condition 24 (opacity limit) shall be observed at least once each operating month for at least a brief time period to determine which emission units have any visible emissions. This requirement fulfills the Part 70 periodic monitoring requirements.*
- *Condition 28 (Title V permit): The Natrosol Process Area VOC still output shall be continuously measured and totalized once per shift. This requirement is taken from Condition E.10 of the 7/12/96 RACT Agreement. In general, the RACT Agreement specified the procedures (monitoring and recordkeeping) required for Ashland to demonstrate compliance with the RACT emission standards for each process area. For the Natrosol process area, these consist of Title V Conditions 20 and 28. Taken together, these two monitoring requirements provide a reasonable assurance of compliance with the BACT/RACT standard cited in Title V Condition 20.*

## **Recordkeeping**

*The permit includes requirements for maintaining records of all monitoring and testing required by the permit. These include the recordkeeping requirements in Condition 14 of the 1/28/11 Permit and those required by Part 70 periodic monitoring requirements included in the Title V Permit.*

- Conditions 29a, 29b and 29e (Title V permit) list the records required for the VOC material balance, as well as Natrosol production and VOC and particulate emissions on a 12-month rolling average.
- Condition 29c (Title V permit) requires daily records to demonstrate compliance with the 99% VOC control efficiency based on scrubber parameters established in testing required by MACT Subpart UUUU.
- Conditions 29d & 29f (Title V permit) require records for monthly inspections of control equipment and visible emission surveys.
- Condition 29g (Title V permit) requires records of maximum hourly particulate emissions from the baghouses, calculated at the end of each month for that month as well as supporting information used in the calculations.
- Conditions 29h & 29i (Title V permit) require records for all stack tests, visible emissions evaluations, scheduled and unscheduled maintenance, and operator training.

## **Testing**

*The permit does not require source tests. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard. The source has performed testing to establish parameters that will be monitored for compliance with MACT Subpart UUUU.*

## **Reporting**

- Condition 30 (Title V permit) requires that the permittee report the results of any 40 CFR Part 60 Method 9 opacity test performed as a result of the monthly visible emission checks required by Title V Condition 27. If the test indicates that the facility is out of compliance with the 5% opacity limit, the permittee must also report the length of time associated with the exceedance and any corrective actions taken to correct the exceedance within 7 days of the applicable test. *This requirement was added to assure continuous compliance with the standard.*

## Notification

- Condition 13 of the 1/28/11 Permit (Condition 31 of the Title V Permit) requires the permittee to furnish quarterly status reports for the modified Natrosol process. *This requirement is based on 9 VAC 5-50-50.*
- Condition 32 (Title V permit) requires that the facility provide notification to DEQ of its intention to shutdown or bypass any air pollution control equipment for necessary scheduled maintenance. *This requirement was added to the Title V permit at the request of the permittee.*

## Streamlined or Obsolete Conditions

*Condition 1 of the 1/28/11 Permit is the equipment list for the Natrosol process area, which is included in the Title V Permit equipment list.*

*Condition 4 of the 1/28/11 Permit (Test/Monitoring Ports) is included in Condition 79 of the Title V Permit, in Section X (Facility Wide Conditions)*

*Conditions 11, 12, and 13a & d of the 1/28/11 Permit contain requirements for initial construction notification and one-time testing and VEE that are obsolete since construction has commenced and the process is operating. These requirements have been met.*

*Condition 17 of the 1/28/11 Permit has to do with maintenance, operating procedures and training, and is included in Condition 78 of the Title V Permit, in Section IX (Facility Wide Conditions).*

*Conditions 15, 16, and 18-23 of the 1/28/11 Permit are included in the General Conditions Section of the Title V Permit, and include Right of Entry, Violation of Ambient Air Quality Standard, Permit Suspension/Revocation, Permit Invalidation, Record of Malfunction, Notification of Facility or Control Equipment Malfunction, Change of Ownership, and a requirement that the permittee keep a copy of the Title V Permit on the premises of the facility to which it applies.*

## **EMISSION UNIT APPLICABLE REQUIREMENTS – Cellulose Manufacturing Equipment – KLUCEL PROCESS AREA**

### **Limitations**

*The basis for the limitations on the Klucel process are the operational restrictions listed in the current minor NSR permit dated November 19, 2015, which are based on state BACT requirements. Pollutants limited by the current Klucel permit are PM, PM<sub>10</sub> and VOC.*

- Condition 1 of the 11/19/15 NSR permit (Condition 33 of the Title V permit) requires that particulate matter and PM<sub>10</sub> emissions from the Klucel process be controlled by fabric filter. *This is a BACT requirement.*
- Condition 2 of the 11/19/15 NSR permit (Condition 34 of the Title V permit) requires that particulate matter from the pack fill hopper of the automated packing system shall be controlled by a hopper vent filter. *This is a BACT requirement.*
- Condition 3 of the 11/19/15 NSR permit (Condition 35 of the Title V permit) requires that VOC emissions from the purification centrifuges be controlled by mechanical seals. *This is a BACT requirement.*
- Condition 4 of the 11/19/15 NSR permit (Condition 36 of the Title V permit) requires that VOC from point sources in the Klucel process area be controlled by packed bed scrubbers. *This is a BACT requirement.*
- Condition 6 of the 11/19/15 NSR permit (Condition 37 of the Title V permit) limits Klucel production to 4,800 tons/yr. *This limitation ensures that the BACT is met.*
- Condition 7 of the 11/19/15 NSR permit (Condition 38 of the Title V permit) sets a BACT emission standard of 96% VOC control efficiency on a mass basis, calculated monthly as a six-month rolling average. *The 1996 RACT agreement requires 96% VOC control efficiency on a mass basis, calculated monthly as a 6-month rolling average and this is considered BACT for this process. Compliance with the standard is verified by the material balance defined in the condition.*
- Condition 8 of the 11/19/15 NSR permit (Condition 39 of the Title V permit) limits VOC emissions from the operation of the Klucel process to 181.0 tons/yr. *This is a BACT requirement.*
- Condition 9 of the 11/19/15 NSR Permit (Condition 40 of the Title V permit) sets a visible emission limit of 5% for the baghouses. *This is a BACT requirement.*
- Condition 41 of the Title V Permit establishes scrubber operating parameters to demonstrate continuing compliance with the 99% overall VOC control efficiency required by 40 CFR 63,

Subpart UUUU. *This is a requirement based on testing for scrubber parameters used to demonstrate compliance with MACT Subpart UUUU.*

## **Monitoring**

*Since the Klucel Area has uncontrolled VOC/HAP emissions that are above major source threshold levels, are subject to specific emission standards, and need control equipment to meet these emissions standards, the Klucel emission units are subject to CAM. However, 40 CFR 64.2(b)(1)(i) states that MACT (40 CFR 63) standards promulgated after November 15, 1990 by default can be considered to include monitoring, recordkeeping, and reporting provisions sufficient to qualify as periodic monitoring without additional requirements. Thus no additional periodic monitoring discussion is included for 40 CFR 63 Subparts A and UUUU (CMC, Natrosol, Klucel, EC) and 40 CFR Subparts G and H (Storage Tanks and LDAR). No CAM evaluation for particulate matter is required since the control equipment (fabric filters) are considered to be inherent to the process in this area.*

*For all actual monitoring (i.e., opacity checks, monthly/annual inspections, etc.), records shall be kept to verify the occurrence and results of the monitoring. In addition, the source shall submit to DEQ reports of any opacity observations which reveal visible emissions in excess of the applicable standard.*

- *Condition 42 (Title V permit): Volatile Organic Compound emissions from the Klucel Process Area shall be controlled by solvent recovery and process scrubbers, having an overall control efficiency of at least 96% on a mass basis, calculated monthly as a 6-month rolling average. VOC flow shall be measured and the totalized flow recorded for each batch. This requirement is taken from Conditions E.3 and E.9 of the 7/12/96 RACT Agreement. In general, the RACT Agreement specified the procedures (monitoring and recordkeeping) required for Hercules (Ashland) to demonstrate compliance with the RACT emission standards for each process area. For the Klucel process area, these consist of Title V Conditions 37 and 41. Taken together, these two monitoring requirements provide a reasonable assurance of compliance with the BACT/RACT standard cited in Title V Condition 37.*
- *Condition 43 (Title V permit): A monthly inspection shall be conducted on the mechanical seals on the centrifuges and on each fabric filter (and associated differential pressure device). The requirements contained in Conditions 32 – 34 had no specific monitoring requirements in the NSR permit itself. Thus, this monitoring requirement was developed under the authority of 9 VAC 5-80-110 E to provide a reasonable assurance of compliance. Monthly inspections (and records of these inspections required by Title V Condition 44d) of the mechanical seals, hopper vent filter, fabric filters and associated monitoring devices should be sufficient for this purpose.*
- *Condition 44 (Title V permit): Each fabric filter subject to Title V Condition 40 (opacity limit) shall be observed at least once each operating month for at least a brief time period to determine which emission units have any visible emissions. This requirement fulfills the Part 70 periodic monitoring requirements.*

## **Recordkeeping**

*The permit includes requirements for maintaining records of all monitoring and testing required by the permit. These include the recordkeeping requirements in Condition 10 of the 11/19/15 Permit and those required by Part 70 periodic monitoring requirements included in the Title V Permit.*

The permit includes requirements for maintaining records of all monitoring and testing required by the permit.

- Title V Conditions 45a & 45b list the records required for the VOC material balance, as well as Klucel production and VOC emissions.
- Title V Condition 45c requires daily records to demonstrate compliance with the 99% VOC control efficiency based on scrubber parameters established in testing required by MACT Subpart UUUU.
- Title V Conditions 45d & 45e require records for monthly inspections of control equipment and visible emission surveys.
- Title V Condition 45f requires records of maximum hourly particulate emissions from the baghouses, calculated at the end of each month for that month as well as supporting information used in the calculations.
- Title V Condition 45g requires records for all scheduled and unscheduled maintenance, and operator training.

## **Testing**

*The permit does not require source tests. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard. The source has performed testing to establish parameters that will be monitored for compliance with MACT Subpart UUUU.*

## **Reporting**

- Condition 46 (Title V Permit) requires that the permittee report the results of any 40 CFR Part 60 Method 9 opacity test performed as a result of the monthly visible emission checks required by Title V Condition 40. If the test indicates that the facility is out of compliance with the 5% opacity limit, the permittee must also report the length of time associated with the exceedance and any corrective actions taken to correct the exceedance within 7 days of the applicable test. *This condition was added to assure continuous compliance with the standard.*

## **Notification**

- Conditions 11b & 11c of the 11/19/15 Permit (Conditions 47a & 47b of the Title V Permit) require quarterly construction status reports. *This requirement is based on 9 VAC 5-50-50.*
- Condition 48 (Title V Permit) requires that the facility provide notification to DEQ of its intention to shut down or bypass any air pollution control equipment for necessary scheduled maintenance. *This requirement was added to the Title V permit at the request of the permittee.*

## **Streamlined or Obsolete Conditions**

*Condition 4 of the 11/19/15 Permit (Test/Monitoring Ports) is included in Condition 80 of the Title V Permit, in Section X (Facility Wide Conditions)*

*Condition 11a of the 11/19/15 Permit was not included in the Title V permit, since this notification was already completed.*

*Condition 15 of the 11/19/15 Permit has to do with maintenance, operating procedures and training, and is included in Condition 79 of the Title V Permit, in Section X (Facility Wide Conditions).*

*Conditions 12-14 and 16-20 of the 11/19/15 Permit are included in the General Conditions Section of the Title V Permit, and include Permit Invalidation, Permit Suspension/Revocation, Right of Entry, Record of Malfunctions, Notification for Facility or Control Equipment Malfunction, Violation of Ambient Air Quality Standard, Change of Ownership, and a requirement that the permittee keep a copy of the Title V Permit on the premises of the facility to which it applies.*

## **EMISSION UNIT APPLICABLE REQUIREMENTS – Cellulose Manufacturing Equipment – ETHYL CELLULOSE (EC) PROCESS AREA**

### **Limitations**

*The basis for the limitations on the Ethyl Cellulose (EC) process are the operational restrictions listed in the current minor NSR permit dated February 24, 2006, which are based on state BACT requirements. Pollutants limited by the current EC permit are PM, PM-10 and VOC.*

- Condition 3 of the 2/24/06 NSR permit (Condition 49 of the Title V permit) requires that particulate emissions from the EC process be controlled by fabric filter, and that each fabric filter be equipped with a device to measure differential pressure drop across the fabric filter. *This is a BACT requirement.*
- Condition 4 of the 2/24/06 NSR permit (Condition 50 of the Title V permit) requires that VOC from point sources in the EC process area be controlled by the EC vent scrubber. A flow meter and device to measure differential pressure through the scrubber is required. *This is a BACT requirement.*
- Condition 5 of the 2/24/06 NSR permit (Condition 51 of the Title V permit) requires that the permittee maintain and implement a Volatile Organic Compounds control plan for the EC process area. *This limitation ensures that the BACT standard is met.*
- Condition 7 of the 2/24/06 NSR permit (Condition 53 of the Title V permit) limits EC production to 3,500 tons/yr. *This limitation ensures that the BACT standard is met.*
- Condition 8 of the 2/24/06 NSR permit (Condition 52 of the Title V permit) sets an emission standard of 90% VOC control efficiency on a mass basis, calculated monthly as a six-month rolling average. *The 1996 RACT agreement requires 90% VOC control efficiency on a mass basis, calculated monthly as a 6-month rolling average and this is considered BACT for this process. Compliance with the standard is verified by the material balance defined in the condition.*
- Condition 9 of the 2/24/06 NSR permit (Condition 54 of the Title V permit) limits VOC emissions from the operation of the EC process to 135.6 lbs/batch and 126.0 tons/yr. *This is a BACT requirement.*
- Condition 10 of the 2/24/06 NSR permit (Condition 55 of the Title V permit) lists each baghouse for the EC process area and limits particulate matter and PM<sub>10</sub> emissions from the EC Cellulose Open Top Cyclone baghouse (EC-ACD-001). The other baghouses in the EC process area are listed, but have insignificant mass emission rates. *This is a BACT requirement.*
- Condition 56 of the Title V Permit limits visible emissions from all emission units and control devices in the EC Process Area to 20% opacity, except during one six-minute period in any one hour

in which visible emissions shall not exceed 30% opacity. *This requirement ensures compliance with BACT for the fabric filters.*

- Condition 57 of the Title V Permit establishes scrubber operating parameters to demonstrate continuing compliance with the 99% overall VOC control efficiency required by 40 CFR 63, Subpart UUUU. *This is a requirement based on testing for scrubber parameters used to demonstrate compliance with MACT Subpart UUUU.*

### **Monitoring**

*Since the EC Area has uncontrolled VOC/HAP emissions that are above major source threshold levels, are subject to specific emission standards, and need control equipment to meet these emissions standards, the EC emission units are subject to CAM. However, 40 CFR 64.2(b)(1)(i) states that MACT (40 CFR 63) standards promulgated after November 15, 1990 by default can be considered to include monitoring, recordkeeping, and reporting provisions sufficient to qualify as periodic monitoring without additional requirements. Thus no additional periodic monitoring discussion is included for 40 CFR 63 Subparts A and UUUU (CMC, Natrosol, Klucel, EC) and 40 CFR Subparts G and H (Storage Tanks and LDAR). No CAM evaluation for particulate matter is required since the control equipment (fabric filters) are considered to be inherent to the process in this area.*

*For all actual monitoring (i.e., opacity checks, monthly/annual inspections, etc.), records shall be kept to verify the occurrence and results of the monitoring. In addition, the source shall submit to DEQ reports of any opacity observations which reveal visible emissions in excess of the applicable standard.*

- Condition 58 (Title V permit): Each baghouse subject to Title V Condition 56 (opacity limit) shall be observed at least once each operating month for at least a brief time period to determine which emission units have any visible emissions. *This requirement fulfills the Part 70 periodic monitoring requirements.*

### **Recordkeeping**

*The permit includes requirements for maintaining records of all monitoring and testing required by the permit. These include the recordkeeping requirements in Condition 14 of the 2/24/06 Permit and those required by Part 70 periodic monitoring requirements included in the Title V Permit.*

- Title V Conditions 59a, 59b, 59d and 59g list the records required for the VOC material balance, as well as EC production and VOC and particulate emissions on a 12-month rolling average.
- Title V Condition 59c requires daily records to demonstrate compliance with the 99% VOC control efficiency based on scrubber parameters established in testing required by MACT Subpart UUUU.

- Title V Condition 59e requires records of stack test results to demonstrate compliance with the batch VOC limit specified in Title V Condition 54 (NOTE: the stack test referenced in this Condition is the initial stack test performed in accordance with the 2006 permit. Ongoing compliance is ensured with parametric monitoring).
- Title V Condition 59f requires records of results for monthly visible emission surveys and any corrective action taken as a result.

### **Testing**

*The permit does not require source tests. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard. The source has performed testing to establish parameters that will be monitored for compliance with MACT Subpart UUUU.*

### **Reporting**

- Title V Condition 60 requires that the permittee report the results of any 40 CFR Part 60 Method 9 opacity test performed as a result of the monthly visible emission checks required by Title V Condition 58. If the test indicates that the facility is out of compliance with the 5% opacity limit, the permittee must also report the length of time associated with the exceedance and any corrective actions taken to correct the exceedance within 7 days of the applicable test. *This condition was added to the permit to assure continuous compliance with the standard.*

### **Notification**

- Condition 12 of the 2/24/06 Permit (Condition 61 of the Title V Permit) requires that the facility provide notification to DEQ of its intention to shutdown or bypass any air pollution control equipment for necessary scheduled maintenance. *This requirement is taken from 5-20-180B.*

### **Streamlined or Obsolete Conditions**

*Conditions 1 and 22 of the 2/24/06 Permit refer to the permit application for the NSR Permit and the requirement for Annual Registration/Update. These requirements are already included in General Conditions 117 & 119 of this permit.*

*Condition 2 of the 2/24/06 Permit is the equipment list for the EC process area. This is included Title V equipment list.*

*Condition 6 of the 2/24/06 Permit (Test/Monitoring Ports) is included in Condition 80 of the Title V Permit, in Section X (Facility Wide Conditions).*

*Condition 11 of the 2/24/06 Permit contains requirements for initial notification and quarterly status reports for construction which has been completed.*

*Condition 18 of the 2/24/06 Permit has to do with maintenance, operating procedures and training, and is included in Condition 79 of the Title V Permit (Facility Wide Conditions).*

*Conditions 13, 15-17, and 19-23 of the 2/24/06 Permit are included in the General Conditions Section of the Title V Permit, and include Notification for Control Equipment Maintenance, Right of Entry, Violation of Ambient Air Quality Standard, Permit Suspension/Revocation, Permit Invalidation, Change of Ownership, and a requirement that the permittee keep a copy on the premises of the facility to which it applies.*

## **EMISSION UNIT APPLICABLE REQUIREMENTS – Cellulose Manufacturing Equipment – TECHNICAL FACILITY**

### **Limitations**

*The Technical Facility is a cellulose ethers research and development facility where pilot-scale trials and production runs are conducted. The basis for the limitations on the Technical Facility are the operational restrictions listed in the July 12, 1996 RACT agreement. The only Pollutant with federally-enforceable limits is VOC. The other limits (on methyl chloride and toluene) contained in the December 7, 2009 NSR permit are listed in the State Only Enforceable section of the permit, since they pertain to state toxic air pollutants.*

- Condition E.8 of the 7/12/96 RACT (Condition 62 of the Title V Permit) requires that VOC emissions from the Technical Facility Process Area be controlled by solvent recovery and process scrubbers, and limits VOC emissions from the Technical Facility to 15 tons per year. *This is a requirement based on the 1996 non-CTG RACT.*
- Condition 63 of the Title V Permit limits visible emissions to 20% opacity, except for one six-minute period in any one hour of not more than 30% opacity. *This requirement is taken from 9 VAC 5-50-80, the opacity standard for new and modified sources.*

### **Monitoring**

*CAM is not applicable to the Technical Facility emission units, because VOC emissions are limited to 15 tons/yr.*

- Condition 64 of the Title V Permit requires that the facility observe any emissions units in the Technical Facility Process Area monthly, and to follow up with a 40 CFR, Appendix A Method 9 visible emissions evaluation if any above normal visible emissions are observed, unless the visible emission condition is corrected as expeditiously as possible and recorded, and the cause and corrective measures taken are recorded. *This requirement fulfills the Part 70 periodic monitoring requirements.*
- Condition 65 of the Title V Permit requires that each process scrubber be equipped with a scrubber liquid flow meter and a device to continuously measure the differential pressure across the scrubber. The scrubber liquid flow and differential pressure shall be recorded once per shift when the equipment is operating. *This requirement fulfills the Part 70 periodic monitoring requirements.*

## **Recordkeeping**

*The permit includes requirements for maintaining records of all monitoring required by the permit. For all actual monitoring (i.e., opacity checks, monthly/annual inspections, etc.), records shall be kept to verify the occurrence and results of the monitoring.*

- *Condition 66 of the Title V Permit requires that the facility keep records of monthly and annual VOC emissions, as well as any emission factors, material throughputs and/or material balance calculations used. This Condition also requires that the permittee keep records of the visible emissions evaluations and scrubber liquid flow/differential pressure measurements. This requirement fulfills the Part 70 periodic monitoring requirements.*

## **Streamlined or Obsolete Conditions**

*Condition 1 of the 12/7/09 Permit is the equipment list, which is included in the Title V equipment list.*

*Condition 7 of the 12/7/09 Permit requires initial notifications which have already been fulfilled.*

*Condition 15 of the 12/7/09 Permit has to do with maintenance, operating procedures and training, and is included in Condition 79 of the Title V Permit (Facility Wide Conditions).*

**EMISSION UNIT APPLICABLE REQUIREMENTS – Cellulose Manufacturing Equipment – STORAGE TANKS**

*The storage tanks at the facility are subject to 9 VAC 5 Chapter 40, Article 25 (Emission Standards for Volatile Organic Compound Storage and Transfer Operations.)*

- Condition 67 (Title V Permit) list the tanks and their applicable requirements, contained in Conditions 68 – 71 (Title V Permit).
- **Storage Tanks – Limitations** – The storage tanks listed in the table below are subject to the Conditions of this section as specified:

AREA	Tank ID #	Subject to Condition 68	Subject to Condition 69	Subject to Condition 71d
CMC	CM-TNK-413	x	x	
CMC	CM-TNK-414	x	x	
CMC	CM-TNK-416	x	x	
CMC	CM-TNK-408	x	x	x
CMC	CM-TNK-418	x		
CMC	CM-TNK-420	x	x	
CMC	CM-TNK-407	x	x	
CMC	CM-TNK-411	x		
CMC	CM-TNK-409	x	x	
CMC	CM-TNK-410	x		
CMC	CM-TNK-422	x	x	
CMC	CM-TNK-423	x	x	
CMC	T-1	x	x	
CMC	T-2	x	x	
CMC	CM-TNK-417	x		
CMC	CM-TNK-419	x		
CMC	CM-TNK-415	x		
CMC	CM-TNK-412	x		
CMC	MC-TNK-294 (T-94)	x		
CMC	MC-TNK-295 (T-95)	x		
Natrosol	NA-TNK-341	x	x	
Natrosol	NA-TNK-347	x		
Natrosol	NA-TNK-342	x	x	
Natrosol	NA-TNK-343	x	x	
Natrosol	NA-TNK-330	x	x	
Klucel	KL-TNK-306	x		
Klucel	KL-TNK-322	x		x
Klucel	KL-TNK-309	x	x	
Klucel	KL-TNK-308	x		
Klucel	KL-TNK-307	x		

AREA	Tank ID #	Subject to Condition 68	Subject to Condition 69	Subject to Condition 71d
Klucel	KL-TNK-337	x		
Klucel	KL-TNK-363	x		
Klucel	KL-TNK-364	x		
EC	EC-TNK-315	x		
EC	EC-TNK-322	x		
EC	EC-TNK-324	x		
EC	EC-TNK-325	x		x
EC	EC-TNK-326	x		
EC	EC-TNK-327	x		
EC	EC-TNK-321	x		
EC	EC-TNK-328	x		
EC	EC-TNK-310	x		
TechFac	TF-TNK-510	x		
TechFac	TF-TNK-520	x		
TechFac	TF-TNK-530	x		
TechFac	TF-TNK-540	x		
TechFac	TF-TNK-550	x		
TechFac	TF-TNK-560	x		
TechFac	TF-TNK-570	x		

**Limitations**

- Condition 68 (Title V Permit) requires that the designated tanks are equipped with a control method that will remove 60% by weight of volatile organic compound emissions during filling, and that they employ either pressure sufficient to prevent vapor loss, or install an internal floating roof with a closure seal or seals (or other control method approved by the board). *These requirements are taken from Article 25, 9 VAC 5-40-3430A and 9 VAC5-40-3440B, and apply to tanks with storage capacity between 2,000 gallons and 40,000 gallons.*
  
- Condition 69 (Title V Permit) requires that the designated tanks are equipped with a control method that will remove 90% by weight of volatile organic compound emissions during filling, and that they employ either pressure sufficient to prevent vapor loss, or install an internal floating roof with a closure seal or seals (or other control method approved by the board). *These requirements are taken from Article 25, 9 VAC 5-40-3430B and 9 VAC5-40-3440B, and apply to tanks with storage capacity greater than 40,000 gallons.*

## **Monitoring/Recordkeeping**

*The permit includes requirements for maintaining records of all monitoring and testing required by the permit.*

- Condition 70 (Title V Permit) requires that the facility perform monthly inspections on each control device used to control tank VOC emissions. Further, the permittee is required to keep records of the results of the monthly inspections and details of any corrective actions taken. *This requirement fulfills the Part 70 periodic monitoring requirements.*
- Condition 71 (Title V Permit) requires records to assure compliance with the respective existing source rule standard and with the recordkeeping requirement of MACT Subpart G. Condition 71a pertains to the tanks subject to Condition 68, Condition 71b pertains to the tanks subject to Condition 69, and Condition 71d pertains to the tanks subject to MACT Subpart G (recordkeeping of tank dimensions only).

## **EMISSION UNIT APPLICABLE REQUIREMENTS – Fuel Burning Equipment – Emergency Generator**

*The emergency generator is used to operate the fire pumps at the facility. It is rated at 300 hp and is exempt from NSR permitting, however it is subject to NSPS (40 CFR 60) Subpart IIII and MACT (40 CFR 63) Subpart ZZZZ. MACT Subpart ZZZZ §63.6590(c) states that the emergency generator, which is rated at less than 500 bhp and located at a major HAP source will show compliance with the RICE MACT by complying with the applicable NSPS (Subpart IIII for diesel engines). Following are applicable NSPS requirements, which also satisfy the RICE MACT.*

### **Limitations**

- Condition 72 (Title V Permit) limits the maximum sulfur content for the diesel fuel burned in the emergency generator 15 ppm. *This is an NSPS Subpart IIII requirement taken from 40 CFR 60.4207(b).*
- Condition 73 (Title V Permit) limits the emergency generator to emergency operation, maintenance, and testing, and operation in non-emergency situations for 50 hours per year or less. The emergency generator is also required to be equipped with a non-resettable hour meter. *This is an NSPS Subpart IIII requirement taken from 40 CFR 60.4209(a) and 40 CFR 60.4211. Reference to emergency demand response was deleted to the condition as this provision has been vacated.*
- Condition 74 (Title V Permit) requires the permittee to operate and maintain the emergency generator in accordance with the manufacturers emission-related instructions or their own maintenance plan which provides for the maintenance and operation of the generator in a manner consistent with good air pollution control practices. Operators must be trained on proper operation and maintenance of the generator. *This is an NSPS Subpart IIII requirement taken from 40 CFR 60.4211.*
- Condition 75 (Title V Permit) requires the emergency generator to be certified as meeting emission standards for NMHC+NO<sub>x</sub>, CO and PM in Table 4 to Subpart IIII of Part 60. *This is an NSPS Subpart IIII requirement taken from 40 CFR 60.4205(c).*
- Condition 76 (Title V Permit) limits visible emissions, which shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity. *This requirement is taken from 9 VAC 5-50-80, the opacity standard for new and modified sources.*
- Conditions 79 and 80 (Title V Permit) incorporate NSPS Subpart IIII and MACT Subpart ZZZZ by reference into the permit. *These standards have been found applicable to the emergency generator.*

### **Monitoring/Recordkeeping/Reporting**

*EPA has stated that MACT (40 CFR 63) and NSPS (40 CFR 60) standards promulgated after 1990 by default can be considered to include monitoring, recordkeeping, and reporting provisions sufficient to qualify as periodic monitoring without additional requirements. The engine is not subject to a CAM review, since there is no control equipment installed on the engine.*

- Condition 77 (Title V Permit) requires the permittee to keep a log of any non-emergency operating hours on a monthly basis. *This condition was added to demonstrate compliance with Title V Condition 73.*
- Condition 78a requires that the permittee record the annual hours of operation of the emergency generator, including non-emergency operation, to demonstrate compliance with Conditions 73 and 77.
- Condition 78b requires records of diesel shipments to show compliance with the fuel sulfur limit in Condition 72.
- Conditions 78c & d require records of any malfunctions of the emergency generator including each occurrence of a malfunction, its duration, and any corrective actions taken to minimize emissions.

## **FACILITY WIDE CONDITIONS**

*Facility-wide conditions apply generally to the facility, and were consolidated in this section to avoid repetition.*

- Condition 81 (Title V Permit) requires the permittee to take measures to minimize the duration and frequency of excess emissions by establishing maintenance schedules and records, maintaining an inventory of spare parts, and training operators in the proper operation and maintenance in accordance with written procedures and manufacturers' recommendations. *These requirements are included in the NSR permits for the CMC, Natrosol, Klucel, EC, and Technical Facility citing 5-50-20 E, the requirement to maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions.*
- Condition 82 (Title V Permit) requires that the facility be constructed to allow for emissions testing. *This condition applies to the entire facility to enable the permittee to perform testing when necessary to demonstrate compliance with a permit or standard.*
- Condition 83 (Title V Permit) establishes test methods for particulate and visible emissions. *Method 9 is specified in the permit for VEE, and particulate testing is fairly straightforward. Other testing requirements for VOC and HAPs will be determined by DEQ or EPA on a case-by-case basis, or as established by applicable standards.*

## **GENERAL CONDITIONS**

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

### **Comments on General Conditions**

#### **104. Permit Expiration**

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.2-604 and §10.1-1185 of the *Code of Virginia*, and the “Department of Environmental Quality Agency Policy Statement No. 2-09”.

#### **113. Failure/Malfunction Reporting**

Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

#### **117. Permit Modification**

This general condition cites the sections that follow:

9 VAC 5-80-50.	Applicability, Federal Operating Permit for Stationary Sources
9 VAC 5-80-190.	Changes to Permits
9 VAC 5-80-260.	Enforcement
9 VAC 5-80-1100.	Applicability, Permits for New and Modified Stationary Sources
9 VAC 5-80-1605.	Applicability, Permits for Major Stationary Sources and Modifications Located in Prevention of Significant Deterioration Areas

#### **131. Malfunction as an Affirmative Defense**

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition 132 and General Condition 113. For further explanation see the comments on General Condition 113.

This general condition cites the sections that follow:

9 VAC 5-20-180. Facility and Control Equipment Maintenance or Malfunction

9 VAC 5-80-110. Permit Content

### **138. Asbestos Requirements**

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

### **STATE-ONLY APPLICABLE REQUIREMENTS**

The following Virginia Administrative Codes have specific requirements only enforceable by the State and have not been included in the Federal Operating Permit:

9 VAC 5-50-310, Odorous Emissions

9 VAC 5-50-320, Toxic Pollutants

- Conditions 143-153 (Title V Permit) are taken from New Source Review Permits issued for the CMC process area and the Technical Facility. *Permit conditions limiting toxic pollutants are state-only enforceable. The conditions included in this section limit chloroacetic acid, methanol, and toluene.*

### **FUTURE APPLICABLE REQUIREMENTS**

None identified.

### **INAPPLICABLE REQUIREMENTS**

Currently inapplicable requirements identified by the applicant include the following NSPS standards for the SOCOMI Industry:

40 CFR 60, Subpart III – VOC Emissions from the SOCOMI Air Oxidation Unit Processes

40 CFR 60, Subpart NNN – VOC Emissions from the SOCOMI Distillation Operations

40 CFR 60, Subpart RRR – VOC Emissions from the SOCOMI Reactor Processes

40 CFR 60, Subpart Kb does not apply to CM-TNK-408, KL-TNK-322, and EC-TNK-325, because the facility is subject to 40 CFR 63, Subpart G.

40 CFR 63, Subpart VVV applies only to Publicly Owned Treatment Works (POTW).

There are no applicable GHG requirements.

Virginia 9 VAC 5, Chapter 40, Article 8 (Rule 4-8) does not apply to the emergency generator (EG-AEU-001), since it is a stationary internal combustion engine.

Virginia 9 VAC 5, Chapter 40, Article 25 (Rule 4-25) does not apply to the storage tanks listed as Insignificant Emission Units (by size and/or vapor pressure).

**INSIGNIFICANT EMISSION UNITS**

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

<b>Emission Unit No.</b>	<b>Emission Unit Description</b>	<b>Citation</b>	<b>Pollutant(s) Emitted (9 VAC 5-80-720B)</b>	<b>Rated Capacity (9 VAC 5-80-720C)</b>
N/A	Used-Oil Storage Tanks	9 VAC 5-80-270 C		7 @ 275 gallons ea
EC T-40	Caustic Storage Tank	9 VAC 5-80-270 A		
EC T-41	Caustic Storage Tank	9 VAC 5-80-270 A		
EC T-59	Spent Caustic Tank	9 VAC 5-80-270 A		
EC T-58	Spent Caustic Tank	9 VAC 5-80-270 A		
EC T-55	Spent Caustic Tank	9 VAC 5-80-270 A		
EC T-54	Spent Caustic Tank	9 VAC 5-80-270 A		
EC-TNK-335	Caustic Mix Tank	9 VAC 5-80-270 A		
EC-TNK-343	Caustic Storage Tank	9 VAC 5-80-270 A		
EC-TNK-306	Caustic Scale Tank	9 VAC 5-80-270 A		
EC-TNK-SC1	Caustic Collection Tank	9 VAC 5-80-270 A		
EC-TNK-324	Caustic Receiving Tank	9 VAC 5-80-270 A		
EC-TNK-351	Caustic Neutralization Tank	9 VAC 5-80-270 A		
EC-AEU-041	Liquid Carbon Dioxide Storage Tank	9 VAC 5-80-270 A		
CM T-801	Caustic Storage Tank	9 VAC 5-80-270 A		
CM T-802	Caustic Storage Tank	9 VAC 5-80-270 A		
CM PER 1	North Hydrogen Peroxide Storage Tank	9 VAC 5-80-270 A		
CM PER 2	South Hydrogen Peroxide Storage Tank	9 VAC 5-80-270 A		
NA-TNK-300	Nitric Acid Storage Tank	9 VAC 5-80-270 A		
NA-TNK-313	Caustic Storage Tank	9 VAC 5-80-270 A		
NA-TNK-363	Caustic Storage Tank	9 VAC 5-80-270 A		
NA-AEU-098	Caustic Scale Tanks	9 VAC 5-80-270 A		

<b>Emission Unit No.</b>	<b>Emission Unit Description</b>	<b>Citation</b>	<b>Pollutant(s) Emitted (9 VAC 5-80-720B)</b>	<b>Rated Capacity (9 VAC 5-80-720C)</b>
and 099				
NA-TNK-339	Hydrogen Peroxide Storage Tank	9 VAC 5-80-270 A		
KL-TNK-362	Caustic Scale Tank	9 VAC 5-80-270 A		
KL-TNK-365	Caustic Storage Tank	9 VAC 5-80-270 A		
KL-TNK-366	Hydrogen Peroxide Storage Tank	9 VAC 5-80-270 A		
KL-TNK-368	Hydrogen Peroxide Storage Tank	9 VAC 5-80-270 A		
KL-TNK-350	Hydrogen Peroxide Storage Tank	9 VAC 5-80-270 A		
FP-AEU-001	#1 Mix Tank	9 VAC 5-80-270 B	PM/PM <sub>10</sub> /VOC	
FP-AEU-002	#2 Mix Tank	9 VAC 5-80-270 B	PM/PM <sub>10</sub> /VOC	
FP-AEU-003	Bag Dump Station and Conveyance System	9 VAC 5-80-270 B	PM/PM <sub>10</sub> /VOC	
FP-AEU-004	Hydrogen Peroxide Tank	9 VAC 5-80-270 A		
FP-AEU-005	Hydrogen Peroxide Tank	9 VAC 5-80-270 A		
FP-AEU-006	Peroxide Head Tank	9 VAC 5-80-270 A		
FP-AEU-007	Process Storage Tank #3	9 VAC 5-80-270 B	PM/PM <sub>10</sub> /VOC	
FP-AEU-008	Process Storage Tank #4	9 VAC 5-80-270 B	PM/PM <sub>10</sub> /VOC	
FP-AEU-009	Process Storage Tank #6	9 VAC 5-80-270 B	PM/PM <sub>10</sub> /VOC	
FP-AEU-010	Mineral Oil Storage Tank #1	9 VAC 5-80-270 B	PM/PM <sub>10</sub> /VOC	
FP-AEU-011	Mineral Oil Storage Tank #2	9 VAC 5-80-270 B	PM/PM <sub>10</sub> /VOC	
N/A	Diesel Fuel Storage Tanks	9 VAC 5-80-270 B	VOC/HAP	4@ 275 gallons ea 1@ 500 gallons
N/A	Gasoline Storage Tank	9 VAC 5-80-270 B	VOC/HAP	1000 gallons

<sup>1</sup>The citation criteria for insignificant activities are as follows:

9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application

9 VAC 5-80-720 B - Insignificant due to emission levels

9 VAC 5-80-720 C - Insignificant due to size or production rate

## **CONFIDENTIAL INFORMATION**

The permittee did submit confidential and non-confidential versions of their Title V application. The DEQ approved the basis of confidentiality for the confidential version. However, as the confidential information consisted of only diagrams and schematics, it was unnecessary to create two versions of the actual Title V permit. There is only one version of the Title V permit (and Statement of Basis), and it does not contain any confidential information.

## **PUBLIC PARTICIPATION**

The proposed permit was placed on public notice in Style Weekly on August 3, 2016. The public notice period ran from August 3, 2016 to September 6, 2016. The only comments received were from the permittee. These comments and the DEQ response to each comment is attached.

The concurrent 45-day EPA review period expired on September 19, 2016. The comments from EPA are attached along with the DEQ response to each comment.