West Virginia Department of Environmental Protection

Harold D. Ward
Cabinet Secretary

Permit to Operate

Pursuant to
Title V
of the Clean Air Act

Issued to:
ROXUL USA Inc.
RAN Facility
R30-03700108-2024

Laura M. Crowder
Director, Division of Air Quality

Issued: [Date of issuance] • *Effective: [Equals issue date plus two weeks]*
Expiration: [5 years after issuance date] • *Renewal Application Due: [6 months prior to expiration]*

Permit Number: **R30-03700108-2024**
Permittee: **ROXUL USA Inc.**
Facility Name: **RAN Facility**
Permittee Mailing Address: **665 Northport Avenue, Kearneysville, WV 25430**

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR30 Requirements for Operating Permits. The permittee identified at the above-referenced facility is authorized to operate the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Facility Location:	Ranson, Jefferson County, West Virginia
Facility Mailing Address:	665 Northport Avenue, Kearneysville, WV 25430
Telephone Number:	(304)620-3197
Type of Business Entity:	Corporation
Facility Description:	Mineral Wool Insulation Manufacturing
SIC Codes:	3296
UTM Coordinates:	252.06 km Easting • 4362.62 km Northing • Zone 18

Permit Writer: Robert Mullins

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.

Issuance of this Title V Operating Permit does not supersede or invalidate any existing permits under 45CSR13, 14 or 19, although all applicable requirements from such permits governing the facility's operation and compliance have been incorporated into the Title V Operating Permit.

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1.0. Emission Units and Active R13, R14, and R19 Permits

1.1. 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	2021	1,137 scfm (1,800 Nm^3/hr)	IMF11-FF
B215	B215	Raw Material Loading Hopper	2021	562 ton/day	PE
IMF12	IMF12	Conveyor Transfer Point	2021	716 ton/day	FE
IMF14	IMF14	Raw Material Reject Stockpile	2021	10 m^2	PE
IMF15	IMF15	Conveyor Transfer Point	2021	716 ton/day	PE
IMF16	IMF16	Conveyor Transfer Point	2021	716 ton/day	FE
IMF21	IMF21	Charging Building Vacuum Cleaning Filter	2021	316 scfm (500 Nm^3/hr)	IMF21-FF
RM_REJ	RM_REJ	Raw Material Rejection Bin	2021	6 ton/day	PE
B170	B170	Melting Furnace Portable Crusher & Storage	2021	1,800 ton/day	PE
B210/211	B210/211	Raw Material Storage - Loading	2021	716 ton/day	PE
RMS	RMS	Raw Material Open Storage & Delivery	2021	5,382 ft^2 (500 m^2)	PE
IMF17	IMF17	B220 Material Handling	2021	716 ton/day	FE
Mineral Wool Line					
IMF01	IMF01	Melting Furnace	2021	21,414 scfm	IMF01-BH De-NO_X De-SO_X
IMF07	IMF07	Filter Fines Day Silo	2021	790 scfm (1,250 Nm^3/hr)	IMF07A-FF
IMF08	IMF08	Sorbent Silo	2021	758 scfm (1,200 Nm^3/hr)	IMF08-FF
IMF09	IMF09	Spent Sorbent Silo	2021	758 scfm (1,200 Nm^3/hr)	IMF09-FF
IMF10	IMF10	Filter Fines Receiving Silo	2021	758 scfm (1,200 Nm^3/hr)	IMF10-FF
IMF24	IMF24	Preheat Burner	2021	5.12 mmBtu/hr (1,500 kW)	None

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity[1]	Control Device[2]
CO	HE01	Curing Oven	2021	18,950 scfm	(HE01) CO-AB
CO-HD	HE01	Curing Oven Hoods	2021	25,267 scfm (40,000 Nm^3/hr)	WESP (HE01)
GUT-EX	HE01	Gutter Exhaust	2021	15,792 scfm (25,000 Nm^3/hr)	WESP (HE01)
SPN	HE01	Spinning Chamber	2021	258,986 scfm (410,000 Nm^3/hr)	WESP (HE01)
CS	HE01	Cooling Section	2021	50,534 scfm	WESP (HE01)
CM12	CM12	Fleece Application Vent 1	2021	388,500 kg/yr	None
CM13	CM13	Fleece Application Vent 2	2021	388,500 kg/yr	None
CE01	CE01	De-dusting Baghouse	2021	44,217 scfm (70,000 Nm^3/hr)	CE01-BH
CE02	CE02	Vacuum Cleaning Baghouse	2021	12,633 scfm (20,000 Nm^3/hr)	CE02-BH
DI	DI	Dry Ice Cleaning	2021	630,000 kg/yr	None
Recycling					
CM08	CM08	Recycle Plant Building Vent 3	2021	1,579 scfm (2,500 Nm^3/hr)	CM08-FF
CM09	CM09	Recycle Plant Building Vent 4	2021	1,579 scfm (2,500 Nm^3/hr)	CM09-FF
CM10	CM10	Recycle Plant Building Vent 1	2021	18,950 scfm (30,000 Nm^3/hr)	CM10-FF
CM11	CM11	Recycle Plant Building Vent 2	2021	18,950 scfm (30,000 Nm^3/hr)	CM11-FF
Miscellaneous Emission Units					
CM03	CM03	Natural Gas Boiler 1	2021	4.9 mmBtu/hr (1,462 kW)	None
CM04	CM04	Natural Gas Boiler 2	2021	4.9 mmBtu/hr (1,462 kW)	None
EFP1	EFP1	Emergency Fire Pump Engine	2021	316 hp (236 kW)	None
Storage Tanks					

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity[1]	Control Device[2]
TK-DF	TK-DF	Diesel Fuel Tank	2021	1,242 gallons (4.7 m^3)	None
TK-TO3	TK-TO3	Thermal Oil Tank - IMF	2021	5,283 gallons (20 m^3)	None
TK-TO4	TK-TO4	Thermal Oil Expansion Tank - IMF	2021	1,928 gallons (7.3 m^3)	None
TK-RS1	TK-RS1	Resin Storage Tank	2021	13,209 gallons (50 m^3)	None
TK-RS2	TK-RS2	Resin Storage Tank	2021	13,209 gallons (50 m^3)	None
TK-RS3	TK-RS3	Resin Storage Tank	2021	13,209 gallons (50 m^3)	None
TK-RS4	TK-RS4	Resin Storage Tank	2021	13,209 gallons (50 m^3)	None
TK-RS5	TK-RS5	Resin Storage Tank	2021	13,209 gallons (50 m^3)	None
TK-RS6	TK-RS6	Resin Storage Tank	2021	13,209 gallons (50 m^3)	None
TK-CA	TK-CA	Coupling Agent Storage Tank	2021	396 gallons (1.5 m^3)	None
TK-AD	TK-AD	Additive Storage Tank	2021	396 gallons (1.5 m^3)	None
TK-BS1	TK-BS1	Binder Storage Container	2021	264 gallons (1 m^3)	None
TK-BS2	TK-BS2	Binder Storage Container	2021	264 gallons (1 m^3)	None
TK-BS3	TK-BS3	Binder Storage Container	2021	264 gallons (1 m^3)	None
TK-DOD	TK-DOD	De-dust Oil Day Tank	2021	264 gallons (1 m^3)	None
TK-ADB1	TK-ADB1	Additive Buffer Tank	2021	396 gallons (1.5 m^3)	None
TK-ADB2	TK-ADB2	Additive Buffer Tank	2021	132 gallons (0.5 m^3)	None
TK-GLY	TK-GLY	Glycol Tank	2021	396 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; FE = Full Enclosure.

1.2. Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

Permit Number	Date of Issuance
R14-0037A	November 16, 2023

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 other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.39.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

2.1.4. Unless otherwise specified in a permit condition or underlying rule or regulation, all references to a "rolling yearly total" shall mean the sum of the monthly data, values or parameters being measured, monitored, or recorded, at any given time for the previous twelve (12) consecutive calendar months.

2.2. Acronyms

CAAA	Clean Air Act Amendments	**NO_x**	Nitrogen Oxides
CBI	Confidential Business Information	**NSPS**	New Source Performance Standards
CEM	Continuous Emission Monitor	**PM**	Particulate Matter
CES	Certified Emission Statement	**PM_{10}**	Particulate Matter less than 10µm in diameter
C.F.R. *or* CFR	Code of Federal Regulations		
CO	Carbon Monoxide	**pph**	Pounds per Hour
C.S.R. *or* CSR	Codes of State Rules	**ppm**	Parts per Million
DAQ	Division of Air Quality	**PSD**	Prevention of Significant Deterioration
DEP	Department of Environmental Protection	**psi**	Pounds per Square Inch
FOIA	Freedom of Information Act	**SIC**	Standard Industrial Classification
HAP	Hazardous Air Pollutant		
HON	Hazardous Organic NESHAP	**SIP**	State Implementation Plan
HP	Horsepower	**SO_2**	Sulfur Dioxide
lbs/hr *or* lb/hr	Pounds per Hour	**TAP**	Toxic Air Pollutant
LDAR	Leak Detection and Repair	**TPY**	Tons per Year
m	Thousand	**TRS**	Total Reduced Sulfur
MACT	Maximum Achievable Control Technology	**TSP**	Total Suspended Particulate
		USEPA	United States Environmental Protection Agency
mm	Million		
mmBtu/hr	Million British Thermal Units per Hour	**UTM**	Universal Transverse Mercator
		VEE	Visual Emissions Evaluation
$mmft^3$/hr *or* mmcf/hr	Million Cubic Feet Burned per Hour	**VOC**	Volatile Organic Compounds
NA *or* N/A	Not Applicable		
NAAQS	National Ambient Air Quality Standards		
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		

2.3. Permit Expiration and Renewal

2.3.1. Permit duration. This permit is issued for a fixed term of five (5) years and shall expire on the date specified on the cover of this permit, except as provided in 45CSR§30-6.3.b. and 45CSR§30-6.3.c.
[45CSR§30-5.1.b.]

2.3.2. A permit renewal application is timely if it is submitted at least six (6) months prior to the date of permit expiration.
[45CSR§30-4.1.a.3.]

2.3.3. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 45CSR§30-6.2. and 45CSR§30-4.1.a.3.
[45CSR§30-6.3.b.]

2.3.4. If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.
[45CSR§30-6.3.c.]

2.4. Permit Actions

2.4.1. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
[45CSR§30-5.1.f.3.]

2.5. Reopening for Cause

2.5.1. This permit shall be reopened and revised under any of the following circumstances:

a. Additional applicable requirements under the Clean Air Act or the Secretary's legislative rules become applicable to a major source with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 45CSR§§30-6.6.a.1.A. or B.

b. Additional requirements (including excess emissions requirements) become applicable to an affected source under Title IV of the Clean Air Act (Acid Deposition Control) or other legislative rules of the Secretary. Upon approval by U.S. EPA, excess emissions offset plans shall be incorporated into the permit.

c. The Secretary or U.S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

d. The Secretary or U.S. EPA determines that the permit must be revised or revoked and reissued to assure compliance with the applicable requirements.

[45CSR§30-6.6.a.]

2.6. Administrative Permit Amendments

2.6.1. The permittee may request an administrative permit amendment as defined in and according to the procedures specified in 45CSR§30-6.4.
[45CSR§30-6.4.]

2.7. Minor Permit Modifications

2.7.1. The permittee may request a minor permit modification as defined in and according to the procedures specified in 45CSR§30-6.5.a.
[45CSR§30-6.5.a.]

2.8. Significant Permit Modification

2.8.1. The permittee may request a significant permit modification, in accordance with 45CSR§30-6.5.b., for permit modifications that do not qualify for minor permit modifications or as administrative amendments.
[45CSR§30-6.5.b.]

2.9. Emissions Trading

2.9.1. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit and that are in accordance with all applicable requirements.
[45CSR§30-5.1.h.]

2.10. Off-Permit Changes

2.10.1. Except as provided below, a facility may make any change in its operations or emissions that is not addressed nor prohibited in its permit and which is not considered to be construction nor modification under any rule promulgated by the Secretary without obtaining an amendment or modification of its permit. Such changes shall be subject to the following requirements and restrictions:

a. The change must meet all applicable requirements and may not violate any existing permit term or condition.

b. The permittee must provide a written notice of the change to the Secretary and to U.S. EPA within two (2) business days following the date of the change. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.

c. The change shall not qualify for the permit shield.

d. The permittee shall keep records describing all changes made at the source that result in emissions of regulated air pollutants, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e. No permittee may make any change subject to any requirement under Title IV of the Clean Air Act (Acid Deposition Control) pursuant to the provisions of 45CSR§30-5.9.

f. No permittee may make any changes which would require preconstruction review under any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) pursuant to the provisions of 45CSR§30-5.9.

[45CSR§30-5.9.]

2.11. Operational Flexibility

2.11.1. The permittee may make changes within the facility as provided by § 502(b)(10) of the Clean Air Act. Such operational flexibility shall be provided in the permit in conformance with the permit application and applicable requirements. No such changes shall be a modification under any rule or any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) promulgated by the Secretary in accordance with Title I of the Clean Air Act and the change shall not result in a level of emissions exceeding the emissions allowable under the permit.
[45CSR§30-5.8]

2.11.2. Before making a change under 45CSR§30-5.8., the permittee shall provide advance written notice to the Secretary and to U.S. EPA, describing the change to be made, the date on which the change will occur, any changes in emissions, and any permit terms and conditions that are affected. The permittee shall thereafter maintain a copy of the notice with the permit, and the Secretary shall place a copy with the permit in the public file. The written notice shall be provided to the Secretary and U.S. EPA at least seven (7) days prior to the date that the change is to be made, except that this period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. If less than seven (7) days notice is provided because of a need to respond more quickly to such unanticipated conditions, the permittee shall provide notice to the Secretary and U.S. EPA as soon as possible after learning of the need to make the change.
[45CSR§30-5.8.a.]

2.11.3. The permit shield shall not apply to changes made under 45CSR§30-5.8., except those provided for in 45CSR§30-5.8.d. However, the protection of the permit shield will continue to apply to operations and emissions that are not affected by the change, provided that the permittee complies with the terms and conditions of the permit applicable to such operations and emissions. The permit shield may be reinstated for emissions and operations affected by the change:

a. If subsequent changes cause the facility's operations and emissions to revert to those authorized in the permit and the permittee resumes compliance with the terms and conditions of the permit, or

b. If the permittee obtains final approval of a significant modification to the permit to incorporate the change in the permit.

[45CSR§30-5.8.c.]

2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
[45CSR§30-2.40]

2.12. Reasonably Anticipated Operating Scenarios

2.12.1. The following are terms and conditions for reasonably anticipated operating scenarios identified in this permit.

a. Contemporaneously with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating and to document the change in reports submitted pursuant to the terms of this permit and 45CSR30.

b. The permit shield shall extend to all terms and conditions under each such operating scenario; and

c. The terms and conditions of each such alternative scenario shall meet all applicable requirements and the requirements of 45CSR30.

[45CSR§30-5.1.i.]

2.13. Duty to Comply

2.13.1. 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; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
[45CSR§30-5.1.f.1.]

2.14. Inspection and Entry

2.14.1. 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.

[45CSR§30-5.3.b.]

2.15. Schedule of Compliance

2.15.1. For sources subject to a compliance schedule, certified progress reports shall be submitted consistent with the applicable schedule of compliance set forth in this permit and 45CSR§30-4.3.h., but at least every six (6) months, and no greater than once a month, and shall include the following:

a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and

b. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measure adopted.

[45CSR§30-5.3.d.]

2.16. Need to Halt or Reduce Activity not a Defense

2.16.1. It shall not be a defense for a permittee in an enforcement action that it would 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.
[45CSR§30-5.1.f.2.]

2.17. Reserved

2.18. Federally-Enforceable Requirements

2.18.1. All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit and excepting those provisions that are specifically designated in the permit as "State-enforceable only", are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act.
[45CSR§30-5.2.a.]

2.18.2. Those provisions specifically designated in the permit as “State-enforceable only” shall become “Federally-enforceable” requirements upon SIP approval by the USEPA.

2.19. Duty to Provide Information

2.19.1. 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 modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records required 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.
[45CSR§30-5.1.f.5.]

2.20. Duty to Supplement and Correct Information

2.20.1. 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.
[45CSR§30-4.2.]

2.21. Permit Shield

2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and are specifically identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof.
[45 CSR§30-5.6.a.]

2.21.2. Nothing in this permit shall alter or affect the following:

a. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or

b. The applicable requirements of the Code of West Virginia and Title IV of the Clean Air Act (Acid Deposition Control), consistent with § 408 (a) of the Clean Air Act.

c. The authority of the Administrator of U.S. EPA to require information under § 114 of the Clean Air Act or to issue emergency orders under § 303 of the Clean Air Act.

[45CSR§30-5.6.c.]

2.22. Credible Evidence

2.22.1. 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 defenses otherwise available to the permittee including but not limited to any challenge to the credible evidence rule in the context of any future proceeding.
[45CSR§30-5.3.e.3.B.]

2.23. Severability

2.23.1. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining permit terms and conditions or their application to other circumstances shall remain in full force and effect.
[45CSR§30-5.1.e.]

2.24. Property Rights

2.24.1. This permit does not convey any property rights of any sort or any exclusive privilege.
[45CSR§30-5.1.f.4]

2.25. Acid Deposition Control

2.25.1. Emissions shall not exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act (Acid Deposition Control) or rules of the Secretary promulgated thereunder.

a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid deposition control program, provided that such increases do not require a permit revision under any other applicable requirement.

b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.

c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.

[45CSR§30-5.1.d.]

2.25.2. Where applicable requirements of the Clean Air Act are more stringent than any applicable requirement of regulations promulgated under Title IV of the Clean Air Act (Acid Deposition Control), both provisions shall be incorporated into the permit and shall be enforceable by the Secretary and U. S. EPA.
[45CSR§30-5.1.a.2.]

3.0. Facility-Wide Requirements

3.1. Limitations and Standards

3.1.1. **Open burning.** The open burning of refuse by any person 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 or allow 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.
[40 C.F.R. §61.145(b) and 45CSR34]

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. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
[45CSR§11-5.2]

3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality.
[W.Va. Code § 22-5-4(a)(14)]

3.1.7. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 C.F.R. § 82.161.

[40 C.F.R. 82, Subpart F]

3.1.8. **Risk Management Plan.** Should this stationary source, as defined in 40 C.F.R. § 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. § 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.
[40 C.F.R. 68]

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 the appropriate test method and compliance procedures as approved under a protocol submitted pursuant to 3.3.1.c.
[45CSR13; R14-0037, Condition 3.2.1]

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, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are 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.

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 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.

3. A statement of compliance or non-compliance with each permit or rule condition.

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

3.4. Recordkeeping Requirements

3.4.1. **Monitoring information.** The permittee shall keep records of monitoring information that include the following:

a. The date, place as defined in this permit and time of sampling or measurements;

b. The date(s) analyses were performed;

c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;

e. The results of the analyses; and

f. The operating conditions existing at the time of sampling or measurement.
[45CSR§30-5.1.c.2.A.]

3.4.2. **Retention of records.** The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of monitoring sample, measurement, report, application, or record creation date. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, records may be maintained in computerized form in lieu of the above records.
[45CSR§30-5.1.c.2.B.]

3.4.3. **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§30-5.1.c. 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.
[45CSR§§30-4.4. *and* 5.1.c.3.D.]

3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
[45CSR§30-5.1.c.3.E.]

3.5.3. Except for the electronic submittal of the annual compliance certification and semi-annual monitoring reports to the DAQ and USEPA as required in 3.5.5 and 3.5.6 below, 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 e-mail as set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

US EPA:

Section Chief
U. S. Environmental Protection Agency, Region III
Enforcement and Compliance Assurance Division
Air, RCRA and Toxics Branch (3ED21)
Four Penn Center
1600 John F. Kennedy Boulevard
Philadelphia, PA 19103-2852

DAQ Compliance and Enforcement[1]:
DEPAirQualityReports@wv.gov

[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. **Fees.** The permittee shall pay fees on an annual basis in accordance with 45CSR§30-8.
[45CSR§30-8.]

3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The

annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification. The annual certification shall be submitted in electronic format by e-mail to the following addresses:

DAQ:
DEPAirQualityReports@wv.gov

US EPA:
R3_APD_Permits@epa.gov

[45CSR§30-5.3.e.]

3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before 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. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4. The semi-annual monitoring reports shall be submitted in electronic format by e-mail to the following address:

DAQ:
DEPAirQualityReports@wv.gov
[45CSR§30-5.1.c.3.A.]

3.5.7. **Reserved.**

3.5.8. **Deviations.**

a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:

1. Reserved.

2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or email. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.

3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.

4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

[45CSR§30-5.1.c.3.C.]

b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary.
[45CSR§30-5.1.c.3.B.]

3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement.
[45CSR§30-4.3.h.1.B.]

3.6. Compliance Plan

3.6.1. None.

3.7. Permit Shield

3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.

3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.

a. **40 C.F.R. 60, Subpart Dc**: The Preheat Burner (IMF24) and Natural Gas Boilers 1 and 2 (CM03 and CM04) are each defined as a "steam generating unit" but each also have an MDHI of less than 10 mmBtu/hr which exempts the units from Subpart Dc. The remaining combustion units either do not use a heat transfer medium or are properly defined as a process heater and, therefore, no units at the facility are subject to Subpart Dc.

b. **40 C.F.R. 60, Subpart Kb:** All tanks that store volatile organic liquids at the facility have capacities less than $75m^3$ (19,813 gallons) and are, therefore, not subject to the requirements of Subpart Kb.

c. **40 C.F.R. 60, Subpart VVV:** This subpart does not apply because the mineral wool fleece coating operation does not utilize coating mix preparation equipment or coating operations where the VOC content of the coating exceeds 9 percent by weight of the volatile fraction (§60.740(d)(2)).

d. **40 C.F.R. 63, Subpart OOOO:** This subpart does not apply to the facility since web coatings that are an affected source under 40 C.F.R. 63, Subpart JJJJ are not subject to the requirements of Subpart OOOO.

4.0. Source-Specific Requirements

4.1. Limitations and Standards

4.1.1. Only those emission units/sources as identified in 1.1 Emission Units, 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 Applications R14-0037 and R14-0037A the emission units/sources identified under 1.1 Emission Units 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 1.1 Emission Units.
[45CSR13; R14-0037, Condition 4.1.1]

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), 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 Material(1)	716(2) (650)	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) Conveyor 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
IMF07	Filter Fines Day Silo	0.001	$PM_{2.5}$	0.01	0.01
		0.002	PM/PM_{10}	0.01	0.01
IMF08	Sorbent Silo	0.001	$PM_{2.5}$	0.01	0.03
		0.002	PM/PM_{10}	0.01	0.06
IMF09	Spent Sorbent Silo	0.001	$PM_{2.5}$	0.01	0.03
		0.002	PM/PM_{10}	0.01	0.06
IMF10	Filter Fines Receiving Silo	0.001	$PM_{2.5}$	0.01	0.03
		0.002	PM/PM_{10}	0.01	0.06
IMF11	Conveyor TP (B215 to B220)	0.001	$PM_{2.5}$	0.01	0.01
		0.002	PM/PM_{10}	0.01	0.02
IMF12	Conveyor TP (B210 to B220)	0.001	$PM_{2.5}/PM_{10}$	0.01	0.02
		0.002	PM	0.02	0.06
IMF14	Raw Material Reject Stockpile	0.001	$PM_{2.5}$	0.01	0.01
		0.002	PM/PM_{10}	0.01	0.01
IMF15	Conveyor TP (B220 No. 2)	0.001	$PM_{2.5}/PM_{10}$	0.01	0.03
		0.002	PM	0.02	0.08
IMF16	Conveyor TP (B220 to B300)	0.001	$PM_{2.5}/PM_{10}$	0.01	0.02
		0.002	PM	0.02	0.06
IMF17	B220 Material Handling	n/a[5]	$PM_{2.5}$	0.13	0.56
			PM_{10}	0.14	0.61
			PM	0.34	1.49
IMF21	Charging Building Vacuum Cleaning	0.001	$PM_{2.5}$	0.00	0.01
		0.002	PM/PM_{10}	0.01	0.01

Emission Point ID	Source Description	Filter Outlet (gr/dscf)(1)	Pollutant(2)	PPH(3)	TPY
CE01	De-dusting Baghouse	0.0020	$PM_{10}/PM_{2.5}$	0.21	0.94
		0.0041	PM	0.21	0.94
		n/a	Mineral Fiber	0.21	0.94
CE02	Vacuum Cleaning Baghouse	0.0020	$PM_{10}/PM_{2.5}$	0.22	0.93
		0.0041	PM	0.44	1.85
		n/a	Mineral Fiber	0.22	0.93
CM08	Recycle Building Vent 3	0.002	$PM_{2.5}$	0.03	0.12
		0.004	PM/PM_{10}	0.06	0.24
CM09	Recycle Building Vent 4	0.002	$PM_{2.5}$	0.03	0.12
		0.004	PM/PM_{10}	0.06	0.24
CM10	Recycle Building Vent 1	0.002	$PM_{2.5}$	0.33	1.45
		0.004	PM/PM_{10}	0.66	2.90
CM11	Recycle Building Vent 2	0.002	$PM_{2.5}$	0.33	1.45
		0.004	PM/PM_{10}	0.66	2.90

(1) gr/dscf = grains/dry standard cubic feet.
(2) Particulate Matter limits are filterable only. With the exception of CE01 and CE02, PM/PM10 limits are the same.
(3) Hourly emission limits are based on a 24-hour average.
(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
IMF07	Filter Fines Day Silo	2.5	$PM_{2.5}$	0.01	0.01
		5	PM/PM_{10}	0.01	0.01
IMF08	Sorbent Silo	2.5	$PM_{2.5}$	0.01	0.03
		5	PM/PM_{10}	0.01	0.05

Emission Point ID	Source Description	Filter Outlet (mg/Nm^3)[1]	Pollutant[2]	kg/hr[3]	tonne/ yr
IMF09	Spent Sorbent Silo	2.5	$PM_{2.5}$	0.01	0.03
		5	PM/PM_{10}	0.01	0.05
IMF10	Filter Fines Receiving Silo	2.5	$PM_{2.5}$	0.01	0.03
		5	PM/PM_{10}	0.01	0.05
IMF11	Conveyor TP (B215 to B220)	2.5	$PM_{2.5}$	0.01	0.01
		5	PM/PM_{10}	0.01	0.05
IMF12	Conveyor TP (B210 to B220)	2.5	$PM_{2.5}/PM_{10}$	0.01	0.02
		5	PM	0.01	0.06
IMF14	Raw Material Reject Stockpile	2.5	$PM_{2.5}$	0.01	0.01
		5	PM/PM_{10}	0.01	0.01
IMF15	Conveyor TP (B220 No. 2)	2.5	$PM_{2.5}/PM_{10}$	0.01	0.03
		5	PM	0.01	0.07
IMF16	Conveyor TP (B220 to B300)	2.5	$PM_{2.5}/PM_{10}$	0.01	0.02
		5	PM	0.01	0.06
IMF17	B220 Material Handling	n/a[5]	$PM_{2.5}$	0.12	0.51
			PM_{10}	0.13	0.55
			PM	0.31	1.35
IMF21	Charging Building Vacuum Cleaning	2.5	$PM_{2.5}$	0.01	0.01
		5	PM/PM_{10}	0.01	0.02
CE01	De-dusting Baghouse	5	$PM_{10}/PM_{2.5}$	0.10	0.85
		10	PM	0.10	0.85
		n/a	Mineral Fiber	0.10	0.85
CE02	Vacuum Cleaning Baghouse	5	$PM_{10}/PM_{2.5}$	0.10	0.84
		10	PM	0.20	1.68
		n/a	Mineral Fiber	0.10	0.84

Emission Point ID	Source Description	Filter Outlet (mg/Nm^3)(1)	Pollutant(2)	kg/hr(3)	tonne/ yr
CM08	Recycle Building Vent 3	5	$PM_{2.5}$	0.01	0.11
		10	PM/PM_{10}	0.03	0.22
CM09	Recycle Building Vent 4	5	$PM_{2.5}$	0.01	0.11
		10	PM/PM_{10}	0.03	0.22
CM10	Recycle Building Vent 1	5	$PM_{2.5}$	0.15	1.31
		10	PM/PM_{10}	0.30	2.63
CM11	Recycle Building Vent 2	5	$PM_{2.5}$	0.15	1.31
		10	PM/PM_{10}	0.30	2.63

(1) mg/Nm^3 = milligrams/cubic meter.
(2) Particulate Matter limits are filterable only. With the exception of CE01 and CE02, PM/PM10 limits are the same.
(3) Hourly emission limits are based on a 24-hour average.
(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	$PM_{2.5}$	0.01	0.01
			PM_{10}	0.01	0.03
			PM	0.01	0.06
RMS	Raw Material Outdoor Storage	3-sided enclosure	$PM_{2.5}$	0.01	0.01
			PM_{10}	0.01	0.05
			PM	0.03	0.11
RM_REJ	Drop into Raw Material Reject Collection Bin	4-sided rubber drop guard	$PM_{2.5}$	0.01	0.01
			PM_{10}	0.01	0.01
			PM	0.01	0.01

Emission Unit ID	Source Description	Control Technology	Pollutant[1]	PPH[2]	TPY
B170	Portable Crusher (Drop to pit waste)	3-sided enclosure	$PM_{2.5}$	0.01	0.01
			PM_{10}	0.01	0.02
			PM	0.01	0.04
B210/ B211	RMS Loading	3-sided enclosure w/cover	$PM_{2.5}$	0.07	0.02
			PM_{10}	0.48	0.13
			PM	1.04	0.28

(1) Particulate Matter limits are filterable only.
(2) Hourly emission limits are based on a 24-hour average.

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	$PM_{2.5}$	0.01	0.09
			PM_{10}	0.01	0.09
			PM	0.01	0.09
RMS	Raw Material Outdoor Storage	3-sided enclosure	$PM_{2.5}$	0.01	0.09
			PM_{10}	0.01	0.09
			PM	0.02	0.18
RM_REJ	Drop into Raw Material Reject Collection Bin	4-sided rubber drop guard	$PM_{2.5}$	0.01	0.09
			PM_{10}	0.01	0.09
			PM	0.01	0.09
B170	Portable Crusher (Drop to pit waste)	3-sided enclosure	$PM_{2.5}$	0.01	0.09
			PM_{10}	0.01	0.09
			PM	0.01	0.09
B210/ B211	RMS Loading	3-sided enclosure w/cover	$PM_{2.5}$	0.01	0.09
			PM_{10}	0.03	0.26
			PM	0.06	0.53

(1) Particulate Matter limits are filterable only.
(2) Hourly emission limits are based on a 24-hour average.

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) *[Reserved]*

f. In addition to the particulate matter controls as required in the Emission Units Table 1.1, the raw material mixer and crusher located in the Charging Building (B220) 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, 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. *[Reserved]*

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 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 C.F.R. 60 Subpart OOO**

The non-metallic mineral handling operations (see Permit Applications R14-0037 and R14-0037A for a complete list of affected sources) prior to the furnace building (B300) are subject to the applicable limitations and standards under 40 C.F.R. 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.

Table 2 to Subpart OOO of Part 60—Stack Emission Limits for Affected Facilities With Capture Systems

For ***	The owner or operator must meet a PM limit of * * *	And the owner or operator must meet an opacity limit of * * *	The owner or operator must demonstrate compliance with these limits by conducting * * *
Affected facilities (as defined in §§ 60.670 and 60.671) that commence construction, modification, or reconstruction on or after April 22, 2008	0.032 g/dscm (0.014 gr/dscf)[a]	Not applicable (except for individual enclosed storage bins) 7 percent for dry control devices on individual enclosed storage bins	An initial performance test according to § 60.8 of this part and § 60.675 of this subpart; and Monitoring of wet scrubber parameters according to § 60.674(a) and § 60.676(c), (d), and (e); and
			Monitoring of baghouses according to § 60.674(c), (d), or (e) and § 60.676(b).

[a]Exceptions to the PM limit apply for individual enclosed storage bins and other equipment. See §60.672(d) through (f).

[45CSR16; 40 C.F.R. §60.672(a)](IMF07, IMF10)

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.

Table 3 to Subpart OOO of Part 60—Fugitive Emission Limits

For * * *	**The owner or operator must meet the following fugitive emissions limit for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations or from any other affected facility (as defined in §§ 60.670 and 60.671) * * ***	**The owner or operator must meet the following fugitive emissions limit for crushers at which a capture system is not used * * ***	**The owner or operator must demonstrate compliance with these limits by conducting * * ***
Affected facilities (as defined in §§ 60.670 and 60.671) that commence construction, modification, or reconstruction on or after April 22, 2008	7 percent opacity	12 percent opacity	An initial performance test according to § 60.11 of this part and § 60.675 of this subpart; and Periodic inspections of water sprays according to § 60.674(b) and § 60.676(b); and
			A repeat performance test according to § 60.11 of this part and § 60.675 of this subpart within 5 years from the previous performance test for fugitive emissions from affected facilities without water sprays. Affected facilities controlled by water carryover from upstream water sprays that are inspected according to the requirements in §§ 60.674(b) and 60.676(b) are exempt from this 5-year repeat testing requirement.

[45CSR16; 40 C.F.R. §60.672(b)](RM_REJ, IMF14, IMF11)

3. Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.
[45CSR16; 40 C.F.R. §60.672(d)](B215)

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 C.F.R. §60.672(a) and (b), or the building enclosing the affected facility or facilities must comply with the following emission limits:

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

   ii. 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.

   [45CSR16; 40 C.F.R. §60.672(e)](IMF17, IMF12, IMF16, IMF15)

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.
   [45CSR16; 40 C.F.R. §60.672(f)](IMF07, IMF10)

[45CSR13; R14-0037, Condition 4.1.2]

4.1.3. Coal shall not be utilized at the facility for any reason.
[45CSR13; R14-0037, Condition 4.1.3]

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 Technology, as given in the following table:

Table 4.1.4.a: Melting Furnace Emission Limits

Pollutant	Limit	Technology	PPH (kg/hr)	TPY (tonne/yr)
CO	n/a	n/a	3.21[(1)] (1.46)	13.48 (12.23)
NO_X	PPH	Integrated SNCR, Oxy-Fired Burners[(2)]	37.37[(1)] (16.95)	156.95 (142.38)
$PM_{2.5}$[(3)]		Baghouse	2.32 (1.05)	9.73 (8.83)
PM_{10}[(3)]			2.32 (1.05)	9.73 (8.83)
PM[(4)]	0.013 gr/dscf (31 mg/Nm^3)		2.32 (1.05)	9.73 (8.83)

Pollutant	Limit	Technology	PPH (kg/hr)	TPY (tonne/yr)
SO_2	PPH	Sorbent Injection in the Baghouse	33.63(1) (15.26)	141.25 (128.14)
VOCs		Good Combustion Practices(5)	0.31 (0.14)	1.29 (1.17)
H_2SO_4		Sorbent Injection in the Baghouse	1.31 (0.60)	5.49 (5.00)
Mineral Fiber	n/a	n/a	2.32 (1.05)	9.73 (8.83)
HF			0.37 (0.17)	1.55 (1.41)
HCl			0.15 (0.07)	0.62 (0.56)
COS			0.37 (0.17)	1.57 (1.42)
Total HAPs			3.43 (1.56)	14.42 (13.08)

(1) Compliance based on a 30-day rolling average.
(2) Integrated SNCR system utilizes ammonia injection to promote a de-NO_X 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 recordkeeping, conducting training, ensuring maintenance knowledge, performing routine and preventative maintenance, conducting burner and control adjustments, monitoring fuel quality, etc. Said activities shall be performed at a frequency in accordance with manufacturer recommendations or good engineering practices.

Note: On January 23, 2024, ROXUL USA Inc. filed an amended notice of appeal in which they requested revision of the HCl limitation which was incorrectly set at 0.62 tons per year due to a typographical error. DAQ agreed to correct the HCl limit contingent on ROXUL USA Inc.'s submission of a Class I Administrative Update to Permit No. R14-0037A.

b. **45CSR7**

The Melting Furnace shall comply with all the 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§10-4.1]

d. **40 C.F.R. 63, Subpart DDD**
The Melting Furnace shall comply with all applicable requirements of 40 C.F.R 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.
[45CSR34; 40 C.F.R. §63.1178(a)]
Table 2 to Subpart DDD of Part 63 - Emission 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 emission 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:
[45CSR34; 40 C.F.R. §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.
[45CSR34; 40 C.F.R. §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.
[45CSR34; 40 C.F.R. §63.1178(b)(2)]

C. Additionally, on or after the applicable compliance date for each new or reconstructed cupola, you must either:
[45CSR34; 40 C.F.R. §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
[45CSR34; 40 C.F.R. §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:

$$Percent\ excess\ oxygen\ = \left(\left(\frac{Oxygen\ available}{Fuel\ demand\ for\ oxygen}\right) - 1\right) * 100$$

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.
[45CSR34; 40 C.F.R. §63.1178(b)(3)(ii)]

2. **§63.1181 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:

   i. Install, adjust, maintain, and continuously operate a bag leak detection system for each fabric filter.

   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.

   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.

   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.

   [45CSR34; 40 C.F.R. §63.1181]

3. **§63.1182 How do I comply with the carbon monoxide, carbonyl sulfide, hydrogen fluoride, and hydrogen chloride standards for existing, new, and reconstructed cupolas?**
   To comply with the carbon monoxide, carbonyl sulfide, hydrogen fluoride, and hydrogen chloride standards, you must meet the following:

   i. Install, calibrate, maintain, and operate a device that continuously measures the operating temperature in the firebox of each thermal incinerator.

   ii. Conduct a performance test as specified in § 63.1188 that shows compliance with the carbon monoxide, carbonyl sulfide, hydrogen fluoride, and hydrogen chloride emissions limits specified in Table 2 to this subpart, while the device for measuring incinerator operating temperature is installed, operational, and properly calibrated. Establish the average operating temperature based on the performance test as specified in § 63.1185(a).

   iii. Following the performance test, measure and record the average operating temperature of the incinerator as specified in § 63.1185(b) of this subpart.

   iv. 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.

   v. Operate and maintain the incinerator as specified in your operations, maintenance, and monitoring plan required by § 63.1187 of this subpart.

   [45CSR34; 40 C.F.R. §63.1182]

4. **§63.1197 Startups and shutdowns.**

i. The provisions set forth in this subpart apply at all times.

ii. You must not shut down items of equipment that are utilized for compliance with this subpart during times when emissions are being, or are otherwise required to be, routed to such items of equipment.

iii. Startup begins when fuels are ignited in the cupola. Startup ends when the cupola produces molten material.

iv. Shutdown begins when the cupola has reached the end of the melting campaign and is empty. No molten material continues to flow from the cupola during shutdown.

v. During periods of startups and shutdowns you must operate your cupola according to one of the following methods:

A. You must keep records showing that your emissions were controlled using air pollution control devices operated at the parameters established by the most recent performance test that showed compliance with the standard; or

B. You must keep records showing the following:

I. You used only clean fuels during startup and shutdown; and

II. You operate the cupola during startup and shutdown with three percent oxygen over the fuel demand for oxygen.

[45CSR34; 40 C.F.R. §63.1197]

e. The furnace shall not operate more than 8,400 hours per year. Compliance with this limit shall be based on a rolling 12 month total.

[45CSR13; R14-0037, Condition 4.1.4]

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 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	Limit	Technology	PPH (kg/hr)	TPY (tonne/yr)
CO	n/a	n/a	9.82 (4.46)	41.24 (37.41)

Pollutant	Limit	Technology	PPH (kg/hr)	TPY (tonne/yr)
NO_X	PPH	LNB, Good Combustion Practices(1)	1.57 (0.71)	6.60 (5.99)
$PM_{2.5}$(2)		WESP	8.00 (3.64)	33.60 (30.48)
PM_{10}(2)			8.00 (3.64)	33.60 (30.48)
PM(3)			8.00 (3.64)	33.60 (30.48)
SO_2		Use of Natural Gas	0.01 (4.89e-03)	0.05 (0.04)
VOCs		Afterburner Good Combustion Practices Subpart DDD Compliance(4)	44.66 (20.30)	187.55 (170.14)
Phenol	n/a	Afterburner(5)	17.05 (7.73)	71.61 (64.96)
Formaldehyde			3.27 (1.48)	13.74 (12.46)
Methanol			24.34 (11.04)	102.21 (92.72)
Mineral Fiber			12.00 (5.44)	50.39 (45.72)
Total HAPs			56.65 (25.70)	237.95 (215.86)

(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 recordkeeping, conducting training, ensuring maintenance knowledge, performing routine and preventative maintenance, conducting burner and control adjustments, monitoring fuel quality, etc. Said activities shall be performed at a frequency in accordance with manufacturer recommendations or good engineering practices
(2) Includes condensables.
(3) Filterable only.
(4) Technology: Gutter Exhaust - Subpart DDD Compliance, Curing Oven - Afterburner/Good Combustion Practices, Spinning Chamber - Subpart DDD Compliance, Curing Oven Hoods - Subpart DDD Compliance.
(5) Afterburner is not a control device for Mineral Fibers.

Note: The underlying R14-0037A emission limit for $PM_{2.5}$ was appealed by ROXUL USA Inc. on December 11, 2023.

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 C.F.R. 63, Subpart DDD**
The Gutter Exhaust, Curing Oven Hoods, Curing Oven, and Spinning Chamber shall comply with all applicable requirements of 40 C.F.R. 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.

Table 2 to Subpart DDD of Part 63 - Emission 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 emission 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 curing oven or combined collection/curing operation:

A. Maintain the free-formaldehyde content of each resin lot and the formaldehyde content of each binder formulation at or below the specification ranges of the resin and binder used during the performance test.

B. Maintain the operating temperature of each incinerator so that the average operating temperature for each three-hour block period never falls below the average temperature established during the performance test.

[45CSR34; 40 C.F.R. §63.1179]

d. The curing oven and spinning chamber shall not operate more than 8,400 hours per year each. Compliance with this limit shall be based on a rolling 12 month total.

[45CSR13; R14-0037, Condition 4.1.5]

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 3.26 pounds per hour (1.48 kg/hr) and 6.85 TPY (6.22 tonnes/year);

b. The control 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
[45CSR34, 40 C.F.R. §63.3370(a)(2)(iii)]

c. **40 C.F.R. 63, Subpart JJJJ**
The fleece application operations shall comply with all applicable requirements of 40 C.F.R. 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.
[45CSR34; 40 C.F.R. §63.3320(a)]

2. You must limit organic HAP emissions to the level specified in paragraph (b)(1), (2), (3), or (4) of 40 C.F.R. §63.3320.
[45CSR34; 40 C.F.R. §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

[45CSR34; 40 C.F.R. §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
[45CSR34; 40 C.F.R. §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.
[45CSR34; 40 C.F.R. §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) on a dry basis is achieved and the efficiency of the capture system is 100 percent.
[45CSR34; 40 C.F.R. §63.3320(b)(4)]

3. You must demonstrate compliance with this subpart by following the procedures in § 63.3370.
[45CSR34; 40 C.F.R. §63.3320(c)]

d. The fleece application process shall not operate more than 4,200 hours per year. Compliance with this limit shall be based on a rolling 12 month total.

[45CSR13; R14-0037, Condition 4.1.6]

4.1.7. Any material stored in an enclosure (either partial or full) shall not be stored in such a manner that the height of the material stored exceeds the height of said enclosure.
[45CSR13; R14-0037, Condition 4.1.7]

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

a. The MDHI of IMF24 shall not exceed 5.12 mmBtu/hr (1,500 kW), while the MDHI for CM03 and CM04 shall not exceed 4.9 mmBtu/hr each. Additionally, each unit shall not operate for more than 8,400 hours per year. Compliance with this condition shall be determined on a rolling 12 month basis.

b. IMF 24 shall not exceed the emission limits given in the following table:

Pollutant	Limit	Control Technology	PPH (kg/hr)	TPY (tonne/yr)
CO	n/a	n/a	0.42 (0.19)	1.76 (1.60)
NO_X	60 ppm_vd @ 3% O_2	LNB, Good Combustion Practices(1)	0.36 (0.16)	1.52 (1.38)
$PM_{2.5}$(2)	PPH	Use of Natural Gas, Good Combustion Practices(1)	0.04 (0.02)	0.16 (0.14)
PM_{10}(2)				

Pollutant	Limit	Control Technology	PPH (kg/hr)	TPY (tonne/yr)
PM[3]				
SO_2		Use of Natural Gas	0.01 (0.01)	0.01 (0.01)
VOCs		Good Combustion Practices[1]	0.03 (0.01)	0.12 (0.10)

Boilers CM03 and CM04 shall each not exceed the emission limits given in the following table:

Pollutant	Limit	Control Technology	PPH (kg/hr)	TPY (tonne/yr)
CO	n/a	n/a	0.42 (0.19)	1.76 (1.60)
NO_X	30 $ppm_v d$ @ 3% O_2	LNB, Good Combustion Practices[1]	0.36 (0.16)	1.52 (1.38)
$PM_{2.5}$[2]	PPH	Use of Natural Gas, Good Combustion Practices[1]	0.04 (0.02)	0.16 (0.14)
PM_{10}[2]				
PM[3]				
SO_2		Use of Natural Gas	0.01 (0.01)	0.01 (0.01)
VOCs		Good Combustion Practices[1]	0.03 (0.01)	0.12 (0.10)

(1) LNB = Low-NO_X Burning Technology. Good Combustion Practices shall mean activities such as maintaining operating logs and recordkeeping, conducting training, ensuring maintenance knowledge, performing routine and preventative maintenance, conducting burner and control adjustments, monitoring fuel quality, etc. Said activities shall be performed at a frequency in accordance with manufacturer recommendations or good engineering practices
(2) Includes Condensables.
(3) Filterable Only.

c. Annual emissions of the units listed under Table 4.1.8.b are based on 8,400 hours of operation, 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.
[45CSR§2-3.1]

[45CSR13; R14-0037, Condition 4.1.8]

e. **40 C.F.R. 63 Subpart DDDDD**

1. If your boiler or process heater has a heat input capacity of less than 10 million Btu per hour (except as specified in 40 C.F.R. §63.7540(a)(12)), you must conduct a biennial tune-up of the boiler or process heater as specified in 40 C.F.R. §§63.7540(a)(10)(i) through (vi) to demonstrate continuous compliance.

   You must conduct a tune-up of the boiler or process heater to demonstrate continuous compliance as follows:

   (i) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;

   (ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;

   (iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection;

   (iv) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_X requirement to which the unit is subject;

   (v) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and

   (vi) Maintain on-site and submit, if requested by the Administrator, a report containing the following information:

      (A) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;
      (B) A description of any corrective actions taken as a part of the tune-up; and
      (C) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.

[45CSR34, 40 C.F.R. §§63.7500(a)(1) and (e) and 63.7540(a)(10) and (11)](IMF24)

2. If your boiler or process heater has a heat input capacity of less than or equal to 5 million Btu per hour and the unit is in the units designed to burn gas 1, you must conduct a tune-up of the boiler or process heater every 5 years as specified in 4.1.8.e.1.i through 4.1.8.e.1.vi to demonstrate continuous compliance. You may delay the burner inspection specified in paragraph 4.1.8.e.1.i until the next scheduled or unscheduled unit shutdown, but you must inspect each burner at least once every 72 months. If an oxygen trim system is utilized on a unit without emission standards to reduce the tune-up frequency to once every 5 years, set the oxygen level no lower than the oxygen concentration measured during the most recent tune-up.
[45CSR34, 40 C.F.R. §§63.7500(a)(1) and (e) and 63.7540(a)(12)](CM03, CM04)

3. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.
[45CSR34, 40 C.F.R. §63.7540(a)(13)](CM03, CM04, IMF24)

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 Section 1.1 of this Permit;

b. The aggregate emissions of VOCs from all storage shall not exceed 0.12 tons/year (0.11 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	1,242
TK-TO3	Thermal Oil	5,283
TK-TO4	Thermal Oil	1,928
TK-RS1 through TK-RS6	Resin	79,254(1)
TK-CA	Coupling Agent Solution	396
TK-AD	Binder Additive	396
TK-BS1 through TK-BS3	Binder Storage	792(1)
TK-DOD	De-Dust Oil	264
TK-ADB1	Additive Buffer	396
TK-ADB2	Additive Buffer	132
TK-GLY	Glycol	396

(1) This number represents the aggregate limit for all specified storage tanks.

d. 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 manufacturer's recommendations and regularly inspecting the tanks for areas of disrepair or failure that would allow the escape of VOC-containing vapors. Said activities shall be performed at a frequency in accordance with manufacturer recommendations or good engineering practices

[45CSR13; R14-0037, Condition 4.1.9]

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 316 horsepower (236 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:

Pollutant	Limit	Control Technology	PPH (kg/hr)	TPY (tonne/yr)
CO	n/a	n/a	0.42 (0.19)	0.10 (0.09)
NO_X	4.0 g/kw-hr	Subpart IIII Certification, Annual Hrs of Op Limit	1.78 (0.81)	0.45 (0.41)
$PM_{2.5}$(1)	PPH		0.07 (0.03)	0.02 (0.02)
PM_{10}(1)				
PM(2)	0.20 g/kw-hr		0.07 (0.03)	0.02 (0.01)
SO_2	PPH	ULSD Fuel, Annual Hrs of Op(3) Limit	0.01 (0.01)	0.01 (0.01)
VOCs		Subpart IIII Certification, Annual Hrs of Op(3) Limit	0.06 (0.03)	0.01 (0.01)

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

c. **40 C.F.R. 60, Subpart IIII**

The Emergency Fire Pump Engine shall meet all applicable requirements under 40 C.F.R. 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.
[45CSR16; 40 C.F.R. §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 + NO_X g/KW-hr (g/HP-hr)	CO	PM g/KW-hr (g/HP-hr)
225 ≤ KW < 450 (300 ≤ HP < 600)	2009+	4.0 (3.0)		0.20 (0.15)

[45CSR16; Table 4 of 40 C.F.R. 60, Subpart IIII]

3. Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 over the entire life of the engine.
[45CSR16; 40 C.F.R. §60.4206]

4. Owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 C.F.R. §1090.305 for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.
[45CSR16; 40 C.F.R. §60.4207(b)]

5. If you are an owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.
[45CSR16; 40 C.F.R. §60.4209(a)]

6. If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under 40 C.F.R. §60.4211(g):

   i. Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;

   ii. Change only those emission-related settings that are permitted by the manufacturer; and

   iii. Meet the requirements of 40 CFR part 1068, as they apply to you.

   [45CSR16; 40 C.F.R. §60.4211(a)]

7. If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in 40 C.F.R. §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to 40 C.F.R. 60 Subpart IIII and must comply with the emission standards specified in 40 C.F.R. §60.4205(c), you must comply by purchasing an engine certified to the emission standards in 40 C.F.R. §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and

configured according to the manufacturer's emission-related specifications, except as permitted in 40 C.F.R. §60.4211(g).
[45CSR16; 40 C.F.R. §60.4211(c)]

8. If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements in 40 C.F.R. §§60.4211(f)(1) through (3). In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in 40 C.F.R. §§60.4211(f)(1) through (3), is prohibited. If you do not operate the engine according to the requirements in 40 C.F.R. §§60.4211(f)(1) through (3), the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

   i. There is no time limit on the use of emergency stationary ICE in emergency situations.

   ii. You may operate your emergency stationary ICE for the purpose specified in 40 C.F.R. §§60.4211(f)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 C.F.R. §§60.4211(f)(3) counts as part of the 100 hours per calendar year allowed by this 40 C.F.R. §§60.4211(f)(2).

      A. Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

   iii. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of this section, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

      A. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

         A.1. The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

         A.2. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

A.3. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

A.4. The power is provided only to the facility itself or to support the local transmission and distribution system.

A.5. The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[45CSR16; 40 C.F.R. §60.4211(f)]

9. If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows:

i. If you are an owner or operator of a stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.

[45CSR16; 40 C.F.R. §60.4211(g)]

d. **40 C.F.R. 63, Subpart ZZZZ**
An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of §63.6590 must meet the requirements of this part by meeting the requirements of 40 C.F.R. part 60 subpart IIII, for compression ignition engines or 40 C.F.R. part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.
[45CSR34; 40 C.F.R. §63.6590(c)]

[45CSR13; R14-0037, Condition 4.1.10]

4.1.11. All building doors shall remain closed except as necessary for people or material to enter or exit the building.

Note: The underlying R14-0037A condition was appealed by ROXUL USA Inc. on December 11, 2023. During the pendency of its appeal, ROXUL USA Inc. moved to stay the application of this condition pending resolution of the appeal. The Air Quality Board granted ROXUL USA Inc.'s motion as to the 31 doors in categories 2, 3, and 4 but denied the motion as to all other exterior doors. ROXUL USA Inc.

subsequently withdrew its challenge to condition 4.1.11 as it applies to the eight exterior doors in the charging building.

[45CSR13; R14-0037, Condition 4.1.11]

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 1.1 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§13-5.10]**

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 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 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 C.F.R. 63, Subpart DDD**
   i. **§63.1181 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:

      A. Install, adjust, maintain, and continuously operate a bag leak detection system for each fabric filter.
      [45CSR34; 40 C.F.R. §63.1181(a)]

      B. 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.
      [45CSR34; 40 C.F.R. §63.1181(b)]

C. 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.
[45CSR34; 40 C.F.R. §63.1181(c)]

D. Develop and implement a written QIP consistent with compliance assurance monitoring requirements of 40 C.F.R. §§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.
[45CSR34; 40 C.F.R. §63.1181(d)]

ii. **§63.1184 What do I need to know about the design specifications, installation, and operation of a bag leak detection system?**
A bag leak detection system must meet the following requirements:

A. The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

B. The sensor on the bag leak detection system must provide output of relative PM emissions.

C. The bag leak detection system must have an alarm that will sound automatically when it detects an increase in relative PM emissions greater than a preset level.

D. The alarm must be located in an area where appropriate plant personnel will be able to hear it.

E. For a positive-pressure fabric filter, each compartment or cell must have a bag leak detector. For a negative-pressure or induced-air fabric filter, the bag leak detector must be installed downstream of the fabric filter. If multiple bag leak detectors are required (for either type of fabric filter), detectors may share the system instrumentation and alarm.

F. Each triboelectric bag leak detection system must be installed, operated, adjusted, and maintained so that it follows EPA's "Fabric Filter Bag Leak Detection Guidance" (EPA–454/R–98–015, September 1997). Other bag leak detection systems must be installed, operated, adjusted, and maintained so that they follow the manufacturer's written specifications and recommendations.

G. At a minimum, initial adjustment of the system must consist of establishing the baseline output in both of the following ways:

G.1. Adjust the range and the averaging period of the device.

G.2. Establish the alarm set points and the alarm delay time.

H. After initial adjustment, the range, averaging period, alarm set points, or alarm delay time may not be adjusted except as specified in the operations, maintenance, and monitoring plan required by § 63.1187 of this subpart. In no event may the range be increased by

more than 100 percent or decreased by more than 50 percent over a 365 day period unless a responsible official as defined in § 63.2 of the general provisions in subpart A of this part certifies in writing to the Administrator that the fabric filter has been inspected and found to be in good operating condition.

[45CSR34; 40 C.F.R. §63.1184]

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 9.86 mmBtu/hr 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.

[45CSR§6-4.3]

iii. The provisions of paragraph (ii) shall not apply to smoke which is less than forty percent (40%) opacity, for a period or periods aggregating no more than eight (8) minutes per start-up, or six (6) minutes in any sixty (60)-minute period for stoking operations.
[45CSR§6-4.4]

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.
[45CSR§6-4.5]

v. Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.
[45CSR§6-4.6]

vi. Due to an unavoidable malfunction of equipment, emissions exceeding any limitation in this rule may be permitted by the Secretary for periods not to exceed five (5) days upon specific application to the Secretary. 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 Secretary provided a corrective program has been submitted by the owner or operator and approved by the Secretary.
[45CSR§6-8.2]

3. **40 C.F.R. 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:
[45CSR34; 40 C.F.R. §63.1183]

A. Install, calibrate, maintain, and operate a device that continuously measures the operating temperature in the firebox of each thermal incinerator.
[45CSR34; 40 C.F.R. §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).
[45CSR34; 40 C.F.R. §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.
[45CSR34; 40 C.F.R. §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.
[45CSR34; 40 C.F.R. §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.
[45CSR34; 40 C.F.R. §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.
[45CSR34; 40 C.F.R. §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.
[45CSR34; 40 C.F.R. §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.
[45CSR34; 40 C.F.R. §63.1183(h)]

ii. **§63.1185 How do I establish the average operating temperature of an incinerator?**

A. During the performance test, you must establish the average operating temperature of an incinerator as follows:

A.1. Continuously measure the operating temperature of the incinerator.

A.2. Determine and record the average temperatures in consecutive 15-minute blocks.

A.3. Determine and record the arithmetic average of the recorded average temperatures measured in consecutive 15-minute blocks for each of the one-hour performance test runs.

A.4. Determine and record the arithmetic average of the three one-hour average temperatures during the performance test runs. The average of the three one-hour performance test runs establishes the temperature level to use to monitor compliance.

B. To comply with the requirements for maintaining the operating temperature of an incinerator after the performance test, you must measure and record the average operating temperature of the incinerator as required by §§ 63.1182 and 63.1183 of this subpart. This average operating temperature of the incinerator is based on the arithmetic average of the one-hour average temperatures for each consecutive three-hour period and is determined in the same manner described in paragraphs (a)(1) through (a)(4) of this section.

[45CSR34; 40 C.F.R. §63.1185]

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.

[45CSR13; R14-0037, Condition 4.1.12]

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 1.1 shall be in accordance with the specifications as given on the Emission Points Data Sheet in the most updated version of Permit Applications R14-0037 and R14-0037A.
[45CSR13; R14-0037, Condition 4.1.13]

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 C.F.R. 60 Subparts OOO and IIII, and 40 C.F.R. 63, Subparts DDD, JJJJ, ZZZZ, and DDDDD. Any final revisions made to the above rules will, where applicable. supersede those specifically cited in this permit.
[45CSR13; R14-0037, Condition 4.1.14]

4.2. Monitoring 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.
[45CSR13; R14-0037, Condition 4.2.1]

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 specific value under 4.1.
[45CSR13; R14-0037, Condition 4.2.2]

4.2.3. **Material/Production Throughputs**
To determine continuous compliance with maximum production, throughputs, and combustion limits given under 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.

[45CSR13; R14-0037, Condition 4.2.3]

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.).

[45CSR13; R14-0037, Condition 4.2.4]

4.2.5. To determine continuous compliance with the maximum hours of operations limits of conditions 4.1.4.e, 4.1.5.d and 4.1.6.d of this permit, the permittee shall monitor and record the hours of operations of Furnace IMF01, Spinning Chamber (SPN), Curing Oven (CO) and Fleece Application Operations.

[45CSR13; R14-0037, Condition 4.2.5]

4.2.6. **Melting Furnace CEMS (IMF01)**

In order to show continuous compliance with the CO, NO_X, and SO_2 emission limits as given under Table 4.1.4.a., the permittee 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 manufacturer's 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 C.F.R. Part 60, Appendix F, and the requirements of 40 C.F.R. §60.13. In lieu of the requirements of 40 C.F.R. 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.

[45CSR13; R14-0037, Condition 4.2.6]

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 C.F.R. 63, Subpart JJJJ, Section §63.3370(a)(iii).

[45CSR13; R14-0037, Condition 4.2.7]

c. **As-applied "compliant" coating materials.** If you comply by using coating materials that meet the emission standards in 40 C.F.R. §63.3320(b)(2) or (3) as-applied, you must demonstrate compliance by following one of the procedures in 40 C.F.R. §§63.3370(c)(1) through (4). Compliance is determined in accordance with 40 C.F.R. §63.3370(c)(5).

1. **Monthly average organic HAP content of all coating materials as-applied is less than the mass percent limit (**§ 63.3320(b)(2)). Demonstrate that the monthly average as-applied organic HAP content of all coating materials applied at an existing affected source is less than 0.04 kg organic HAP per kg of coating material applied, and all coating materials applied at a new affected source are less than 0.016 kg organic HAP per kg of coating material applied, as determined by Equation 8:

$$H_L = \frac{\sum_{i=1}^{p} C_{hi} M_i + \sum_{j=1}^{q} C_{hij} M_{ij} - M_{vret}}{\sum_{i=1}^{p} M_i + \sum_{j=1}^{q} M_{ij}} \qquad \text{(Equation 8)}$$

Where:

H_L = Monthly average, as-applied, organic HAP content of all coating materials applied, expressed as kg organic HAP per kg of coating material applied, kg/kg.

p = Number of different coating materials applied in a month.

C_{hi} = Organic HAP content of coating material, i, as-purchased, expressed as a mass fraction, kg/kg.

M_i = Mass of as-purchased coating material, i, applied in a month, kg.

q = Number of different materials added to the coating material.

C_{hij} = Organic HAP content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg.

M_{ij} = Mass of material, j, added to as-purchased coating material, i, in a month, kg.

M_{vret} = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in § 63.3370.

2. The affected source is in compliance with emission standards in §§63.3320(b)(2) or (3) if:

i. The monthly average organic HAP content of all as-applied coating materials at an existing affected source are no more than 0.04 kg organic HAP per kg coating material or 0.2 kg organic HAP per kg coating solids, and the monthly average organic HAP content of all as-applied coating materials at a new affected source is no more than 0.016 kg organic HAP per kg coating material or 0.08 kg organic HAP per kg coating solids.

[45CSR34; 40 C.F.R. §§63.3370(c)(3) and (c)(5)(ii)]

4.2.8. The permittee shall record the time and date of any "punking" event and shall notify WVDAQ within 48 hours of said event. Notification can be accomplished per condition 3.5.3 of this permit.
[45CSR13; R14-0037, Condition 4.2.8]

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.
[45CSR13; R14-0037, Condition 4.2.9]

4.2.10. *[Reserved]*

4.2.11. *[Reserved]*

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 C.F.R. 63, Subpart DDD, §63.1182.

[45CSR13; R14-0037, Condition 4.2.12]

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 C.F.R. 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;
[45CSR§2-3.2]

b. **45CSR6**
Compliance with the afterburner opacity requirements given under 4.1.12.f.2.ii and iii shall be based on the compliance demonstrations required for emission point HE01 as given under 4.2.13.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, 4.1.4.b, and 4.1.5.b shall be determined in accordance with the procedures outlined in 45CSR7A;

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

1. Monitoring of operations.

i. Except as specified in 40 C.F.R. §60.674(d) or (e), the owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses a baghouse to control emissions must conduct quarterly 30-minute visible emissions inspections using EPA Method 22 (40 CFR part 60, appendix A–7). The Method 22 (40 CFR part 60, appendix A–7) test shall be conducted while the baghouse is operating. The test is successful if no visible emissions are observed. If any visible emissions are observed, the owner or operator of the affected facility must initiate corrective action within 24 hours to return the baghouse to normal operation. The owner or operator must record each Method 22 (40 CFR part 60, appendix A–7) test, including the date and any corrective actions taken, in the logbook required under 40 C.F.R. §60.676(b). The owner or operator of the affected facility may establish a different baghouse-specific success level for the visible emissions test (other than no visible emissions) by conducting a PM performance test according to § 60.675(b) simultaneously with a Method 22 (40 CFR part 60, appendix A–7) to determine what constitutes normal visible emissions from that affected facility's baghouse when it is in compliance with the applicable PM concentration limit in Table 2 of this subpart. The revised visible emissions success level must be incorporated into the permit for the affected facility.

ii. As an alternative to the periodic Method 22 (40 CFR part 60, appendix A–7) visible emissions inspections specified in 40 C.F.R. §60.674(c), the owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses a baghouse to control emissions may use a bag leak detection system. The owner or operator must install, operate, and maintain the bag leak detection system according to 40 C.F.R. §§60.674(d)(1) through (3).

A. Each bag leak detection system must meet the specifications and requirements in 40 C.F.R. §§60.674(d)(1)(i) through (viii).

A.1. The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1 milligram per dry standard cubic meter (0.00044 grains per actual cubic foot) or less.

A.2. The bag leak detection system sensor must provide output of relative PM loadings. The owner or operator shall continuously record the output from the bag leak detection system using electronic or other means (e.g., using a strip chart recorder or a data logger).

A.3. The bag leak detection system must be equipped with an alarm system that will sound when the system detects an increase in relative particulate loading over the alarm set point established according to 40 C.F.R. §60.674(d)(1)(iv), and the alarm must be located such that it can be heard by the appropriate plant personnel.

A.4. In the initial adjustment of the bag leak detection system, the owner or operator must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.

A.5. Following initial adjustment, the owner or operator shall not adjust the averaging period, alarm set point, or alarm delay time without approval from the Administrator or delegated authority except as provided in 40 C.F.R. §60.674(d)(1)(vi).

A.6. Once per quarter, the owner or operator may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to the procedures identified in the site-specific monitoring plan required by 40 C.F.R. §60.674(d)(2).

A.7. The owner or operator must install the bag leak detection sensor downstream of the fabric filter.

A.8. Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

B. The owner or operator of the affected facility must develop and submit to the Administrator or delegated authority for approval of a site-specific monitoring plan for each bag leak detection system. The owner or operator must operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. Each monitoring plan must describe the items in 40 C.F.R. §§60.674(d)(2)(i) through (vi).

B.1. Installation of the bag leak detection system;

B.2. Initial and periodic adjustment of the bag leak detection system, including how the alarm set-point will be established;

B.3. Operation of the bag leak detection system, including quality assurance procedures;

B.4. How the bag leak detection system will be maintained, including a routine maintenance schedule and spare parts inventory list;

B.5. How the bag leak detection system output will be recorded and stored; and

B.6. Corrective action procedures as specified in 40 C.F.R. §60.674(d)(3). In approving the site-specific monitoring plan, the Administrator or delegated authority may allow owners and operators more than 3 hours to alleviate a specific condition that causes an alarm if the owner or operator identifies in the monitoring plan this specific condition as one that could lead to an alarm, adequately explains why it is not feasible to alleviate this condition within 3 hours of the time the alarm occurs, and demonstrates that the requested time will ensure alleviation of this condition as expeditiously as practicable.

C. For each bag leak detection system, the owner or operator must initiate procedures to determine the cause of every alarm within 1 hour of the alarm. Except as provided in 40 C.F.R. §§60.674(d)(2)(vi), the owner or operator must alleviate the cause of the alarm within 3 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:

C.1. Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;

C.2. Sealing off defective bags or filter media;

C.3. Replacing defective bags or filter media or otherwise repairing the control device;

C.4. Sealing off a defective fabric filter compartment;

C.5. Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or

C.6. Shutting down the process producing the PM emissions.

iii. As an alternative to the periodic Method 22 (40 CFR part 60, appendix A–7) visible emissions inspections specified in 40 C.F.R. §60.674(c), the owner or operator of any affected facility that is subject to the requirements for processed stone handling operations in the Lime Manufacturing NESHAP (40 CFR part 63, subpart AAAAA) may follow the continuous compliance requirements in row 1 items (i) through (iii) of table 6 to subpart AAAAA of 40 CFR part 63.

[45CSR16; 40 C.F.R. §§60.674(c) through (e)](IMF07, IMF10, IMF11)

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

1. In order to determine compliance with the opacity limits of 4.1.2.i, 4.1.4.b, and 4.1.5.b of this permit, the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for Emission Points IMF01, HE01, and CE01 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 40 C.F.R. Part 60, Appendix A, Method 22 or from the lecture portion of the 40 C.F.R. 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 4.1.2.i, 4.1.4.b, and 4.1.5.b 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 4.2.13 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 40 C.F.R. 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.

[45CSR13; R14-0037, Condition 4.2.13]

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 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.
[45CSR13; R14-0037, Condition 4.2.14]

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
[45CSR13; R14-0037, Condition 4.2.15]

4.2.16. **40 C.F.R. 63 Subpart DDD**
What do I need to know about operations, maintenance, and monitoring plans?

a. An operations, maintenance, and monitoring plan must be submitted to the Administrator for review and approval as part of your application for the title V permit.

b. The operations, maintenance, and monitoring plan must include the following:

1. Process and control device parameters you will monitor to determine compliance, along with established operating levels or ranges for each process or control device.

2. A monitoring schedule.

3. Procedures for properly operating and maintaining control devices used to meet the standards in §§ 63.1178 and 63.1179 of this subpart. These procedures must include an inspection of each incinerator at least once per year. At a minimum, you must do the following as part of an incinerator inspection:

i. Inspect all burners, pilot assemblies, and pilot sensing devices for proper operation. Clean pilot sensor if necessary.

ii. Ensure proper adjustment of combustion air, and adjust if necessary.

iii. Inspect, when possible, all internal structures (such as baffles) to ensure structural integrity per the design specifications.

iv. Inspect dampers, fans, and blowers for proper operation.

v. Inspect motors for proper operation.

vi. Inspect, when possible, combustion chamber refractory lining. Clean, and repair or replace lining if necessary.

vii. Inspect incinerator shell for proper sealing, corrosion, and/or hot spots.

viii. For the burn cycle that follows the inspection, document that the incinerator is operating properly and make any necessary adjustments.

ix. Generally observe whether the equipment is maintained in good operating condition.

x. Complete all necessary repairs as soon as practicable.

4. Procedures for keeping records to document compliance.

5. Corrective actions you will take if process or control device parameters vary from the levels established during performance testing. For bag leak detection system alarms, example corrective actions that may be included in the operations, maintenance, and monitoring plan include:

i. Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.

ii. Sealing off defective bags or filter media.

iii. Replacing defective bags or filter media, or otherwise repairing the control device.

iv. Sealing off a defective fabric filter compartment.

v. Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system.

vi. Shutting down the process producing the particulate emissions.

[45CSR34; 40 C.F.R. §63.1187]

4.3. 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.
[45CSR13; R14-0037, Condition 4.3.1]

4.3.2. **Emission Point Performance Testing**
Within 12 months of the issuance of permit R14-0037A, 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	PPH[(2)]

		4.1.4.a with the exception of Mineral Fiber, and Total HAPs	
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, and Total HAPs	PPH(2)
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.

[45CSR13; R14-0037, Condition 4.3.2]

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	<90% of weight emission standard	Once/3 years
Initial Baseline	>90% of weight emission standard	Annual
Annual	after three successive tests indicate mass emission rates <90% of weight emission standard	Once/3 years
Annual	any tests indicates a mass emission rate >90% of weight emission standard	Annual
Once/3 years	any tests indicates a mass emission rate <90% of weight emission standard	Once/3 years
Once/3 years	any test indicates a mass emission rate >90% of weight emission standard	Annual

[45CSR13; R14-0037, Condition 4.3.3]

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 4.3.3 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.
[45CSR13; R14-0037, Condition 4.3.4]

4.3.5. The permittee shall use the test methods specified in Table 4.3.5 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 C.F.R. 60, Appendix A

[45CSR13; R14-0037, Condition 4.3.5]

4.3.6. **40 C.F.R. 60, Subpart OOO**

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

a. In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendices A–1 through A–7 of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b). Acceptable alternative methods and procedures are given in paragraph (e) of this section.

b. The owner or operator shall determine compliance with the PM standards in § 60.672(a) as follows:

1. Except as specified in paragraphs (e)(3) and (4) of this section, Method 5 of appendix A–3 of this part or Method 17 of appendix A–6 of this part shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5 (40 CFR part 60, appendix A–3), if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.

2. Method 9 of appendix A–4 of this part and the procedures in § 60.11 shall be used to determine opacity.

c. 1. In determining compliance with the particulate matter standards in § 60.672(b) or § 60.672(e)(1), the owner or operator shall use Method 9 of appendix A–4 of this part and the procedures in § 60.11, with the following additions:

i. The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

ii. The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9 of appendix A–4 of this part, Section 2.1) must be followed.

iii. For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.

2. i. In determining compliance with the opacity of stack emissions from any baghouse that controls emissions only from an individual enclosed storage bin under § 60.672(f) of this subpart, using Method 9 (40 CFR part 60, appendix A–4), the duration of the Method 9 (40 CFR part 60, appendix A–4) observations shall be 1 hour (ten 6-minute averages).

ii. The duration of the Method 9 (40 CFR part 60, appendix A–4) observations may be reduced to the duration the affected facility operates (but not less than 30 minutes) for baghouses that control storage bins or enclosed truck or railcar loading stations that operate for less than 1 hour at a time.

3. When determining compliance with the fugitive emissions standard for any affected facility described under § 60.672(b) or § 60.672(e)(1) of this subpart, the duration of the Method 9 (40 CFR part 60, appendix A–4) observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in Table 3 of this subpart must be based on the average of the five 6-minute averages.

d. To demonstrate compliance with the fugitive emission limits for buildings specified in § 60.672(e)(1), the owner or operator must complete the testing specified in paragraph (d)(1) and (2) of this section. Performance tests must be conducted while all affected facilities inside the building are operating.

1. If the building encloses any affected facility that commences construction, modification, or reconstruction on or after April 22, 2008, the owner or operator of the affected facility must conduct an initial Method 9 (40 CFR part 60, appendix A–4) performance test according to this section and § 60.11.

2. If the building encloses only affected facilities that commenced construction, modification, or reconstruction before April 22, 2008, and the owner or operator has previously conducted an initial Method 22 (40 CFR part 60, appendix A–7) performance test showing zero visible emissions, then the owner or operator has demonstrated compliance with the opacity limit in § 60.672(e)(1). If the owner or operator has not conducted an initial performance test for the building before April 22, 2008, then the owner or operator must conduct an initial Method 9 (40

CFR part 60, appendix A–4) performance test according to this section and § 60.11 to show compliance with the opacity limit in § 60.672(e)(1).

e. The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

1. For the method and procedure of paragraph (c) of this section, if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:

i. Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.

ii. Separate the emissions so that the opacity of emissions from each affected facility can be read.

2. A single visible emission observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions are met:

i. No more than three emission points may be read concurrently.

ii. All three emission points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points.

iii. If an opacity reading for any one of the three emission points equals or exceeds the applicable standard, then the observer must stop taking readings for the other two points and continue reading just that single point.

3. Method 5I of appendix A–3 of this part may be used to determine the PM concentration as an alternative to the methods specified in paragraph (b)(1) of this section. Method 5I (40 CFR part 60, appendix A–3) may be useful for affected facilities that operate for less than 1 hour at a time such as (but not limited to) storage bins or enclosed truck or railcar loading stations.

4. In some cases, velocities of exhaust gases from building vents may be too low to measure accurately with the type S pitot tube specified in EPA Method 2 of appendix A–1 of this part [i.e., velocity head <1.3 mm H_2O (0.05 in. H_2O)] and referred to in EPA Method 5 of appendix A–3 of this part. For these conditions, the owner or operator may determine the average gas flow rate produced by the power fans (e.g., from vendor-supplied fan curves) to the building vent. The owner or operator may calculate the average gas velocity at the building vent measurement site using Equation 1 of this section and use this average velocity in determining and maintaining isokinetic sampling rates.

$$V_e = \frac{Q_f}{A_e} \quad \text{(Equation 1)}$$

Where:

V_e = average building vent velocity (feet per minute);

Q_f = average fan flow rate (cubic feet per minute); and

A_e = area of building vent and measurement location (square feet).

f. To comply with § 60.676(d), the owner or operator shall record the measurements as required in § 60.676(c) using the monitoring devices in § 60.674 (a)(1) and (2) during each particulate matter run and shall determine the averages.

g. For performance tests involving only Method 9 (40 CFR part 60 appendix A–4) testing, the owner or operator may reduce the 30-day advance notification of a performance test in § 60.7(a)(6) and 60.8(d) to a 7-day advance notification.

h. [Reserved]

i. If the initial performance test date for an affected facility falls during a seasonal shut down (as defined in § 60.671 of this subpart) of the affected facility, then with approval from the permitting authority, the owner or operator may postpone the initial performance test until no later than 60 calendar days after resuming operation of the affected facility.

[45CSR16, 40 C.F.R. §60.675, 45CSR13; R14-0037, Condition 4.3.6]

4.3.7. **40 C.F.R. 63, Subpart DDD**

The permittee shall meet all applicable Performance Testing requirements as given under 40 C.F.R. 63, Subpart DDD, Sections §63.1188 through §63.1190.

a. You must meet the following performance test requirements:

1. All monitoring systems and equipment must be installed, operational, and properly calibrated before the performance tests.

2. Conduct a performance test, consisting of three test runs, for each cupola and curing oven or combined collection/curing operation subject to this subpart at the maximum production rate to demonstrate compliance with each of the applicable emissions limits specified in Table 2 to this subpart.

3. Following the initial performance or compliance test to be conducted within 180 days of the effective date of this rule, you must conduct a performance test to demonstrate compliance with each of the applicable emissions limits specified in Table 2 to this subpart, at least once every 5 years.

4. To demonstrate compliance with the applicable emission limits specified in Table 2 to this subpart, measure emissions of PM, carbon monoxide, carbonyl sulfide, hydrogen fluoride, and hydrogen chloride from each existing, new, or reconstructed cupola.

5. To demonstrate compliance with the applicable emission limits specified in Table 2 to this subpart, measure emissions of formaldehyde, phenol, and methanol from each existing, new, or reconstructed curing oven or combined collection/curing operation.

6. To demonstrate compliance with the applicable emission limits specified in Table 2 to this subpart, measure emissions at the outlet of the control device for PM, carbon monoxide, carbonyl sulfide, hydrogen fluoride, hydrogen chloride, formaldehyde, phenol, and methanol.

7. To determine the average melt rate, measure and record the amount of raw materials, excluding coke, charged into and melted in each cupola during each performance test run. Determine and record the average hourly melt rate for each performance test run. Determine and record the arithmetic average of the average hourly melt rates associated with the three performance test runs. The average hourly melt rate of the three performance test runs is used to determine compliance with the applicable emission limits.

8. Compute and record the average emissions of the three performance test runs and use the equations in § 63.1190 of this subpart to determine compliance with the applicable emission limits.

9. Comply with control device and process operating parameter monitoring requirements for performance testing as specified in this subpart.

[45CSR34; 40 C.F.R. §63.1188]

b. You must use the following test methods to determine compliance with the applicable emission limits:

1. Method 1 in appendix A to part 60 of this chapter for the selection of the sampling port locations and number of sampling ports.

2. Method 2 in appendix A to part 60 of this chapter for stack gas velocity and volumetric flow rate.

3. Method 3 or 3A in appendix A to part 60 of this chapter for oxygen and carbon dioxide for diluent measurements needed to correct the concentration measurements to a standard basis.

4. Method 4 in appendix A to part 60 of this chapter for moisture content of the stack gas.

5. Method 5 in appendix A to part 60 of this chapter for the concentration of PM. Each PM test run must consist of a minimum run time of three hours and a minimum sample volume of 3.75 dscm (135 dscf).

6. Method 10 in appendix A to part 60 of this chapter for the concentration of CO, using the continuous sampling option described in section 7.1.1 of the method. Each CO test run must consist of a minimum run time of one hour.

7. Method 318 at 40 CFR part 60, appendix A to this part for the concentration of formaldehyde, phenol, methanol, and carbonyl sulfide.

8. Method to determine the free-formaldehyde content of each resin lot in appendix A of this subpart.

9. Method 26A or 320 at 40 CFR part 60, appendix A to this part for the concentration of hydrogen fluoride and hydrogen chloride.

[45CSR34; 40 C.F.R. §63.1189]

c. How do I determine compliance?

1. Using the results of the performance tests, you must use the following equation to determine compliance with the PM emission limit:

$$E = \frac{C \times Q \times K_1}{P}$$

where:

E = Emission rate of PM, kg/Mg (lb/ton) of melt.

C = Concentration of PM, g/dscm (gr/dscf).

Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr).

K_1 = Conversion factor, 1 kg/1,000 g (1 lb/7,000 gr).

P = Average melt rate, Mg/hr (ton/hr).

2. Using the results from the performance tests, you must use the following equation to determine compliance with the carbon monoxide, carbonyl sulfide, hydrogen fluoride, hydrogen chloride, formaldehyde, phenol, and methanol numerical emissions limits as specified in Table 2 to this subpart:

$$E = \frac{C \times MW \times Q \times K_1 \times K_2}{K_3 \times P \times 10^6}$$

where:

E = Emission rate of measured pollutant, kg/Mg (lb/ton) of melt.

C = Measured volume fraction of pollutant, ppm.

MW = Molecular weight of measured pollutant, g/g-mole: Carbon monoxide = 28.01, carbonyl sulfide = 60.07, hydrogen fluoride = 20.01, hydrogen chloride = 36.46, Formaldehyde = 30.03, Phenol = 94.11, Methanol = 32.04.

Q = Volumetric flow rate of exhaust gases, dscm/hr (dscf/hr).

K_1 = Conversion factor, 1 kg/1,000 g (1 lb/453.6 g).

K_2 = Conversion factor, 1,000 L/m^3 (28.3 L/ft^3).

K_3 = Conversion factor, 24.45 L/g-mole.

P = Average melt rate, Mg/hr (ton/hr)

[45CSR34; 40 C.F.R. §63.1190]

[45CSR13; R14-0037, Condition 4.3.7]

4.4. Recordkeeping Requirements

4.4.1. **Record of Monitoring.** The permittee shall keep records of monitoring information that include the following:

a. The date, place as defined in this permit and time of sampling or measurements;

b. The date(s) analyses were performed;

c. The company or entity that perform the analyses;

d. The analytical techniques or methods used;

e. The results of analyses, and

f. The operating conditions existing at the time of sampling or measurement.

[45CSR13; R14-0037, Condition 4.4.1]

4.4.2. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.1, the permittee shall maintain records of all required pollution control equipment inspection and/or preventative maintenance procedures.

[45CSR13; R14-0037, Condition 4.4.2]

4.4.3. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.1, 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.

[45CSR13; R14-0037, Condition 4.4.3]

4.4.4. **40 C.F.R. 60, Subpart OOO**

a. 1. Owners or operators of affected facilities (as defined in 40 C.F.R. §§60.670 and 60.671) for which construction, modification, or reconstruction commenced on or after April 22, 2008, must record each periodic inspection required under 40 C.F.R. §60.674(b) or (c), including dates and any corrective actions taken, in a logbook (in written or electronic format). The owner or operator must keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Administrator upon request

2. For each bag leak detection system installed and operated according to 40 C.F.R. §60.674(d), the owner or operator must keep the records specified in 40 C.F.R. §§60.676(b)(2)(i) through (iii).

i. Records of the bag leak detection system output;

ii. Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings; and

iii. The date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, the cause of the alarm, an explanation of the actions taken, the date and time the cause of the alarm was alleviated, and whether the cause of the alarm was alleviated within 3 hours of the alarm.

3. The owner or operator of each affected facility demonstrating compliance according to 40 C.F.R. §60.674(e) by following the requirements for processed stone handling operations in the Lime Manufacturing NESHAP (40 CFR part 63, subpart AAAAA) must maintain records of visible emissions observations required by 40 C.F.R. §§63.7132(a)(3) and (b) of 40 CFR part 63, subpart AAAAA.

[45CSR16; 40 C.F.R. §60.676(b)]

4.4.5. **40 C.F.R. 63, Subpart DDD**

You must meet the following recordkeeping requirements:

a. Maintain files of all information required by 40 C.F.R. §63.10(b) of the general provisions in subpart A of this part, including all notifications and reports.

b. Maintain records of the following information also:

1. Cupola production (melt) rate (Mg/hr (tons/hr) of melt).

2. All bag leak detection system alarms. Include the date and time of the alarm, when corrective actions were initiated, the cause of the alarm, an explanation of the corrective actions taken, and when the cause of the alarm was corrected.

3. The free-formaldehyde content of each resin lot and the binder formulation, including formaldehyde content, of each binder batch used in the manufacture of bonded products.

4. Incinerator operating temperature and results of incinerator inspections. For all periods when the average temperature in any three-hour block period fell below the average temperature established during the performance test, and all periods when the inspection identified incinerator components in need of repair or maintenance, include the date and time of the problem, when corrective actions were initiated, the cause of the problem, an explanation of the corrective actions taken, and when the cause of the problem was corrected.

c. Retain each record for at least five years following the date of each occurrence, measurement, corrective action, maintenance, record, or report. The most recent two years of records must be retained at the facility. The remaining three years of records may be retained off site.

d. Records must be maintained in a form suitable and readily available for expeditious review, according to 40 C.F.R. §63.10 of the General Provisions that are referenced in Table 1 to this subpart. Electronic recordkeeping is encouraged.

e. Report the required information on paper or on a labeled computer disk using commonly available and compatible computer software.

[45CSR34; 40 C.F.R. §63.1192]

4.4.6. **40 C.F.R. 63, Subpart JJJJ**

a. Each owner or operator of an affected source subject to this subpart must maintain the records specified in 40 C.F.R. §§63.3410(a)(1) and (2) on a monthly basis in accordance with the requirements of 40 C.F.R. §63.10(b)(1):

1. Records specified in 40 C.F.R. §63.10(b)(2) of all measurements needed to demonstrate compliance with this standard as indicated in Table 2 to subpart JJJJ of part 63, including:

i. Continuous emission monitor data in accordance with the requirements of 40 C.F.R. §63.3350(d);

ii. Control device and capture system operating parameter data in accordance with the requirements of 40 C.F.R. §§63.3350(c), (e), and (f);

iii. Organic HAP content data for the purpose of demonstrating compliance in accordance with the requirements of 40 C.F.R. §63.3360(c);

iv. Volatile matter and coating solids content data for the purpose of demonstrating compliance in accordance with the requirements of 40 C.F.R. §63.3360(d);

v. Overall control efficiency determination using capture efficiency and control device destruction or removal efficiency test results in accordance with the requirements of 40 C.F.R. §§63.3360(e) and (f);

vi. Material usage, organic HAP usage, volatile matter usage, and coating solids usage and compliance demonstrations using these data in accordance with the requirements of 40 C.F.R. §§63.3370(b), (c), and (d); and

vii. Emission factor development calculations and HAP content for coating materials used to develop the emission factor as needed for 40 C.F.R. §63.3360(g).

2. Records specified in 40 C.F.R. §63.10(c) for each CMS operated by the owner or operator in accordance with the requirements of 40 C.F.R. §63.3350(b), as indicated in Table 2 to subpart JJJJ of part 63.

b. Each owner or operator of an affected source subject to this subpart must maintain records of all liquid-liquid material balances performed in accordance with the requirements of 40 C.F.R. §63.3370. The records must be maintained in accordance with the applicable requirements of 40 C.F.R. §63.10(b).

c. For each deviation from an operating limit occurring at an affected source, you must record the following information.

1. The total operating time the web coating line(s) controlled by the corresponding add-on control device and/or emission capture system during the reporting period.

2. Date, time, duration, and cause of the deviations.

3. If the facility determines by its monthly compliance demonstration, in accordance with § 63.3370, as applicable, that the source failed to meet an applicable emission limit of this subpart, you must record the following for the corresponding affected equipment:

i. Record an estimate of the quantity of HAP (or VOC if used a surrogate in accordance with § 63.3360(d)) emitted in excess of the emission limit for the month, and a description of the method used to estimate the emissions.

ii. Record actions taken to minimize emissions in accordance with § 63.3340(a), and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

d. Records of results from the annual catalyst activity test, if applicable.

e. Any records required to be maintained by this part that are submitted electronically via EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation.

[45CSR34; 40 C.F.R. §63.3410]

4.4.7. **40 C.F.R. 63, Subpart DDDDD**

a. You must keep records according to 40 C.F.R. §63.7555(a)(1) and (2).

1. A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in 40 C.F.R. §63.10(b)(2)(xiv).

2. Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in 40 C.F.R. §63.10(b)(2)(viii).

[45CSR34; 40 C.F.R. §§63.7555(a)(1), (2)]

b. Your records must be in a form suitable and readily available for expeditious review, according to 40 C.F.R. §63.10(b)(1).
[45CSR34; 40 C.F.R. §63.7560(a)]

c. As specified in 40 C.F.R. §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
[45CSR34; 40 C.F.R. §63.7560(b)]

d. You must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 C.F.R. §63.10(b)(1). You can keep the records off site for the remaining 3 years.
[45CSR34; 40 C.F.R. §63.7560(c)]

4.4.8. **40 C.F.R. 60, Subpart IIII**

a. If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to 40 C.F.R. 60 Subpart IIII, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.
[45CSR16; 40 C.F.R. §60.4214(b)]

b. If you own or operate an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates for the purpose specified in §60.4211(f)(3)(i), you must submit an annual report according to the requirements in paragraphs §§60.4214(d)(1) through (3).

1. The reports must contain the following information:

i. Company name and address where the engine is located.
ii. Date of the report and beginning and ending dates of the reporting period.
iii. Engine site rating and model year.
iv. Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.
v. Hours spent for operation for the purposes specified in §60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in §60.4211(f)(3)(i). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

2. The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

3. The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in §60.4.

[45CSR16, 40 C.F.R. §60.4214(d)]

4.5. 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.

[45CSR13; R14-0037, Condition 4.5.1]

4.5.2. **40 C.F.R. 60, Subpart OOO**
The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in 40 C.F.R. §60.672 of this subpart, including reports of opacity observations made using Method 9 (40 CFR part 60, appendix A–4) to demonstrate compliance with 40 C.F.R. §§60.672(b), (e) and (f).

[45CSR16; 40 C.F.R. §60.676(f)]

4.5.3. **40 C.F.R. 63, Subpart DDD**
You must prepare and submit reports to the Administrator as required by this subpart and 40 C.F.R. §63.10 of the general provisions in subpart A of this part. These reports include, but are not limited to, the following:

a. Within 60 days after the date of completing each performance test (as defined in § 63.2) required by this subpart, you must submit the results of the performance tests, including any associated fuel analyses, following the procedure specified in either paragraph (a)(1) or (2) of this section

1. For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (http://www.epa.gov/ttn/chief/ert/index.html), you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (http://cdx.epa.gov/epa_home.asp). Performance test data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit performance test data in an electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site, once the XML schema is available. If you claim that some of the performance test information being submitted is confidential business information (CBI), you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404–02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph.

2. For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site, you must submit the results of the performance test to the Administrator at the appropriate address listed in § 63.13.

b. A report of each event as required by § 63.10(b) of the general provisions in subpart A of this part, including a report if an action taken during a startup, shutdown, or malfunction is inconsistent with the procedures in the plan as described in § 63.6(e)(3) of the general provisions in subpart A of this part.

c. An operations, maintenance, and monitoring plan as specified in § 63.1187 of this subpart.

d. A semiannual report as required by § 63.10(e)(3) of the general provisions in subpart A of this part if measured emissions exceed the applicable standard or a monitored parameter varies from the level established during performance testing. The report must contain the information specified in § 63.10(c) of the general provisions, as well as the relevant records required by § 63.1192(b) of this subpart.

e. A semiannual report stating that no excess emissions or deviations of monitored parameters occurred during the reporting period as required by § 63.10(e)(3)(v) of the general provisions in subpart A of this part if no deviations have occurred.

f. All reports required by this subpart not subject to the requirements in paragraph (a) of this section must be sent to the Administrator at the appropriate address listed in § 63.13. If acceptable to both the Administrator and the owner or operator of a source, these reports may be submitted on electronic media. The Administrator retains the right to require submittal of reports subject to paragraph (a) of this section in paper format.

[45CSR34; 40 C.F.R. §63.1193]

4.5.4. **40 C.F.R. 63, Subpart JJJJ**

a. **Reports.** Each owner or operator of an affected source subject to this subpart must submit the reports specified in 40 C.F.R. §§63.3400(b) through (k) of this section to the Administrator.

b. **Initial notifications.** You must submit an initial notification as required by 40 C.F.R. §63.9(b), using the procedure in 40 C.F.R. §63.3400(h).

1. Initial notification for existing affected sources must be submitted no later than 1 year before the compliance date specified in 40 C.F.R. §63.3330(a), or no later than 120 days after the source becomes subject to this subpart, whichever is later.

2. Initial notification for new and reconstructed affected sources must be submitted as required by 40 C.F.R. §63.9(b).

3. For the purpose of this subpart, a title V or part 70 permit application may be used in lieu of the initial notification required under 40 C.F.R. §63.9(b), provided the same information is contained in the permit application as required by 40 C.F.R. §63.9(b) and the State to which the permit application has been submitted has an approved operating permit program under part 70 of this chapter and has received delegation of authority from the EPA to implement and enforce this subpart.

4. If you are using a permit application in lieu of an initial notification in accordance with 40 C.F.R. §63.3400(b)(3), the permit application must be submitted by the same due date specified for the initial notification.

c. You must submit a semiannual compliance report according to 40 C.F.R. §§63.3400(c)(1) and (2).

1. Compliance report dates.

i. The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in 40 C.F.R. §63.3330 and ending on June 30 or December 31, whichever date is the first date following the end of the calendar half immediately following the compliance date that is specified for your affected source in 40 C.F.R. §63.3330.

ii. The first compliance report is due no later than July 31 or January 31, whichever date follows the end of the calendar half immediately following the compliance date that is specified for your affected source in 40 C.F.R. §63.3330. Prior to the electronic template being available in CEDRI for one year, the report must be postmarked or delivered by the aforementioned dates. After the electronic template has been available in CEDRI for 1 year, the next full report must be submitted electronically as described in 40 C.F.R. §63.3400(h).

iii. Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

iv. Each subsequent compliance report must be submitted electronically no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

v. For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and the permitting authority has established dates for submitting semiannual reports pursuant to 40 C.F.R. §70.6(a)(3)(iii)(A) or §71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting

authority has established instead of according to the dates in 40 C.F.R. §§63.3400(c)(1)(i) through (iv).

2. **Compliance report contents.** The compliance report must contain the information in paragraphs 40 C.F.R. §§63.3400(c)(2)(i) through (viii):

i. Company name and address.

ii. Statement by a responsible official with that official's name, title, and signature certifying the accuracy of the content of the report.

iii. Date of report and beginning and ending dates of the reporting period.

iv. If there are no deviations from any emission limitations (emission limit or operating limit) that apply to you, a statement that there were no deviations from the emission limitations during the reporting period, and that no CMS was inoperative, inactive, malfunctioning, out-of-control, repaired, or adjusted.

v. For each deviation from an emission limitation (emission limit or operating limit) that applies to you and that occurs at an affected source where you are not using a CMS to comply with the emission limitations in this subpart, the compliance report must contain the following information:

A. The total operating time of the web coating line(s) during the reporting period.

B. Information on the number, duration, and cause of deviations (including unknown cause), if applicable, and the corrective action taken.

C. An estimate of the quantity of each regulated pollutant emitted over the emission limits in 40 C.F.R. §63.3320 for each monthly period covered in the report if the source failed to meet an applicable emission limit of this subpart.

d. **Notification of Compliance Status.** You must submit a Notification of Compliance Status as specified in § 63.9(h). For affected sources that commence construction or reconstruction after September 19, 2019, the Notification of Compliance Status must be submitted electronically using the procedure in 40 C.F.R. §63.3400(h). For affected sources that commenced construction or reconstruction on or before September 19, 2019, the Notification of Compliance Status must be submitted electronically using the procedure in 40 C.F.R. §63.3400(h) starting July 9, 2021.

e. **Electronic reporting.** If you are required to submit reports following the procedure specified in this paragraph, you must submit reports to EPA via CEDRI, which can be accessed through EPA's CDX (https://cdx.epa.gov/). Initial notifications and notifications of compliance status must be submitted as portable document formats (PDF) to CEDRI using the attachment module of the ERT. You must use the semiannual compliance report template on the CEDRI website (https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri) for this subpart 1 year after it becomes available. The date report templates become available will be listed on the CEDRI website. The report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted. If you claim some of the information required to be submitted via CEDRI is CBI, submit a complete report, including

information claimed to be CBI to EPA. The report must be generated using the appropriate form on the CEDRI website. Submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404–02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to EPA via EPA's CDX as described earlier in this paragraph.

f. **Extension for CDX/CEDRI outage.** If you are required to electronically submit a report through CEDRI in EPA's CDX, you may assert a claim of EPA system outage for failure to timely comply with the reporting requirement. To assert a claim of EPA system outage, you must meet the requirements outlined in paragraphs (i)(1) through (7) of this section.

1. You must have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either EPA's CEDRI or CDX systems.

2. The outage must have occurred within the period of time beginning 5 business days prior to the date that the submission is due.

3. The outage may be planned or unplanned.

4. You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

5. You must provide to the Administrator a written description identifying:

   i. The date(s) and time(s) when CDX or CEDRI was accessed and the system was unavailable;

   ii. A rationale for attributing the delay in reporting beyond the regulatory deadline to EPA system outage;

   iii. Measures taken or to be taken to minimize the delay in reporting; and

   iv. The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

6. The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

7. In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved.

g. **Extension for force majeure events.** If you are required to electronically submit a report through CEDRI in EPA's CDX, you may assert a claim of force majeure for failure to timely comply with the reporting requirement. To assert a claim of force majeure, you must meet the requirements outlined in 40 C.F.R. §63.3400(j)(1) through (5).

1. You may submit a claim if a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning five business days

prior to the date the submission is due. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (e.g., hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (e.g., large scale power outage).

2. You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

3. You must provide to the Administrator:

   i. A written description of the force majeure event;

   ii. A rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event;

   iii. Measures taken or to be taken to minimize the delay in reporting; and

   iv. The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

4. The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

5. In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs.

[45CSR34; 40 C.F.R. §§63.3400(a), (b), (c), (e), (h), (i), and (j)]

4.5.5. **40 C.F.R. 63, Subpart DDDDD**

a. You must submit each report in Table 9 to this subpart that applies to you.
[45CSR34; 40 C.F.R. §63.7550(a)]

b. Unless the EPA Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report, according to paragraph (h) of this section, by the date in Table 9 to this subpart and according to the requirements in paragraphs (b)(1) through (4) of this section. For units that are subject only to a requirement to conduct subsequent annual, biennial, or 5-year tune-up according to § 63.7540(a)(10), (11), or (12), respectively, and not subject to emission limits or Table 4 operating limits, you may submit only an annual, biennial, or 5-year compliance report, as applicable, as specified in paragraphs (b)(1) through (4) of this section, instead of a semi-annual compliance report.

1. The first semi-annual compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in § 63.7495 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is

specified for your source in § 63.7495. If submitting an annual, biennial, or 5-year compliance report, the first compliance report must cover the period beginning on the compliance date that is specified for each boiler or process heater in § 63.7495 and ending on December 31 within 1, 2, or 5 years, as applicable, after the compliance date that is specified for your source in § 63.7495.

2. The first semi-annual compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for each boiler or process heater in § 63.7495. The first annual, biennial, or 5-year compliance report must be postmarked or submitted no later than January 31.

3. Each subsequent semi-annual compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. Annual, biennial, and 5-year compliance reports must cover the applicable 1-, 2-, or 5-year periods from January 1 to December 31.

4. Each subsequent semi-annual compliance report must be postmarked or submitted no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period. Annual, biennial, and 5-year compliance reports must be postmarked or submitted no later than January 31.

5. For each affected source that is subject to permitting regulations pursuant to part 70 or part 71 of this chapter, and if the permitting authority has established dates for submitting semiannual reports pursuant to 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established in the permit instead of according to the dates in paragraphs (b)(1) through (4) of this section.

[45CSR34; 40 C.F.R. §63.7550(b)]

c. A compliance report must contain the following information depending on how the facility chooses to comply with the limits set in this rule.

1. If the facility is subject to the requirements of a tune up you must submit a compliance report with the information in paragraphs (c)(5)(i) through (iii) of this section, (xiv) and (xvii) of this section, and paragraph (c)(5)(iv) of this section for limited-use boiler or process heater.

2. i. Company and Facility name and address

ii. Process unit information, emissions limitations, and operating parameter limitations.

iii. Date of report and beginning and ending dates of the reporting period.

iv. Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual, biennial, or 5-year tune-up according to § 63.7540(a)(10), (11), or (12) respectively. Include the date of the most recent burner inspection if it was not done annually, biennially, or on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown.

v. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

[45CSR34; 40 C.F.R. §63.7550(c)(1), (5)(i -iii), (xiv), (xvii)]

d. You must submit all reports required by Table 9 of this subpart electronically to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) You must use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for this subpart, you may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (http://www.epa.gov/ttn/chief/cedri/index.html), once the XML schema is available. If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at the appropriate address listed in § 63.13. You must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI.

[45CSR34; 40 C.F.R. §63.7550(h)(3)]

4.6. Compliance Plan

4.6.1. None.