

West Virginia Department of Environmental Protection
Earl Ray Tomblin
Governor

Division of Air Quality

Randy C. Huffman
Cabinet Secretary

Permit to Update



R13- 2120I

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§22-5-1 et seq.) and 45 C.S.R. 13 – Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the above-referenced facility is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:

CYTEC Industries Inc.
Willow Island Plant
073-00003

A handwritten signature in blue ink, appearing to read "William F. Durham", written over a horizontal line.

William F. Durham
Director

Issued: Aril 07, 2015 • Effective: April 07, 2015

This permit supersedes and replaces R13-2120H issued on June 27, 2012.

Facility Location: Willow Island, Pleasants County, West Virginia
Mailing Address: #1 Heilman Avenue, Willow Island, WV 26134
Facility Description: Surfactants Manufacturing
SIC Codes: 2869 – Industrial Organic Chemicals, Not Elsewhere Classified
UTM Coordinates: 473.42 km Easting • 4,356.22 km Northing • Zone 17
Permit Type: Class II Administrative Update
Description of Change: Add two (2) new bulk bag unloaders (WH-4BB1 & WH-4BB2), and their associated dust collectors (WH-4DC1 & WH-4DC2) which will vent through new emission point 05BE. Section 1.0's Emission Units table was updated to show this. Also, Emission Point 05BE was added to Section 4.1.3's table and to Section 4.2.1's monitoring requirements.

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §§22-5-14.

The source is subject to 45CSR30. The permittee has the duty to update the facility's Title V (45CSR30) permit application to reflect the changes permitted herein.

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1.0 Emission Units

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description	Design Capacity	Year Installed
04BE	----	1-4T2	Addition/Mix Tank	760 gallons	1998
		1-2SF1	Pressure Filter Sampling Port		
		1-3T1	Precoat Tank		
		1-3SF1	Pressure Filter Sampling Port		
		1-DRUM	Drumming Station		
		2-3K2	Reactor Sampling Port		
		2-2K2	Hold Tank Manway Hood		
		2-2K2	Hold Tank Sampling Port		
		2-4K1	Prep Kettle Manway Hood		
		2-4K1	Prep Kettle Sampling Port		
		2-3K1	Sulfonation Reactor Manway Hood		
		2-3K1	Sulfonation Reactor Sampling Port		
		2-2K1	Esterification Reactor Manway Hood		
		2-2K1	Esterification Reactor Sampling Port		
		1-2T3	Precoat Tank Manway Hood		
1-4T4	Precoat Tank Manway Hood				
1-4T4	Precoat Tank Sampling Port				
1-4SF1	Pressure Filter Sampling Port				
2-3K2	Reactor Manway Hood				
3-DRUM	Drumming Station				
04CE	----			6,000 acfm (blower)	The Industrial Hygiene Vent was installed in 1998. The emission sources vented to the IH vent have various installation dates.
Industrial Hygiene Vent for Surfactants					

1.0 Emission Units

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description	Design Capacity	Year Installed	
04DE		2-3K2, 3-2CD2, 3-2CD3	Reactor and Condensers	8,100 gallons	1998	
		2-2K2, 3-2CD2, 3-2CD3	Reactor and Condensers	8,100 gallons	1998	
		2-4T3	Drum Dryer/Feed Hold Tank	9,135 gallons	1998	
		Seal Pot 3-4T2	3-2VP1	Vacuum Pump System	5 mmHg	1998
			1-2T4	Alcohol Receiver	3,918 gallons	1998
		Caustic Scrubber 3-4SC1	2-4K1, 3-4CD1	Prep Kettle and Condenser	16,460 gallons	1998
			3-4T1	Decanter	590 gallons	1998
		Water Scrubber 3-4SC2	3-4VJ1, 3-4VJ2, 3-4VJ3	Vacuum Jets	5 mmHg	2010
			3-2T1	Decanter	520 gallons	1976
			3-2VJ1, 3-2VJ2, 3-2VJ3	Vacuum Jets	5 mmHg	1976
			1-2T1	Alcohol Receiver	2,070 gallons	1976
			3-4T3	Scrubber Liquor Recirculation Tank	930 gallons	1998
			WH-4T1	Drumming Tank	13,515 gallons	1998
			1-4T1	Alcohol Receiver	2,000 gallons	1988
			1-4T3 1-2T2	Hot Well Hot Well	187 gallons 178 gallons	2010 1976
			2-2K1, 3-2CD1	Esterification Reactor and Condenser	12,000 gallons	1976
			2-3K1, 3-3CD1	Sulfonation Reactor and Condenser	12,000 gallons	1975
08CE	-----	1-2ST1	Hold Tank	1,145 gallons	1975	
03BE	Dust Collector 3-3DC1	3-3BS1	MBS Silo	100,000 lbs	2004	

1.0 Emission Units

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description	Design Capacity	Year Installed
04AE	Dust Collector 3-4DC1	3-4BS1	Sodium Sulfite Silo	100,000 lbs	2004
05AE	Dust Collector 3-4DC2	3-4BS2	MBS Silo	100,000 lbs	1998
05BE	Dust Collectors WH-4DC1, WH-4DC2	WH-4BB1, WH-4BB2	Bulk Bag Unloaders	30,000 lb/hr	2015
08BE	----	1-4SF1	Pressure Filter Manway Hood	700 gallons	1998
07BE	Scrubber 3-3SC1	2-3DD1	Double Drum Dryer	750 lb/hr	2012
TS-1E	----	TS-1	Truck Loading Station	300 gpm	1976
TS-2E	----	TS-2	Truck Loading Station	300 gpm	1976
TS-3E	----	TS-3	Truck Loading Station	300 gpm	1976
TS-4E	----	TS-4	Truck Loading Station	300 gpm	1998
TS-5E	----	TS-5	Truck Loading Station	300 gpm	1998
RS-1E	----	RS-1	Railcar Loading Station	300 gpm	1975
RS-2E	----	RS-2	Railcar Loading Station	300 gpm	1998
RS-3E	----	RS-3	Railcar Loading Station	300 gpm	1998
021E	----	S-1T1	OT-75 Storage Tank	26,662 gallons	1977
019E	----	S-2T1	MA-80I Storage Tank	25,000 gallons	1976
015E	----	S-3T1	OT-35 Unwashed Storage Tank	27,555 gallons	1992
013E	----	S-4T1	2-EH Storage Tank	32,314 gallons	1976
011E	----	S-5T1	MIBC Storage Tank	25,000 gallons	1994
009E	----	S-T-5	23A Storage Tank	25,000 gallons	1992
0A7E	----	S-T-3 Compartment A	IBOH Storage Tank	6,000 gallons	1988
0B7E	----	S-T-3 Compartment B	DEM Storage Tank	7,750 gallons	1988

1.0 Emission Units

Emission Point ID	Control Device	Emission Unit ID	Emission Unit Description	Design Capacity	Year Installed
0C7E	----	S-T-3 Compartment C	PG or DEG Storage Tank	7,750 gallons	1988
0D7E	----	S-T-3 Compartment D	IPAL or PG Storage Tank	6,000 gallons	1988
005E	----	S-8T1	OT-35W Storage Tank	27,535 gallons	1998
003E	----	S-7T1	MAA Storage Tank	31,712 gallons	1977
022E	----	S-1T2	OT-GPG Storage Tank	25,000 gallons	1976
020E	----	S-2T2	A-196 Storage Tank	25,000 gallons	1976
016E	----	S-3T2	2-EH Storage Tank	32,587 gallons	1976
014E	----	S-4T2	OT-35W Storage Tank	10,760 gallons	1975
012E	----	S-5T2	Storage Tank	10,000 gallons	1994
010E-1	----	S-6T2 Compartment A	Armeen Storage Tank	6,820 gallons	1998
010E-2	----	S-6T2 Compartment B	Armeen Storage Tank	13,200 gallons	1998
010E-3	----	S-6T2 Compartment C	Armeen Storage Tank	6,820 gallons	1998
008E	----	S-7T2	OT-75 Storage Tank	27,535 gallons	1998
026E	----	W-T5	Effluent Equalization Hold Tank	27,535 gallons	1998
A28E	----	N-1T1 Compartment A	DSS 70% in 23A Storage Tank	7,350 gallons	2007
B28E	----	N-1T1 Compartment B	DSS 70% in 23A Storage Tank	7,750 gallons	2007
C28E	----	N-1T1 Compartment C	DSS 70% in 23A Storage Tank	7,750 gallons	2007
D28E	----	N-1T1 Compartment D	DSS 70% in 23A Storage Tank	7,850 gallons	2007

2.0. General Conditions

2.1. Definitions

- 2.1.1. All references to the “West Virginia Air Pollution Control Act” or the “Air Pollution Control Act” mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.
- 2.1.2. The “Clean Air Act” means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.
- 2.1.3. “Secretary” means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary’s designated representative for the purposes of this permit.

2.2. Acronyms

CAAA	Clean Air Act Amendments	NO_x	Nitrogen Oxides
CBI	Confidential Business Information	NSPS	New Source Performance Standards
CEM	Continuous Emission Monitor	PM	Particulate Matter
CES	Certified Emission Statement	PM_{2.5}	Particulate Matter less than 2.5 μm in diameter
C.F.R. or CFR	Code of Federal Regulations	PM₁₀	Particulate Matter less than 10μm in diameter
CO	Carbon Monoxide	Ppb	Pounds per Batch
C.S.R. or CSR	Codes of State Rules	Pph	Pounds per Hour
DAQ	Division of Air Quality	Ppm	Parts per Million
DEP	Department of Environmental Protection	Ppm_v or ppmv	Parts per Million by Volume
dscm	Dry Standard Cubic Meter	PSD	Prevention of Significant Deterioration
FOIA	Freedom of Information Act	Psi	Pounds per Square Inch
HAP	Hazardous Air Pollutant	SIC	Standard Industrial Classification
HON	Hazardous Organic NESHAP	SIP	State Implementation Plan
HP	Horsepower	SO₂	Sulfur Dioxide
lbs/hr	Pounds per Hour	TAP	Toxic Air Pollutant
LDAR	Leak Detection and Repair	TPY	Tons per Year
M	Thousand	TRS	Total Reduced Sulfur
MACT	Maximum Achievable Control Technology	TSP	Total Suspended Particulate
MDHI	Maximum Design Heat Input	USEPA	United States Environmental Protection Agency
MM	Million	UTM	Universal Transverse Mercator
MMBtu/hr or mmbtu/hr	Million British Thermal Units per Hour	VEE	Visual Emissions Evaluation
MMCF/hr or mmcf/hr	Million Cubic Feet per Hour	VOC	Volatile Organic Compounds
NA	Not Applicable	VOL	Volatile Organic Liquids
NAAQS	National Ambient Air Quality Standards		
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		

2.3. Authority

This permit is issued in accordance with West Virginia air pollution control law W.Va. Code §§ 22-5-1. et seq. and the following Legislative Rules promulgated thereunder:

- 2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation;*

2.4. Term and Renewal

- 2.4.1. This permit supersedes and replaces previously issued Permit R13-2120H. This Permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any other applicable legislative rule;

2.5. Duty to Comply

- 2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-2120, and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to;
[45CSR§§13-5.11 and -10.3.]
- 2.5.2. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA;
- 2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7;
- 2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses, and/or approvals from other agencies; i.e., local, state, and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

2.6. Duty to Provide Information

The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for administratively updating, modifying, revoking, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

2.7. Duty to Supplement and Correct Information

Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

2.8. Administrative Update

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-4.]

2.9. Permit Modification

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.
[45CSR§13-5.4.]

2.10 Major Permit Modification

The permittee may request a major modification to this permit as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.
[45CSR§14-7 or 45CSR§19-14]

2.11. Inspection and Entry

The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:

- a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
- d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

2.12. Emergency

- 2.12.1. An "emergency" means any situation arising from sudden and reasonable unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable

to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

- 2.12.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of Section 2.12.3 are met.
- 2.12.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
 - d. The permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.
- 2.12.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.
- 2.12.5. The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

2.13. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it should have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

2.14. Suspension of Activities

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

2.15. Property Rights

This permit does not convey any property rights of any sort or any exclusive privilege.

2.16. Severability

The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

2.17. Transferability

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13. [45CSR§13-10.1.]

2.18. Notification Requirements

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

2.19. Credible Evidence

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

3.0. Facility-Wide Requirements

3.1. Limitations and Standards

- 3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.
[45CSR§6-3.1.]
- 3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]
- 3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management, and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40CFR§61.145(b) and 45CSR§15]
- 3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1] *[State Enforceable Only]*
- 3.1.5. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.
[45CSR§13-10.5.]
- 3.1.6. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
[45CSR§11-5.2.]

3.2. Monitoring Requirements

[Reserved]

3.3. Testing Requirements

- 3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary

exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:

- a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.
- b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.
- c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.
- d. The permittee shall submit a report of the results of the stack test within sixty (60) days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1.; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:
 1. The permit or rule evaluated, with the citation number and language;
 2. The result of the test for each permit or rule condition; and,
 3. A statement of compliance or noncompliance with each permit or rule condition.

[WV Code § 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

- 3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports, and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.
- 3.4.2. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.
[45CSR§4. State Enforceable Only.]

3.5. Reporting Requirements

- 3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- 3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
- 3.5.3. **Correspondence.** All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:
Director
WVDEP
Division of Air Quality
601 57th Street
Charleston, WV 25304-2345

If to the US EPA:
Associate Director
Office of Enforcement and Permits Review
(3AP12)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

3.5.4. Operating Fee

- 3.5.4.1. In accordance with 45CSR30 – Operating Permit Program, the permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made

immediately available for inspection by the Secretary or his/her duly authorized representative.

- 3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

4.0. Source-Specific Requirements

4.1. Limitations and Standards

4.1.1. Emissions generated from the Surfactants Manufacturing Unit¹ shall be limited as follow:

Pollutant	Hourly Emissions ² (lb/hr)	Annual Emissions (TPY)
Particulate Matter	15.7	0.9
Sulfur Dioxide	0.7	0.24
Volatile Organic Compounds	92.09	26.9

¹ Emissions from Surfactants Manufacturing Unit shall be limited to the equipment and associated emission points listed in Section 1.0.

² Includes short duration peak emissions for “worst-case” batch activities and does not represent a continuous emission rate. Therefore, annual emissions are not based on the hourly rate taken 8,760 hours per year.

[45CSR§13-5.11.]

4.1.2. No person shall cause, suffer, allow, or permit emission of smoke and/or particulate matter into the open air from any process source operation which is greater than twenty (20) percent opacity.

[45CSR§7-3.1.]

4.1.3. No person shall cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all air pollution control equipment installed on any type source operation or duplicate source operation in excess the quantity specified under the appropriate source operation type in Table 45-7A.

[45CSR§7-4.1.]

Emission Point ID No.	45CSR7 Maximum Allowable Particulate Emission Limit lb/hr
04CE	5
05BE	22
07BE	0.90

4.1.4. Emissions vented through Emission Point ID 04DE shall be routed to and controlled by devices 3-4T2, 3-4SC1, 3-4SC2 prior to emission to the atmosphere.

[45DCSR§13-5.11.]

4.1.5. The Seal Pot, designated as Control Device 3-4T2, shall be designed and operated to achieve a minimum control efficiency of 50 % for volatile organic compounds.

[45CSR§13-5.11.]

4.1.6. The Caustic Scrubber, designated as Control Device 3-4SC1, shall be designed and operated to achieve a minimum control efficiency of 97.5% for sulfur dioxide.

[45CSR§13-5.11.]

- 4.1.7. The Scrubber, designated as Control Device 3-4SC2, shall be designed and operated to achieve a minimum control efficiency of 85% for volatile organic compounds.
[45CSR§13-5.11.]
- 4.1.8. Emissions from the MBS Silo, Equipment ID No. 3-3BS1, shall be vented to and controlled by the Baghouse designated as Control Device 3-3DC1.
[45CSR§13-5.11.]
- 4.1.9. Emissions from the Sulfite Silo, Equipment ID No. 3-4BS1, shall be vented to and controlled by the Baghouse designated as Control Device 3-4DC1.
[45CSR§13-5.11.]
- 4.1.10. Emissions from the MBS Silo, Equipment ID No. 3-4BS2, shall be vented to and controlled by the Baghouse designated as Control Device 3-4DC2.
[45CSR§13-5.11.]
- 4.1.11. The Baghouses (Control Device Ids 3-3DC1, 3-4DC1, and 3-4DC2) shall be designed and operated to achieve a minimum control efficiency of 99.5% for particulate matter.
[45CSR§13-5.11.]
- 4.1.12. The control devices listed below shall be operated in accordance with the listed monitoring parameter values and data averaging periods:

Control Device ID	Description	Monitoring Parameter ²	Parameter Value ²	Data Averaging Period ²
3-4SC1	Caustic Scrubber	Scrubber Liquor % Caustic ¹	≥ 3.0 %	Prior to Each Sulfonated Batch
		Scrubber Liquor Flow	≥ 6.2 gpm	Calendar Daily
3-4SC2	Water Scrubber	Scrubber Liquor Flow	≥ 3.8 gpm	Calendar Daily
3-4T2	Seal Pot	Scrubber Liquor Flow	≥ 1 gpm	Calendar Daily
3-3SC1	Drum Dryer Scrubber	Scrubber Liquor Flow	≥ 4.2 gpm	Calendar Daily

¹ % Caustic in Scrubber Liquor Recirculation Tank (3-4T3).

² The control device requirements listed above apply when the production process(es) are operating and venting to the listed control device.

[45CSR§13-5.11.]

- 4.1.13. No person shall cause, suffer, allow, or permit visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to subsection 5.1 is required to have a full enclosure and be equipped with a particulate matter control device.
[45CSR§7-3.7.]
- 4.1.14. Emissions generated by the Double Drum Dryer, Equipment ID No. 2-3DD1, shall be vented to and controlled by the Scrubber designated as Control Device 3-3SC1.
[45CSR§13-5.11.]

- 4.1.15. The Scrubber, designated as Control Device 3-3SC1, shall be designed and operated to achieve a minimum control efficiency of 95% for volatile organic compounds and particulate matter.
[45CSR§13-5.11.]
- 4.1.16. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR§13-5.11.]

4.2. Monitoring Requirements

- 4.2.1. For the purpose of determining compliance with the opacity limits for emission points 04CE, 05BE and 07BE, the permittee shall conduct visible emission checks or opacity monitoring and recordkeeping for the emission points and equipment subject to an opacity limit. Monitoring shall be conducted initially at least once per month with a maximum of forty-five (45) days between consecutive readings. After three consecutive monthly readings in which no visible emissions are observed from any of the subject emission points, those emission points will be allowed to conduct visible emission checks or opacity monitoring once per calendar quarter. If visible emissions or opacity are observed during a quarterly monitoring from an emission point(s), then that emission point(s) with observed emissions or opacity shall be required to revert to monthly monitoring. Any emission point that has reverted to monthly monitoring shall be allowed to again conduct quarterly visible emission checks or opacity monitoring only after three consecutive monthly readings in which no visible emissions are observed from the subject emission point. These checks shall be conducted by personnel trained in the practices and limitations of 40CFR60 Appendix A, Method 9 or Method 22, or 45CSR7A, during periods of normal operation of emission sources that vent from the referenced emission point(s) for a sufficient time interval to determine if there is a visible emission. For observations of visible emissions from any emission point(s) which follows a water scrubber, when condensed water vapor is present in the plume as it emerges from the emission outlet, opacity observations shall be made beyond the point in the plume at which condensed water vapor is no longer visible; the observer shall record the approximate distance from the emission outlet to the point in the plume at which the observations are made. If visible emissions are identified during the visible emission check, or at any other time regardless of operations, the permittee shall conduct an opacity reading using the procedures and requirements of 40CFR Part 60, Appendix A, Method 9 within seventy-two (72) hours of the first signs of visible emissions. A 40CFR Part 60, Appendix A, Method 9 evaluation shall not be required if the visible emission condition is corrected within seventy-two (72) hours after the visible emission and the sources are operating at normal conditions.
[45CSR§7.3.1 & 3.2]
- 4.2.2. For the following control devices: Caustic Scrubber (3-4SC1), Water Scrubber (3-4SC2), Seal Pot (3-4T2) and Scrubber (3-3SC1), the permittee shall maintain and operate water/scrubbing liquor flow rate sensors with control panel alarms to ensure adequate water/scrubbing liquor flow rates.
[45CSR§13-5.11.]
- 4.2.3. The parameters as set forth in 4.1.12. for the Caustic Scrubber (3-4SC1), Water Scrubber (3-4SC2), and Seal Pot (3-4T2) shall be verified prior to the start of each sulfonation production batch. Production shall not commence until all parameters are greater than or equal to their acceptable values. Conditions causing any parameter to be less than the compliance value will be corrected prior to the start of production.
[45CSR§13-5.11.]

- 4.2.4. The permittee shall conduct an annual preventative maintenance inspection, and cleaning, replacement, or refurbishment, as appropriate, of the bags, bag connections, and dust hoppers of the baghouses (Control Device IDs 3-3DC1, 3-4DC1, and 3-4DC2) at the specified emission points (03BE, 04AE, and 05AE), in order to ensure proper operation of the baghouses.
[45CSR§13-5.11.]

4.3. Testing Requirements

- 4.3.1. Compliance with the emission limits set forth in 4.1.1. for sulfur dioxide, shall be demonstrated, at the request of the Director, by utilizing EPA Reference Method 6 as specified in Appendix A of 40 CFR 60. The Director of the Division of Air Quality may specify or may approve other valid methods for compliance determination when he/she deems it appropriate and necessary.
[45CSR§13-5.11.]
- 4.3.2. If requested by the Director, compliance with the particulate matter emission limits for emission point 04CE set forth in Section 4.1.1. shall be demonstrated by utilizing the test method outlined in 45CSR7A, TP-4 - 'Compliance Test Procedures for Series 7 - "To Prevent Particulate Air Pollution from Manufacturing Process Operations."' The permittee shall determine mass emission rates as well as visible emissions during these tests and said tests shall be conducted under conditions which represent "worst-case" emissions. The process of compliance determination for the storage silos having emission points 03BE, 04AE and 05AE shall be demonstrated by having no visible emissions. The Director of the Division of Air Quality may specify or may approve other valid methods for compliance determination when he/she deems it appropriate and necessary.
[45CSR§13-5.11.]

4.4. Recordkeeping Requirements

- 4.4.1. **Record of Monitoring.** The permittee shall keep records of monitoring information that include the following:
- a. The date, place as defined in this permit, and time of sampling or measurements;
 - b. The date(s) analyses were performed;
 - c. The company or entity that performed the analyses;
 - d. The analytical techniques or methods used;
 - e. The results of the analyses; and
 - f. The operating conditions existing at the time of sampling or measurement.

[45CSR§13-5.11.]

- 4.4.2. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
[45CSR§13-5.11.]

- 4.4.3. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:
- a. The equipment involved.
 - b. Steps taken to minimize emissions during the event.
 - c. The duration of the event.
 - d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR§13-5.11.]

- 4.4.4. The permittee shall maintain records indicating the emission calculations/emission models used to demonstrate compliance with all point source emission limits for each emission point specified in 1.0. Compliance with the specified emission limits set forth in 4.1.1. shall be demonstrated by calculating emissions for every product in the Surfactants Manufacturing Unit using Emission Master emission modeling software, or other appropriate emission estimation models or calculation methodologies (e.g., ChemCAD, PlantWare, USEPA's TANKS 4.0, etc.). When these emissions are calculated, each emission point listed in Section 1.0 which has emissions of PM, SO₂, or VOC shall be included in the calculation and accounted for in the emissions report. The models shall be maintained current for all processes, process modifications and new product variants. The Division of Air Quality may specify or may approve other valid methods for compliance determination when deemed appropriate and necessary. These records shall be maintained on site for a period of no less than five (5) years.

[45CSR§13-5.11.]

- 4.4.5. The data necessary to demonstrate compliance with the control device monitoring parameters required by 4.1.12., emission calculations required by 4.4.4., and detailed descriptions of any other compliance procedures, as well as accurate production records shall be maintained on site for a period of five (5) years and made available to the Director of the Division of Air Quality or his/her duly authorized representative upon request.

[45CSR§13-5.11.]

- 4.4.6. The permittee shall maintain quarterly emission reports calculated by the method described in 4.4.4. The quarterly emission reports shall be used to calculate a four quarter rolling total used to demonstrate compliance with the annual emission limits set forth in 4.1.1. The quarterly emission reports and four quarter rolling total shall be maintained on site for a period of five (5) years.

[45CSR§13-5.11.]

- 4.4.7. Records of each visible emission observation and each 45CSR7A evaluation conducted in accordance with 4.2.1. shall be maintained on site for a period of no less than five (5) years. The visible emission observation records shall include, but not be limited to, the date, time, name of the emission unit, the applicable visible emissions requirements, the results of the observations, what action(s), if any, was/were taken, and the name of the certified Method 9 or Method 22 trained observer.
[45CSR§13-5.11.]
- 4.4.8. For the following control devices: Caustic Scrubber (3-4SC1), Water Scrubber (3-4SC2), Seal Pot (3-4T2) and Scrubber (3-3SC1), records shall be maintained on site for a period of no less than five (5) years stating the date and time of each control device's low water/scrubbing liquor flow rate monitoring parameter excursion from the required value in 4.1.12., the cause of the monitoring parameter excursion, and all corrective actions taken.
[45CSR§13-5.11.]
- 4.4.9. Records of all monitoring data and support information required for the following control devices: Caustic Scrubber (3-4SC1), Water Scrubber (3-4SC2), Seal Pot (3-4T2) and Scrubber (3-3SC1), shall be maintained on site for a period of at least five (5) years from the date of monitoring, sampling, measurement, or reporting. Support information includes all calibration and maintenance records and all strip chart recordings for continuous monitoring instrumentation, and copies of all required reports.
[45CSR§13-5.11.]
- 4.4.10. For the Control Devices 3-3DC1, 3-4DC1, and 3-4DC2, records shall be maintained on site for a period of no less than five (5) years stating the date and time of each baghouse's annual preventative maintenance activity, the results of the annual preventative maintenance activity, and all corrective actions taken.
[45CSR§13-5.11.]

4.5. Reporting Requirements

- 4.5.1. The permittee shall provide to the Director of the Division of Air Quality prior to the production of a new product, which involves any chemical or process change not addressed in application no. R13-2120, or any amendments thereto, sufficient documentation to demonstrate that the emissions limits as set forth in this permit will not be exceeded.
[45CSR§13-5.11.]
- 4.5.2. Due to unavoidable malfunction of equipment, emissions exceeding those set forth in 45CSR7 may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director.
[45CSR§7-9.1.]

CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature¹ _____
(please use blue ink) Responsible Official or Authorized Representative Date

Name & Title _____
(please print or type) Name Title

Telephone No. _____ Fax No. _____

¹ This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

- a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:
 - (i) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), or
 - (ii) the delegation of authority to such representative is approved in advance by the Director;
- b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;
- c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of U.S. EPA); or
- d. The designated representative delegated with such authority and approved in advance by the Director.