west virginia department of environmental protection

Division of Air Quality
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Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

July 8, 2016

CERTIFIED MAIL
91 7199 9991 7034 1376 2823

Mr. Rod Wilkins
Chief Technology Officer
Superior Reedsville Filtration, LLC
P.O. Box 478
Reedsville, WV 26547

Re: Superior Reedsville Filtration, LLC
Reedsville Plant
Permit No. R13-2501B
Plant ID No. 077-00015

Dear Mr. Wilkins:

Your application for a permit as required by Section 5 of 45CSR13 - "Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permit, General Permit, and Procedures for Evaluation" has been approved. The enclosed permit R13-2501B is hereby issued pursuant to Subsection 5.7 of 45CSR13. Please be aware of the notification requirements in the permit which pertain to commencement of construction, modification, or relocation activities; startup of operations; and suspension of operations.

The source is not subject to 45CSR30.

In accordance with 45CSR22 - Air Quality Management Fee Program, the permittee shall not operate nor cause to operate the permitted facility or other associated facilities on the same or contiguous sites comprising the plant without first obtaining and having in current effect a Certificate to Operate (CTO). Such Certificate to Operate (CTO) shall be renewed annually, shall be maintained on the premises for which the Certificate has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

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.

Should you have any questions or comments, please contact me at (304) 926-0499, extension 1214.

Edward S. Andrews, P.E.
Engineer

Enclosures

c. NCRO
Joyce Gentry, Joyce.gentry@sj-environmental.com

West Virginia Department of Environmental Protection

Earl Ray Tomblin
Governor

Division of Air Quality

Randy C. Huffman
Cabinet Secretary

Permit to Modify

R13-2501B

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:
Superior Reedsville Filtration, LLC
Reedsville Plant
077-00015

William F. Durham
Director

Issued: July 8, 2016

This permit will supersede and replace Permit R13-2501A.

Facility Location:	Route 92 South Reedsville, Preston County, West Virginia
Mailing Address:	P.O. Box 478 Reedsville, WV 26547
Facility Description:	Glass mat manufacturing facility
NAICS Codes:	327993
UTM Coordinates:	603.30 km Easting • 4,374.35 km Northing • Zone 18
Permit Type:	Modification
Description of Change:	This action is for the installation of sixteen additional glass melt furnaces-glass fiber extruding apparatus and binder applicators-glass fiber forming drums.

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 not subject to 45CSR30.

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1.0. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Control Device
Oven-1	EP-1	Fiberglass Mat Curing Oven	CD-1, Regenerative Thermal Oxidizer
Oven-2	EP-6	Fiberglass Mat Curing Oven	CD-3, Regenerative Thermal Oxidizer
GMF1-GMF44	Bldg.1	Glass Melting Furnaces with Glass Fiber Extruders	PE
Boiler 1	EP-3	3.0 MMBtu/hr Natural Gas Boiler	None
Drum1 - Drum 44	Bldg. 1	Glass Fiber Forming Drums with Binder Applicators	PE
Hood-1	EP-4	Mat Let Off Table	None
Hood -3	EP-7	Mat Let Off Table	None
Hood-2	EP-5	Pulling and Expanding Station	None
Hood-4	EP-8	Pulling and Expanding Station	None
T-1	TV-1	Forming Oil Storage Tank	None
T-2	TV-2	Bulk Resin Storage Tank	None
T-3	TV-3	Bulk Resin Storage Tank	None
T-4	T-4	Bulk Resin Storage Tank	None
T-5	TV-5	Ethylene Glycol Storage Tank	None
T-6	TV-6	Adhesive Oil Storage Tank	None
T-7	TV-7	Adhesive Oil Storage Tank	None
T-8	TV-8	Waste Oil Storage Tank	None
T9-T14	None	Binder Mix Tanks	None
Spray 1	EP-2	Adhesive Oil Spraying Station	None

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	**NOx**	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	**PM_{10}**	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	**SO_2**	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 Act 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 R13-2501A. 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 R13-2501, R13-2501A, R13-2501B, 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 as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.
[45CSR§13-5.1]

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; and

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§34]

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 Air Enforcement and Compliance Assistance (3AP20)
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 45CSR22 – Air Quality Management Fee Program, the permittee shall not operate nor cause to operate the permitted facility or other associated facilities on the same or contiguous sites comprising the plant without first obtaining and having in current effect a Certificate to Operate (CTO). Such Certificate to Operate (CTO) shall be renewed annually, shall be maintained on the premises for which the certificate 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 for the Glass Melting and Forming Operations

4.1. Limitations and Standards

4.1.1. The following conditions and requirements are specific to the glass melting and fiber formation operations at the permitted facility:

a. Maximum emissions to the atmosphere from the glass melting and fiber forming operation shall not exceed the limits set forth in the following table:

Table 4.1.1.a. Glass Melting and Fiber Forming Emission Limits

Emission Source ID #	Source Name	Pollutant	Hourly Emissions (lb/hr)	Annual Emissions (ton/year)
(GMF-1 -- GMF-44) & (Drum-1 - Drum-44)	Total Glass Furnace Melting Emissions & Total Glass Fiber Forming Emissions	Nitrogen Oxides	16.77	73.45
		Carbon Monoxide	1.22	5.34
		VOC	0.27	1.26
		Sulfur Dioxide	2.52[1]	11.04
		Particulate Matter-10	7.33	32.11
		Formaldehyde	0.002	0.08

1 – Satisfies the sulfur dioxide allowable of 45 CSR §10-4.1.

b. Particulate Matter emissions from Building 1 shall not exceed 7.85 pounds per hour. **[45CSR §§7-4.1. & 4.4.]**

c. No opening from Building 1 (Roof Monitor Vents) shall exhibit visible emissions of 20 percent opacity or greater on a 6 minute block average. **[45 CSR §7-3.1.]**

d. Building 1 shall be maintained in such a manner to control fugitive particulate matter as if a partial enclosure control were in use. **[45 CSR §7-5.1]**

e. The primary feedstock for all of the glass melting furnaces at the facility shall be glass cullet.

f. The glass melting furnaces shall be fueled only with pipeline quality natural gas. Compliance with this limitation and item e of this condition will show satisfy compliance with the sulfur dioxide allowable of 45 CSR §10-4.1. **[45 CSR 10-4.1.]**

g. The maximum amount of natural gas consumed by the glass melting furnaces shall not exceed 6,470 scfh. Compliance with this hourly limit is satisfied by limiting the 12-month rolling total amount of natural gas consumed by the furnaces to 56.7 million standard cubic feet (MMSCF).

4.1.2. The following conditions and requirements are specific to the curing operations at the permitted facility:

a. The maximum emission rates to the atmosphere from the curing operation shall not exceed the limits set forth in the following table from the corresponding emission point:

Table 4.1.2.a. Emission Limits from Curing Ovens				
Emission Point ID# (Source ID #)	Source Name	Pollutant	Hourly Emissions (lb/hr)	Annual Emissions (ton/year)
EP-1	Curing Oven (Oven-1) exhaust routed to Regenerative Thermal Oxidizer (CD-1)	Nitrogen Oxides	2.48	10.86
		Carbon Monoxide	0.51	2.25
		Particulate Matter-10	0.06[2]	0.27
		Sulfur Dioxide	0.01[3]	0.03
		VOC	1.04	4.56
		Formaldehyde*[1]	0.46	2.01
		Methanol*	0.44	1.91
EP-6	Curing Oven (Oven-2) exhaust routed to Regenerative Thermal Oxidizer (CD-3)	Nitrogen Oxides	2.48	10.86
		Carbon Monoxide	0.51	2.25
		Particulate Matter-10	0.02[2]	0.09
		Sulfur Dioxide	0.01[3]	0.03
		VOC	1.04	4.56
		Formaldehyde*[1]	0.46	2.01
		Methanol*	0.44	1.91

* Denotes the pollutant is classified as a hazardous air pollutant.
1 Denotes the pollutant is classified as a toxic air pollutant under 45 CSR 27.
2 – Satisfies the PM allowable of 45 CSR §6-4.1.
3 – Satisfies the Hydrogen Sulfide Allowable of 45 CSR §10-5.1.

b. Visible emissions from Emission Points E-1 and E-6 shall not exhibit an opacity of 20 percent or greater on a six minute block average.
[45 CSR §6-4.3]

c. Glass fiber mats placed in either of the curing ovens shall not exceed a formaldehyde content by weight of more than 0.51%.
[45 CSR §27-3.1]

d. The exhaust from Oven-1 and Oven-2 shall be routed to the Regenerative Thermal Oxidizer (RTO) CD-1 and CD-3 respectively through a closed vent system.

e. The closed vent system as required in item d of this condition shall meet the following:

i. The system pressure loss, as measured at the inlet of both RTO (CD-1 & CD-3), shall maintain a pressure gradient range of -0.25 to -0.75 inches of water column.

ii. The system shall be constructed and maintained free of leaks. A leaking component is defined as a measured instrument reading greater than 500 ppm above background or by visual inspection.

iii. Detected leaks shall be repaired as soon as practicable with the first attempt at repair within 5 calendar days after detecting the leak. Repair shall be completed no later than 15 calendar days after the leak is detected.
[45 CSR §13-5.11.]

f. Regenerative Thermal Oxidizers CD-1 and CD-3 shall be designed to achieve a minimum destruction efficiency of 98% for VOC, formaldehyde, and methanol emissions. To demonstrate compliance with this limit CD-1 and CD-3 shall be maintained and operated with a combustion chamber temperature of no less than 1,550°F for CD-1 and 1,500°F for CD-2 on a three (3) hour rolling average while the respective curing oven are curing wet mats.

g. The glass fiber mat feed rate for each curing oven (Source ID# Oven-1 and Oven-2) shall not exceed 3,375 lb/hr of wet glass fiber mats. Compliance with this limit shall be based on using a twelve (12) month rolling total of finished product not to exceed 14,782 tons for Oven-1 and 12,782 tons for Oven-2 or a combined total of 27,564 tons from both ovens. A twelve (12) month rolling total shall mean the sum of glass fiber filter material produced at any given time for the previous twelve consecutive months.

h. The curing ovens and the RTOs shall be fueled with natural gas. The maximum amount of natural gas consumed by the ovens and RTOs shall not exceed 15,366 scfh. Compliance with this hourly limit is based on a 12-month rolling total of 134.6 million standard cubic feet (MMSCF).

4.1.3. The following conditions and requirements are specific to the mat Let-Off table, Pulling & Expanding, and Adhesive Oil Spraying Stations at the permitted facility:

a. The maximum emission rates to the atmosphere from these sources shall not exceed the limits set forth in the following table from the corresponding emission point:

Table 4.1.3.a. Emission Limits for Mat Let-Off Tables, Pulling & Expanding, Adhesive Oil Spraying Stations

Emission Point ID# (Source ID #)	Source Name	Pollutant	Hourly Emissions (lb/hr)	Annual Emissions (ton/year)
EP-4 (Hood-1)	Mat Let-Off Table	Formaldehyde	0.01	0.04
		VOC	0.05	0.22
EP-8 (Hood-3)	Mat Let-Off Table	Formaldehyde	0.01	0.04
		VOC	0.05	0.22
EP-5 (Hood-2)	Pulling & Expanding Station	Formaldehyde	0.01	0.04
		VOC	0.05	0.22
EP-9 (Hood-4)	Pulling & Expanding Station	Formaldehyde	0.01	0.044
		VOC	0.05	0.22
EP-2 (Spray-1)	Adhesive Oil Spraying Station	Particulate Matter-10	2.5[1]	4.56
		VOC	5	9.13
EP-7 (Spray-2)	Adhesive Oil Spraying Station	Particulate Matter-10	2.5	4.56
		VOC	5	21.9

1 – Satisfies the PM Allowable of 45 CSR §7-4.1.

b. Emission Points EP-2, EP-4, EP-5, EP-7, EP-8, EP-9 shall not exhibit visible emissions greater than 20 percent opacity on a 6 minute block average.
[45 CSR §7-3.1.]

4.1.4. No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable.
[45CSR§7-5.1]

4.1.5. The owner or operator of a plant shall maintain particulate matter control of the plant premises, and plant owned, leased or controlled access roads, by paving, application of asphalt, chemical dust suppressants or other suitable dust control measures. Good operating practices shall be implemented and when necessary particulate matter suppressants shall be applied in relation to stockpiling and

general material handling to minimize particulate matter generation and atmospheric entrainment. **[45CSR§7-5.2]**

4.1.6. Due to unavoidable malfunction of equipment, emissions exceeding those set forth in this rule 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]**

4.1.7. Compliance with the annual emission limits shall be determined using rolling yearly totals. A rolling yearly total shall mean the sum of the emissions at any given time for the previous twelve (12) consecutive months.

4.1.8. **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. The permittee shall install, maintain, and operate a temperature sensing device to measure and record the operating temperature of each RTO (CD-1 and CD-3). Such devices must measure and record the temperature at a frequency of no greater than once every 15 minutes.

For the purpose of demonstrating compliance with the limits in Condition 4.1.2.f., the permittee shall determine the hourly average temperature using at least 4 readings from the corresponding hour. Then the permittee shall determine the three-hour average using the hourly average of previous three hours. The permittee shall determine the three-hour average on a continuous basis for every hour that wet glass fiber mats are cured in the respective oven. Records of readings, hourly average and three-hour averages and calibrations of devices shall be maintained in accordance with Condition 3.4.1.
[45 CSR 27-11.2]

4.2.3. In order to determine compliance with Conditions 4.1.2.b, the permittee shall conduct monthly visual emission observations in accordance with Method 22 of 40 CFR 60, Appendix A for Emission Points EP-1 and EP-6. These observations shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using procedures outlined in 40CFR60 Appendix A, Method 22. If sources of visible emissions are identified during the survey, the permittee shall conduct an opacity evaluation in accordance with 40CFR60 Appendix A, Method 9, within 24 hours. A 40CFR60 Appendix A, Method 9 evaluation shall not be required if the visible emission condition is corrected within 24 hours and the units are operated at normal operating conditions with no visible emissions being observed. Records of observation shall be maintained in accordance with Condition 3.4.1.
[45CSR§6-4.3]

4.2.3. In order to determine compliance with Conditions 4.1.1.c. and 4.1.3.b., the permittee shall conduct monthly visual emission observations in accordance with Method 22 of 40 CFR 60, Appendix A for the Building 1 (Roof Monitors), EP-2, EP-4, EP-5, EP-7, EP-8, and EP-9. These observations shall be conducted during periods of normal facility operation for a sufficient time interval to determine

if the unit(s) has visible emissions using procedures outlined in 40CFR60 Appendix A, Method 22. If sources of visible emissions are identified during the survey, the permittee shall conduct an opacity evaluation in accordance with 40CFR60 Appendix A, Method 9, within 24 hours. A 40CFR60 Appendix A, Method 9 evaluation shall not be required if the visible emission condition is corrected within 24 hours and the units are operated at normal operating conditions with no visible emissions being observed. Records of observation shall be maintained in accordance with Condition 3.4.1.
[45CSR§7-8.2]

4.3. Testing Requirements

4.3.1. To determine compliance with mass emission limits for VOC's, formaldehyde, and methanol for Emission Point EP-6 set forth under Condition 4.1.2, the permittee shall conduct a performance test within 180 days after startup of Oven-2 in accordance with EPA Method 318 (Extractive FTIR Method for the Measurement of Emissions from the Mineral Wool and Wool Fiberglass Industries) and in accordance with Condition 3.3.1. The performance test will also demonstrate compliance with the destruction efficiency (per Condition 4.1.2.f) of total VOCs, formaldehyde, and methanol by the Regenerative Thermal Oxidizer CD-3. During such performance test, the permittee shall operate Oven-2 at an hourly production rate of no less than 90% of the permitted level in Condition 4.1.2.g. for each test run. The permittee shall record and report the hourly feed rate into the oven, and the RTO operating temperature for each test run.
[45 CSR 27-10.1]

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.

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.

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.

4.4.4. To determine compliance with 4.1.2.c., the permitted facility shall maintain product information of the formaldehyde content by weight of the glass fiber mats placed in either curing oven (Source ID# Oven-1 and Oven-2). Such records shall be maintained in accordance with Condition 3.4.1.

4.4.5. The permittee shall maintain monthly reports of daily records certifying the binder percent of the processed mat weights, pounds of product processed through curing ovens, and corresponding hours of mats processed through the each curing oven. Such records shall be maintained in accordance with Condition 3.4.1.

4.4.6. The permittee shall keep monthly reports of daily records of urea formaldehyde resin usage. Such records shall be maintained in accordance with Condition 3.4.1.

4.4.7. The permittee shall keep average hourly calculations of the formaldehyde and methanol emissions for the cured mats processed through the curing oven on a daily basis. Such records shall be maintained in accordance with Condition 3.4.1.

4.4.8. The permittee shall keep a monthly record and 12 month rolling total of natural gas consumed by the facility. If the 12-month rolling total is less than 217.1 MMSCF then compliance with Conditions 4.1.1.g, 4.1.2.h. and 5.1.1.d. is satisfied.
[45 CSR §2-8.3.c. and §10-8.3.c.]

4.5. Reporting Requirements

4.5.1. The emission to the air of any toxic air pollutant resulting from an abnormal release or spill in excess of the following amounts shall be reported to the Director or his authorized representative not later than 24-hours after the chemical processing unit owner/operator has knowledge of such emission:

a. For ethylene oxide, and vinyl chloride, one (1) pound

b. For acrylonitrile and butadiene, ten (10) pounds

c. For all other toxic air pollutants, which includes formaldehyde, fifty (50) pounds.

The permittee shall file a written report with the Director stating the details of all such incidents resulting in the emission of more than fifty (50) pounds of any toxic air pollutant within seven (7) days of the occurrence. The permittee shall submit to the Director, at his request, records of all abnormal toxic air pollutant discharges to the air.

[45CSR§27-10.4]

4.5.2. Any Method 9 observation as required in Condition 4.2.2. in excess of twenty percent (20%) opacity, or excess of forty (40%) for any period or periods aggregating more than five (5) minutes in any sixty (60) minute period, the permittee shall submit a written report, certified by a responsible official, to the Director within five (5) days after taking said reading. Such notification shall be submitted in accordance with Condition 3.5.3
[45 CSR §6-7.2]

4.5.3. Any Method 9 observation as required in Condition 4.2.3. in excess of twenty percent (20%) opacity, or excess of forty (40%) for any period or periods aggregating more than five (5) minutes in any sixty (60) minute period, the permittee shall submit a written report, certified by a responsible official, to the Director within five (5) days after taking said reading. Such notification shall be submitted in accordance with Condition 3.5.3.
[45CSR§7-8.2]

5.0. Source-Specific Requirements for the Tank Farm and Boiler

5.1. Limitations and Standards

5.1.1. The following conditions and requirements are specific to the boiler (ID #Boiler-1):

a. NO_x emissions emitted to the atmosphere from the boiler shall not exceed 1.29 tons per year on a 12 month rolling total.

b. CO emissions emitted to the atmosphere from the boiler shall not exceed 1.09 tons per year on a 12 month rolling total.

c. The boiler shall only be fired with pipeline quality natural gas. This condition satisfies compliance with the limitations of 45CSR§2-3.1., 45CSR§2-4.1.b., and 45CSR§10-3.1.e. **[45CSR§2A-3.1.a., 45CSR§10-10.3., and 45CSR§10A-3.1.b.]**

d. The boiler shall not be designed or constructed with a maximum design heat input in excess of 3.0 MMBtu/hr. Compliance with this limit shall be through fuel usage that indicates the total amount of natural gas fuel burned during any 12 consecutive months is less than 26.3 MM cubic feet. Satisfying compliance with this limit demonstrates compliance with the annual emissions limits in items a and b of this condition.

5.1.2. Maximum emissions to the atmosphere from the storage vessels identified as T-1 through T-14 shall not exceed the limits set forth in the following table:

Table 5.1.2. – Emission Limits for Storage Vessels

Emission Point ID#	Name of Storage Vessel	Pollutant	Hourly Emissions (lb/hr)	Annual Emissions (ton/year)
TV-1	Forming Mold Oil Storage Tank	VOC	2	0.2
TV-2	Bulk Resin Storage Tank	Formaldehyde	0.01	0.01
		VOC	0.02	0.09
TV-3	Bulk Resin Storage Tank	Formaldehyde	0.01	0.01
		VOC	0.02	0.09
TV-4	Bulk Resin Storage Tank	Formaldehyde	0.01	0.01
		VOC	0.02	0.09
TV-5	Ethylene Glycol Storage Tank	VOC & VHAP	1	0.1
TV-6	Adhesive Oil Storage Tank	VOC	1	0.1
TV-7	Adhesive Oil Storage Tank	VOC	1	0.1
TV-8	Waste Oil Storage Tank	VOC	1	0.1
TV-9	Binder Mix Tank	Formaldehyde	0.01	0.02
		VOC	0.02	0.09
TV-10	Binder Mix Tank	Formaldehyde	0.01	0.02
		VOC	0.02	0.09
TV-11	Binder Mix Tank	Formaldehyde	0.01	0.02
		VOC	0.02	0.09
TV-12	Binder Mix Tank	Formaldehyde	0.01	0.02
		VOC	0.02	0.09
TV-13	Binder Mix Tank	Formaldehyde	0.01	0.02
		VOC	0.02	0.09
TV-14	Binder Mix Tank	Formaldehyde	0.01	0.02
		VOC	0.02	0.09

5.1.3. Compliance with the formaldehyde (TAP) limits in Condition 5.1.2. is satisfied by limiting the TAP concentration of any of the organic liquids storage in any of the vessels listed in Table 5.1.2. to no greater than 1% by weight and all vessels listed in Table 5.1.2. shall be located in a partial enclosure with a roof.
[45 CSR 27-5.1]

5.1.4. The permittee shall develop and implement a leak detection and repair (LDAR) program of the all the components that are in contact with a TAP (a liquid that contains formaldehyde). Such a program shall meet the following requirements:

a. A leaking component is defined as a measured instrument reading greater than 10,000 ppm above background or by visual inspection.

b. Inspect all affected components on a monthly basis and pump seals on a weekly basis.

c. Detected leaks shall be repaired as soon as practicable with the first attempt at repair within 5 calendar days after detecting the leak. Repair shall be completed no later than 15 calendar days after the leak is detected.
[45 CSR §13-5.1.]

5.1.5. **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.]

5.2. Monitoring Requirements

5.2.1. For the purposes of demonstrating compliance with the requirements of the LDAR program in Condition 5.1.4., the permittee shall conduct the following:

a. Conduct an initial visual, olfactory, and auditory inspection for defects that could result in air emissions within 180 days of issuance of the permit. Defects include, but are not limited to, visible cracks, holes, or gaps in piping; loose connections; liquid leaks; or broken or missing caps or other closure devices.

b. After the initial, subsequent inspections for all components shall be visual, olfactory, and auditory inspections and conducted for defect that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in piping; loose connections; liquid leaks; or broken or missing caps or other closure devices.

c. Detected leaks shall be repaired in accordance timing with the stated in Condition 4.1.1f.iii.

d. Records of such inspections shall be maintained in accordance with 3.4.1.

e. The use of the procedures listed as Alternative Methods to Method 21 (i.e. soapy water) to determine a leak or a leak has been repaired is acceptable or eliminating visual indicators of leaks (eliminating drips).

f. Records of such inspections and any repairs shall be maintained in accordance with Condition 3.4.1.

5.3. Recordkeeping Requirements

5.3.1. To demonstrate compliance with Condition 5.1.3., the permittee shall record the formaldehyde content of the urea formaldehyde resin received by the facility. Such records shall be maintained in accordance with Condition 3.4.1.

APPENDIX A

Date of Observation: _____

Data Entered by: _____

Reviewed by: _____

Date Reviewed: _____

Describe the General Weather Conditions:

Emission Point ID	Emission Point Description	Observation Time	Visible Emissions Yes/No	Consecutive Months of Visual Emissions	Comments

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.

Signature[1] (please use blue ink) _____ Responsible Official or Authorized Representative _____ Date

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

Telephone No. _____ Fax No. _____

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[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.