West Virginia Department of Environmental Protection

Austin Caperton
Cabinet Secretary

Permit to Construct

R14-0037

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.), 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, and 45 C.S.R. 14 - Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution for the Prevention of Significant Deterioration. The permittee identified at the facility listed below is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Issued to:
ROXUL USA, Inc.
RAN Facility
037-00108

William F. Durham
Director, Division of Air Quality

Issued: ***DRAFT***

Facility Location:	Ranson, Jefferson County, West Virginia
Mailing Address:	71 Edmond Road, Suite 6 Kearneysville, WV 25430
Facility Description:	Mineral Wool Manufacturing Facility
SIC/NAICS Code:	3296/327993
UTM Coordinates:	Easting: 252.06 km Northing: 4,362.62 km Zone: 18
Latitude/Longitude:	39.37754, -77.87844
Permit Type:	Major Source Construction
Desc. of Change:	Construction of a new mineral wool manufacturing facility defined as a major stationary source and subject to Prevention of Significant Deterioration (PSD) permitting 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.

As a result of this permit, the source is a major source subject to 45CSR30. The Title V (45CSR30) application will be due within twelve (12) months after the commencement date of any operation authorized by this permit.

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1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity[1]	Control Device[2]
Raw Material Handling					
IMF11	IMF11	Conveyor Transfer Point	2018	1,800 scfm (1,137 Nm^3/hr)	IMF11-FF
B215	B215	Raw Material Loading Hopper	2018	716 ton/day (650 tonne/day)	PE
IMF12	IMF12	Conveyor Transfer Point	2018	1,800 scfm (1,137 Nm^3/hr)	IMF12-FF
IMF14	IMF14	Conveyor Transfer Point	2018	1,800 scfm (1,137 Nm^3/hr)	IMF14-FF
IMF15	IMF15	Conveyor Transfer Point	2018	1,800 scfm (1,137 Nm^3/hr)	IMF15-FF
IMF16	IMF16	Conveyor Transfer Point	2018	1,800 scfm (1,137 Nm^3/hr)	IMF16-FF
IMF21	IMF21	Charging Building Vacuum Cleaning Filter	2018	316 scfm (500 Nm^3/hr)	IMF21-FF
RM_REJ	RM_REJ	Raw Material Reject Bin	2018	TBD	PE
S_REJ	S_REJ	Sieve Reject Bin	2018	TBD	PE
B170	B170	Melting Furnace Portable Crusher & Storage	2018	<150 TPH (<136 tonne/hr)	None
B210	B210	Raw Material Storage - Loading	2018	716 ton/day (650 tonne/day)	PE
IMF25	IMF25	Coal Feed Tank	2018	758 scfm (1,200 Nm^3/hr)	IMF25-FF
RMS	RMS	Raw Material Open Storage & Delivery	2018	5,382 ft^2 (500m^2)	PE
IMF17	IMF17	Charging Building Vent 1	2018	n/a	None
IMF18	IMF18	Charging Building Vent 2	2018	n/a	None
Coal Milling					
IMF03A	IMF03A	Coal Storage Silo A	2018	758 scfm (1,200 Nm^3/hr)	IMF03A-FF
IMF03B	IMF03B	Coal Storage Silo B	2018	758 scfm (1,200 Nm^3/hr)	IMF03B-FF
IMF03C	IMF03C	Coal Storage Silo C	2018	758 scfm (1,200 Nm^3/hr)	IMF03C-FF

1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity[1]	Control Device[2]
IMF04	IMF04	Conveyor Transfer Point	2018	1,800 scfm (1,137 Nm^3/hr)	IMF04-FF
IMF05	IMF05	Coal Milling Burner & Baghouse	2018	2,873 scfm (4,547 Nm^3/hr)	IMF05-BH
IMF06	IMF06	Coal Milling De-Dusting Baghouse	2018	6,317 scfm (10,000 Nm^3/hr)	IMF06-BH
IMF13	IMF13	Conveyor Transfer Point	2018	1,800 scfm (1,137 Nm^3/hr)	IMF13-FF
B235	B235	Coal Milling Building	2018	93 ton/day (84 tonne/day)	None
B230	B230	Coal Unloading	2018	93 ton/day (84 tonne/day)	PE
B231	B231	Coal Unloading Hopper	2018	93 ton/day (84 tonne/day)	PE
Mineral Wool Line					
IMF01	IMF01	Melting Furnace	2018	21,414 scfm (33,900 Nm^3/hr)	IMF01-BH De-NO_x De-SO_x
IMF02	IMF02	Furnace Cooling Tower	2018	1,321 gpm (300 m^3/hr)	Drift Eliminator
IMF07A	IMF07A	Filter Fines Day Silo	2018	1,250 scfm (790 Nm^3/hr)	IMF07A-FF
IMF07B	IMF07B	Secondary Energy Materials Silo	2018	1,250 scfm (790 Nm^3/hr)	IMF07B-FF
IMF08	IMF08	Sorbent Silo	2018	758 scfm (1,200 Nm^3/hr)	IMF08-FF
IMF09	IMF09	Spent Sorbent Silo	2018	758 scfm (1,200 Nm^3/hr)	IMF09-FF
IMF10	IMF10	Filter Fines Receiving Silo	2018	758 scfm (1,200 Nm^3/hr)	IMF10-FF
IMF24	IMF24	Preheat Burner	2018	5.1 mmBtu/hr (1,500 kW)	None
CO	HE01	Curing Oven	2018	18,950 scfm (30,000 Nm^3/hr)	WESP (HE01) CO-AB
CO-HD	HE01	Curing Oven Hoods	2018	25,267 scfm (40,000 Nm^3/hr)	WESP (HE01)

1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity[1]	Control Device[2]
GUT-EX	HE01	Gutter Exhaust	2018	15,792 scfm (25,000 Nm^3/hr)	WESP (HE01)
SPN	HE01	Spinning Chamber	2018	258,986 scfm (410,000 Nm^3/hr)	WESP (HE01)
CS	HE01	Cooling Section	2018	50,534 scfm (80,000 Nm^3/hr)	WESP (HE01)
HE02	HE02	Gutter Cooling Tower	2018	308 gpm (70 m^3/hr)	Drift Eliminator
CM12	CM12	Fleece Application Vent 1	2018	408 lb/hr (185 kg/hr)	None
CM13	CM13	Fleece Application Vent 2	2018		None
CE01	CE01	De-dusting Baghouse	2018	44,217 scfm (70,000 Nm^3/hr)	CE01-BH
CE02	CE02	Vacuum Cleaning Baghouse	2018	12,633 scfm (20,000 Nm^3/hr)	CE02-BH
DI	DI	Dry Ice Cleaning	2018	165.3 lbs/hour (75 kg/hr)	None
P_MARK	P_MARK	Product Marking	2018	0.40 mmBtu/hr (88 kW)	None
Recycling					
CM08	CM08	Recycle Plant Building Vent 3	2018	1,579 scfm (2,500 Nm^3/hr)	CM08-FF
CM09	CM09	Recycle Plant Building Vent 4	2018	1,579 scfm (2,500 Nm^3/hr)	CM09-FF
CM10	CM10	Recycle Plant Building Vent 1	2018	18,950 scfm (30,000 Nm^3/hr)	CM10-FF
CM11	CM11	Recycle Plant Building Vent 2	2018	18,950 scfm (30,000 Nm^3/hr)	CM11-FF
Rockfon Line					
RFNE1	RFNE1	IR Zone	2018	1,895 scfm (3,000 Nm^3/hr)	None
RFNE2	RFNE2	Hot Press	2018	1,895 scfm (3,000 Nm^3/hr)	None
RFNE3	RFNE3	High Oven A	2018	2.73 mmBtu/hr, 5,053 scfm (800 kW, 8,000 Nm^3/hr)	None

1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity[1]	Control Device[2]
RFNE4	RFNE4	Drying Oven 1	2018	2.05 mmBtu/hr, 3.158 scfm (600 kW, 5,000 Nm^3/hr)	RFNE4-FF
RFNE5	RFNE5	Spraying Cabin	2018	6,317 scfm (10,000 Nm^3/hr)	RFNE5-FF
RFNE6	RFNE6	Drying Oven 2 & 3	2018	4.78 mmBtu/hr, 7,580 scfm (1,400 kW, 12,000 Nm^3/hr)	RFNE6-FF
RFNE7	RFNE7	Cooling Zone	2018	15,792 scfm (25,000 Nm^3/hr)	None
RFNE8	RFNE8	Rockfon De-dusting Baghouse	2018	74,419 scfm (117,812 Nm^3/hr)	RFNE8-BH
RFNE9	RFNE9	High Oven B	2018	2.73 mmBtu/hr, 5,053 scfm (800 kW, 8,000 Nm^3/hr)	None
Miscellaneous Emission Units					
CM03	CM03	Natural Gas Boiler 1	2018	5.1 mmBtu/hr (1,500 kW)	None
CM04	CM04	Natural Gas Boiler 2	2018	5.1 mmBtu/hr (1,500 kW)	None
EFP1	EFP1	Emergency Fire Pump Engine	2018	197 hp (147 kw)	None
RFN10	RFN10	Rockfon Building Heater	2018	5.1 mmBtu/hr (1,500 kW)	None
Storage Tanks					
TK-DF	TK-DF	Diesel Fuel Tank	2018	2,642 gallons (10 m^3)	None
TK-UO	TK-UO	Used Oil Tank	2018	581 gallons (2.2 m^3)	None
TK-TO1	TK-TO1	Thermal Oil Expansion Tank - Rockfon	2018	212 gallons (0.8 m^3)	None
TK-TO2	TK-TO2	Thermal Oil Drain Tank - Rockfon	2018	159 gallons (0.6 m^3)	None
TK-TO3	TK-TO3	Thermal Oil Tank - IMF	2018	2,642 gallons (10 m^3)	None

1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity[1]	Control Device[2]
TK-TO4	TK-TO4	Thermal Oil Expansion Tank - IMF	2018	1,321 gallons (5 m^3)	None
TK-DO	TK-DO	De-dust Oil Storage Tank	2018	15,850 gallons (60 m^3)	None
TK-RS1	TK-RS1	Resin Storage Tank	2018	15,850 gallons (60 m^3)	None
TK-RS2	TK-RS2	Resin Storage Tank	2018	15,850 gallons (60 m^3)	None
TK-RS3	TK-RS3	Resin Storage Tank	2018	15,850 gallons (60 m^3)	None
TK-RS4	TK-RS4	Resin Storage Tank	2018	15,850 gallons (60 m^3)	None
TK-RS5	TK-RS5	Resin Storage Tank	2018	15,850 gallons (60 m^3)	None
TK-RS6	TK-RS6	Resin Storage Tank	2018	15,850 gallons (60 m^3)	None
TK-RS7	TK-RS7	Resin Storage Tank	2018	15,850 gallons (60 m^3)	None
TK-CA	TK-CA	Coupling Agent Storage Tank	2018	264 gallons (1 m^3)	None
TK-AD	TK-AD	Additive Storage Tank	2018	53 gallons (0.2 m^3)	None
TK-BM	TK-BM	Binder Mix Tank	2018	2,642 gallons (10m^3)	None
TK-BC	TK-BC	Binder Circulation Tank	2018	4,227 gallons (16 m^3)	None
TK-BD	TK-BD	Binder Day Tank	2018	793 gallons (3 m^3)	None
TK-BS1	TK-BS1	Binder Storage Container	2018	264 gallons (1 m^3)	None
TK-BS2	TK-BS2	Binder Storage Container	2018	264 gallons (1 m^3)	None
TK0-BS3	TK-BS3	Binder Storage Container	2018	264 gallons (1 m^3)	None
TK-DOD	TK-DOD	De-dust Oil Day Tank	2018	264 gallons (1 m^3)	None

1.0 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity[1]	Control Device[2]
TK-PD	TK-PD	Paint Dilution Storage Tank	2018	793 gallons (3 m^3)	None
TK-PDD	TK-PDD	Paint Dilution Day Tank	2018	397 gallons (1.5 m^3)	None

(1) Where air flow rates are listed, it represents the maximum design capacity of the mechanical flow - if applicable - through the listed particulate matter control device or uncontrolled vent .

(2) AB = Afterburner; BH = Baghouse; FF = Fabric Filter; PE = Partial Enclosure; WESP = Wet Electrostatic Precipitator.

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 (45 CSR § 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	**NSPS**	New Source Performance Standards
CBI	Confidential Business Information	**PM**	Particulate Matter
CEM	Continuous Emission Monitor	**$PM_{2.5}$**	Particulate Matter less than 2.5µm in diameter
CES	Certified Emission Statement		
C.F.R. *or* CFR	Code of Federal Regulations	**PM_{10}**	Particulate Matter less than 10µm in diameter
CO	Carbon Monoxide		
C.S.R. *or* CSR	Codes of State Rules	**Ppb**	Pounds per Batch
DAQ	Division of Air Quality	**pph**	Pounds per Hour
DEP	Department of Environmental Protection	**ppm**	Parts per Million
		Ppmv or ppmv	Parts per million by volume
dscm	Dry Standard Cubic Meter		
FOIA	Freedom of Information Act	**PSD**	Prevention of Significant Deterioration
HAP	Hazardous Air Pollutant		
HON	Hazardous Organic NESHAP	**psi**	Pounds per Square Inch
HP	Horsepower	**SIC**	Standard Industrial Classification
lbs/hr	Pounds per Hour		
LDAR	Leak Detection and Repair	**SIP**	State Implementation Plan
M	Thousand	**SO_2**	Sulfur Dioxide
MACT	Maximum Achievable Control Technology	**TAP**	Toxic Air Pollutant
		TPY	Tons per Year
MDHI	Maximum Design Heat Input	**TRS**	Total Reduced Sulfur
MM	Million	**TSP**	Total Suspended Particulate
MMBtu/hr *or* mmbtu/hr	Million British Thermal Units per Hour	**USEPA**	United States Environmental Protection Agency
MMCF/hr *or* mmcf/hr	Million Cubic Feet per Hour	**UTM**	Universal Transverse Mercator
NA	Not Applicable	**VEE**	Visual Emissions Evaluation
NAAQS	National Ambient Air Quality Standards	**VOC**	Volatile Organic Compounds
		VOL	Volatile Organic Liquids
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		
NO_x	Nitrogen Oxides		

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; and*

2.3.2. *45CSR14 – Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution for the Prevention of Significant Deterioration.*

2.4. Term and Renewal

2.4.1. 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 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 Applications R14-0037 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 13-10.3]

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;

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 emission, 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 45 C.S.R. 11.
[45CSR§11-5.2.]

3.2. Monitoring Requirements

3.2.1. **Emission Limit Averaging Time.** Unless otherwise specified, compliance with all annual limits shall be based on a rolling twelve month total. A rolling twelve month total shall be the sum of the measured parameter of the previous twelve calendar months. Unless otherwise specified, compliance with all hourly emission limits shall be based on the applicable NAAQS averaging times or, where applicable, as given in any approved performance test method. However, nothing under 3.2.1. requires that continuous performance testing take place for the entire averaging period time frame (e.g., performance testing to show compliance with a PM_{10} emission limit is not necessarily required for 24 consecutive hours). The required length of time of a performance test will be determined by th appropriate test method and compliance procedures as approved under a protocol submitted pursuant to 3.3.1(c).

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 -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 or by private carrier with postage prepaid to the address(es), or submitted in electronic format by email as set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

Table 3.5.3.: Correspondence Addresses

If to the DAQ:	**If to the US EPA:**
Director WVDEP Division of Air Quality 601 57th Street, SE Charleston, WV 25304-2345 **DAQ Compliance and Enforcement[1]:** **DEPAirQualityReports@wv.gov**	Associate Director Office of Air Enforcement and Compliance Assistance - (3AP20) U. S. Environmental Protection Agency Region III 1650 Arch Street Philadelphia, PA 19103-2029

[1] For all self-monitoring reports (MACT, GACT, NSPS, etc.), stack tests and protocols, notice of Compliance Status Reports, Initial Notifications, etc.

3.5.4. **Operating Fee.**

3.5.4.1. In accordance with 45CSR30 – Operating Permit Program, the permittee shall submit a Certified Emissions Statement (CES) 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.

3.5.4.2. In accordance with 45CSR30 – Operating Permit Program, enclosed with this permit is a Certified Emissions Statement (CES) Invoice, from the date of initial startup through the following June 30. Said invoice and the appropriate fee shall be submitted to this office no later than 30 days prior to the date of initial startup. For any startup date other than July 1, the permittee shall pay a fee or prorated fee in accordance with the Section 4.5 of 45CSR22. A copy of this schedule may be found attached to the Certified Emissions Statement (CES) Invoice.

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. Only those emission units/sources as identified in Table 1.0, with the exception of any *de minimis* sources as identified under Table 45-13B of 45CSR13, are authorized at the permitted facility by this permit. In accordance with the information filed in Permit Application R14-0037, the emission units/sources identified under Table 1.0 of this permit shall be installed, maintained, and operated so as to minimize any fugitive escape of pollutants, shall not exceed the listed maximum design capacities, shall use the specified control devices, and comply with any other information provided under Table 1.0.

4.1.2. **Material Handling Operations**

The handling of raw materials used in the production of mineral wool (including but not limited to igneous rocks, slags, dolomite/limestone, and mineral additives), coal milling material handling operations, recycling operations, and all other operations involved in the handling or processing of friable materials with a potential of producing particulate matter emissions, shall be in accordance with the following requirements:

a. The permittee shall not exceed the specified maximum design capacities of the following operations:

Table 4.1.2(a): Maximum Design Capacities

Parameter	Limit	Units
Raw Materials(1)	716(2) (650)	Ton/Day (Tonne/Day)
Lump Coal/Pet Coke	93(3) (84)	Ton/Day (Tonne/Day)
Portable Melt Crushing	<150 (<136)	TPH (Tonne/Hour)

(1) Rock, Slag, and Minerals
(2) As based on the Charging Building (B220) Conveyer Belt.
(3) As based on the Coal Mill Feed Conveyer Belt.

b. The permittee shall not exceed the specified maximum annual throughputs or hours of operation of the following operations:

Table 4.1.2(b): Maximum Annual Throughputs

Parameter	Limit	Units
Portable Melt Crushing	540	Hours of Operation

c. The permittee shall not exceed the maximum emission limits for the specified emission points given in the following tables:

(1) **British Units**

Table 4.1.2(c)(1): Material Handling Operations Stack Emission Limits in British Units

Emission Point ID	Source Description	Filter Outlet (gr/dscf)[1]	Pollutant[2]	PPH[3]	TPY
IMF03A	Coal Storage Silo A	0.001	$PM_{2.5}$	6.60e-03	0.03
		0.002	PM/PM_{10}	0.013	0.06
IMF03B	Coal Storage Silo B	0.001	$PM_{2.5}$	6.60e-03	0.03
		0.002	PM/PM_{10}	0.013	0.06
IMF03C	Coal Storage Silo C	0.001	$PM_{2.5}$	6.60e-03	0.03
		0.002	PM/PM_{10}	0.013	0.06
IMF04	Conveyer TP (B231 to B235)	0.001	$PM_{2.5}$	0.010	0.04
		0.002	PM/PM_{10}	0.019	0.09
IMF06	Coal Milling Building (B235) De-Dusting Baghouse[4]	0.002	$PM_{2.5}$	0.110	0.48
		0.004	PM/PM_{10}	0.221	0.97
IMF07A	Filter Fines Day Silo	0.001	$PM_{2.5}$	0.007	0.03
		0.002	PM/PM_{10}	0.014	0.06
IMF07B	Secondary Energy Materials Silo	0.001	$PM_{2.5}$	0.007	0.03
		0.002	PM/PM_{10}	0.014	0.06
IMF08	Sorbent Silo	0.001	$PM_{2.5}$	6.60e-03	0.03
		0.002	PM/PM_{10}	0.013	0.06
IMF09	Spent Sorbent Silo	0.001	$PM_{2.5}$	6.60e-03	0.03
		0.002	PM/PM_{10}	0.013	0.06
IMF10	Filter Fines Receiving Silo	0.001	$PM_{2.5}$	6.60e-03	0.03
		0.002	PM/PM_{10}	0.013	0.06
IMF11	Conveyer TP (B215 to B220)	0.001	$PM_{2.5}$	0.010	0.04
		0.002	PM/PM_{10}	0.020	0.09
IMF12	Conveyer TP (B210 to B220)	0.001	$PM_{2.5}$	0.010	0.04
		0.002	PM/PM_{10}	0.020	0.09
IMF13	Bin-Conveyer TP (B231 to Conveyer)	0.001	$PM_{2.5}$	0.010	0.04
		0.002	PM/PM_{10}	0.020	0.09

Emission Point ID	Source Description	Filter Outlet (gr/dscf)[1]	Pollutant[2]	PPH[3]	TPY
IMF14	Conveyer TP (B220 No. 1)	0.001	$PM_{2.5}$	0.010	0.04
		0.002	PM/PM_{10}	0.020	0.09
IMF15	Conveyer TP (B220 No. 2)	0.001	$PM_{2.5}$	0.010	0.04
		0.002	PM/PM_{10}	0.020	0.09
IMF16	Conveyer TP (B220 to B300)	0.001	$PM_{2.5}$	0.010	0.04
		0.002	PM/PM_{10}	0.020	0.09
IMF17	Charging Building Vent 1	n/a[5]	$PM_{2.5}$	0.010	0.04
			PM/PM_{10}	0.019	0.08
IMF18	Charging Building Vent 2	n/a[5]	$PM_{2.5}$	0.010	0.04
			PM/PM_{10}	0.019	0.08
IMF21	Charging Building Vacuum Cleaning	0.001	$PM_{2.5}$	0.003	0.01
		0.002	PM/PM_{10}	0.006	0.02
IMF25	Coal Feed Tank	0.001	$PM_{2.5}$	0.007	0.03
		0.002	PM/PM_{10}	0.013	0.06
B235	Coal Milling Building	n/a[5]	$PM_{2.5}$	0.005	0.02
			PM/PM_{10}	0.010	0.04
CE01	De-Dusting Baghouse	0.0020	$PM_{10}/PM_{2.5}$	0.772	3.38
		0.0041	PM	1.543	6.76
		n/a	Mineral Fiber	0.772	3.38
CE02	Vacuum Cleaning Baghouse	0.0020	$PM_{10}/PM_{2.5}$	0.220	0.97
		0.0041	PM	0.441	1.93
		n/a	Mineral Fiber	0.220	0.97
CM08	Recycle Building Vent 3	0.002	$PM_{2.5}$	0.028	0.12
		0.004	PM/PM_{10}	0.055	0.24
CM09	Recycle Building Vent 4	0.002	$PM_{2.5}$	0.028	0.12
		0.004	PM/PM_{10}	0.055	0.24

Emission Point ID	Source Description	Filter Outlet (gr/dscf)(1)	Pollutant(2)	PPH(3)	TPY
CM10	Recycle Building Vent 1	0.002	$PM_{2.5}$	0.331	1.45
		0.004	PM/PM_{10}	0.661	2.90
CM11	Recycle Building Vent 2	0.002	$PM_{2.5}$	0.331	1.45
		0.004	PM/PM_{10}	0.661	2.90

(1) gr/dscf = grains/dry standard cubic feet. Where applicable, the filter is the **BACT** technology and the outlet loading is PM/PM_{10} **BACT** limit for the specified emission points. Where a limit is not specified, **BACT** is the PPH limit.
(2) Particulate Matter limits are filterable only. With the exception of CE01 and CE02, PM/PM_{10} limits are the same.
(3) Hourly emission limits are based on a 24-hour average.
(4) This baghouse is optional and not required but if installed will be subject to the given emission limits.
(5) This is an uncontrolled building opening.

(2) **Metric Units**

Table 4.1.2(c)(2): Material Handling Operations Stack Emission Limits in Metric Units

Emission Point ID	Source Description	Filter Outlet (mg/Nm^3)(1)	Pollutant(2)	kg/hr(3)	tonne/yr
IMF03A	Coal Storage Silo 1	2.5	$PM_{2.5}$	0.003	0.03
		5	PM/PM_{10}	0.006	0.05
IMF03B	Coal Storage Silo 2	2.5	$PM_{2.5}$	0.003	0.03
		5	PM/PM_{10}	0.006	0.05
IMF03C	Coal Storage Silo 3	2.5	$PM_{2.5}$	0.003	0.03
		5	PM/PM_{10}	0.006	0.05
IMF04	Conveyer TP (B231 to B235)	2.5	$PM_{2.5}$	0.005	0.04
		5	PM/PM_{10}	0.010	0.08
IMF06	Coal Milling Building (B235) De-Dusting Baghouse(4)	5	$PM_{2.5}$	0.050	0.44
		10	PM/PM_{10}	0.100	0.88
IMF07A	Filter Fines Day Silo	2.5	$PM_{2.5}$	0.003	0.03
		5	PM/PM_{10}	0.006	0.05
IMF07B	Secondary Energy Materials Silo	2.5	$PM_{2.5}$	0.003	0.03
		5	PM/PM_{10}	0.006	0.05

Emission Point ID	Source Description	Filter Outlet (mg/Nm^3)[1]	Pollutant[2]	kg/hr[3]	tonne/yr
IMF08	Sorbent Silo	2.5	$PM_{2.5}$	0.003	0.03
		5	PM/PM_{10}	0.006	0.05
IMF09	Spent Sorbent Silo	2.5	$PM_{2.5}$	0.003	0.03
		5	PM/PM_{10}	0.006	0.05
IMF10	Filter Fines Receiving Silo	2.5	$PM_{2.5}$	0.003	0.03
		5	PM/PM_{10}	0.006	0.05
IMF11	Conveyer TP (B215 to B220)	2.5	$PM_{2.5}$	0.005	0.04
		5	PM/PM_{10}	0.010	0.08
IMF12	Conveyer TP (B210 to B220)	2.5	$PM_{2.5}$	0.005	0.04
		5	PM/PM_{10}	0.010	0.08
IMF13	Bin-Conveyer TP (B231 to Conveyer)	2.5	$PM_{2.5}$	0.005	0.04
		5	PM/PM_{10}	0.010	0.08
IMF14	Conveyer TP (B220 No. 1)	2.5	$PM_{2.5}$	0.005	0.04
		5	PM/PM_{10}	0.010	0.08
IMF15	Conveyer TP (B220 No. 2)	2.5	$PM_{2.5}$	0.005	0.04
		5	PM/PM_{10}	0.010	0.08
IMF16	Conveyer TP (B220 to B300)	2.5	$PM_{2.5}$	0.005	0.04
		5	PM/PM_{10}	0.010	0.08
IMF17	Charging Building Vent 1	n/a[5]	$PM_{2.5}$	0.004	0.04
			PM/PM_{10}	0.010	0.08
IMF18	Charging Building Vent 2	n/a[5]	$PM_{2.5}$	0.004	0.04
			PM/PM_{10}	0.010	0.08
IMF21	Charging Building Vacuum Cleaning	2.5	$PM_{2.5}$	0.001	0.01
		5	PM/PM_{10}	0.003	0.02
IMF25	Coal Feed Tank	2.5	$PM_{2.5}$	0.003	0.03
		5	PM/PM_{10}	0.006	0.05
B235	Coal Milling Building	n/a[5]	$PM_{2.5}$	0.005	0.02
			PM/PM_{10}	0.009	0.04

Emission Point ID	Source Description	Filter Outlet (mg/Nm^3)(1)	Pollutant(2)	kg/hr(3)	tonne/yr
CE01	De-Dusting Baghouse	5	$PM_{10}/PM_{2.5}$	0.350	3.07
		10	PM	0.700	6.13
		n/a	Mineral Fiber	0.350	3.07
CE02	Vacuum Cleaning Baghouse	5	$PM_{10}/PM_{2.5}$	0.100	0.88
		10	PM	0.200	1.75
		n/a	Mineral Fiber	0.100	0.88
CM08	Recycle Building Vent 3	5	$PM_{2.5}$	0.013	0.11
		10	PM/PM_{10}	0.030	0.22
CM09	Recycle Building Vent 4	5	$PM_{2.5}$	0.013	0.11
		10	PM/PM_{10}	0.030	0.22
CM10	Recycle Building Vent 1	5	$PM_{2.5}$	0.150	1.31
		10	PM/PM_{10}	0.300	2.63
CM11	Recycle Building Vent 2	5	$PM_{2.5}$	0.150	1.31
		10	PM/PM_{10}	0.300	2.63

(1) mg/Nm^3 = milligrams/cubic meter. Where applicable, the filter is the **BACT** technology and the outlet loading is PM/PM_{10} **BACT** limit for the specified emission points. Where a limit is not specified, **BACT** is the kg/hr limit.
(2) Particulate Matter limits are filterable only. With the exception of CE01 and CE02, PM/PM_{10} limits are the same.
(3) Hourly emission limits are based on a 24-hour average.
(4) This baghouse is optional and not required but if installed will be subject to the given emission limits.
(5) This is an uncontrolled building opening.

d. The permittee shall not exceed the maximum emission limits and shall utilize the control methods for the specified fugitive emission sources given in the following tables:

(1) **British Units**

Table 4.1.2(d)(1): Material Handling Operations Fugitive Emission Limits in British Units

Emission Unit ID	Source Description	Control Technology	Pollutant(1)	PPH(2)	TPY
B215	Drop into Raw Material Loading Hopper	3-sided enclosure w/cover	$PM_{2.5}$	9.20e-04	4.03e-03
			PM_{10}	6.85e-03	3.00e-02
			PM	1.37e-02	6.00e-02

Emission Unit ID	Source Description	Control Technology	Pollutant[1]	PPH[2]	TPY
RMS	Drop onto Raw Material Stockpile	3-sided enclosure	$PM_{2.5}$	2.47e-04	1.08e-03
			PM_{10}	1.63e-03	7.14e-03
			PM	4.57e-03	2.00e-02
	Stockpile Erosion		$PM_{2.5}$	1.55e-03	1.00e-02
			PM_{10}	1.00e-02	4.25e-02
			PM	2.07e-02	9.05e-02
RM_REJ	Drop into Raw Material Reject Collection Bin	4-sided rubber drop guard	$PM_{2.5}$	1.84e-05	8.05e-05
			PM_{10}	1.21e-04	5.32e-04
			PM	2.57e-04	1.12e-03
S_REJ	Drop into Sieve Reject Collection Bin	4-sided rubber drop guard	$PM_{2.5}$	1.84e-05	8.05e-05
			PM_{10}	1.21e-04	5.32e-04
			PM	2.57e-04	1.12e-03
B170	Drop from Portable Crusher into Pit Waste Storage Pile	3-sided enclosure	$PM_{2.5}$	1.18e-02	3.18e-03
			PM_{10}	7.41e-02	2.10e-02
			PM	1.48e-01	4.00e-02
	Stockpile Erosion		$PM_{2.5}$	1.00e-02	2.44e-02
			PM_{10}	3.50e-02	1.53e-01
			PM	7.44e-02	3.30e-01
B210	Drop into B210	3-sided enclosure w/cover	$PM_{2.5}$	1.49e-02	4.03e-03
			PM_{10}	1.11e-01	3.00e-02
			PM	2.22e-01	6.00e-02
	Truck or FEL Drop into B210	None	$PM_{2.5}$	7.41e-02	2.00e-02
			PM_{10}	4.07e-01	1.10e-01
			PM	8.15e-01	2.25e-01
B230	Truck Dump to Coal Bunker	3-sided enclosure w/cover	$PM_{2.5}$	2.03e-04	5.49e-05
			PM_{10}	1.34e-03	3.63e-04
			PM	2.84e-03	7.67e-04

Emission Unit ID	Source Description	Control Technology	Pollutant[1]	PPH[2]	TPY
B231	Drop into Coal Unloading Hopper	3-sided enclosure w/cover	$PM_{2.5}$	2.03e-04	5.49e-05
			PM_{10}	1.34e-03	3.63e-04
			PM	2.84e-03	7.67e-04

(1) Particulate Matter limits are filterable only.
(2) Hourly emission limits are based on a 24-hour average and are the **BACT** limits for the listed fugitive emission sources.

(2) **Metric Units**

Table 4.1.2(d)(2): Material Handling Operations Fugitive Emission Limits in Metric Units

Emission Unit ID	Source Description	Control Technology	Pollutant[1]	kg/hr[2]	tonne/yr
B215	Drop into Raw Material Loading Hopper	3-sided enclosure w/cover	$PM_{2.5}$	1.67e-03	3.65e-03
			PM_{10}	1.10e-02	2.41e-02
			PM	5.82e-03	5.10e-02
RMS	Drop onto Raw Material Stockpile	3-sided enclosure	$PM_{2.5}$	1.12e-04	9.81e-04
			PM_{10}	7.40e-04	6.48e-03
			PM	1.56e-03	1.37e-02
	Stockpile Erosion		$PM_{2.5}$	7.03e-04	1.00e-02
			PM_{10}	4.40e-03	4.00e-02
			PM	1.00e-02	8.21e-02
RM_REJ	Drop into Raw Material Reject Collection Bin	4-sided rubber drop guard	$PM_{2.5}$	8.57e-06	7.51e-05
			PM_{10}	5.51e-05	4.83e-04
			PM	1.16e-04	1.02e-03
S_REJ	Drop into Sieve Reject Collection Bin	4-sided rubber drop guard	$PM_{2.5}$	8.34e-06	7.31e-05
			PM_{10}	5.51e-05	4.83e-04
			PM	1.16e-04	1.02e-03
B170	Drop from Portable Crusher into Pit Waste Storage Pile	3-sided enclosure	$PM_{2.5}$	3.29e-04	2.88e-03
			PM_{10}	2.28e-03	2.00e-02
			PM	4.60e-03	4.03e-02
	Stockpile Erosion		$PM_{2.5}$	2.53e-03	2.22e-02
			PM_{10}	2.00e-02	1.40e-01
			PM	3.07e-02	3.00e-01

Emission Unit ID	Source Description	Control Technology	Pollutant[1]	kg/hr[2]	tonne/yr
B210	Drop into B210	3-sided enclosure w/cover	$PM_{2.5}$	4.17e-04	3.65e-03
			PM_{10}	2.75e-03	2.41e-02
			PM	5.82e-03	5.10e-02
	Truck or FEL Drop into B210	None	$PM_{2.5}$	1.67e-03	1.46e-02
			PM_{10}	1.14e-02	1.00e-01
			PM	2.33e-02	2.04e-01
B230	Truck Dump to Coal Bunker	3-sided roofed enclosure w/ closeable bay door	$PM_{2.5}$	5.68e-06	4.98e-05
			PM_{10}	3.76e-05	3.29e-04
			PM	7.95e-05	6.96e-04
B231	Drop into Covered Coal Unloading Hopper	3-sided enclosure w/cover	$PM_{2.5}$	5.68e-06	4.98e-05
			PM_{10}	3.76e-05	3.29e-04
			PM	7.95e-05	6.96e-04

(1) Particulate Matter limits are filterable only.
(2) Hourly emission limits are based on a 24-hour average and are the **BACT** limits for the listed fugitive emission sources.

e. **Melting Furnace Portable Crusher**
Emissions from the Melting Furnace Portable Crusher (not including associated storage pile or pit waste drop) shall not exceed the limits given in the following table:

Table 4.1.2(e): Melting Furnace Portable Crusher Emission Limits

Pollutant[1]	PPH[2] (kg/hr)	TPY (tonne/yr)
$PM_{2.5}$	0.12 (0.05)	0.03 (0.03)
PM_{10}	0.36 (0.16)	0.10 (0.09
PM	0.81 (0.37)	0.22 (0.20)

(1) Particulate Matter limits are filterable only.
(2) Hourly emission limits are the **BACT** limits.

f. In addition to the particulate matter controls as required in the Emission Units Table 1.0, the raw material mixer and crusher located in the Charging Building (B220) and the coal conveyer transfer point located inside the Coal Milling Building (B235) shall be equipped with fabric filters to control particulate matter emissions from these sources. The maximum outlet grain loading concentration for each of these fabric filters shall not exceed 0.002 gr/dscf (5 mg/Nm^3)) of filterable PM/PM_{10} and 0.001 gr/dscf (2.5 mg/Nm^3) filterable $PM_{2.5}$;

g. **Outdoor Material Storage Areas**
All outdoor raw material, coal, pit waste, or recycled material storage shall be in accordance with the following:

(1) The permittee is authorized to operate one (1) raw material stockpile (RMS) that shall not exceed a base of 5,382 ft^2 (500 m^2) and shall utilize 3-sided enclosures to minimize the potential fugitive emissions of particulate matter from wind erosion and pile activity;

(2) The permittee is authorized to operate Building 210 and 211 for raw material storage. These buildings shall utilize 3-sided enclosures and a roof to minimize the potential fugitive emissions of particulate matter from wind erosion and pile activity;

(3) The permittee is authorized to operate one (1) coal bunker (B230) that shall utilize a 3-sided enclosure, a roof, and a closeable bay door (or equivalent design) to minimize the potential fugitive emissions of particulate matter from wind erosion and pile activity;

(4) The permittee is authorized to operate one (1) recycled material stockpile. The material in this storage area is limited to the slag-like material tapped from the Melting Furnace that is of such a physical nature so as to limit any significant generation of fugitive matter from wind erosion and pile activity;

(5) The permittee is authorized to operate one (1) pit waste (crushed recycled material) storage area (B170) that shall not exceed a base of 19,375 ft^2 (1,800 m^2) and shall utilize a 3-sided enclosure to minimize the potential fugitive emissions of particulate matter from wind erosion and pile activity;

(6) For all storage piles, the permittee shall manage on-pile activity so as to minimize the release of emissions; and

(7) All storage area enclosures shall be reasonably maintained and any significant holes shall be repaired immediately.

h. **Haulroads and Mobile Work Areas**
Fugitive particulate emissions resulting from use of haulroads and mobile work areas shall be minimized by the following:

(1) The permittee shall pave, and maintain such pavement, on all haulroads and mobile work areas (including a reasonable shoulder area) within the plant boundary;

(2) The permittee shall maintain access to a vacuum sweeper truck in good operating condition, and shall utilize same as needed to remove excess dirt and dust from all haulroads and mobile work areas. The haulroads and mobile work areas shall be flushed with water immediately prior to each vacuum sweeping (flushing may be part of vacuum sweeper truck); and

(3) The permittee shall collect, in a timely fashion, material spilled on haulroads that could become airborne if it dried or were subject to vehicle traffic.

i. **45CSR7**
The handling of raw materials used in the production of mineral wool and coal milling material handling operations shall comply with all applicable requirements of 45CSR7 including, but not limited to, the following:

(1) 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, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.
[45CSR§7-3.1]

(2) The provisions of subsection 3.1 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.
[45CSR§7-3.2]

(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 of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of this rule.
[45CSR§7-4.1]

(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]

j. **40 CFR 60, Subpart OOO**
The non-metallic mineral handling operations (see Table 4-1 of Permit Application R14-0037 for a complete list of affected sources) prior to the furnace building (B300) are subject to the applicable limitations and standards under 40 CFR 60, Subpart OOO including, but not limited to, the following:

(1) Affected facilities must meet the stack emission limits and compliance requirements in Table 2 of Subpart OOO within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.8. The requirements in Table 2 of Subpart OOO apply for affected facilities with capture systems used to capture and transport particulate matter to a control device.
[40 CFR §60.672(a)]

(2) Affected facilities must meet the fugitive emission limits and compliance requirements in Table 3 of Subpart OOO within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11. The requirements in Table 3 of Subpart OOO apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems.
[40 CFR §60.672(b)]

(3) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.
[40 CFR §60.672(d)]

(4) If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in 40 CFR §60.672(a) and (b), or the building enclosing the affected facility or facilities must comply with the following emission limits:

(1) Fugitive emissions from the building openings (except for vents as defined in §60.671) must not exceed 7 percent opacity; and

(2) Vents (as defined in §60.671) in the building must meet the applicable stack emission limits and compliance requirements in Table 2 of Subpart OOO.
[40 CFR §60.672(e)]

(5) Any baghouse that controls emissions from only an individual, enclosed storage bin is exempt from the applicable stack PM concentration limit (and associated performance testing) in Table 2 of Subpart OOO but must meet the applicable stack opacity limit and compliance requirements in Table 2 of Subpart OOO. This exemption from the stack PM concentration limit does not apply for multiple storage bins with combined stack emissions.
[40 CFR §60.672(f)]

4.1.3. Coal Mill Burner and Fluidized Bed Dryer

The Coal Mill Burner and Fluidized Bed Dryer, identified as IMF05, shall meet the following requirements:

a. The Coal Mill Burner shall not exceed an MDHI of 6.00 mmBtu/hr (1,757 kW) shall only be fired by pipeline-quality natural gas (PNG);

b. The Fluidized Bed Dryer shall have a design capacity not to exceed 200 tons per day;

c. The combined exhaust from the Coal Mill Burner and Fluidized Bed Dryer shall be vented to first a separator and then to a baghouse (IMF05-BH) for control of filterable particulate matter;

d. The combined exhaust of the Coal Mill Burner and Fluidized Bed Dryer shall not exceed the emission limits, and shall utilize the specified BACT Technology, as given in the following table:

Table 4.1.3(d): Coal Mill Burner and Fluidized Bed Dryer Emission Limits

Pollutant	BACT Limit	BACT Technology	PPH (kg/hr)	TPY (tonne/yr)
CO	n/a	n/a	0.49 (0.22)	2.15 (1.95)
NO_x	60 ppmvd @ 3% O_2	LNB, Temperature Control(1)	0.42 (0.19)	1.86 (1.68)
$PM_{2.5(2)}$	PPH	Baghouse	0.26 (0.12)	1.06 (0.96)
$PM_{10(2)}$			0.32 (0.14)	1.33 (1.20)

Pollutant	BACT Limit	BACT Technology	PPH (kg/hr)	TPY (tonne/yr)
PM[3]	0.005 gr/dscf (12.3 mg/Nm^3)	Baghouse	0.12 (0.06)	0.54 (0.49)
SO_2	PPH	Use of Natural Gas	3.51e-03 (1.59e-03)	0.02 (0.01)
VOCs		Good Combustion Practices[4]	0.41 (0.19)	1.65 (1.50)
CO_2e	TPY	Use of Natural Gas, Good Combustion Practices[4]	--	3,080[5] (2,793)

(1) Drying in the Fluidized Bed Dryer shall take place at a temperature of less than 180 degrees Fahrenheit so as to prevent any combustion of the coal.
(2) Includes condensables.
(3) Filterable only.
(4) Good Combustion Practices shall mean activities such as maintaining operating logs and record-keeping, conducting training, ensuring maintenance knowledge, performing routine and preventive maintenance, conducting burner and control adjustments, monitoring fuel quality, etc.
(5) As based on emission factors from 40 CFR 98, Table A-1.

e. **45CSR7**

The Coal Mill Burner and Fluidized Bed Dryer shall comply with all applicable requirements of 45CSR7 including, but not limited to, the following:

(1) 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, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.
[45CSR§7-3.1]

(2) The provisions of subsection 3.1 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.
[45CSR§7-3.2]

(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 of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of this rule.
[45CSR§7-4.1]

4.1.4. Melting Furnace

The Melting Furnace, identified as IMF01, shall meet the following requirements:

a. The Melting Furnace shall not exceed the emission limits, and shall utilize the specified **BACT** Technology, as given in the following table:

Table 4.1.4(a): Melting Furnace Emission Limits

Pollutant	BACT Limit	BACT Technology	PPH (kg/hr)	TPY (tonne/ yr)
CO	n/a	n/a	11.21[(1)] (5.09)	49.10 (44.54)
NO_x	PPH	Integrated SNCR, Oxy-Fired Burners[(2)]	37.37[(1)] (16.95)	163.67 (148.48)
$PM_{2.5(3)}$		Baghouse	7.47 (3.39)	32.73 (29.70)
$PM_{10(3)}$			8.22 (3.73)	36.01 (32.67)
PM[(4)]	0.013 gr/dscf 31 mg/Nm^3		2.32 (1.05)	10.15 (9.21)
SO_2	PPH	Sorbent Injection in the Baghouse	33.63[(1)] (15.26)	147.31 (133.63)
VOCs		Good Combustion Practices[(5)]	11.66 (5.29)	51.08 (46.34)
H_2SO_4		Sorbent Injection in the Baghouse	3.74 (1.70)	16.37 (14.85)
Mineral Fiber	n/a	n/a	2.32 (1.05)	10.15 (9.21)
HF			0.37 (0.17)	1.62 (1.47)
HCl			0.29 (0.13)	1.29 (1.17)
COS			0.37 (0.17)	1.64 (1.48)
Total HAPs			3.43 (1.56)	15.04 (13.64)
CO_2e	TPY	Energy Efficiency[(6)]	--	95,547 (86,679)

(1) Compliance based on a 30-day rolling average.
(2) Integrated SNCR system utilizes ammonia injection to promote a de-NOx reaction to occur. The oxy-fuel burners are specially designed to fire with O_2 instead of ambient air.
(3) Includes condensables.
(4) Filterable only.
(5) Good combustion practices include, but are not limited to the following: (1) maintaining a proper oxidizing atmosphere to control VOC emissions through proper combustion tuning, temperature, and air/fuel mixing and (2) activities such as maintaining operating logs and record-keeping, conducting training, ensuring maintenance knowledge, performing routine and preventive maintenance, conducting burner and control adjustments, monitoring fuel quality, etc.
(6) Energy Efficiency measures listed in Table D-9-2 (pp. 554) of the permit application.

b. **45CSR7**
The Melting Furnace shall comply with all applicable requirements of 45CSR7 including, but not limited to, the following:

(1) 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, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.
[45CSR§7-3.1]

(2) The provisions of subsection 3.1 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.
[45CSR§7-3.2]

(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 of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of this rule.
[45CSR§7-4.1]

(4) Mineral acids shall not be released 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 of the quantity given in Table 45-7B found at the end of this rule.
[45CSR§7-4.2]

c. **45CSR10**
The Melting Furnace shall comply with all applicable requirements of 45CSR10 including, but not limited to, the following:

(1) No person shall cause, suffer, allow or permit the emission into the open air from any source operation an in-stack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in subdivisions 4.1.a through 4.1.e.
[45CSR§10-3.1]

d. **40 CFR 63, Subpart DDD**
The Melting Furnace shall comply with all applicable requirements of 40 CFR 63, Subpart DDD including, but not limited to, the following:

(1) **§63.1178 For cupolas, what standards must I meet?**

(i) You must control emissions from each cupola as specified in Table 2 to this subpart.
[40 CFR§63.1178(a)]

Table 2 to Subpart DDD of Part 63—Emissions Limits and Compliance Dates

If your source is a:	And you commenced construction:	Your emission limits are:[1]	And you must comply by:[2]
2. Cupola	After May 8, 1997	0.10 lb PM per ton of melt	June 1, 1999
8. Open-top cupola	After November 25, 2011	3.2 lb of COS per ton melt	July 29, 2015[4]
10. Cupola using slag as a raw material	After November 25, 2011	0.015 lb of HF per ton melt 0.012 lb of HCl per ton melt.	July 29, 2015[4]

(1) The numeric emissions limits do not apply during startup and shutdown.
(2) Existing sources must demonstrate compliance by the compliance dates specified in this table. New sources have 180 days after the applicable compliance date to demonstrate compliance.
(4) Or upon initial startup, whichever is later.

(ii) You must meet the following operating limits for each cupola:
[40 CFR§63.1178(b)]

(A) Begin within one hour after the alarm on a bag leak detection system sounds, and complete in a timely manner, corrective actions as specified in your operations, maintenance, and monitoring plan required by §63.1187 of this subpart.
[40 CFR§63.1178(b)(1)]

(B) When the alarm on a bag leak detection system sounds for more than five percent of the total operating time in a six-month reporting period, develop and implement a written quality improvement plan (QIP) consistent with the compliance assurance monitoring requirements of §64.8(b)-(d) of 40 CFR part 64.
[40 CFR§63.1178(b)(2)]

(C) Additionally, on or after the applicable compliance date for each new or reconstructed cupola, you must either:
[40 CFR§63.1178(b)(3)]

(I) Maintain the operating temperature of the incinerator so that the average operating temperature for each three-hour block period never falls below the average temperature established during the performance test, or
[40 CFR§63.1178(b)(3)(I)]

(II) Maintain the percent excess oxygen in the cupola at or above the level established during the performance test. You must determine the percent excess oxygen using the following equation:
[40 CFR§63.1178(b)(3)(II)]

Percent excess oxygen = ((Oxygen available/Fuel demand for oxygen) - 1) * 100

Where:

Percent excess oxygen = Percentage of excess oxygen present above the stoichiometric balance of 1.00, (%).

1.00 = Ratio of oxygen in a cupola combustion chamber divided by the stoichiometric quantity of oxygen required to obtain complete combustion of fuel.

Oxygen available = Quantity of oxygen introduced into the cupola combustion zone.
Fuel demand for oxygen = Required quantity of oxygen for stoichiometric combustion of the quantity of fuel present.

4.1.5. Gutter Exhaust, Spinning Chamber, Curing Oven Hoods, Curing Oven, and Cooling Section

The Gutter Exhaust (GUT-EX), Spinning Chamber (SPN), Curing Oven Hoods (CO-HD), Curing Oven (CO), and Cooling Section (CS) shall meet the following requirements:

a. The Gutter Exhaust, Spinning Chamber, Curing Oven Hoods, Curing Oven, and Cooling Section shall not exceed the aggregate emission limits (as emitted from the Wet Electrostatic Precipitator (WESP) stack (HE01)), and each shall utilize the specified BACT Technology as given in the following table:

Table 4.1.5(a): Gutter Exhaust, Spinning Chamber, Curing Oven Hoods, Curing Oven, and Cooling Section Emission Limits

Pollutant	BACT Limit	BACT Technology	PPH (kg/hr)	TPY (tonne/yr)
CO	n/a	n/a	1.82 (0.82)	7.97 (7.23)
NO_x	PPH	LNB, Good Combustion Practices[1]	14.55 (6.60)	63.73 (57.82)
$PM_{2.5(2)}$		WESP	19.22 (8.72)	84.20 (76.39)
$PM_{10(2)}$			21.21 (9.62)	92.89 (84.27)
PM[3]			21.21 (9.62)	92.89 (84.27)
SO_2		Use of Natural Gas	0.01 (4.89e-03)	0.05 (0.04)
VOCs		Afterburner Good Combustion Practices Subpart DDD Compliance[4]	78.02 (35.39)	341.71 (309.99)
Phenol	n/a	n/a[5]	19.37 (8.79)	84.84 (76.98)
Formaldehyde			12.79 (5.80)	56.02 (50.81)
Methanol			23.70 (10.75)	103.80 (94.17)
Mineral Fiber			21.21 (9.62)	92.89 (84.27)
Total HAPs			77.07 (34.96)	337.56 (306.23)

Pollutant	BACT Limit	BACT Technology	PPH (kg/hr)	TPY (tonne/yr)
CO_2e	TPY	Use of Natural Gas, Good Combustion Practices(1)	--	35,644 (32,336)

(1) Good combustion practices include, but are not limited to the following: Proper combustion tuning, temperature, and air/fuel mixing and activities such as maintaining operating logs and record-keeping, conducting training, ensuring maintenance knowledge, performing routine and preventive maintenance, conducting burner and control adjustments, monitoring fuel quality, etc.
(2) Includes condensables.
(3) Filterable only.
(4) BACT Technology: Gutter Exhaust - Subpart DDD Compliance, Curing Oven - Afterburner/Good Combustion Practices, Spinning Chamber - Subpart DDD Compliance, Curing Oven Hoods - Subpart DDD Compliance.
(5) While the Afterburner is required as a control on Phenol, Formaldehyde, and Methanol, as these pollutants are not subject to PSD, the Afterburner is not listed here as it is not a BACT technology for these pollutants.

b. **45CSR7**

The Gutter Exhaust, Curing Oven Hoods, Curing Oven, and Spinning Chamber shall comply with all applicable requirements of 45CSR7 including, but not limited to, the following:

(1) 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, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.
[45CSR§7-3.1]

(2) The provisions of subsection 3.1 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.
[45CSR§7-3.2]

(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 of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of this rule.
[45CSR§7-4.1]

(4) Mineral acids shall not be released 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 of the quantity given in Table 45-7B found at the end of this rule.
[45CSR§7-4.2]

c. **40 CFR 63, Subpart DDD**

The Gutter Exhaust, Curing Oven Hoods, Curing Oven, and Spinning Chamber shall comply with all applicable requirements of 40 CFR 63, Subpart DDD including, but not limited to, the following:

(1) **§63.1179 For curing ovens or combined collection/curing operations, what standards must I meet?**

(i) You must control emissions from each curing oven or combined collection/curing operations as specified in Table 2 to this subpart.
[43 CFR§60.1179(a)]

Table 2 to Subpart DDD of Part 63—Emissions Limits and Compliance Dates

If your source is a:	And you commenced construction:	Your emission limits are:[1]	And you must comply by:[2]
24. Combined vertical collection/curing operation	After November 25, 2011	2.4 lb of formaldehyde per ton melt 0.92 lb of methanol per ton melt. 0.71 lb of phenol per ton melt.	July 29, 2015[4]

(1) The numeric emissions limits do not apply during startup and shutdown.
(2) Existing sources must demonstrate compliance by the compliance dates specified in this table. New sources have 180 days after the applicable compliance date to demonstrate compliance.
(4) Or upon initial startup, whichever is later.

4.1.6. Fleece Application

The Fleece Application operations shall meet the following requirements:

a. The maximum emissions of VOCs and HAPs from the Fleece Application operations each shall not exceed of 7.14 tons per month (6.48 tonnes/month) and a **BACT** limit (BACT limit is VOCs only) of 28.58 TPY (23.21 tonnes/year);

b. The BACT Technology for the Fleece Application operations is the use of low-VOC coatings and the utilization of Good Work Practices. "Low-VOC coatings" shall mean the monthly average of all coating materials used during fleece application operations shall not exceed 0.016 lb-VOC/lb-coating (0.016 kg-VOC/kg-coating) material as-applied on a monthly average basis. "Good Work Practices" shall mean storing VOC-containing materials in closed tanks or containers, cleaning up spills, and minimizing cleaning with VOC-containing cleaners; and

c. **40 CFR 63, Subpart JJJJ**
The fleece application operations shall comply with all applicable requirements of 40 CFR 63, Subpart JJJJ including, but not limited to, the following:

What emission standards must I meet?

(1) If you own or operate any affected source that is subject to the requirements of this subpart, you must comply with these requirements on and after the compliance dates as specified in §63.3330.
[40 CFR§63.3320(a)]

(2) You must limit organic HAP emissions to the level specified in paragraph (b)(1), (2), (3), or (4) of this section.
[40 CFR§63.3320(b)]

(i) No more than 5 percent of the organic HAP applied for each month (95 percent reduction) at existing affected sources, and no more than 2 percent of the organic HAP applied for each month (98 percent reduction) at new affected sources; or
[40 CFR§63.3320(b)(1)]

(ii) No more than 4 percent of the mass of coating materials applied for each month at existing affected sources, and no more than 1.6 percent of the mass of coating materials applied for each month at new affected sources; or
[40 CFR§63.3320(b)(2)]

(iii) No more than 20 percent of the mass of coating solids applied for each month at existing affected sources, and no more than 8 percent of the coating solids applied for each month at new affected sources.
[40 CFR§63.3320(b)(3)]

(iv) If you use an oxidizer to control organic HAP emissions, operate the oxidizer such that an outlet organic HAP concentration of no greater than 20 parts per million by volume (ppmv) by compound on a dry basis is achieved and the efficiency of the capture system is 100 percent.
[40 CFR§63.3320(b)(4)]

(3) You must demonstrate compliance with this subpart by following the procedures in §63.3370.
[40 CFR§63.3320(c)]

4.1.7. Rockfon Line

The Rockfon Line shall meet the following requirements:

a. The maximum aggregate VOC emissions from the application of glue and coatings in the Rockfon line shall not exceed 8.98 tons/month (8.15 tonne/month) and a **BACT** limit of 35.93 TPY (32.60 tonne/yr);

b. The **BACT** Technology for the application of glue and coatings in the Rockfon Line is the use of low-VOC materials and the utilization of Good Work Practices. "Low-VOC materials" shall mean the use of glue is limited to containing (**BACT** Limit) of a maximum VOC content of 0.57 lb-VOC/gallon-glue (70 g-VOC/L-material) and the use of coatings are limited to containing (**BACT** Limit) a maximum VOC content of 0.67 lb-VOC/gallon-material (80 g-VOC/L-material). No HAP-containing glues or coatings shall be used in the Rockfon Line. "Good Work Practices" shall mean storing VOC-containing materials in closed tanks or containers, cleaning up spills, and minimizing cleaning with VOC-containing cleaners;

c. The ovens used in the Rockfon line shall only combust PNG and each not exceed the aggregate MDHI (of all burners) specified in the following table:

Table 4.1.7(c): Rockfon Line Ovens Maximum MDHI

Oven ID	MDHI
RFN-E3	2.73 mmBtu/hr (800 kW)
RFN-E4	2.05 mmBtu/hr (600 kW)
RFN-E6	4.78 mmBtu/hr (1,400 kW)
RFN-E9	2.73 mmBtu/hr (800 kW)

d. The Rockfon Line shall not exceed the emission limits (not including VOCs resulting from the use of glue and coatings as limited under 4.1.7(a)), and each shall utilize the specified **BACT** Technology as given in the following tables:

(1) **British Units**

Table 4.1.7(d)(1): Rockfon Line Emission Limits in British Units

Pollutant	BACT Limit	BACT Technology	PPH	TPY
RFN-E1: IR Zone				
$PM_{2.5(1)}$	PPH	Low-Particulate Emitting Process	0.01	0.06
$PM_{10(1)}$			0.02	0.08
$PM^{(2)}$			0.01	0.04
Phenol	n/a	n/a	0.01	0.03
Formaldehyde			0.01	0.03
Mineral Fiber			0.01	0.04
Total HAPs			0.02	0.10
RFN-E2: Hot Press				
$PM_{2.5(1)}$	PPH	Low-Particulate Emitting Process	0.01	0.06
$PM_{10(1)}$			0.02	0.08
$PM^{(2)}$			0.01	0.04
Phenol	n/a	n/a	0.01	0.03
Formaldehyde			0.01	0.03
Mineral Fiber			0.01	0.04
Total HAPs			0.02	0.10
RFN-E3: High Oven A				
CO	n/a	n/a	0.22	0.98
NO_x	0.10 lb/mmBtu	Good Combustion Practices(3)	0.27	1.17
$PM_{2.5(1)}$	PPH	Use of Natural Gas, Good Combustion Practices(3)	0.09	0.38
$PM_{10(1)}$			0.12	0.51
$PM^{(2)}$			0.06	0.25
SO_2	PPH	Use of Natural Gas	0.01	0.01
VOCs		Good Combustion Practices(3)	0.01	0.06

Pollutant	BACT Limit	BACT Technology	PPH	TPY
Phenol	n/a	n/a	0.02	0.08
Formaldehyde			0.02	0.08
Mineral Fiber			0.06	0.25
Total HAPs			0.10	0.43
CO_2e	TPY	Use of Natural Gas, Good Combustion Practices(3)	--	1,400
RFN-E4: Drying Oven 1				
CO	n/a	n/a	0.17	0.73
NO_x	0.10 lb/mmBtu	Good Combustion Practices(3)	0.20	0.87
$PM_{2.5(1)}$	PPH	Use of Natural Gas, Good Combustion Practices(3), Fabric Filter (RFNE4-FF)	0.06	0.27
$PM_{10(1)}$			0.08	0.36
PM(2)	0.0015 gr/dscf		0.04	0.18
SO_2	PPH	Use of Natural Gas	0.01	0.01
VOCs		Good Combustion Practices(3)	0.01	0.05
Phenol	n/a	n/a	0.01	0.05
Formaldehyde			0.02	0.10
Mineral Fiber			0.04	0.18
Total HAPs			0.08	0.34
CO_2e	TPY	Use of Natural Gas, Good Combustion Practices(3)	--	1,050
RFN-E5: Spray Paint Cabin				
$PM_{2.5(1)}$	PPH	Fabric Filter (RFNE5-FF)	0.66	2.90
$PM_{10(1)}$			0.88	3.86
PM(2)	0.0081 gr/dscf		0.44	1.93
Phenol	n/a	n/a	0.06	0.24
Formaldehyde			0.02	0.10
Mineral Fiber			0.44	1.93
Total HAPs			0.52	2.27

Pollutant	BACT Limit	BACT Technology	PPH	TPY
RFN-E6: Drying Oven 2/3				
CO	n/a	n/a	0.39	1.71
NO_x	0.10 lb/mmBtu	Good Combustion Practices(3)	0.47	2.04
$PM_{2.5(1)}$	PPH	Use of Natural Gas, Good Combustion Practices(3), Fabric Filter (RFNE6-FF)	0.09	0.41
$PM_{10(1)}$			0.13	0.55
PM(2)	0.001 gr/dscf		0.06	0.28
SO_2	PPH	Use of Natural Gas	0.01	0.01
VOCs		Good Combustion Practices(3)	0.03	0.11
Phenol	n/a	n/a	0.03	0.12
Formaldehyde			0.05	0.23
Mineral Fiber			0.06	0.28
Total HAPs			0.15	0.66
CO_2e	TPY	Use of Natural Gas, Good Combustion Practices(3)	--	2,450
RFN-E7: Cooling Zone				
$PM_{2.5(1)}$	PPH	Low-Emitting Process	0.14	0.63
$PM_{10(1)}$			0.19	0.84
PM(2)			0.10	0.42
Phenol	n/a	n/a	0.06	0.24
Formaldehyde			0.06	0.24
Mineral Fiber			0.10	0.42
Total HAPs			0.21	0.91
RFN-E8: De-Dusting Baghouse				
$PM_{2.5(2)}$	PPH	Fabric Filter (RFNE8-FF)	0.17	0.75
$PM_{10(2)}$			0.34	1.49
PM(2)	0.00053 gr/dscf		0.34	1.49
Mineral Fiber	n/a	n/a	0.34	1.49
Total HAPs			0.34	1.49

Pollutant	BACT Limit	BACT Technology	PPH	TPY
RFNE9: High Oven B				
CO	n/a	n/a	0.22	0.98
NO_x	0.10 lb/mmBtu	Good Combustion Practices(3)	0.27	1.17
$PM_{2.5(1)}$	PPH	Use of Natural Gas, Good Combustion Practices(3)	0.09	0.38
$PM_{10(1)}$			0.12	0.51
PM(2)			0.06	0.25
SO_2	PPH	Use of Natural Gas	0.01	0.01
VOCs		Good Combustion Practices(3)	0.01	0.06
Phenol	n/a	n/a	0.02	0.08
Formaldehyde			0.02	0.08
Mineral Fiber			0.06	0.25
Total HAPs			0.10	0.43
CO_2e	TPY	Use of Natural Gas, Good Combustion Practices(3)	--	1,400

(1) Includes Condensables.
(2) Filterable Only.
(3) Good Combustion Practices shall mean activities such as maintaining operating logs and record-keeping, conducting training, ensuring maintenance knowledge, performing routine and preventive maintenance, conducting burner and control adjustments, monitoring fuel quality, etc.

(2) **Metric Units**

Table 4.1.7(d)(2): Rockfon Line Emission Limits in Metric Units

Pollutant	BACT Limit	BACT Technology	kg/hr	tonne/yr
RFN-E1: IR Zone				
$PM_{2.5(1)}$	kg/hr	Low-Particulate Emitting Process	6.30e-03	0.06
$PM_{10(1)}$			1.00e-02	0.07
PM(2)			4.20e-03	0.04
Phenol	n/a	n/a	3.00e-03	0.03
Formaldehyde			3.00e-03	0.03
Mineral Fiber			4.20e-03	0.04
Total HAPs			1.00e-02	0.09

Pollutant	BACT Limit	BACT Technology	kg/hr	tonne/yr
RFN-E2: Hot Press				
$PM_{2.5(1)}$	kg/hr	Low-Particulate Emitting Process	6.30e-03	0.06
$PM_{10(1)}$			1.00e-02	0.07
PM(2)			4.20e-03	0.04
Phenol	n/a	n/a	3.00e-03	0.03
Formaldehyde			3.00e-03	0.03
Mineral Fiber			4.20e-03	0.04
Total HAPs			1.02e-02	0.09
RFN-E3: High Oven A				
CO	n/a	n/a	0.10	0.89
NO_x	1,602 kg/mmsm^3	Good Combustion Practices(3)	0.12	1.06
$PM_{2.5(1)}$	kg/hr	Use of Natural Gas, Good Combustion Practices(3)	0.04	0.35
$PM_{10(1)}$			0.05	0.46
PM(2)			0.03	0.23
SO_2	kg/hr	Use of Natural Gas	0.01	0.01
VOCs		Good Combustion Practices(3)	0.01	0.06
Phenol	n/a	n/a	0.01	0.07
Formaldehyde			0.01	0.07
Mineral Fiber			0.03	0.23
Total HAPs			0.04	0.39
CO_2e	tonne/yr	Use of Natural Gas, Good Combustion Practices(3)	--	1,270
RFN-E4: Drying Oven 1				
CO	n/a	n/a	0.08	0.67
NO_x	1,602 kg/mmsm^3	Good Combustion Practices(3)	0.09	0.79
$PM_{2.5(1)}$	kg/hr	Use of Natural Gas, Good Combustion Practices(3), Fabric Filter (RFNE4-FF)	0.03	0.24
$PM_{10(1)}$			0.04	0.32
PM(2)	3.70 mg/Nm^3		0.02	0.16

Pollutant	BACT Limit	BACT Technology	kg/hr	tonne/yr
SO_2	kg/hr	Use of Natural Gas	0.01	0.01
VOCs		Good Combustion Practices(3)	0.01	0.04
Phenol	n/a	n/a	0.01	0.04
Formaldehyde			0.01	0.09
Mineral Fiber			0.02	0.16
Total HAPs			0.04	0.31
CO_2e	tonne/yr	Use of Natural Gas, Good Combustion Practices(3)	--	953
RFN-E5: Spray Paint Cabin				
$PM_{2.5(1)}$	kg/hr	Fabric Filter (RFNE5-FF)	0.30	2.63
$PM_{10(1)}$			0.40	3.50
PM(2)	20 mg/Nm^3		0.20	1.75
Phenol	n/a	n/a	0.03	0.22
Formaldehyde			0.01	0.09
Mineral Fiber			0.20	1.75
Total HAPs			0.23	2.06
RFN-E6: Drying Oven 2/3				
CO	n/a	n/a	0.18	1.55
NO_x	1,602 kg/mmsm^3	Good Combustion Practices(3)	0.21	1.86
$PM_{2.5(1)}$	kg/hr	Use of Natural Gas, Good Combustion Practices(3), Fabric Filter (RFNE6-FF)	0.04	0.38
$PM_{10(1)}$			0.06	0.50
PM(2)	2.38 mg/Nm^3		0.03	0.25
SO_2	kg/hr	Use of Natural Gas	0.01	0.01
VOCs		Good Combustion Practices(3)	0.01	0.10
Phenol	n/a	n/a	0.01	0.11
Formaldehyde			0.02	0.21
Mineral Fiber			0.03	0.25
Total HAPs			0.07	0.60

Pollutant	BACT Limit	BACT Technology	kg/hr	tonne/yr
CO_2e	tonne/yr	Use of Natural Gas, Good Combustion Practices(3)	--	2,223
RFN-E7: Cooling Zone				
$PM_{2.5(1)}$	kg/hr	Low-Emitting Process	0.07	0.57
$PM_{10(1)}$			0.09	0.77
PM(2)			0.04	0.38
Phenol	n/a	n/a	0.03	0.22
Formaldehyde			0.03	0.22
Mineral Fiber			0.04	0.38
Total HAPs			0.09	0.82
RFN-E8: De-Dusting Baghouse				
$PM_{2.5(2)}$	kg/hr	Fabric Filter (RFNE8-FF)	0.08	0.68
$PM_{10(2)}$			0.15	1.35
PM(2)	1.30 mg/Nm^3		0.15	1.35
Mineral Fiber	n/a	n/a	0.15	1.35
Total HAPs			0.15	1.35
RFNE9: High Oven B				
CO	n/a	n/a	0.10	0.89
NO_x	1,602 kg/$mmsm^3$	Good Combustion Practices(3)	0.12	1.06
$PM_{2.5(1)}$	kg/hr	Use of Natural Gas, Good Combustion Practices(3)	0.04	0.35
$PM_{10(1)}$			0.05	0.46
PM(2)			0.03	0.23
SO_2		Use of Natural Gas	0.01	0.01
VOCs		Good Combustion Practices(3)	0.01	0.06
Phenol	n/a	n/a	0.01	0.07
Formaldehyde			0.01	0.07
Mineral Fiber			0.03	0.23
Total HAPs			0.04	0.39

Pollutant	BACT Limit	BACT Technology	kg/hr	tonne/yr
CO_2e	tonne/yr	Use of Natural Gas, Good Combustion Practices(3)	--	1,270

(1) Includes Condensables.
(2) Filterable Only.
(3) Good Combustion Practices shall mean activities such as maintaining operating logs and record-keeping, conducting training, ensuring maintenance knowledge, performing routine and preventive maintenance, conducting burner and control adjustments, monitoring fuel quality, etc.

e. As the annual emission limits of RFN-E3, RFN-E4, RFN-E6, and RFN-E9 listed under Table 4.1.7(d) are based on 8,760 hours of operation, there is no annual limit on hours of operation or natural gas combusted on an annual basis for these units.

f. **45CSR7**
The Rockfon Line shall comply with all applicable requirements of 45CSR7 including, but not limited to, the following:

(1) 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, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.
[45CSR§7-3.1]

(2) The provisions of subsection 3.1 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.
[45CSR§7-3.2]

(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 of the quantity specified under the appropriate source operation type in Table 45-7A found at the end of this rule.
[45CSR§7-4.1]

(4) Mineral acids shall not be released 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 of the quantity given in Table 45-7B found at the end of this rule.
[45CSR§7-4.2]

4.1.8. Fuel Burning Units

The Fuel Burning Units, identified as IMF24, CM03, CM04, and RFN10, shall meet the following requirements:

a. The units shall only combust PNG and each not exceed an aggregate MDHI (of all burners) of 5.1 mmBtu/hr (1,500 kW) for each permitted emission:

b. The units shall not exceed the emission limits given in the following table:

Table 4.1.8(b): Per-Fuel Burning Unit Emission Limits

Pollutant	BACT Limit	BACT Technology	PPH (kg/hr)	TPY (tonne/yr)
CO	n/a	n/a	0.42 (0.19)	1.84 (1.67)
NO_x	30 $ppm_v d$ @ 3% O_2	LNB, Good Combustion Practices(1)	0.18 (0.08)	0.79 (0.72)
NO_x (IMF24 Only)	60 $ppm_v d$ @ 3% O_2	LNB, Good Combustion Practices(1)	0.36 (0.16)	1.58 (1.44)
$PM_{2.5(2)}$	PPH	Use of Natural Gas, Good Combustion Practices(1)	0.04 (0.02)	0.17 (0.15)
$PM_{10(2)}$				
PM(3)			0.01 (4.30e-03)	0.04 (0.04)
SO_2		Use of Natural Gas	3.00e-03 (1.36e-03)	0.01 (0.01)
VOCs		Good Combustion Practices(1)	0.03 (0.01)	0.12 (0.11)
CO_2e	TPY	Use of Natural Gas, Good Combustion Practices(1)	--	2,627 (2,384)

(1) LNB = Low-NO_x Burning Technology. Good Combustion Practices shall mean activities such as maintaining operating logs and record-keeping, conducting training, ensuring maintenance knowledge, performing routine and preventive maintenance, conducting burner and control adjustments, monitoring fuel quality, etc.
(2) Includes Condensables.
(3) Filterable Only.

c. As all the annual emissions of the units listed under Table 4.1.8(b) are based on 8,760 hours of operation, there is no annual limit on hours of operation or natural gas combusted on an annual basis for those units; and

d. **45CSR2**
No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.
[40CSR§2-3.1]

4.1.9. Storage Tanks

Use of the volatile organic liquid (VOL) storage tanks shall be in accordance with the following:

a. Tank size shall be limited as specified under Table 1.0 of this permit;

b. The aggregate emissions of VOCs from all storage shall not exceed a **BACT** Limit of 0.19 tons/year (0.17 tonnes/yr); and

c. Material stored shall be as specified and the aggregate annual storage tank throughputs shall not exceed those given in the following table:

Table 4.1.9(c): Storage Tanks Throughput Limits

Tank ID	Material Stored	Gallons
TK-DF	Diesel	20,000
TK-UO	Used Motor and Gear Oil	15,000
TK-TO1	Thermal Oil	681
TK-TO2	Thermal Oil	681
TK-TO3	Thermal Oil	2,642
TK-TO4	Thermal Oil	2,642
TK-DO	De-Dust Oil	200,000
TK-RS1 through TK-RS7	Resin	8,400,000(1)
TK-CA	Coupling Agent Solution	16,000
TK-AD	Binder Additive	65,000
TK-BM	Binder Solution(2)	24,000,000
TK-BC	Binder Solution(2)	24,000,000
TK-BD	Binder Solution(2)	24,000,000
TK-BS1 through TK-BS3	Fleece Coating	1,479,999(1)
TK-DOD	De-Dust Oil	200,000
TK-PD	Diluted Water-Based Paint	1,008,701
TK-PDD	Diluted Water-Based Paint	1,008,701

(1) This number represents the aggregate limit for all specified storage tanks.
(2) May refer to any type of Binder Solution that has an average vapor pressure less than 0.76 psia (5.24 kPa) at 60 degrees Fahrenheit (15.6°C).

d. For **BACT** purposes, the permittee shall utilize good operating practices in the operation of the storage tanks. Good operating practices shall mean maintaining and operating the storage tanks according to manufacturers recommendations and regularly inspecting the tanks for areas of disrepair or failure that would allow the escape of VOC-containing vapors.

4.1.10. Emergency Fire Pump Engine

The Emergency Fire Pump Engine, identified as EFP1, shall meet the following requirements:

a. The unit shall not exceed 197 horsepower (150 kW), shall be fired only with Ultra-Low Sulfur Diesel (with a maximum sulfur content not to exceed 0.0015%), and shall not operate in excess of 100 hours per year nor 0.5 hours in any 24-hour period during times not defined as emergencies;

b. The maximum emissions from the Emergency Fire Pump Engine shall not exceed the limits given in the following table:

Table 4.1.10(b): Emergency Fire Pump Engine Emission Limits

Pollutant	BACT Limit	BACT Technology	PPH (kg/hr)	TPY (tonne/yr)
CO	n/a	n/a	1.13 (0.51)	0.28 (0.26)
NO_x	4.0 g/kw-hr	Subpart IIII Certification, Annual Hrs of Op Limit	1.30 (0.59)	0.32 (0.29)
$PM_{2.5(1)}$	PPH		0.08 (0.03)	0.02 (0.02)
$PM_{10(1)}$				
PM(2)	0.20 g/kw-hr		0.06 (0.03)	0.02 (0.01)
SO_2	PPH	ULSD Fuel Annual Hrs of Op(3) Limit	2.14e-03 (9.72e-04)	5.36e-04 (4.86e-04)
VOCs		Subpart IIII Certification, Annual Hrs of Op(3) Limit	0.19 (0.09)	0.05 (0.04)
CO_2e	TPY	Annual Hrs of Op(3) Limit	--	56 (51)

(1) Includes Condensables.
(2) Filterable Only.
(3) Non-emergency hours of operation.

c. **40 CFR 60, Subpart IIII**
The Emergency Fire Pump Engine shall meet all applicable requirements under 40 CFR 60, Subpart IIII including the following:

(1) Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants. **[40 CFR §60.4205(c)]**

(2) As stated in §§60.4202(d) and 60.4205(c), you must comply with the following emission standards for stationary fire pump engines:

Table 4 to Subpart IIII of Part 60—Emission Standards for Stationary Fire Pump Engines

Maximum Engine Power	Model year(s)	NMHC + NOX	CO	PM
130≤KW<225 (175≤HP<300)	2009+(3)	4.0(3.0)	3.5(2.6)	0.20(0.15)

(3) In model years 2009-2011, manufacturers of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2008 model year engines.

d. **40 CFR 63, Subpart ZZZZ**
An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.
[40 CFR §63.6590(c)]

4.1.11. Miscellaneous Operations/Processes

a. **Dry Ice Cleaning**
The maximum input design capacity of the dry ice production unit (DI) shall not exceed 4.37 tons/day (3.97 tonne/day), and the emissions of CO_2 from the use dry ice cleaning shall not exceed (**BACT** limit) 363.76 PPH (165 kg/hr) or 1,594 TPY (1,446 tonne/year).

b. **Cooling Towers**
The Cooling Towers shall operate in accordance with the following requirements:

(1) The Cooling Tower shall use the control device specified under Section 1.0 at all times in operation and not exceed the specified maximum design and operational limits in the following table:

Table 4.1.11(b)(1): Cooling Tower Specifications

ID No.	Max Design Capacity Water Circulation Pump (gal/min)	Total Dissolved Solids (ppm)	Mist Eliminator Max Drift Rate (%)(1)
IMF02	1,321 (300 m^3/hr)	1,500	0.001
HE02	308 (70 m^3/hr)	1,500	0.001

(1) As based on manufacturer or vendor guarantee or applicable product literature.

(2) The maximum emissions from the Cooling Towers shall not exceed the limits given in the following table:

Table 4.1.11(b)(2): Cooling Tower Emission Limits(1)

Pollutant	BACT Limit	BACT Technology	PPH (kg/hr)	TPY (tonne/yr)
IMF02				
$PM_{2.5(1)}$	PPH	High Efficiency Drift Eliminator (@ 0.001% Drift)	4.96e-03 (2.25e-03)	0.02 (0.02)
$PM_{10(1)}$			0.01 (4.50e-03)	0.04 (0.04)
PM(2)				
HE02				
$PM_{2.5(1)}$	PPH	High Efficiency Drift Eliminator (@ 0.001% Drift)	1.16e-03 (5.25e-03)	0.01 (4.60e-03)
$PM_{10(1)}$			2.31e-03 (1.05e-03)	0.01 (9.19e-03)
PM				

c. **Product Marking**

The Product Marking Operations, identified as P_MARK, shall operate in accordance with the following requirements:

(1) The MDHI of the burners used with the branding wheels used in Product Marking shall not exceed 0.40 mmBtu/hr (120 kW) and shall only be fired with PNG. Combustion exhaust from the burners shall not exceed the following emissions:

Table 4.1.11(c)(1): Product Marking Burners Combustion Exhaust Emission Limits

Pollutant	BACT Limit	BACT Technology	PPH (kg/hr)	TPY (tonne/yr)
CO	n/a	n/a	0.03 (0.01)	0.14 (0.13)
NO_x	PPH	Use of Natural Gas	0.04 (0.02)	0.17 (0.15)
$PM_{2.5(1)}$			2.96e-03 (1.34e-03)	0.01 (1.18e-03)
$PM_{10(1)}$				
PM(2)			7.41e-04 (3.36e-04)	0.01 (2.94e-03)
SO_2			2.34e-04 (1.06e-04)	1.02e-04 (9.29e-04)
VOCs			2.14e-03 (9.73e-04)	9.39e-03 (8.52e-03)
CO_2e	TPY		--	205 (186)

(1) Includes Condensables.
(2) Filterable Only.

(2) As all the annual emissions listed under Table 4.1.11(c)(1) are based on 8,760 hours of operation, there is no annual limit on hours of operation or natural gas combusted on an annual basis for the unit; and

(3) The **BACT** Technology for the use of ink and cleaners during Product Marking Operations is the utilization of Good Work Practices. "Good Work Practices" shall mean storing VOC-containing materials in closed tanks or containers, cleaning up spills, and minimizing cleaning with VOC-containing cleaners. VOC emissions from the use of ink and cleaners during Product Marking operations shall not exceed 2.37 tons/month (2.15 tonne/month) and a **BACT** limit of 9.49 TPY (8.61 tonne/yr) and no HAP-containing inks or cleaners shall be used during Product Marking Operations.

4.1.12. Control Devices

a. **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.]

b. **Inherent SNCR De-NO_x System**
The permittee shall design and operate the Melting Furnace so as to promote the inherent removal of NO_x from the exhaust gas stream. The permittee shall maintain a proper temperature profile for NO_x removal and inject aqueous ammonia as necessary to facilitate the SNCR process. Compliance with 4.1.12(b) shall be determined by showing compliance with the NO_x emission limits given under Table 4.1.4(a) using the CEMS as required under 4.2.6.

c. **Sorbent Injection**
The permittee shall utilize sorbent injection in conjunction with Baghouse IMF-01 so as to reduce the emissions of SO_2, H_2SO_4, HF, and HCl from the Melting Furnace. Compliance with 4.1.12(c) shall be determined by showing compliance with the SO_2 emission limits given under Table 4.1.4(a) using the CEMS as required under 4.2.6.

d. **Baghouse IMF01-BH**
Use of Baghouse IMF01-BH shall be in accordance with the following requirements:

(1) The permittee shall monitor the differential pressure drop of IMF01-BH so as to ensure proper continuous operation of the baghouse. The monitoring system shall include an alarm to notify the control room if the differential pressure drop indicates abnormal performance of the unit. The appropriate alarm set-point(s) shall be determined as given under 4.1.12(g).

(2) **40 CFR 63, Subpart DDD**
How do I comply with the particulate matter standards for existing, new, and reconstructed cupolas? To comply with the PM standards, you must meet all of the following:
[40 CFR §63.1181]

(i) Install, adjust, maintain, and continuously operate a bag leak detection system for each fabric filter.
[40 CFR §63.1181(a)]

(ii) Do a performance test as specified in §63.1188 of this subpart and show compliance with the PM emission limits while the bag leak detection system is installed, operational, and properly adjusted.
[40 CFR §63.1181(b)]

(iii) Begin corrective actions specified in your operations, maintenance, and monitoring plan required by §63.1187 of this subpart within one hour after the alarm on a bag leak detection system sounds. Complete the corrective actions in a timely manner.
[40 CFR §63.1181(c)]

(iv) Develop and implement a written QIP consistent with compliance assurance monitoring requirements of 40 CFR 64.8(b) through (d) when the alarm on a bag leak detection system sounds for more than five percent of the total operating time in a six-month reporting period.
[40 CFR §63.1181(d)]

e. **Wet Electrostatic Precipitator (WESP)**
The operation of the WESP shall be in accordance with the following requirements:

(1) The permittee shall utilize a WESP, identified as HE01, so as to reduce the particulate matter emissions from the Gutter Exhaust, Spinning Chamber, Curing Oven Hoods, the Afterburner, and the Cooling Section at all times Melting, Spinning, Curing and Cooling operations are ongoing; and

(2) The permittee shall monitor the secondary voltage and secondary amperage range of the WESP for optimum mitigation of particulate matter emissions from the sources listed under 4.1.12(e)(1). The monitoring system shall include an alarm to notify the control room if the secondary voltage or amperage indicates abnormal performance of the unit. The appropriate alarm set-point(s) shall be determined as given under 4.1.12(g).

f. **Curing Oven Afterburner**
The Curing Oven Afterburner, CO-AB, shall operate according to the following requirements:

(1) The Curing Oven Afterburner shall not exceed a burner capacity of 6.83 mmBtu/hr (2,000 kW) and shall be in operation at all times when the Curing Oven is in operation and is venting VOC-containing vapors;

(2) **45CSR6**
The Curing Oven Afterburner is subject to 45CSR6. The requirements of 45CSR6 include but are not limited to the following:

(i) The permittee shall not cause, suffer, allow or permit particulate matter to be discharged from the flares into the open air in excess of the quantity determined by use of the following formula:

Emissions (lb/hr) = F x Incinerator Capacity (tons/hr)

Where, the factor, F, is as indicated in Table I below:

Table I: Factor, F, for Determining Maximum Allowable Particulate Emissions

Incinerator Capacity	Factor F
A. Less than 15,000 lbs/hr	5.43
B. 15,000 lbs/hr or greater	2.72

[45CSR§6-4.1]

(ii) No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater.
[45CSR6 §4.3]

(iii) The provisions of paragraph (i) shall not apply to smoke which is less than forty (40%) percent opacity, for a period or periods aggregating no more than eight (8) minutes per start-up.
[45CSR6 §4.4]

(iv) No person shall cause or allow the emission of particles of unburned or partially burned refuse or ash from any incinerator which are large enough to be individually distinguished in the open air.
[45CSR6 §4.5]

(v) Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.
[45CSR6 §4.6]

(vi) Due to unavoidable malfunction of equipment, emissions exceeding those provided for in this rule may be permitted by the Director for periods not to exceed five (5) 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.
[45CSR6 §8.2]

(3) **40 CFR 63, Subpart DDD**

(i) How do I comply with the formaldehyde, phenol, and methanol standards for existing, new, and reconstructed combined collection/curing operations? To comply with the formaldehyde, phenol, and methanol standards, you must meet all of the following:
[40 CFR §63.1183]

(A) Install, calibrate, maintain, and operate a device that continuously measures the operating temperature in the firebox of each thermal incinerator.
[40 CFR §63.1183(a)]

(B) Conduct a performance test as specified in §63.1188 while manufacturing the product that requires a binder formulation made with the resin containing the highest free-formaldehyde content specification range. Show compliance with the formaldehyde, phenol, and methanol emissions limits, specified in Table 2 to this subpart, while the device for measuring the control device operating parameter is installed, operational, and properly calibrated. Establish the average operating parameter based on the performance test as specified in §63.1185(a).
[40 CFR §63.1183(b)]

(C) During the performance test that uses the binder formulation made with the resin containing the highest free-formaldehyde content specification range, record the free-formaldehyde content specification range of the resin used, and the formulation of the binder used, including the formaldehyde content and binder specification. **[40 CFR §63.1183(c)]**

(D) Following the performance test, monitor and record the free-formaldehyde content of each resin lot and the formulation of each batch of binder used, including the formaldehyde, phenol, and methanol content. **[40 CFR §63.1183(d)]**

(E) Maintain the free-formaldehyde content of each resin lot and the formaldehyde content of each binder formulation at or below the specification ranges established during the performance test. **[40 CFR §63.1183(e)]**

(F) Following the performance test, measure and record the average operating temperature of the incinerator as specified in §63.1185(b) of this subpart. **[40 CFR §63.1183(f)]**

(G) Maintain the operating temperature of the incinerator so that the average operating temperature for each three-hour block period never falls below the average temperature established during the performance test. **[40 CFR §63.1183(g)]**

(H) Operate and maintain the incinerator as specified in your operations, maintenance, and monitoring plan required by §63.1187 of this subpart. **[40 CFR §63.1183(h)]**

g. Where statutory requirements (MACT, NSPS) do not specify such points, the determination of appropriate alarm set-points under this section shall be based on data obtained from performance testing, manufacturing recommendations, or operational experience. The permittee shall maintain on-site, and update as necessary, a certified report listing the set-points and the basis for their selection. Any changes to the set-points shall be accompanied by the date of the change and reason for the change. The permittee shall, to the extent reasonably possible, operate the control devices within the operating ranges at all times the associated emission units are in operation and venting emissions. If an alarm occurs, the permittee shall attempt to immediately correct the problem and follow the record-keeping procedures under 4.4.3.

4.1.13. **Stack Parameters**

The emission point stack parameters (Inner Diameter, Emission Point Elevation, and UTM Coordinates) of each source identified under the Emission Units Table 1.0 shall be in accordance with the specifications as given on the Emission Points Data Sheet in the most updated version of Permit Application R14-0037.

4.1.14. **General Rule Applicability**

The permittee shall meet all applicable requirements, including those not specified above, as given under 45CSR2, 45CSR6, 45CSR7, 45CSR10, 40 CFR 60, Subparts OOO and IIII, and 40 CFR 63, Subparts DDD, JJJJ, ZZZZ, and DDDDD. Any final revisions made to the above rules will, where applicable, supercede those specifically cited in this permit.

4.2. Monitoring, Compliance Demonstration, Recording and Reporting Requirements

4.2.1. **Maximum Design Capacity Compliance**
Compliance with the maximum design capacity limitations as given under 4.1. shall be based on a clear and visible boilerplate rating or on product literature, manufacturer's data, or equivalent documentation that shows that the specific emission unit(s) or processing line in question is limited by design to a throughput or production rate that does not exceed the specified value under 4.1.

4.2.2. **Maximum Design Heat Input Compliance**
Compliance with the various combustion unit MDHI limitations as given under 4.1. shall be based on a clear and visible boilerplate rating or on product literature, manufacturer's data, or equivalent documentation that shows that the specific emission unit(s) in question is limited by design to an MDHI that does not exceed the specified value under 4.1.

4.2.3. **Material/Production Throughputs**
To determine continuous compliance with maximum production, throughputs, and combustion limits given under in 4.1 of the permit, the permittee shall monitor and record the following:

Table 4.2.3: Facility Quantities Monitored/Recorded

Quantity Monitored/Recorded	Emission Unit(s)	Measured Units
Portable Melt Crushing	Portable Melt Crusher	Hours of Operation/year
Emergency Fire Pump Hours of Operation(1)	EFP1	Hours of Operation/Year
Storage Tank Throughputs	Various	Gallons/year

(1) Strictly for the purposes of compliance with 4.1.10(a), only non-emergency hours of operation are required to be monitored. Subpart IIII, however, requires monitoring of all hours of operation.

4.2.4. **Baghouse/Filter Vents**
To determine continuous compliance with the filter/baghouse emission limits given under Section 4.1 of the permit, the permittee shall maintain and operate the control devices according to the requirements given under 4.1.12(a). The permittee shall keep a record of all significant maintenance or repair performed on these control devices (changing out bags, replacing filter material, etc.).

4.2.5. **Coal Fluidized Bed Dryer**
To determine continuous compliance with the maximum temperature requirement given under Table 4.1.3(d) - footnote (1), the permittee shall install and maintain instrumentation in the Coal Fluidized Bed Dryer so as to monitor and record the temperature in the drying zone of the dryer.

4.2.6. **Melting Furnace CEMS (IMF01)**
Within 60 days after achieving the maximum design mineral wool production rate at which the facility will be operated, but not later than 180 days after initial startup, the permittee shall, to show continuous compliance with the CO, NO_x, and SO_2 emission limits as given under Table 4.1.4(a), install and operate a Continuous Emissions Monitoring System (CEMS) for monitoring the emissions of CO, NO_x, and SO_2 from IMF01. The CEMS shall be installed, maintained and operated according to the manufacturers design, specifications, and recommendations, of which a protocol shall be developed by the permittee and approved by the Director prior to operation. The CEMS shall meet

the applicable performance specifications required by 40 Part 60, Appendix B, the applicable quality assurance procedures required in 40 CFR Part 60, Appendix F, and the requirements of 40 CFR 60.13. In lieu of the requirements of 40 CFR Part 60, Appendix F, 5.1.1, 5.1.3, and 5.1.4, the permittee may conduct either a Relative Accuracy Audit (RAA) or a Relative Accuracy Test Audit (RATA) on the CEMS at least once every three (3) years. The permittee shall conduct Cylinder Gas Audits (CGA) each calendar quarter during which a RAA or a RATA is not performed. Data recorded by the CEMS shall be kept for a period not less than three (3) years and shall be made available to the Director or his/her representative upon request.

4.2.7. **Fleece Application Station**

To determine continuous compliance with the VOC/HAP emission limits and the low-VOC requirement given under 4.1.6(a) and (b), the permittee shall monitor and record the following:

a. The monthly and twelve-month rolling total of the amount (in tons) of VOCs/HAPs used in the fleece application process. The amount shall be based on actual material properties (VOC/HAP contents and material densities) and the amount of material used during the applicable time period. The permittee shall assume a 100% volatilization of all VOCs/HAPs used in the fleece application process with no control percentage applied unless granted approval in writing by the Director to use an alternative calculation methodology. The material properties shall be based on applicable vendor data, MSDS, or Certified Product Data Sheets; and

b. The average monthly as-applied VOC/HAP content (in lb-VOC/lb-coating and lb-HAP/lb-coating) as based on the procedures under 40 CFR 63, Subpart JJJJ, Section §63.3370(a).

4.2.8. **Rockfon Line Coatings/Glue Usage**

To determine continuous compliance with the VOC emission limit and the low-VOC BACT requirements given under 4.1.7(a) and (b), the permittee shall monitor and record the monthly and twelve-month rolling total of the amount (in tons) of VOCs used in the Rockfon coating and gluing process. The amount shall be based on actual material properties (VOC contents and material densities) and the amount of material used during the applicable time period. The permittee shall assume a 100% volatilization of all VOCs used in the Rockfon coating and gluing process with no control percentage applied unless granted approval in writing by the Director to use an alternative calculation methodology. The material properties shall be based on applicable vendor data, MSDS, or Certified Product Data Sheets.

4.2.9. **Ultra Low Sulfur Fuel**

For the purposes of demonstrating continuing compliance with the maximum sulfur content limit under 4.1.10(a), the permittee shall, at a minimum of once per calendar year, obtain from the fuel oil supplier a certification of the sulfur content of the fuel combusted in the Emergency Fire Pump Engine. An alternative means of determining compliance with 4.2.10. will be subject to prior approval from the Director.

4.2.10. **Cooling Tower**

For the purposes of demonstrating initial and continuing compliance with the operational limits set forth in Table 4.1.11(b)(1), the permittee shall, for both cooling towers, within 180 days of startup, take an initial grab sample of the cooling tower circulating water and analyze such to determine the total solids content of the cooling tower circulating water. Thereafter, the permittee shall test for solids content on an annual basis (with no more than 14 months between tests).

4.2.11. **Product Marking**

To determine continuous compliance with the Product Marking (P_MARK) VOC emission limits and given under 4.1.11(c)(3), the permittee shall monitor and record the monthly and twelve-month rolling total of the amount (in tons) of VOCs used in the Product Marking process. The amount shall be based on actual material properties (VOC contents and material densities) and the amount of material used during the applicable time period. The permittee shall assume a 100% volatilization of all VOCs used in the Product Marking process with no control percentage applied unless granted approval in writing by the Director to use an alternative calculation methodology. The material properties shall be based on applicable vendor data, MSDS, or Certified Product Data Sheets.

4.2.12. **Control Device Monitoring**

The permittee shall install, maintain, and operate instrumentation to continuously monitor and record the control device parameters as required under 4.1.12 of this permit including, at a minimum, the following:

Table 4.2.12: Control Device Parameters Monitored/Recorded

Control Device	Control Device ID	Parameter(s)
Melting Furnace Baghouse	IMF01-BH	Pressure Drop
WESP	WESP	Secondary Voltage Secondary Amperage
Curing Oven Afterburner	CO-AB	Firebox Temperature(1)

(1) Pursuant to 40 CFR 63, Subpart DDD, §63.1182.

4.2.13. **Visible Emissions Compliance Demonstrations**

Visible emissions Monitoring, Compliance Demonstration, Recording and Reporting shall be in accordance with the following requirements:

a. **45CSR2**

Upon request by the Secretary, compliance with the visible emission requirements of 3.1 [of 45CSR2] shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 or by using measurements from continuous opacity monitoring systems approved by the Secretary. The Secretary may require the installation, calibration, maintenance and operation of continuous opacity monitoring systems and may establish policies for the evaluation of continuous opacity monitoring results and the determination of compliance with the visible emission requirements of 3.1 [of 45CSR2]. Continuous opacity monitors shall not be required on fuel burning units which employ wet scrubbing systems for emission control;
[40CSR§2-3.2]

b. **45CSR6**

Compliance with the afterburner opacity requirements given under 4.1.12(f)(2)(i) and (ii) shall be based on the compliance demonstrations required for emission point HE01 as given under 4.2.14(c) and (e);

c. **45CSR7**

At such reasonable time(s) as the Secretary may designate, compliance with the visible emission requirements of 4.1.2(i), 4.1.3(e), 4.1.4(b), 4.1.5(b), and 4.1.7(f) shall be determined in accordance with the procedures outlined under 45CSR7A;

d. **40 CFR 60, Subpart OOO**
The permittee shall meet all applicable visible emissions Monitoring, Compliance Demonstration, Recording and Reporting requirements as given under 40 CFR 60, Subpart OOO, Sections §60.674 through §60.676;

e. **IMF01, HE01, CE01, and IMF05.**
Emission Points IMF01, HE01, CE01, and IMF05 are subject to the following visible emissions monitoring and compliance demonstration requirements:

(1) In order to determine compliance with the opacity limits of 4.1.3(e), 4.1.4(b), 4.1.5(b), and 4.1.7(f) of this permit, the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for Emission Points IMF01, HE01, CE01, and IMF05 in accordance with the following:

(i) The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40CFR Part 60, Appendix A, Method 9 certification course;

(ii) Visible emission checks shall be conducted at least once per calendar month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Each observation must be recorded as either visible emissions observed or no visible emissions observed. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions;

(iii) If visible emissions are present at a source(s) the permittee shall perform Method 9 readings to confirm that visible emissions are within the limits of 4.1.10 of this permit. Said Method 9 readings shall be taken as soon as practicable, but within seventy-two (72) hours of the Method 22 emission check; and

(iv) If, one year of monthly Method 22 readings show that there are no visible emissions, then the frequency of observations can be reduced to quarterly. If, during quarterly checks, visible emissions are observed, then the frequency of observations shall be returned to monthly.

f. For the purpose of demonstrating compliance with the visible emissions and opacity requirements, the permittee shall maintain records of the visible emission opacity tests and checks. The permittee shall maintain records of all monitoring data required by 4.2.14 documenting the date and time of each visible emission check, the emission point or equipment/ source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9. For an emission unit out of service during the evaluation, the record of observation may note "out of service" (O/S) or equivalent; and

g. Any deviation of the allowable visible emission requirement for any emission source discovered during observation using 40CFR Part 60, Appendix A, Method 9 must be reported in writing to the Director of the DAQ as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

4.2.14. **Baghouse/Fabric Filter Compliance Demonstrations**
Unless specifically requested under 4.3.1. or listed in Table 4.3.2., compliance with all baghouse and fabric filter mass emission limits that have BACT outlet grain loading limits shall be based on vendor information or vendor guarantees that show the maximum outlet grain loading emissions from the baghouse/fabric filter is in compliance with the specific limit.

4.2.15. **Emission Point Map**
The permittee shall prepare and maintain an emission point map of the facility. This map shall consist of a diagram of the location and identification of all emission points at the facility that vent to ambient air. A legend shall be prepared with the map that identifies the emission point type and source(s) contributing to that emission point. This map shall be prepared within 180 days of startup and thereafter be updated as necessary to reflect current facility operations. The map(s) shall be retained on-site and be made available to the Director or his/her duly authorized representative upon request.

4.2.16. **Resin Tracking/N_2O Calculation**
To determine compliance with the annual CO_2e limit given under Table 4.1.5(a), the permittee shall monitor and record the information given under 4.2.16(a) and (b). The permittee shall then use this information to calculate N_2O emissions (based on an emission factor of 28.05 lb-N_2O/ton-resin solids [14 kg-N_2O/tonne-resin solids]) from the Melting Furnace, and along with established emission CO_2 factors, to determine the annual CO_2e emissions.

a. Annual amount (based on a rolling twelve month time period) of purchased resin (as solids) based on invoices. The amount may be corrected for binder not used or that is discarded and not applied in the production process; and

b. Solid content in Phenolic Resin (PUF) based on vendor data or operator analysis.

4.3. Performance Testing Requirements

4.3.1. At such reasonable time(s) as the Secretary may designate, in accordance with the provisions of 3.3 of this permit, the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations established in this permit and/or applicable regulations.

4.3.2. **Emissions Point Performance Testing**
Within 60 days after achieving the maximum permitted production rate of the emission unit in question, but not later than 180 days after initial startup of the unit, the permittee shall conduct, or have conducted, in accordance with a protocol submitted pursuant to 3.3.1(c), performance tests on the emission units (as emitted from the listed emission points) to show compliance with the specified pollutants as given in the following table:

Table 4.3.2.: Performance Testing Requirements

Emission Unit(s)	Emission Point	Pollutants	Limit
Melting Furnace	IMF01	All Pollutants under Table 4.1.4(a) with the exception of Mineral Fiber, Total HAPs, and CO_2e.	PPH(2)
Gutter Exhaust, Spinning Chamber, Curing Oven Hoods, Curing Oven, and Cooling Section	HE01	All Pollutants under Table 4.1.5(a) with the exception of SO_2, Mineral Fiber, Total HAPs, and CO_2e.	PPH(2)
Rockfon Line	RFNE8	$PM_{2.5(1)}$, $PM_{10(1)}$, PM(1)	PPH gr/dscf (PM only)
ROckfon De-Dusting Baghouse (CE01-BH)	CE01	$PM_{2.5(1)}$, $PM_{10(1)}$, PM(1)	PPH gr/dscf
Recycle Building Vent 1	CM10	$PM_{2.5(1)}$, $PM_{10(1)}$, PM(1)	PPH gr/dscf

(1) Filterable Only.

(2) Results from the required performance testing used to show compliance with the MACT standards (in lb/ton-melt) may be converted and used for compliance with the PPH limits. Compliance with the MACT standards does not necessarily mean compliance with the limits under Table 4.1.4(a).

4.3.3 With respect to the performance testing required above under Section 4.3.2, the permittee shall, after the initial performance test, periodically conduct additional performance testing on the specified sources according to the following schedule:

Table 4.3.3.: Performance Testing Schedule

Test	Test Results	Retesting Frequency
Initial Baseline	<50% of weight emission standard	Once/3 years
Initial Baseline	between 50% and 80 % of weight emission standard	Once/2 years
Initial Baseline	>80% of weight emission standard	Annual
Annual	after three successive tests indicate mass emission rates <50% of weight emission standard	Once/3 years
Annual	after two successive tests indicate mass emission rates <80 % of weight emission standard	Once/2 years
Annual	any tests indicates a mass emission rate >80% of weight emission standard	Annual
Once/2 years	After two successive tests indicate mass emission rates <50% of weight emission standard	Once/3 years
Once/2 years	any tests indicates a mass emission rate <80 % of weight emission standard	Once/2 years
Once/2 years	any tests indicates a mass emission rate >80% of weight emission standard	Annual
Once/3 years	any tests indicates a mass emission rate <50% of weight emission standard	Once/3 years

Test	Test Results	Retesting Frequency
Once/3 years	any test indicates mass emission rates between 50% and 80 % of weight emission standard	Once/2 years
Once/3 years	any test indicates a mass emission rate >80% of weight emission standard	Annual

4.3.4. Performance testing for pollutants monitored by CEMS (CO, NO_x, and SO_2 emitted from the Melting Furnace) are not subject to the performance testing schedule given under Table 4.3.4 and any performance testing shall, unless at such other reasonable time(s) as the Secretary may designate, be conducted on a schedule consistent with the required RATA testing.

4.3.5. The permittee shall use the test methods specified in Table 4.3.6. unless granted approval in writing by the Director to use an alternative test method in a protocol submitted pursuant to 3.3.1(c).

Table 4.3.5: Performance Test Methods

Pollutant	Test Method[1]
CO	Method 10
NO_x	Method 7E
$PM_{2.5}$ (filterable only)	Method 201A
PM_{10}/PM (filterable only)	Method 5
$PM_{2.5}/PM_{10}$ (condensable)	Method 202
SO_2	Method 6C
VOCs	Method 18/25A
COS	Method 15
HF/HCl	Method 26A
Formaldehyde Phenol/ Methanol	Method 318
H_2SO_4	Method 8

(1) All test methods refer to those given under 40 CFR 60, Appendix A

4.3.6. **40 CFR 60, Subpart OOO**
The permittee shall meet all applicable Performance Testing requirements as given under 40 CFR 60, Subpart A, Section §60.8 and Subpart OOO, Section §60.675.

4.3.7. **40 CFR 63, Subpart DDD**
The permittee shall meet all applicable Performance Testing requirements as given under 40 CFR 63,

Subpart DDD, Sections §63.1188 through §63.1190.

4.4. Additional 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.

4.5. Additional Reporting Requirements

4.5.1. The permittee shall submit the following information to the DAQ according to the specified schedules:

a. The permittee shall submit reports of all required monitoring on or before September 15 for the reporting period January 1 to June 30 and March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports; and

b. The permittee shall submit to the Director on or before March 15, a certification of compliance with all requirements of this permit for the previous calendar year ending on December 31. If, during the previous annual period, the permittee had been out of compliance with any part of this permit, it shall be noted along with the following information: 1) the source/equipment/process that was non-compliant and the specific requirement of this permit that was not met, 2) the date the permitted discovered that the source/ equipment/process was out of compliance, 3) the date the Director was notified, 4) the corrective measures to get the source/equipment/process back into compliance, and 5) the date the source began to operate in compliance. The submission of any non-compliance report shall give no enforcement action immunity to episodes of non-compliance contained therein.

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 and 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 USEPA); or

d. The designated representative delegated with such authority and approved in advance by the Director.