# STATE OF MISSISSIPPI
# AIR POLLUTION CONTROL PERMIT

## AND PREVENTION OF SIGNIFICANT DETERIORATION AUTHORITY TO CONSTRUCT AIR EMISSIONS EQUIPMENT

**THIS CERTIFIES THAT**

Roxul USA, Inc.
4572 Cayce Road
Byhalia, Mississippi
Marshall County

has been granted permission to construct air emissions equipment to comply with emission limitations, monitoring requirements and other conditions set forth herein. This permit is issued in accordance with the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder and under authority granted by the Environmental Protection Agency under 40 CFR 52.01 and 52.21.

**MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD**

**AUTHORIZED SIGNATURE**
**MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY**

Issued: August 22, 2012

Permit No.: 1780-00052

56942 PER20120001

## Part I

## A. GENERAL CONDITIONS

1. This permit is for air pollution control purposes only. (Ref.: APC-S-2, Section I.D)

2. Any activities not identified in the application are not authorized by this permit. (Ref.: Miss. Code Ann. 49-17-29 1.b)

3. The knowing submittal of a permit application with false information may serve as the basis for the Permit Board to void the permit issued pursuant thereto or subject the applicant to penalties for operating without a valid permit pursuant to State Law. (Ref.: APC-S-2, Section II.B.5)

4. It is the responsibility of the applicant/permittee to obtain all other approvals, permits, clearances, easements, agreements, etc., which may be required including, but not limited to, all required local government zoning approvals or permits. (Ref.: APC-S-2, Section I.D.6)

5. The issuance of a permit does not release the permittee from liability for constructing or operating air emissions equipment in violation of any applicable statute, rule, or regulation of state or federal environmental authorities. (Ref.: APC-S-2, Section II.B.7)

6. 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 the permit, unless halting or reducing activity would create an imminent and substantial endangerment threatening the public health and safety of the lives and property of the people of this state. (Ref.: APC-S-2, Section II.B.15(a))

7. The permit and/or any part thereof may be modified, revoked, reopened, and reissued, or terminated for cause. Sufficient cause for a permit to be reopened shall exist when an air emissions stationary source becomes subject to Title V. 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. (Ref.: APC-S-2, Section II.B.15(b))

8. The permit does not convey any property rights of any sort, or any exclusive privilege. (Ref.: APC-S-2, Section II.B.15(c))

9. The permittee shall furnish to the DEQ within a reasonable time any information the DEQ 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 DEQ copies of records required to be kept by the permit or, for information claimed to be confidential, the permittee shall furnish such records to the DEQ along with a claim of confidentiality.

The permittee may furnish such records directly to the Administrator along with a claim of confidentiality. (Ref.: APC-S-2, Section II.B.15(d))

10. Design and Construction Requirements: The stationary source shall be designed and constructed so as to operate without causing a violation of an Applicable Rules and Regulations, without interfering with the attainment and maintenance of State and National Ambient Air Quality Standards, and such that the emission of air toxics does not result in an ambient concentration sufficient to adversely affect human health and well-being or unreasonably and adversely affect plant or animal life beyond the stationary source boundaries. (Ref.: APC-S-2, Section V.A)

11. Solids Removal: The necessary facilities shall be constructed so that solids removed in the course of control of air emissions may be disposed of in a manner such as to prevent the solids from becoming windborne and to prevent the materials from entering State waters without the proper environmental permits. (Ref.: Miss. Code Ann. 49-17-29)

12. Diversion and Bypass of Air Pollution Controls: The air pollution control facilities shall be constructed such that diversion from or bypass of collection and control facilities is not needed except as provided for in Regulation APC-S-1, "Air Emission Regulations for the Prevention, Abatement, and Control of Air Contaminants", Section 10. (Ref.: APC-S-1, Section 10)

13. Fugitive Dust Emissions from Construction Activities: The construction of the stationary source shall be performed in such a manner so as to reduce fugitive dust emissions from construction activities to a minimum. (Ref.: APC-S-2, Section V.A.4)

14. Right of Entry: The permittee shall allow the Mississippi Department of Environmental Quality Office of Pollution Control and the Mississippi Environmental Quality Permit Board and/or their representatives upon presentation of credentials:

    a) To enter upon the permittee's premises where an air emission source is located or in which any records are required to be kept under the terms and conditions of this permit; and

    b) At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any air emissions. (Ref.: Miss. Code Ann. 49-17-21)

15. Permit Modification or Revocation: After notice and opportunity for a hearing, the Permit Board may modify the permit or revoke it in whole or in part for good cause shown including, but not limited to:

    a) Persistent violation of any of the terms or conditions of this permit;

b) Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or

c) A change in federal, state, or local laws or regulations that require either a temporary or permanent reduction or elimination of previously authorized air emission.

(Ref.: APC-S-2, Section II.C)

16. Public Record and Confidential Information: Except for data determined to be confidential under the Mississippi Air & Water Pollution Control Law, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Mississippi Department of Environmental Quality, Office of Pollution Control. (Ref.: Miss. Code Ann. 49-17-39)

17. Permit Transfer: This permit shall not be transferred except upon approval of the Permit Board. (Ref.: APC-S-2, Section XVI.B)

18. Severability: The provisions of this permit are severable. If any provision of the permit, or the application of any provision of the permit to any circumstances, is challenged or held invalid, the validity of the remaining permit provisions and/or portions thereof or their application to other persons or sets of circumstances, shall not be affected thereby. (Ref. APC-S-2, Section I.D.7)

19. Permit Expiration: The permit to construct will expire if construction does not begin within eighteen (18) months from the date of issuance or if construction is suspended for eighteen (18) months or more. (Ref.: APC-S-2, Section V.C.1)

20. Certification of Construction: A new stationary source issued a Permit to Construct cannot begin operation until certification of construction by the permittee. Certification of construction for the purposes of this permit is defined as completion of the commissioning and testing of Emission Point AA-000 such that the facility can operate as a fully integrated facility. (Ref.: APC-S-2, Section V.D.3 and PSD Construction Permit issued on August 22, 2012)

21. Beginning Operation: Except as prohibited in Part I, Condition 24 of this permit, after certification of construction by the permittee, the Permit to Construct shall be deemed to satisfy the requirement for a permit to operate until the date the application for issuance or modification of the Title V Permit or the application for issuance or modification of the State Permit to Operate, whichever is applicable, is due. This provision is not applicable to a source excluded from the requirement for a permit to operate as provided by APC-S-2, Section XIII.G. (Ref.: APC-S-2, Section V.D.4)

22. Application for a Permit to Operate: Except as otherwise specified in Part I, Condition 24 of this permit, the application for issuance or modification of the State Permit to Operate or the Title V Permit, whichever is applicable, is due twelve (12)

months after beginning operation or such earlier date or time as specified in the Permit to Construct. The Permit Board may specify an earlier date or time for submittal of the application. Beginning operation will be assumed to occur upon certification of construction, unless the permittee specifies differently in writing. (Ref.: APC-S-2, Section V.D.5)

23. Operating Under a Permit to Construct: Except as otherwise specified in Part I, Condition 24 of this permit, upon submittal of a timely and complete application for issuance or modification of a State Permit to Operate or a Title V Permit, whichever is applicable, the applicant may continue to operate under the terms and conditions of the Permit to Construct and in compliance with the submitted application until the Permit Board issues, modifies, or denies the Permit to Operate. (Ref.: APC-S-2, Section V.D.6)

24. Application Requirements for a Permit to Operate for Moderate Modifications: For moderate modifications that require contemporaneous enforceable emissions reductions from more than one emission point in order to "net" out of PSD/NSR, the applicable Title V Permit to Operate or State Permit to Operate must be modified prior to beginning operation of the modified facilities. (Ref.: APC-S-2, Section V.D.7)

25. Compliance Testing: Regarding compliance testing:

    a) The results of any emissions sampling and analysis shall be expressed both in units consistent with the standards set forth in any Applicable Rules and Regulations or this permit and in units of mass per time.

    b) Compliance testing will be performed at the expense of the permittee.

    c) Each emission sampling and analysis report shall include but not be limited to the following:

        (1) detailed description of testing procedures;

        (2) sample calculation(s);

        (3) results; and

        (4) comparison of results to all Applicable Rules and Regulations and to emission limitations in the permit.

    (Ref.: APC-S-2, Section VI.B.3, 4, and 6)

## B. GENERAL NOTIFICATION REQUIREMENTS

1. Within fifteen (15) days of beginning actual construction, the permittee must notify DEQ in writing that construction has begun. (Ref.: APC-S-2, Section V.C.2)

2. The permittee must notify DEQ in writing when construction does not begin within eighteen (18) months of issuance or if construction is suspended for eighteen (18) months or more. (Ref.: APC-S-2, Section V.C.3)

3. Upon the completion of construction or installation of an approved stationary source or modification, the applicant shall notify the Permit Board that construction or installation was performed in accordance with the approved plans and specifications on file with the Permit Board. (Ref.: APC-S-2, Section V.D.1)

4. The Permit Board shall be promptly notified in writing of any change in construction from the previously approved plans and specifications or permit. If the Permit Board determines the changes are substantial, it may require the submission of a new application to construct with "as built" plans and specifications. Notwithstanding any provision herein to the contrary, the acceptance of an "as built" application shall not constitute a waiver of the right to seek compliance penalties pursuant to State Law. (Ref.: APC-S-2, Section V.D.2)

## PART II
## EMISSION POINT DESCRIPTION

The permittee is authorized to construct air emissions equipment for the emission of air contaminants from the Mineral Wool Insulation Manufacturing Facility:

| Emission Point | Description |
|---|---|
| **AA-000** | **Mineral Wool Insulation Manufacturing Facility** |
| **AA-100** | **Mineral Wool Line 1 (L1)** |
| AA-101 | Melting Furnace firing coke and secondary combustion materials equipped with one (1) baghouse; one (1) natural gas-fired afterburner with one (1) main burner; and one (1) pilot burner; and one (1) fabric filter with dry sorbent injection. |
| AA-102 | Spinning Chamber with pretreatment filtration and a wet electrostatic precipitator for control of particulate matter emissions. |
| AA-103 | Curing Oven consisting of two (2) natural gas-fired circulation burners and equipped with a filter of mineral wool and a natural gas-fired main burner afterburner. |
| AA-104 | Cooling Section with a filter of mineral wool for control of particulate matter emissions. |
| AA-105 | Cutting Dust Baghouse |
| AA-106 | Cooling Tower |
| AA-107 | Line Dust Baghouse |
| AA-108 | Vacuum Cleaning Baghouse |
| AA-109 | Fugitive Emissions from Material Handling |
| AA-110 | Natural Gas-Fired Branding Wheel |
| **AA-200** | **Mineral Wool Line 2 (L2)** |
| AA-201 | Melting Furnace firing coke and secondary combustion materials equipped with one (1) baghouse; one (1) natural gas-fired afterburner with one (1) main burner; and one (1) pilot burner; and one (1) fabric filter with dry sorbent injection. |
| AA-202 | Spinning Chamber with pretreatment filtration and a wet electrostatic precipitator for control of particulate matter emissions. |

| Emission Point | Description |
|---|---|
| AA-203 | Curing Oven consisting of two (2) natural gas-fired circulation burners and equipped with a filter of mineral wool and a natural gas-fired main burner afterburner. |
| AA-204 | Cooling Section with a filter of mineral wool for control of particulate matter emissions. |
| AA-205 | Cutting Dust Baghouse |
| AA-206 | Cooling Tower |
| AA-207 | Line Dust Baghouse |
| AA-208 | Vacuum Cleaning Baghouse |
| AA-209 | Fugitive Emissions from Material Handling |
| AA-210 | Natural Gas-Fired Branding Wheel |
| **AA-300** | **Recycle Plant (RP1)** |
| AA-301 | Curing Hall |
| AA-302 | De-dusting Baghouse |
| AA-303 | Five (5) raw material storage silos with bin vent filters for control of particulate matter emissions. |
| AA-304 | Melting Furnace Slag Crusher |
| AA-305 | Fugitive Emissions from Recycle Plant Material Handling |
| **AA-400** | **Bitumen Line (BIP1)** |
| AA-401 | Coating and Cooling equipped with a filter of mineral wool |
| AA-402 | Bitumen Storage Tank |
| **AA-500** | **Rockfon Line (RFN1)** |
| AA-501 | IR Zone |

| Emission Point | Description |
|---|---|
| AA-502 | Hot Press & Cure |
| AA-503 | De-dusting Baghouse |
| AA-504 | Drying Oven 1 |
| AA-505 | High Oven |
| AA-506 | Drying Oven 2 & 3 |
| AA-507 | Cooling Zone |
| **AA-600** | **Other Facility-Wide Operations and Activities** |
| AA-601 | Facility-Wide Miscellaneous Operations Subject to APC-S-6 |
| **AA-602** | **Facility-Wide Storage Tanks (not identified elsewhere herein)** |
| AA-602a | One (1) 581-gallon horizontal diesel fuel storage tank and one (1) 581-gallon horizontal used oil storage tank |
| AA-602b | Seven (7) 15,850-gallon vertical resin storage tanks, one (1) 15,850-gallon vertical de-dust oil storage tank, one (1) 264-gallon vertical coupling agent storage tank, one (1) 2,642-gallon vertical binder mix tank, one (1) 4,227-gallon vertical binder circulating tank, two (2) 793-gallon vertical binder day tanks, and two (2) 264-gallon vertical de-dust oil day tanks |
| **AA-603** | **Facility-Wide Fugitive Emissions** |
| AA-603a | Facility-Wide Fugitive Emissions from Roadways |

**PART III**
**EMISSION POINT SPECIFIC LIMITATIONS AND STANDARDS**

| Emission Point | Applicable Requirement | Condition Number | Pollutant/ Parameter | Limit/Standard |
|---|---|---|---|---|
| AA-000 *(Facility-wide)* | PSD Construction Permit Issued August 22, 2012 | III.1 | $CO_2e$ | 331,553.70 tpy |
| | | III.2 | $NO_x$ | 403.13 tpy |
| | | III.3 | CO | 211.30 tpy |
| | | III.4 | $SO_2$ | 1,035.39 tpy |
| | | III.5 | VOC | 356.83 tpy |
| | | III.6 | PM (filterable and condensable) | 570.47 tpy |
| | | | $PM_{10}$ (filterable and condensable) | 561.87 tpy |
| | | III.7 | $PM_{2.5}$ (filterable and condensable) | 510.37 tpy |
| | | III.8 | $H_2SO_4$ | 11.42 tpy |
| | | III.9 | HF | 4.84 tpy |
| | | III.10 | Opacity | 20% where otherwise not indicated and/or limited |
| | APC-S-1, Section 4.2(a) | III.11 | $SO_2$ | 500 ppmv |
| | APC-S-1, Section 4.2(b) | III.12 | $H_2S$ | 1 grain/100 standard cubic feet |
| | 40 CFR 63, Subpart A | III.13 | NESHAP – Subpart A | Applicability of General Provisions |
| AA-100 and AA-200 *(Mineral Wool Lines 1 and 2)* | PSD Construction Permit Issued August 22, 2012 | III.14 | $CO_2e$ | BACT: 163,049.74 tpy for each line and good operation and maintenance to improve energy efficiency |
| | 40 CFR 63.1177 | III.15 | NESHAP – Subpart DDD | Applicability |

| Emission Point | Applicable Requirement | Condition Number | Pollutant/ Parameter | Limit/Standard |
|---|---|---|---|---|
| AA-101 and AA-201 *(Melting Furnaces on Lines 1 and 2)* | PSD Construction Permit Issued August 22, 2012 | III.16 | PM (filterable) | BACT: 0.10 lb/ton of melt and use of baghouse |
| | 40 CFR 63.1178(a)(1) | | | 0.10 lb/ton of melt |
| | PSD Construction Permit Issued August 22, 2012 | III.17 | $PM/PM_{10}$ (filterable and condensable) | BACT: 1.24 lb/ton of melt and use of baghouse |
| | | III.18 | $PM_{2.5}$ (filterable and condensable) | BACT: 1.15 lb/ton of melt and use of baghouse |
| | | III.19 | $SO_2$ | BACT: 110.26 lb/hr based on 30-day average (based on CEM for $SO_2$) and use of a fabric filter with dry sorbent injection |
| | PSD Construction Permit Issued August 22, 2012 | III.20 | $H_2SO_4$ | BACT: 0.3 lb/short ton melt and use of a fabric filter with dry sorbent injection |
| | PSD Construction Permit Issued August 22, 2012 | III.21 | CO | BACT: Use of Afterburner |
| | | | VOC | |
| | 40 CFR 63.1178(a)(2) | | NESHAP | 0.1 lb CO/ton melt or 99% destruction efficiency of CO |
| | PSD Construction Permit Issued August 22, 2012 | III.22 | $NO_x$ | BACT: 33.07 lb/hr and good combustion practices |
| | | | | BACT: 0.078 lb/MMBTU for afterburner when utilizing Natural Gas only |
| | PSD Construction Permit Issued August 22, 2012 | III.23 | HF | BACT: Use of a fabric filter with dry sorbent injection; compliance with future applicable MACT requirements |

| Emission Point | Applicable Requirement | Condition Number | Pollutant/ Parameter | Limit/Standard |
|---|---|---|---|---|
| AA-102 and AA-202 *(Spinning Chambers on Lines 1 and 2)* | PSD Construction Permit Issued August 22, 2012 | III.24 | $PM/PM_{10}$ (filterable and condensable) | BACT: pretreatment filtration |
| | | | | 13.21 lb/hr |
| | | III.25 | $PM_{2.5}$ (filterable and condensable) | BACT: pretreatment filtration |
| | | | | 13.00 lb/hr |
| | PSD Construction Permit Issued August 22, 2012 | III.26 | $SO_2$ | BACT: Good operating practices |
| | | | $H_2SO_4$ | |
| | | | HF | |
| | | | $NO_x$ | |
| | | | CO | |
| | | | VOC | |
| AA-103 and AA-203 *(Curing Ovens on Lines 1 and 2)* | PSD Construction Permit Issued August 22, 2012 | III.27 | $PM/PM_{10}$ (filterable and condensable) | BACT: 6.25 lb/hr and use of a mineral wool filter |
| | | III.28 | $PM_{2.5}$ (filterable and condensable) | BACT: 5.18 lb/hr and use of a mineral wool filter |
| | | III.29 | $NO_x$ | BACT: 12.13 lb/hr and good combustion practices |
| | | | | BACT: 0.078 lb/MMBTU for circulation burners and afterburner when utilizing Natural Gas only |
| | | III.30 | $SO_2$ | BACT: Good operating practices |
| | | | $H_2SO_4$ | BACT: Good operating practices |
| | PSD Construction Permit Issued August 22, 2012 and | III.31 | CO | BACT: Use of Afterburner |
| | | | VOC | |
| | 40 CFR 63.1179(a)(1), (2) | | NESHAP | 0.06 lb of formaldehyde per ton melt or formaldehyde reduction of 80% |

| Emission Point | Applicable Requirement | Condition Number | Pollutant/ Parameter | Limit/Standard |
|---|---|---|---|---|
| AA-104 and AA-204 *(Cooling Sections for Lines 1 and 2)* | PSD Construction Permit Issued August 22, 2012 | III.32 | $PM/PM_{10}$ (filterable and condensable) | BACT: 10.99 lb/hr and use of a filter of mineral wool |
| | | III.33 | $PM_{2.5}$ (filterable and condensable) | BACT: 10.85 lb/hr and use of a filter of mineral wool |
| | | III.30 | $SO_2$ | BACT: Good operating practices |
| | | | $H_2SO_4$ | |
| | | III.34 | $NO_x$ | BACT: 0.03 lb/hr and good combustion practices |
| | | III.35 | CO | BACT: Use of afterburner |
| | | | VOC | |
| AA-105, AA-205 AA-107, AA-207, AA-108, AA-208, and AA-302 *(Cutting Dust, Line Dust, and Vacuum Cleaning Baghouses for Lines 1 and 2) and De-dusting Baghouses* | PSD Construction Permit Issued August 22, 2012 | III.36 | $PM/PM_{10}$ (filterable) | BACT: 0.0044 gr/dscf, use of baghouse, and good housekeeping practices |
| | | III.37 | $PM_{2.5}$ (filterable) | BACT: 0.0022 gr/dscf, use of baghouse, and good housekeeping practices |
| AA-106 and AA-206 *(Cooling Towers for Lines 1 and 2)* | PSD Construction Permit Issued August 22, 2012 | III.38 | $PM/PM_{10}/PM_{2.5}$ | BACT: High efficiency Mist Eliminators; 0.005% drift loss |
| AA-109 and AA-209 *(Fugitive Emissions from Material Handling on Lines 1 and 2)* | PSD Construction Permit Issued August 22, 2012 | III.39 | $PM/PM_{10}/PM_{2.5}$ | BACT: Partial enclosures and good housekeeping practices |

| Emission Point | Applicable Requirement | Condition Number | Pollutant/ Parameter | Limit/Standard |
|---|---|---|---|---|
| AA-110 and AA-210 *(Branding Wheels for Lines 1 and 2)* | PSD Construction Permit Issued August 22, 2012 | III.40 | $PM/PM_{10}/PM_{2.5}$ (filterable and condensable) | BACT: Good combustion practices |
| | | | $SO_2$ | |
| | | | $NO_x$ | |
| | | | VOC | |
| | | | CO | |
| AA-301 *(Curing Hall)* | PSD Construction Permit Issued August 22, 2012 | III.41 | $PM/PM_{10}/PM_{2.5}$ (filterable and condensable) | BACT: Good housekeeping practices |
| | | III.42 | VOC | BACT: Good operating practices |
| AA-303 *(Storage silos)* | PSD Construction Permit Issued August 22, 2012 | III.43 | $PM/PM_{10}/PM_{2.5}$ (filterable) | BACT: use of a fabric filter and good housekeeping practices |
| AA-304 *(Melting Furnace Slag Crusher in Recycle Plant)* | PSD Construction Permit Issued August 22, 2012 | III.44 | $PM/PM_{10}/PM_{2.5}$ | BACT: 12 hours/day, up to 360 hr/yr operational limit and good housekeeping practices |
| AA-305 *(Fugitive Emissions from Material Handling)* | PSD Construction Permit Issued August 22, 2012 | III.39 | $PM/PM_{10}/PM_{2.5}$ | BACT: Use of partial enclosures and good housekeeping practices |
| AA-401 *(Bitumen Coating and Cooling)* | PSD Construction Permit Issued August 22, 2012 and 40 CFR 63, Subpart LLLLL | III.45 | $PM/PM_{10}/PM_{2.5}$ (filterable and condensable) | BACT: Good operating practices in compliance with 40 CFR 63.8684 – Opacity < 20%; or reduce THC mass emissions by 95% |
| | 40 CFR 63.8681 | III.46 | NESHAP – Subpart LLLLL | Applicability |

| Emission Point | Applicable Requirement | Condition Number | Pollutant/ Parameter | Limit/Standard |
|---|---|---|---|---|
| AA-401 *(Bitumen Coating and Cooling)* | PSD Construction Permit Issued August 22, 2012 and 40 CFR 63.8684 | III.47 | VOC | BACT: 20 ppmv THC on a dry basis at 3% $O_2$ or controlled in accordance with Subpart LLLLL |
| | 40 CFR 63.8684 | III.48 | Opacity | 20%, and limit visible emissions from emission capture system to 20% of any period of consecutive valid observations totaling 60 minutes |
| AA-402 *(Bitumen Storage Tank)* | PSD Construction Permit Issued August 22, 2012 | III.42 | VOC | BACT: Good operating practices |
| | 40 CFR 63.8681 | III.46 | NESHAP – Subpart LLLLL | Applicability |
| | 40 CFR 63.8684 | III.49 | Opacity | 0% |
| *AA-500 (Rockfon Line)* | PSD Construction Permit Issued August 22, 2012 | III.50 | $CO_2e$ | BACT: 5454.22 tpy and good operation and maintenance to improve energy efficiency |
| AA-501 *(IR Zone for Rockfon Line)* | PSD Construction Permit Issued August 22, 2012 | III.51 | $PM/PM_{10}$ (filterable and condensable) | BACT: 0.97 tons/yr |
| | | III.52 | $PM_{2.5}$ (filterable and condensable) | BACT: 0.72 tons/yr |
| | | III.42 | VOC | BACT: Good operating practices |
| AA-502 *(Hot Press and Cure for Rockfon Line)* | PSD Construction Permit Issued August 22, 2012 | III.53 | $PM/PM_{10}$ (filterable and condensable) | BACT: 1.93 tons/yr |
| | | III.54 | $PM_{2.5}$ (filterable and condensable) | BACT: 1.45 tons/yr |
| | | III.42 | VOC | BACT: Good operating practices |

| Emission Point | Applicable Requirement | Condition Number | Pollutant/ Parameter | Limit/Standard |
|---|---|---|---|---|
| AA-503 *(De-dusting for Rockfon Line)* | PSD Construction Permit Issued August 22, 2012 | III.55 | $PM/PM_{10}$ (filterable) | BACT: 5.79 tons/yr and use of a baghouse and good housekeeping practices |
| | | III.56 | $PM_{2.5}$ (filterable) | BACT: 2.9 tons/yr and use of a baghouse and good housekeeping practices |
| AA-504, AA-505, and AA-506 *(Drying Oven 1, High Oven, and Drying Oven 2 & 3 on Rockfon Line)* | PSD Construction Permit Issued August 22, 2012 | III.57 | $PM/PM_{10}$ (filterable and condensable) | BACT: 10.72 tons/yr and good combustion practices |
| | | III.58 | $PM_{2.5}$ (filterable and condensable) | BACT: 8.03 tons/yr and good combustion practices |
| | | III.59 | $SO_2$ | BACT: Good combustion practices |
| | | | $NO_x$ | |
| | | | CO | |
| | | III.60 | VOC | BACT: Water-based coating with 1g/L VOC content |
| AA-507 *(Cooling Zone for Rockfon Line)* | PSD Construction Permit Issued August 22, 2012 | III.53 | $PM/PM_{10}$ (filterable and condensable) | BACT: 1.93 tons/yr and good operating practices |
| | | III.54 | $PM_{2.5}$ (filterable and condensable) | BACT: 1.45 tons/yr and good operating practices |
| | | III.60 | VOC | BACT: Water-based coating with 1g/L VOC content |
| AA-602a and AA-602b *(Storage Tanks)* | PSD Construction Permit Issued August 22, 2012 | III.42 | VOC | BACT: Good operating practices |
| AA-603a *(Plant-wide Fugitive Emissions from Roadways)* | PSD Construction Permit Issued August 22, 2012 | III.61 | $PM_{10}/PM_{2.5}$ | BACT: Development of a Dust Control Plan |

III.1 For Emission Point AA-000 (the Entire Facility), the permittee shall limit emissions of Carbon Dioxide equivalent ($CO_2e$) to no more than 331,553.70 tons per year as determined by each consecutive 12-month period (rolling basis). (Ref.: PSD Construction Permit issued August 22, 2012)

III.2 For Emission Point AA-000 (the Entire Facility), the permittee shall limit emissions of Nitrogen Oxides ($NO_x$) to no more than 403.13 tons per year as determined by each consecutive 12-month period (rolling basis). (Ref.: PSD Construction Permit issued August 22, 2012)

III.3 For Emission Point AA-000 (the Entire Facility), the permittee shall limit emissions of Carbon Monoxide (CO) to no more than 211.30 tons per year as determined by each consecutive 12-month period (rolling basis). (Ref.: PSD Construction Permit issued August 22, 2012)

III.4 For Emission Point AA-000 (the Entire Facility), the permittee shall limit emissions of Sulfur Dioxide ($SO_2$) to no more than 1,035.39 tons per year as determined by each consecutive 12-month period (rolling basis). (Ref.: PSD Construction Permit issued August 22, 2012)

III.5 For Emission Point AA-000 (the Entire Facility), the permittee shall limit emissions of Volatile Organic Compounds (VOC) to no more than 356.83 tons per year as determined by each consecutive 12-month period (rolling basis). (Ref.: PSD Construction Permit issued August 22, 2012)

III.6 For Emission Point AA-000 (the Entire Facility), the permittee shall limit emissions of Particulate Matter (PM, filterable and condensable) to no more than 570.47 tons per year and Particulate Matter-10 ($PM_{10}$, filterable and condensable) to no more than 561.87 tons per year as determined by each consecutive 12-month period (rolling basis). (Ref.: PSD Construction Permit issued August 22, 2012)

III.7 For Emission Point AA-000 (the Entire Facility), the permittee shall limit emissions of Particulate Matter-2.5 ($PM_{2.5}$, filterable and condensable) to no more than 510.37 tons per year as determined by each consecutive 12-month period (rolling basis). (Ref.: PSD Construction Permit issued August 22, 2012)

III.8 For Emission Point AA-000 (the Entire Facility), the permittee shall limit emissions of Sulfuric Acid Mist ($H_2SO_4$) to no more than 11.42 tons per year as determined by each consecutive 12-month period (rolling basis). (Ref.: PSD Construction Permit issued August 22, 2012)

III.9 For Emission Point AA-000 (the Entire Facility), the permittee shall limit emissions of Hydrogen Fluoride (HF) to no more than 4.84 tons per year as determined by each consecutive 12-month period (rolling basis). (Ref.: PSD Construction Permit issued August 22, 2012)

III.10 For Emission Point AA-000 (the Entire Facility), the permittee shall limit opacity to no more than 20% (where otherwise not indicated and/or limited) as determined by EPA Method 9 or EPA Method 22. (Ref.: PSD Construction Permit issued August 22, 2012)

III.11 For Emission Point AA-000 (the Entire Facility), except as otherwise provided herein, no person shall cause or permit the emission of gas containing sulfur oxides (measured as sulfur dioxide) in excess of 500 ppm (volume) from any process equipment constructed after January 25, 1972. (Ref.: APC-S-1, Section 4.2(a))

III.12 For Emission Point AA-000 (the Entire Facility), no person shall cause or permit the emission of any gas stream which contains hydrogen sulfide in excess of one grain per 100 standard cubic feet.

Gas streams containing hydrogen sulfide in excess of one grain per 100 standard cubic feet shall be incinerated at temperatures of not less than 1600$^{o}$F for a period of not less than 0.5 seconds, or processed in such manner which is equivalent to or more effective for the removal of hydrogen sulfide.

Sulfur dioxide concentration limitations in the gas streams resulting from such incineration or processing shall be determined for each emission point on a case-by-case basis to insure that the resulting maximum ground level concentration of sulfur dioxide as determined by acceptable method or methods will be in compliance with the National Ambient Air Quality Standards for sulfur dioxide. Testing to determine the productive capacity of new fields shall be exempted from emission limitation provisions of the paragraph of the regulation providing such testing has been previously negotiated and approved by the Mississippi Office of Pollution Control. (Ref.: APC-S-1, Section 4.2(b)

III.13 For Emission Point AA-000 (the Entire Facility), the permittee is subject to 40 CFR 63 – National Emission Standards for Hazardous Air Pollutants, specifically Subpart A – General Provisions, and shall comply with the applicable provisions. (Ref.: 40 CFR 63, Subpart A)

III.14 For Emission Points AA-100 and AA-200, the permittee shall limit emissions of Carbon Dioxide equivalent ($CO_2e$) to no more than 163,049.74 tons per year (from each emission point) as determined by each consecutive 12-month period (rolling basis) and implement good operation and maintenance to improve efficiency (BACT for $CO_2e$). (Ref.: PSD Construction Permit issued August 22, 2012)

III.15 For Emission Points AA-100 and AA-200, the permittee is subject to 40 CFR 63 – National Emission Standards for Hazardous Air Pollutants, specifically Subpart DDD – National Emission Standards for Hazardous Air Pollutant for Mineral Wool Production, and shall comply with the applicable provision. The permittee

shall comply with all applicable requirements of Subpart DDD for new sources by the compliance dates established in the final reconsidered rule. (Ref.: 40 CFR 63, Subpart DDD)

III.16 For Emission Points AA-101 and AA-201, the permittee shall limit filterable PM emissions (from each emission point) to no more than 0.10 pound of PM per ton of melt and shall utilize a baghouse for control of particulate matter emissions (BACT for PM). (Ref.: 40 CFR 63.1178(a)(1) and PSD Construction Permit issued August 22, 2012)

III.17 For Emission Points AA-101 and AA-201, the permittee shall limit filterable and condensable PM/$PM_{10}$ emissions (filterable and condensable for each emission point) to no more than 1.24 pounds of PM/ $PM_{10}$ per ton of melt and shall utilize a baghouse for control of particulate matter emissions (BACT for PM/$PM_{10}$). (Ref.: PSD Construction Permit issued August 22, 2012)

III.18 For Emission Points AA-101 and 201, the permittee shall limit $PM_{2.5}$ emissions (filterable and condensable for each emission point) to no more than 1.15 pounds of $PM_{2.5}$ per ton of melt and shall utilize a baghouse for control of $PM_{2.5}$ emissions (BACT for $PM_{2.5}$). (Ref.: PSD Construction Permit issued August 22, 2012)

III.19 For Emission Points AA-101 and AA-201, the permittee shall limit $SO_2$ emissions (from each emission point) to no more than 110.26 pounds per hour based on 30-day average (based on Continuous Emissions Monitor for $SO_2$) and shall utilize a fabric filter with dry sorbent injection (BACT for $SO_2$). (Ref.: PSD Construction Permit issued August 22, 2012)

III.20 For Emission Points AA-101 and AA-201, the permittee shall limit $H_2SO_4$ mist emissions (from each emission point) to no more than 0.3 pounds per ton of melt and shall utilize a fabric filter with dry sorbent injection (BACT for $H_2SO_4$). (Ref.: PSD Construction Permit issued August 22, 2012)

III.21 For Emission Point AA-101 and AA-201, the permittee shall limit CO and VOC emissions (from each emission point) to no more than 0.1 pounds of CO per ton of melt or 99.0% minimum destruction efficiency of CO (CO is a surrogate for VOC) and shall utilize an afterburner (BACT for CO and VOC is the use of an afterburner). (Ref.: 40 CFR 63.1178(a)(2) and PSD Construction Permit issued August 22, 2012)

III.22 For Emission Points AA-101 and AA-201, the permittee shall limit $NO_x$ emissions (from each emission point) to no more than 33.07 pounds per hour and shall utilize good combustion practices. The permittee shall also limit $NO_x$ emissions from the afterburner to 0.078 lb/MMBTU when combusting natural gas only. (BACT for $NO_x$). (Ref.: PSD Construction Permit issued August 22, 2012)

III.23 For Emission Points AA-101 and AA-201, the permittee shall utilize a fabric filter with dry sorbent injection to control HF emissions (BACT for HF). (Ref.: PSD Construction Permit issued August 22, 2012)

III.24 For Emission Points AA-102 and AA-202, the permittee shall limit total filterable and condensable $PM/PM_{10}$ (from each emission point) to no more than 13.21 pounds per hour and shall utilize pretreatment filtration (BACT for $PM/PM_{10}$ is pretreatment filtration) for control of PM emissions. (Ref.: PSD Construction Permit issued August 22, 2012)

III.25 For Emission Points AA-102 and AA-202, the permittee shall limit filterable and condensable $PM_{2.5}$ (from each emission point) to no more than 13.00 pounds per hour and shall utilize pretreatment filtration (BACT for $PM/PM_{10}$ is pretreatment filtration) for control of particulate matter emissions. (Ref.: PSD Construction Permit issued August 22, 2012)

III.26 For Emission Points AA-102 and AA-202, the permittee shall utilize good operating practices for the control of $SO_2$, $H_2SO_4$, HF, $NO_x$, CO, and VOC emissions (BACT for $SO_2$, $H_2SO_4$, HF, $NO_x$, CO, and VOC). (Ref.: PSD Construction Permit issued August 22, 2012)

III.27 For Emission Points AA-103 and AA-203, the permittee shall limit total filterable and condensable $PM/PM_{10}$ emissions (from each emission point) to no more than 6.25 pounds per hour and shall utilize a filter of mineral wool for control of $PM/PM_{10}$ emissions (BACT for $PM/PM_{10}$). (Ref.: PSD Construction Permit issued August 22, 2012)

III.28 For Emission Points AA-103 and AA-203, the permittee shall limit filterable and condensable $PM_{2.5}$ emissions (from each emission point) to no more than 5.18 pounds per hour and shall utilize a filter of mineral wool for control of $PM_{2.5}$ emissions (BACT for $PM_{2.5}$). (Ref.: PSD Construction Permit issued August 22, 2012)

III.29 For Emission Points AA-103 and AA-203, the permittee shall limit $NO_x$ emissions (from each emission point) to no more than 12.13 pounds per hour and shall utilize good combustion practices for control of $NO_x$ emissions. The permittee shall also limit $NO_x$ emissions from the circulation burners and afterburner to 0.078 lb/MMBTU when combusting natural gas only. (BACT for $NO_x$) (Ref.: PSD Construction Permit issued August 22, 2012)

III.30 For Emission Points AA-103, AA-203, AA-104, and AA-204, the permittee shall utilize good operating practices for the control of $SO_2$ and $H_2SO_4$ emissions (BACT for $SO_2$ and $H_2SO_4$). (Ref.: PSD Construction Permit issued August 22, 2012)

III.31 For Emission Points AA-103 and AA-203, the permittee shall limit formaldehyde (surrogate for CO and VOC) emissions (from each emission point) to no more than 0.06 pounds of formaldehyde per ton of melt or reduce uncontrolled formaldehyde emissions by at least 80% and Use of Afterburner (BACT for CO and VOC is use of afterburner). (Ref.: PSD Construction Permit Issued August 22, 2012 and 40 CFR 63.1179(a)(1), (2))

III.32 For Emission Points AA-104 and AA-204, the permittee shall limit total filterable and condensable $PM/PM_{10}$ emissions (from each emission point) to no more than 10.99 pounds per hour and shall utilize a filter of mineral wool for control of $PM/PM_{10}$ emissions (BACT for $PM/PM_{10}$). (Ref.: PSD Construction Permit issued August 22, 2012)

III.33 For Emission Points AA-104 and AA-204, the permittee shall limit filterable and condensable $PM_{2.5}$ emissions (from each emission point) to no more than 10.85 pounds per hour and shall utilize a filter of mineral wool for control of $PM_{2.5}$ emissions (BACT for $PM_{2.5}$). (Ref.: PSD Construction Permit issued August 22, 2012)

III.34 For Emission Points AA-104 and AA-204, the permittee shall limit $NO_x$ emissions (from each emission point) to no more than 0.03 pounds per hour and shall utilize good combustion practices for control of $NO_x$ emissions (BACT for $NO_x$). (Ref.: PSD Construction Permit issued August 22, 2012)

III.35 For Emission Points AA-104 and AA-204, the permittee shall utilize the curing oven afterburner (the minimum temperature shall be established through MACT testing for each emission point) for the control of CO and VOC emissions from the first zone of cooling section exhaust (BACT for CO and VOC). (Ref.: PSD Construction Permit issued August 22, 2012)

III.36 For Emission Points AA-105, AA-205, AA-107, AA-207, AA-108, AA-208, and AA-302, the permittee shall limit filterable $PM/PM_{10}$ emissions (from each emission point) to no more than 0.0044 grains per dry standard cubic foot and shall utilize a baghouse and good housekeeping practices for control of $PM/PM_{10}$ emissions (BACT for $PM/PM_{10}$). (Ref.: PSD Construction Permit issued August 22, 2012)

III.37 For Emission Points AA-105, AA-205, AA-107, AA-207, AA-108, AA-208, and AA-302, the permittee shall limit filterable $PM_{2.5}$ emissions (from each emission point) to no more than 0.0022 grains per dry standard cubic foot and shall utilize a baghouse and good housekeeping practices for control of $PM_{2.5}$ emissions (BACT for $PM_{2.5}$). (Ref.: PSD Construction Permit issued August 22, 2012)

III.38 For Emission Points AA-106 and AA-206, the permittee shall utilize high efficiency mist eliminators (for each emission point), with a 0.005% drift loss, in

order to control $PM/PM_{10}/PM_{2.5}$ emissions (BACT for $PM/PM_{10}/PM_{2.5}$). (Ref.: PSD Construction Permit issued August 22, 2012)

III.39 For Emission Points AA-109, AA-209, and AA-305, the permittee shall utilize partial enclosures and good housekeeping practices (for each emission point) in order to control $PM/PM_{10}/PM_{2.5}$ emissions (BACT for $PM/PM_{10}/PM_{2.5}$). (Ref.: PSD Construction Permit issued August 22, 2012)

III.40 For Emission Points AA-110 and AA-210, the permittee shall utilize good combustion practices (for each emission point) in order to control $PM/PM_{10}/PM_{2.5}$, $SO_2$, $NO_x$, VOC, and CO emissions (BACT for $PM/PM_{10}/PM_{2.5}$, $SO_2$, $NO_x$, VOC, and CO). (Ref.: PSD Construction Permit issued August 22, 2012)

III.41 For Emission Point AA-301, the permittee shall utilize good housekeeping practices in order to control $PM/PM_{10}/PM_{2.5}$ emissions (BACT for $PM/PM_{10}/PM_{2.5}$). (Ref.: PSD Construction Permit issued August 22, 2012)

III.42 For Emission Points AA-301, AA-402, AA-501, AA-502, AA-602a, and AA-602b, the permittee shall utilize good operating practices in order to control VOC emissions (BACT for VOC). (Ref.: PSD Construction Permit issued August 22, 2012)

III.43 For Emission Point AA-303, the permittee shall utilize fabric filters and good housekeeping practices for control of filterable $PM/PM_{10}/PM_{2.5}$ emissions (BACT for $PM/PM_{10}/PM_{2.5}$). (Ref.: PSD Construction Permit issued August 22, 2012)

III.44 For Emission Point AA-304, the permittee shall be limited to 12 hours per day, up to 360 hours per year of operation and shall utilize good housekeeping practices in order to control $PM/PM_{10}/PM_{2.5}$ emissions (BACT for $PM/PM_{10}/PM_{2.5}$). (Ref.: PSD Construction Permit issued August 22, 2012)

III.45 For Emission Point AA-401, the permittee shall utilize good operating practices in compliance with 40 CFR 63.8684 in order to control filterable and condensable $PM/PM_{10}/PM_{2.5}$ emissions (BACT for $PM/PM_{10}/PM_{2.5}$). Also, for this emission point, opacity shall be less than 20% or the permittee shall reduce total hydrocarbon mass by 95%. (Ref.: 40 CFR 63.8684 and PSD Construction Permit issued August 22, 2012)

III.46 For Emission Points AA-401 and AA-402, the permittee is subject to and shall comply with 40 CFR 63, Subpart LLLLL - National Emission Standards for Hazardous Air Pollutants from Asphalt Processing and Asphalt Roofing Manufacturing. (Ref.: 40 CFR 63, Subpart LLLLL, specifically 40 CFR 63.8681)

III.47 For Emission Point AA-401, the permittee shall limit emissions to no more than 20 ppmv THC on a dry basis at 3% $O_2$ or controlled in accordance with 40 CFR 63, Subpart LLLLL (BACT for VOC). (Ref.: 40 CFR 63.8684)

III.48 For Emission Point AA-401, the permittee shall limit opacity to 20% and limit emissions from emission capture system to 20% of any period of consecutive valid observations totaling 60 minutes. (Ref.: PSD Construction Permit issued August 22, 2012)

III.49 For Emission Point AA-402, the permittee shall limit opacity to 0%. (Ref.: 40 CFR 63.8684)

III.50 For Emission Points AA-500, the permittee shall limit emissions of Carbon Dioxide equivalent ($CO_2e$) to no more than 5454.22 tons per year as determined by each consecutive 12-month period (rolling basis) and implement good operation and maintenance to improve efficiency (BACT for $CO_2e$). (Ref.: PSD Construction Permit issued August 22, 2012)

III.51 For Emission Point AA-501, the permittee shall limit filterable and condensable $PM/PM_{10}$ emissions to no more than 0.97 tons per year as determined by each consecutive 12-month period (rolling basis) (BACT for $PM/PM_{10}$). (Ref.: PSD Construction Permit issued August 22, 2012)

III.52 For Emission Point AA-501, the permittee shall limit filterable and condensable $PM_{2.5}$ emissions to no more than 0.72 tons per year as determined by each consecutive 12-month period (rolling basis) (BACT for $PM_{2.5}$). (Ref.: PSD Construction Permit issued August 22, 2012)

III.53 For Emission Points AA-502 and AA-507, the permittee shall limit filterable and condensable $PM/PM_{10}$ emissions (from each emission point) to no more than 1.93 tons per year as determined by each consecutive 12-month period (rolling basis) (BACT for $PM/PM_{10}$). (Ref.: PSD Construction Permit issued August 22, 2012)

III.54 For Emission Points AA-502 and AA-507, the permittee shall limit filterable and condensable $PM_{2.5}$ emissions (from each emission point) to no more than 1.45 tons per year as determined by each consecutive 12-month period (rolling basis) (BACT for $PM_{2.5}$). (Ref.: PSD Construction Permit issued August 22, 2012)

III.55 For Emission Point AA-503, the permittee shall limit filterable $PM/PM_{10}$ emissions to no more than 5.79 tons per year as determined by each consecutive 12-month period (rolling basis) and shall utilize a baghouse and good housekeeping practices for control of particulate matter emissions (BACT for $PM/PM_{10}$). (Ref.: PSD Construction Permit issued August 22, 2012)

III.56 For Emission Point AA-503, the permittee shall limit filterable $PM_{2.5}$ emissions to no more than 2.9 tons per year as determined by each consecutive 12-month

period (rolling basis) and shall utilize a baghouse and good housekeeping practices for control of particulate matter emissions (BACT for $PM_{2.5}$). (Ref.: PSD Construction Permit issued August 22, 2012)

III.57 For Emission Points AA-504, AA-505, and AA-506, the permittee shall limit filterable and condensable $PM/PM_{10}$ emissions to no more than 10.72 tons per year as determined by each consecutive 12-month period (rolling basis) and shall utilize good combustion practices for control of particulate matter emissions (BACT for $PM/PM_{10}$). (Ref.: PSD Construction Permit issued August 22, 2012)

III.58 For Emission Points AA-504, AA-505, and AA-506, the permittee shall limit filterable and condensable $PM_{2.5}$ emissions to no more than 8.03 tons per year as determined by each consecutive 12-month period (rolling basis) and shall utilize good combustion practices for control of particulate matter emissions (BACT for $PM_{2.5}$). (Ref.: PSD Construction Permit issued August 22, 2012)

III.59 For Emission Points AA-504, AA-505, and AA-506, the permittee shall utilize good combustion practices for minimizing emissions of $SO_2$, $NO_x$, and CO (BACT for $SO_2$, $NO_x$, and CO). (Ref.: PSD Construction Permit Issued August 22, 2012)

III.60 For Emission Points AA-504, AA-505, AA-506, and AA-507, the permittee shall utilize water-based coatings with no more than one gram per liter volatile organic compound content in order to control VOC emissions (BACT for VOC). (Ref.: PSD Construction Permit issued August 22, 2012)

III.61 For Emission Point AA-603a, the permittee shall develop and implement a dust control plan in order to control $PM_{10}/PM_{2.5}$ emissions (BACT for $PM_{10}/PM_{2.5}$). (Ref.: PSD Construction Permit issued August 22, 2012)

**PART IV**
**EMISSION POINT SPECIFIC MONITORING AND RECORDKEEPING REQUIREMENTS**

| Emission Point | Pollutant/ Parameter Monitored | Compliance Requirement | Condition Number | Applicable Requirement |
|---|---|---|---|---|
| AA-000 *(Facility-wide)* | $CO_2e$ | Determine the emission rate for each consecutive 12-month period for demonstrating compliance with the facility-wide emission limitations | IV.1 | PSD Construction Permit Issued August 22, 2012 |
| | $NO_x$ | | | |
| | CO | | | |
| | $SO_2$ | | | |
| | VOC | | | |
| | $PM/PM_{10}$ (filterable and condensable) | | | |
| | $PM_{2.5}$ (filterable and condensable) | | | |
| | $H_2SO_4$ | | | |
| | HF | | | |
| | Opacity | Demonstrate compliance utilizing EPA Method 22 or EPA Method 9 (when applicable) for demonstrating compliance with the facility-wide limitation | IV.2 | PSD Construction Permit Issued August 22, 2012 |
| | Control Equipment | Regular maintenance shall be maintained and kept in log form | IV.3 | PSD Construction Permit Issued August 22, 2012 |
| | Emission Limitations | Maintain all records necessary to demonstrate compliance | IV.4 | PSD Construction Permit Issued August 22, 2012 |
| AA-100 and AA-200 *(Mineral Wool Lines 1 and 2)* | $CO_2e$ | Determine the Emission Rate for each consecutive 12-month period for demonstrating compliance with BACT | IV.5 | PSD Construction Permit Issued August 22, 2012 |

| Emission Point | Pollutant/ Parameter Monitored | Compliance Requirement | Condition Number | Applicable Requirement |
|---|---|---|---|---|
| AA-100 and AA-200 *(Mineral Wool Lines 1 and 2)* | NESHAP – Subpart DDD | Particulate Matter Requirements for Melting Furnaces | IV.6 | 40 CFR 63.1181 |
| | | Carbon Monoxide Requirements for Melting Furnaces | IV.7 | 40 CFR 63.1182 |
| | | Formaldehyde Requirements for Curing Ovens | IV.8 | 40 CFR 63.1183 |
| | | Bag Leak Detection System Requirements | IV.9 | 40 CFR 63.1184 |
| | | Minimum Incinerator Temperature Requirements | IV.10 | 40 CFR 63.1185 |
| | | Operation and Maintenance Plan Requirements | IV.11 | 40 CFR 63.1187 |
| | | Performance Testing and Test Methods | IV.12 | 40 CFR 63.1188 and 63.1189 |
| | | Recordkeeping Requirements | IV.13 | 40 CFR 63.1192 |
| AA-101 and AA-201 *(Melting Furnaces on Lines 1 and 2)* | PM (filterable) | Once Every Five Years Stack/Performance Testing for demonstrating compliance with Facility-Wide Limits, BACT Limits, and/or Emission Point Specific Limits by Developing Operational Ranges unless specified herein. These Operational Ranges shall be utilized for demonstrating compliance with Monthly Recordkeeping of Emission Rate | IV.14 | PSD Construction Permit Issued August 22, 2012 |
| | $PM/PM_{10}$ (filterable and condensable) | | | |
| | $PM_{2.5}$ (filterable and condensable) | | | |
| | $SO_2$ | | | |
| | $H_2SO_4$ | | | |
| | CO | | | |
| | VOC | | | |
| | $NO_x$ | | | |
| | HF | | | |

| Emission Point | Pollutant/ Parameter Monitored | Compliance Requirement | Condition Number | Applicable Requirement |
|---|---|---|---|---|
| AA-102 and AA-202 *(Spinning Chambers on Lines 1 and 2)* | $PM/PM_{10}$ (filterable and condensable) | Once Every Five Years Stack/Performance Testing for demonstrating compliance with Facility-Wide Limits, BACT Limits, and/or Emission Point Specific Limits by Developing Operational Ranges unless specified herein. These Operational Ranges shall be utilized for demonstrating compliance with Monthly Recordkeeping of Emission Rate | IV.15 | PSD Construction Permit Issued August 22, 2012 |
| | $PM_{2.5}$ (filterable and condensable) | | | |
| | $SO_2$ | Monthly Recordkeeping Certification of Good Operating Practices | IV.16 | PSD Construction Permit Issued August 22, 2012 |
| | $H_2SO_4$ | | | |
| | HF | | | |
| | $NO_x$ | | | |
| | CO | | | |
| | VOC | | | |
| AA-103 and AA-203 *(Curing Ovens on Lines 1 and 2)* | $PM/PM_{10}$ (filterable and condensable) | Once Every Five Years Stack/Performance Testing for demonstrating compliance with Facility-Wide Limits, BACT Limits, and/or Emission Point Specific Limits by Developing Operational Ranges unless specified herein. These Operational Ranges shall be utilized for demonstrating compliance with Monthly Recordkeeping of Emission Rate | IV.17 | PSD Construction Permit Issued August 22, 2012 |
| | $PM_{2.5}$ (filterable and condensable) | | | |
| | $NO_x$ | | | |
| | $SO_2$ | Monthly Recordkeeping Certification of Good Combustion Practices | IV.16 | |
| | $H_2SO_4$ | | | |
| | $NO_x$ | | | |

| Emission Point | Pollutant/ Parameter Monitored | Compliance Requirement | Condition Number | Applicable Requirement |
|---|---|---|---|---|
| AA-103 and AA-203 *(Curing Ovens on Lines 1 and 2)* | Formaldehyde | Once Every Five Years Stack/Performance Testing for demonstrating compliance with Facility-Wide Limits, BACT Limits, and/or Emission Point Specific Limits by Developing Operational Ranges unless specified herein. These Operational Ranges shall be utilized for demonstrating compliance with Monthly Recordkeeping of Emission Rate | IV.18 | PSD Construction Permit Issued August 22, 2012 and 40 CFR 63.1188 |
| | CO | | IV.19 | |
| | VOC | | | |
| AA-104 and AA-204 *(Cooling Sections for Lines 1 and 2)* | $PM/PM_{10}$ (filterable and condensable) | Once Every Five Years Stack/Performance Testing for demonstrating compliance with Facility-Wide Limits, BACT Limits, and Emission Point Specific Limits by Developing Operational Ranges unless specified herein. These Operational Ranges shall be utilized for demonstrating compliance with Monthly Recordkeeping of Emission Rate | IV.17 | PSD Construction Permit Issued August 22, 2012 |
| | $PM_{2.5}$ (filterable and condensable) | | | |
| | $NO_x$ | | | |
| | $NO_x$ | Monthly Recordkeeping Certification of Good Combustion Practices | IV.16 | |
| | $SO_2$ | Monthly Recordkeeping Certification of Good Operating Practices | IV.16 | |
| | $H_2SO_4$ | | | |
| | CO | Monitor Parameters of the Curing Oven Afterburners to show Compliance with BACT | IV.19 | |
| | VOC | | | |
| AA-105, AA-205, AA-107, AA-207, AA-108, AA-208, and AA-302 *(Cutting Dust, Line Dust, and Vacuum Cleaning for Lines 1 and 2 and De-dusting Baghouses)* | $PM/PM_{10}$ (filterable) | Once Every Five Years Stack/Performance Testing for demonstrating compliance with Facility-Wide Limits, BACT Limits, and Emission Point Specific Limits by Developing Operational Ranges unless specified herein. These Operational Ranges shall be utilized for demonstrating compliance with Monthly Recordkeeping of Emission Rate | IV.15 | PSD Construction Permit Issued August 22, 2012 |
| | $PM_{2.5}$ (filterable) | | | |

| Emission Point | Pollutant/ Parameter Monitored | Compliance Requirement | Condition Number | Applicable Requirement |
|---|---|---|---|---|
| AA-106 and AA-206 *(Cooling Towers for Lines 1 and 2)* | $PM/PM_{10}/PM_{2.5}$ | Monthly Recordkeeping Certification of Good Operating Practices | IV.16 | PSD Construction Permit Issued August 22, 2012 |
| AA-105, AA-205, AA-107, AA-207, AA-108, AA-208, AA-302, AA-109, AA-209, AA-303, and AA-305 *(Cutting Dust, Line Dust, and Vacuum Cleaning for Lines 1 and 2 and De-dusting Baghouses, Fugitive Emissions from Material Handling, and Storage Silos)* | $PM/PM_{10}/PM_{2.5}$ | Monthly Recordkeeping Certification of Good Housekeeping Practices | IV.16 | PSD Construction Permit Issued August 22, 2012 |
| AA-110 and AA-210 *(Branding Wheels for Lines 1 and2)* | $PM/PM_{10}/PM_{2.5}$ (filterable and condensable) | Monthly Recordkeeping Certification of Good Combustion Practices | IV.16 | PSD Construction Permit Issued August 22, 2012 |
| | $SO_2$ | | | |
| | $NO_x$ | | | |
| | VOC | | | |
| | CO | | | |
| AA-301 *(Curing Hall)* | $PM/PM_{10}/PM_{2.5}$ (filterable and condensable) | Monthly Recordkeeping Certification of Good Operating Practices | IV.16 | PSD Construction Permit Issued August 22, 2012 |
| | VOC | Monthly Recordkeeping Certification of Good Operating Practices | | |

| Emission Point | Pollutant/ Parameter Monitored | Compliance Requirement | Condition Number | Applicable Requirement |
|---|---|---|---|---|
| AA-304 *(Melting Furnace Slag Crusher in Recycle Plant)* | $PM/PM_{10}/PM_{2.5}$ | Monthly Recordkeeping Certification of Hours of Operation and Good Housekeeping Practices | IV.20 | PSD Construction Permit Issued August 22, 2012 |
| AA-400 *(Bitumen Coating Line)* | NESHAP – Subpart LLLLL | General Requirements | IV.21 | 40 CFR 63.8685 |
| | | Performance Testing Requirements | IV.22 | 40 CFR 63.8686 and 63.8687 |
| | | Monitoring Installation, Operation, and Maintenance Requirements | IV.23 | 40 CFR 63.8688 |
| | | Initial Compliance Demonstration with Emission Limitations | IV.24 | 40 CFR 63.8689 |
| | | Monitor and Collecting Data to Demonstrate Continuous Compliance | IV.25 | 40 CFR 63.8690 |
| | | Demonstrating Continuous Compliance with the Operating Limits | IV.26 | 40 CFR 63.8691 |
| | | Recordkeeping Requirements | IV.27 | 40 CFR 63.8694 and 63.8695 |
| AA-402 *(Bitumen Storage Tank)* | VOC | Monthly Recordkeeping Certification of Good Operating Practices | IV.16 | PSD Construction Permit Issued August 22, 2012 |
| AA-500 *(Rockfon Line)* | $CO_2e$ | Determine the emission rate for each consecutive 12-month period for demonstrating compliance with the facility-wide emission limitations | IV.5 | PSD Construction Permit Issued August 22, 2012 |
| | $PM/PM_{10}$ (filterable and condensable) | Once Every Five Years Stack/Performance Testing for demonstrating compliance with Facility-Wide Limits, BACT Limits, and Emission Point Specific Limits by Developing Operational Ranges unless specified herein. These Operational Ranges shall be utilized for demonstrating compliance with Monthly Recordkeeping of Emission Rate | IV.15 | PSD Construction Permit Issued August 22, 2012 |
| | $PM_{2.5}$ (filterable and condensable) | | | |

| Emission Point | Pollutant/ Parameter Monitored | Compliance Requirement | Condition Number | Applicable Requirement |
|---|---|---|---|---|
| AA-501, and AA-502, and AA-507 *(IR Zone, Hot Press and Cure, and Cooling Zone for Rockfon Line)* | $PM/PM_{10}$ $PM_{2.5}$ (filterable and condensable) | Monthly Recordkeeping Certification of Good Operating Practices | IV.16 | PSD Construction Permit Issued August 22, 2012 |
| AA-504, AA-505, AA-506, and AA-507 *(Drying Oven 1, 2, and 3, High Oven, and Cooling Zone for Rockfon Line)* | VOC | Monthly Recordkeeping Certification of Quality and Quantity VOC Content of Coating | IV.28 | PSD Construction Permit Issued August 22, 2012 |
| AA-504, AA-505, and AA-506 *(Drying Oven 1, 2, and 3, High Oven, and Cooling Zone for Rockfon Line)* | $SO_2$ | Monthly Recordkeeping Certification of Good Combustion Practices | IV.16 | PSD Construction Permit Issued August 22, 2012 |
| | $NO_x$ | | | |
| | CO | | | |
| AA-503 *(De-dusting for Rockfon Line)* | $PM/PM_{10}/PM_{2.5}$ (filterable) | Monthly Recordkeeping Certification of Good Housekeeping Practices | IV.16 | PSD Construction Permit Issued August 22, 2012 |
| AA-602a and AA-602b *(Storage Tanks)* | VOC | Monthly Recordkeeping Certification of Good Operating Practices | IV.16 | PSD Construction Permit Issued August 22, 2012 |
| AA-603a *(Plant-wide Fugitive Emissions from Roadways)* | $PM_{10}/PM_{2.5}$ | Implement Maintenance Guidelines for Dust Control Plan and Maintain all Necessary Records | IV.29 | PSD Construction Permit Issued August 22, 2012 |

IV.1 For Emission Point AA-000 (the Entire Facility), the permittee shall determine and maintain sufficient monthly records to document the facility-wide $CO_2e$, $PM/PM_{10}$ (filterable and condensable), $PM_{2.5}$ (filterable and condensable), CO, $NO_x$, VOC, $SO_2$, $H_2SO_4$, HF, emission rate as determined for each consecutive 12-month period by utilizing data obtained from Stack/Performance Testing, Natural Gas Usage Records, and any other data necessary to demonstrate compliance with Conditions III.1 thru III.9 of the permit herein. (Ref.: PSD Construction Permit Issued August 22, 2012)

IV.2 For Emission Point AA-000 (the Entire Facility), the permittee shall utilize EPA Reference Method 22 and/or EPA Reference Method 9 in order to show compliance with the facility-wide opacity limit and shall maintain sufficient monthly records to document compliance. EPA Method 9 shall be utilized when visible emissions are present during a Method 22 observation. This evaluation shall be conducted concurrently with the particulate matter stack testing required for all individual emission points with specific stack testing requirements. For purposes of determining compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages). However, if visibility or other conditions prevent the opacity observations from being performed concurrently with the stack testing, the permittee shall reschedule the opacity observations as soon after the stack testing as possible, but no later than thirty (30) days thereafter, and shall notify DEQ of the rescheduled date. The rescheduled opacity observations shall be conducted (to the extent possible) under the same operating conditions that existed during the stack test. (Ref.: PSD Construction Permit Issued August 22, 2012)

IV.3 For Emission Point AA-000 (the Entire Facility), the permittee shall maintain monthly records documenting that the control devices were utilized at all times and shall record any required maintenance performed on the control devices. (Ref.: PSD Construction Permit Issued August 22, 2012)

IV.4 For Emission Point AA-000 (the Entire Facility), the permittee shall maintain all records necessary to demonstrate compliance with the facility-wide emission limitations, individual BACT emission limitations, NESHAP/MACT emission limitations, and any other information necessary to show compliance with the Conditions in Section III of the permit herein. (Ref.: PSD Construction Permit Issued August 22, 2012)

IV.5 For Emission Points AA-100, AA-200, and AA-500, the permittee shall determine and maintain sufficient monthly records to document the emission rate for $CO_2e$ as determined for each consecutive 12-month period by utilizing data obtained from Stack/Performance Testing, Natural Gas Usage Records, and any other data necessary to demonstrate compliance with Conditions III.14 and III.50 of the permit herein. (Ref.: PSD Construction Permit Issued August 22, 2012)

IV.6 For Emission Point AA-100 and AA-200, the permittee shall comply with the applicable provisions of 40 CFR 63 - Subpart DDD, Particulate Matter Requirements for Melting Furnaces in 40 CFR 63.1181. (Ref.: 40 CFR 63.1181)

IV.7 For Emission Point AA-100 and AA-200, the permittee shall comply with the applicable provisions of 40 CFR 63 - Subpart DDD, Carbon Monoxide Requirements for Melting Furnaces in 40 CFR 63.1182. (Ref.: 40 CFR 63.1182)

IV.8 For Emission Point AA-100 and AA-200, the permittee shall comply with the applicable provisions of 40 CFR 63 - Subpart DDD, Formaldehyde Requirements for Curing Ovens in 40 CFR 63.1183. (Ref.: 40 CFR 63.1183)

IV.9 For Emission Point AA-100 and AA-200, the permittee shall comply with the applicable provisions of 40 CFR 63 - Subpart DDD, Bag Leak Detection Requirements in 40 CFR 63.1184. (Ref.: 40 CFR 63.1184)

IV.10 For Emission Point AA-100 and AA-200, the permittee shall comply with the applicable provisions of 40 CFR 63 - Subpart DDD, Minimum Incinerator Temperature Requirements in 40 CFR 63.1185. (Ref.: 40 CFR 63.1185)

IV.11 For Emission Point AA-100 and AA-200, the permittee shall comply with the applicable provisions of 40 CFR 63 - Subpart DDD, Operation and Maintenance Requirements in 40 CFR 63.1187. (Ref.: 40 CFR 63.1187)

IV.12 For Emission Point AA-100 and AA-200, the permittee shall comply with the applicable provisions of 40 CFR 63 - Subpart DDD, Performance Testing and Test Method Requirements in 40 CFR 63.1188 and 63.1189. (Ref.: 40 CFR 63.1188 and 63.1189)

IV.13 For Emission Point AA-100 and AA-200, the permittee shall comply with the applicable provision of 40 CFR 63 - Subpart DDD, Recordkeeping Requirements in 40 CFR 63.1192. (Ref.: 40 CFR 63.1192)

IV.14 For Emission Points AA-101 and AA-201, the permittee shall perform an initial stack test within 180 days of certification of construction or within 60 days of reaching maximum production, whichever is earlier, to develop operational ranges to provide a reasonable assurance of compliance with Conditions III.16 through III.23 of the PSD construction permit herein. Operational ranges shall be derived from stack test data, vendor certification, operational history, and visual inspections, the combination of which demonstrates the proper operation of the equipment in compliance. For those operations and/or pollution control equipment that are similar such that reciprocal stack testing can be performed in lieu of stack/performance testing each piece of control equipment, the permittee may elect to perform stack/performance testing on one of the control equipment

emission points provided that the permittee utilizes this data to determine compliance for all pieces of control equipment that would be considered reciprocal. If the stack/performance testing demonstrates that the permittee is in violation of the emission point, then the permittee will be in violation of all reciprocal emission points unless the permittee elects to perform stack/performance testing on the reciprocal emission control equipment to demonstrate compliance. The permittee is not required to perform an initial stack test or subsequent stack test for the burning of natural gas only condition unless required by MDEQ. The permittee shall utilize the following Test Methods or an alternative EPA approved test method:

(a) For filterable PM/$PM_{10}$, the permittee shall utilize EPA Reference Method 5
(b) For filterable $PM_{2.5}$, the permittee shall utilize EPA Reference Method 201A
(c) For condensable PM, the permittee shall utilize EPA Reference Method 202
(d) For CO (and VOC surrogate), the permittee shall utilize EPA Reference Method 10
(e) For $NO_x$, the permittee shall utilize EPA Reference Method 7E
(f) For $SO_2$, the permittee shall utilize EPA Reference Method 6
(g) For $H_2SO_4$, the permittee shall utilize EPA Reference Method 8
(h) For HF, the permittee shall utilize EPA Reference Method 26A

The permittee shall install and operate a Continuous Emissions Monitoring System (CEMS) for monitoring the emissions of SO2 according to the manufacturers design, specifications, and recommendations, of which a protocol shall be developed by the permittee and approved by the MDEQ prior to operation. The CEMS shall be installed no later than two years from start of operation. The MDEQ may reopen the permit at any time to establish the necessary parameters for establishing the appropriate averaging period/time for optimum operation of the CEMS. The CEMS shall meet the applicable performance specifications required by 40 Part 60, Appendix B, the applicable quality assurance procedures required in 40 CFR Part 60, Appendix F, and the requirements of 40 CFR 60.13. In lieu of the requirements of 40 CFR Part 60, Appendix F, 5.1.1, 5.1.3, and 5.1.4, the permittee may conduct either a Relative Accuracy Audit (RAA) or a Relative Accuracy Test Audit (RATA) on the CEM 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.

(Ref.: PSD Construction Permit Issued August 22, 2012)

IV.15 For Emission Points AA-102, AA-202, AA-105, AA-205, AA-107, AA-207, AA-108, AA-208, AA-302, and AA-500, the permittee shall perform an initial stack test within 180 days of certification of construction or within 60 days of reaching maximum production, whichever is earlier, to develop operational ranges to provide a reasonable assurance of compliance with Condition III.24, III.25, III.36,

III.37, III.51, III.52, III.53, III.54, III.55, III.56, III.57, and III.58 of the PSD construction permit herein. Operational ranges shall be derived from stack test data, vendor certification, operational history, and visual inspections, the combination of which demonstrates the proper operation of the equipment in compliance. For those operations and/or pollution control equipment that are similar such that reciprocal stack testing can be performed in lieu of stack/performance testing each piece of control equipment, the permittee may elect to perform stack/performance testing on one of the control equipment emission points provided that the permittee utilizes this data to determine compliance for all pieces of control equipment that would be considered reciprocal. If the stack/performance testing demonstrates that the permittee is in violation of the emission point, then the permittee will be in violation of all reciprocal emission points unless the permittee elects to perform stack/performance testing on the reciprocal emission control equipment to demonstrate compliance. The permittee shall utilize the following Test Methods or an alternative EPA approved test method:

(a) For filterable PM/$PM_{10}$, the permittee shall utilize EPA Reference Method 5
(b) For filterable $PM_{2.5}$, the permittee shall utilize EPA Reference Method 201A
(c) For condensable PM, the permittee shall utilize EPA Reference Method 202 (for AA-102, AA-202, AA-501, AA-502, AA-504, AA-505, AA-506, AA-507)

For Emission Points AA-107, AA-207, AA-302, AA-501, AA-502, AA-504, AA-506, and AA-507, since the stack diameters are smaller than what can feasibly be tested with EPA Reference Method 201A, the permittee shall assume that $PM_{2.5}$ is 50% of the filterable PM for demonstrating compliance with the $PM_{2.5}$ emission limitations for these emission points. (Ref.: PSD Construction Permit Issued August 22, 2012)

IV.16 For Emission Points AA-102, AA-202, AA-103, AA-203, AA-104, AA-204, AA-105, AA-205, AA-106, AA-206, AA-107, AA-207, AA-108, AA-208, AA-109, AA-209, AA-110, AA-210, AA-301, AA-302, AA-303, AA-305, AA-402, AA-500, AA-602a, and AA-602b the permittee shall maintain sufficient monthly records to certify that good operating, good housekeeping, and/or good combustion practices are being utilized for the control of air pollutants. These records shall be in the form of the following Good Work Practice Certification Statement which may be developed by the Senior Environmental Manager for the facility and certified by the Responsible Official in the semi-annual report submittals:

"Based upon my inquiry of the person or persons directly responsible for managing compliance with the permit limitations described in Condition III.26, III.30, III.34, III.39, III.40, III.41, III.42, III.43, III.53, III.54, III.55, III.56, III.57, III.58, and III.59, of the Prevention of Significant Deterioration Permit to Construct (PSD Construction Permit Herein) Issued on August 22, 2012, for

Emission Points AA-102, AA-202, AA-103, AA-203, AA-104, AA-204, AA-105, AA-205, AA-106, AA-206, AA-107, AA-207, AA-108, AA-208, AA-109, AA-209, AA-110, AA-210, AA-301, AA-302, AA-303, AA-305, AA-402, AA-500, AA-602a, and AA-602b, I certify that, to the best of my knowledge and belief, preventative maintenance is being performed in a manner consistent with vendor certification, manufacturer design and specifications, and/or other applicable means for minimizing emissions. I further certify that this facility is maintaining sufficient records to demonstrate this upon a site inspection visit or request by any DEQ personnel."

(Ref.: PSD Construction Permit Issued August 22, 2012)

IV.17 For Emission Points AA-103, AA-203, AA-104, and AA-204, the permittee shall perform an initial stack test within 180 days of certification of construction or within 60 days of reaching maximum production, whichever is earlier, to develop operational ranges to provide a reasonable assurance of compliance with Conditions III.27, III.28, III.29, III.32, III.33, and III.34 of the PSD construction permit herein. Operational ranges shall be derived from stack test data, vendor certification, operational history, and visual inspections, the combination of which demonstrates the proper operation of the equipment in compliance. For those operations and/or pollution control equipment that are similar such that reciprocal stack testing can be performed in lieu of stack/performance testing each piece of control equipment, the permittee may elect to perform stack/performance testing on one of the control equipment emission points provided that the permittee utilizes this data to determine compliance for all pieces of control equipment that would be considered reciprocal. If the stack/performance testing demonstrates that the permittee is in violation of the emission point, then the permittee will be in violation of all reciprocal emission points unless the permittee elects to perform stack/performance testing on the reciprocal emission control equipment to demonstrate compliance. The permittee is not required to perform an initial stack test or subsequent stack test for the burning of natural gas only condition unless required by MDEQ. The permittee shall utilize the following Test Methods or an alternative EPA approved test method:

(a) For filterable PM/$PM_{10}$, the permittee shall utilize EPA Reference Method 5
(b) For filterable $PM_{2.5}$, the permittee shall utilize EPA Reference Method 201A
(c) For condensable PM, the permittee shall utilize EPA Reference Method 202
(d) For $NO_x$, the permittee shall utilize EPA Reference Method 7E

(Ref.: PSD Construction Permit Issued August 22, 2012)

IV.18 For Emission Points AA-103 and AA-203, the permittee shall perform an initial stack test within 180 days of certification of construction or within 60 days of

reaching maximum production, whichever is earlier, to develop operational ranges to provide a reasonable assurance of compliance with Conditions III.31 of the PSD construction permit herein. Operational ranges shall be derived from stack test data, vendor certification, operational history, and visual inspections, the combination of which demonstrates the proper operation of the equipment in compliance. For those operations and/or pollution control equipment that are similar such that reciprocal stack testing can be performed in lieu of stack/performance testing each piece of control equipment, the permittee may elect to perform stack/performance testing on one of the control equipment emission points provided that the permittee utilizes this data to determine compliance for all pieces of control equipment that would be considered reciprocal. If the stack/performance testing demonstrates that the permittee is in violation of the emission point, then the permittee will be in violation of all reciprocal emission points unless the permittee elects to perform stack/performance testing on the reciprocal emission control equipment to demonstrate compliance. The permittee shall utilize EPA Reference Method 318 or an alternative EPA-approved test method for determining the Formaldehyde emission rate (surrogate for CO and VOC). (Ref.: PSD Construction Permit Issued August 22, 2012)

IV.19 For Emission Point AA-103, AA-203, AA-104 and AA-204, the permittee shall monitor and maintain sufficient records to document the curing oven afterburner parameters for demonstrating compliance with the CO and VOC BACT limits in Conditions III.31 and III.35. The permittee may elect to utilize the operational ranges developed during the stack testing and/or develop alternative ranges where necessary so long as these parameters do not contravene the stack test operational ranges. At a minimum, the permittee shall continuously record the following:

(a) the temperature in the combustion chambers;
(b) the hours of operation;
(c) perform an annual inspection of the burners

(Ref.: PSD Construction Permit Issued August 22, 2012)

IV.20 For Emission Point AA-304, the permittee shall maintain sufficient monthly records to demonstrate the hours of operation and to certify that good housekeeping practices are being utilized for the control of air pollutants. These records shall be in the form of the following Good Work Practice Certification Statement which may be developed by the Senior Environmental Manager for the facility and certified by the Responsible Official in the semi-annual report submittals:

"Based upon my inquiry of the person or persons directly responsible for managing compliance with the permit limitations described in Condition III.44 of the Prevention of Significant Deterioration Permit to Construct (PSD

Construction Permit Herein) Issued on August 22, 2012, for Emission Points AA-304, I certify that, to the best of my knowledge and belief, preventative maintenance is being performed in a manner consistent with vendor certification, manufacturer design and specifications, and/or other applicable means for minimizing emissions. I further certify that this facility is maintaining sufficient records to demonstrate this upon a site inspection visit or request by any DEQ personnel."

(Ref.: PSD Construction Permit Issued August 22, 2012)

IV.21 For Emission Point AA-400, the permittee shall comply with the applicable provisions of the General Requirements of 40 CFR 63.8685. (Ref.: 40 CFR 63.8685)

IV.22 For Emission Point AA-400, the permittee shall comply with the applicable provisions of the Performance Testing Requirements of 40 CFR 63.8686 and 63.8787. (Ref.: 40 CFR 63.8686 and 63.8787)

IV.23 For Emission Point AA-400, the permittee shall comply with the applicable provisions of Monitoring Installation, Operation, and Maintenance Requirements of 40 CFR 63.8688. (Ref.: 40 CFR 63.8688)

IV.24 For Emission Point AA-400, the permittee shall comply with the applicable provisions of the Initial Compliance Demonstration with Emission Limitations of 40 CFR 63.8689. (Ref.: 40 CFR 63.8689)

IV.25 For Emission Point AA-400, the permittee shall comply with the applicable provisions of the Monitoring and Collecting Data to Demonstrate Continuous Compliance of 40 CFR 63.8690. (Ref.: 40 CFR 63.8690)

IV.26 For Emission Point AA-400, the permittee shall comply with the applicable provisions of the Demonstrating Continuous Compliance with the Operating Limits of 40 CFR 63.8691. (Ref.: 40 CFR 63.8690)

IV.27 For Emission Point AA-400, the permittee shall comply with the applicable provisions of the Recordkeeping Requirements of 40 CFR 63.8694 and 40 CFR 63.8695. (Ref.: 40 CFR 63.8694 and 63.8695)

IV.28 For Emission Points AA-504, AA-505, AA-506, and AA-507, the permittee shall determine for each coating or other VOC containing material used and maintain sufficient monthly records to document:

(a) Quantity used (gal or lb)
(b) The content (gram per liter)
(c) The density (lbs per gallon)

(d) The permittee may utilize data supplied by the manufacturer, or analysis of VOC and HAP content by EPA Test Method 24 and/or 311. 40 CFR 60, Appendix A

(e) The permittee shall calculate the VOC and HAP emissions from the use of these material each month and compare the VOC emissions to those allowed under Condition III.60 of the permit herein

(Ref.: PSD Construction Permit Issued August 22, 2012)

IV.29 For Emission Point AA-603a, the permittee shall develop and implement maintenance guidelines for the dust control plan for demonstrating compliance with the BACT limit in Condition III.61 and maintain sufficient monthly records to demonstrate compliance. (Ref.: PSD Construction Permit Issued August 22, 2012)

# PART V
## EMISSION POINT SPECIFIC REPORTING REQUIREMENTS

| Emission Point | Pollutant/ Parameter Monitored | Compliance Requirement | Condition Number | Applicable Requirement |
|---|---|---|---|---|
| AA-000 *(Facility-wide)* | Performance Testing | Submit results no later than 60 days from actual test. | V.1 | PSD Construction Permit Issued August 22, 2012 |
| | Deviations | Reported with 5 days from the time the deviation began | V.2 | |
| | BACT Limits | Semi-Annual Report of Calculated BACT Limits | V.3 | |
| | Good Operation Requirements | Semi-Annual Certification of Monthly Good Operation Requirements | V.4 | |
| | Good Combustion Practices | Semi-Annual Certification of Monthly Good Combustion Requirements | | |
| | Good Housekeeping Practices | Semi-Annual Certification of Monthly Good Housekeeping Requirements | | |
| | Certification of Construction | Report in writing the effective date of start-up no later than 10 days following commencement | V.5 | |
| | Control Equipment | Semi-Annual Reports demonstrating that control devices were operated at all times | V.6 | |
| | CAM | Semi-Annual Reports providing any deviations from approved CAM Plan. | V.7 | |
| | Opacity | Semi-Annual Reports providing Visible Emission Measurement (VEM) exceedances | V.8 | |
| | $CO_2e$ | Semi-Annual Report of Facility-Wide Emission Rate in tons per year as determined for each consecutive 12-month period | V.9 | PSD Construction Permit Issued August 22, 2012 |
| | $NO_x$ | | | |
| | CO | | | |
| | $SO_2$ | | | |
| | VOC | | | |

| Emission Point | Pollutant/ Parameter Monitored | Compliance Requirement | Condition Number | Applicable Requirement |
|---|---|---|---|---|
| AA-000 *(Facility-wide)* | Formaldehyde | Semi-Annual Report of Facility Wide Emission Rate in tons per year as determined for each consecutive 12-month period | V.9 | PSD Construction Permit Issued August 22, 2012 |
| | $PM/PM_{10}$ (filterable and condensable) | | | |
| | $PM_{2.5}$ (filterable and condensable) | | | |
| | $H_2SO_4$ | | | |
| | HF | | | |
| AA-100 and AA-200 *(Melting Lines 1 and 2)* | $CO_2e$ | Semi-Annual Report of Calculated BACT Limits | V.10 | PSD Construction Permit Issued August 22, 2012 |
| AA-101 and AA-201 *(Mineral Wool Lines 1 and 2)* | PM (filterable) | Semi-Annual Report of Calculated short term BACT Limits | V.11 | PSD Construction Permit Issued August 22, 2012 |
| | $PM/PM_{10}$ (filterable and condensable) | | | |
| | $PM_{2.5}$ (filterable and condensable) | | | |
| | $NO_x$ | | | |
| | CO | | | |
| | VOC | | | |
| | $H_2SO_4$ | | | |
| | $SO_2$ | | | |
| | HF | | | |

| Emission Point | Pollutant/ Parameter Monitored | Compliance Requirement | Condition Number | Applicable Requirement |
|---|---|---|---|---|
| AA-102 and AA-202 *(Spinning Chambers on Lines 1 and 2)* | $PM/PM_{10}$ (filterable and condensable) | Semi-Annual Report of Calculated short term BACT Limits | V.12 | PSD Construction Permit Issued August 22, 2012 |
| | $PM_{2.5}$ (filterable and condensable) | | | |
| AA-103 and AA-203 *(Curing Ovens)* | $PM/PM_{10}$ (filterable and condensable) | Semi-Annual Report of Calculated short term BACT Limits | V.13 | PSD Construction Permit Issued August 22, 2012 |
| | $PM_{2.5}$ (filterable and condensable) | | | |
| | $NO_x$ | | | |
| | CO | | | |
| | VOC | | | |
| AA-104 and AA-204 *(Cooling Sections for Lines 1 and 2)* | $PM/PM_{10}$ (filterable and condensable) | Semi-Annual Report of Calculated short term BACT Limits | V.14 | PSD Construction Permit Issued August 22, 2012 |
| | $PM_{2.5}$ (filterable and condensable) | | | |
| | $NO_x$ | | | |
| AA-105, AA-205, AA-107, AA-207, AA-108, AA-208, and AA-302 *(Line 1 and 2 Cutting Line and Dust and Vacuum Cleaning Baghouses and De-dusting Baghouse)* | $PM/PM_{10}$ (filterable) | Semi-Annual Report of Calculated short term BACT Limits | V.12 | PSD Construction Permit Issued August 22, 2012 |
| | $PM_{2.5}$ (filterable) | | | |
| AA-500 *(Rockfon Line)* | $PM/PM_{10}$ (filterable and condensable) | Semi-Annual Report of Calculated BACT Limits | V.12 | PSD Construction Permit Issued August 22, 2012 |
| | $PM_{2.5}$ (filterable and condensable) | | | |
| | $CO_2e$ | | V.10 | |

| Emission Point | Pollutant/ Parameter Monitored | Compliance Requirement | Condition Number | Applicable Requirement |
|---|---|---|---|---|
| AA-504, AA-505, AA-506, and AA-507 *(Drying Oven 1, 2, and 3, High Oven, and Cooling Zone for Rockfon Line)* | VOC | Semi-annual report providing the VOC Content | V.15 | PSD Construction Permit Issued August 22, 2012 |
| AA-100 and AA-200 *(Mineral Wool Lines 1 and 2)* | NESHAP – Subpart DDD | Notification Requirements | V.16 | 40 CFR 63.1191 |
| | | Reporting Requirements | V.17 | 40 CFR 63.1193 |
| AA-400 *(Bitumen Line)* | NESHAP- Subpart LLLLL | Notification Requirements | V.18 | 40 CFR 63.8692 |
| | | Reporting Requirements | V.19 | 40 CFR 63.8693 |
| AA-000 *(Entire Facility)* | Collective Reporting Requirements | Semi-annual reports not identified elsewhere | V.20 | PSD Construction Permit Issued August 22, 2012 |

V.1 For Emission Point AA-000 (the Entire Facility), the permittee shall submit the results of the required Emission Point Specific Performance Testing within 60 days of the actual test for demonstrating compliance with the Emission Point Specific Limitation. (Ref.: PSD Construction Permit Issued August 22, 2012)

V.2 For Emission Point AA-000 (the Entire Facility), any deviation(s) from the permit herein shall be reported within 5 days from the time of the deviation began. The report shall also include the probable cause of deviation(s) and any corrective action(s) or preventative measure taken. (Ref.: PSD Construction Permit Issued August 22, 2012)

V.3 For Emission Point AA-000 (the Entire Facility), the permittee shall submit semi-annual reports by July 31st and January 31st for the preceding six-month period containing the facility-wide emission rates, emission point specific BACT limitation rates, and any other emission point specific emission limitation for demonstrating compliance with the Facility-Wide Emission Rates, Emission Point-Specific BACT Limits and any other Emission Point-Specific Emission Limitations. (Ref.: PSD Construction Permit Issued August 22, 2012)

V.4 For Emission Point AA-000 (the Entire Facility) where applicable (specifically AA-102, AA-202, AA-103, AA-203, AA-104, AA-204, AA-105, AA-205, AA-106, AA-206, AA-107, AA-207, AA-108, AA-208, AA-109, AA-209, AA-110, AA-210, AA-301, AA-302, AA-303, AA-305, AA-402, AA-500, AA-602a, and AA-602b), the permittee shall submit semi-annual reports providing the Good Operation, Good Combustion, and/or Good Housekeeping statements in accordance with Condition IV.16 of the permit herein. (Ref.: PSD Construction Permit Issued August 22, 2012)

V.5 For Emission Point AA-000 (the Entire Facility), the permittee shall submit to the MDEQ in writing the effective date of start up date no later than 10 days after commencement of operation. (Ref.: PSD Construction Permit Issued August 22, 2012)

V.6 For Emission Point AA-000 (the Entire Facility), the permittee shall submit semi-annual reports certifying that the control equipment (Facility-Wide) was operated at all times during manufacturing. (Ref.: PSD Construction Permit Issued August 22, 2012)

V.7 For Emission Point AA-000 (the Entire Facility), the permittee shall submit semi-annual reports providing any deviation from the approved Compliance Assurance Monitoring (CAM) Plan for the applicable emission points for which CAM applies. (Ref.: 40 CFR 64.2(a))

V.8 For Emission Point AA-000 (the Entire Facility), the permitted shall submit semi-annual reports containing the requirements of Condition IV.2 of the permit herein for demonstrating compliance with Condition III.10 of the permit herein no later than July 31st and January 31st. (Ref.: PSD Construction Permit Issued August 22, 2012)

V.9 For Emission Point AA-000 (the Entire Facility), the permittee shall submit semi-annual reports by July 31st and January 31st for the preceding six month period containing the facility-wide emission rates of $CO_2e$, $NO_x$, CO, $SO_2$, VOC, Formaldehyde, $PM/PM_{10}$ (filterable and condensable), $PM_{2.5}$ (filterable and condensable), $H_2SO_4$, and HF, for demonstrating compliance with the Emission Limitations in Conditions III.1 through III.9 and the Monitoring and Recordkeeping in Condition IV.1. (Ref.: PSD Construction Permit Issued August 22, 2012)

V.l0 For Emission Point AA-100, AA-200, and AA-500, the permittee shall submit semi-annual reports by July 31st and January 31st for the preceding six month period containing the emission rates of $CO_2e$ for demonstrating compliance with the Emission Limitations in Conditions III.14 and III.50 and the Monitoring and Recordkeeping in Condition IV.5. (Ref.: PSD Construction Permit Issued August 22, 2012)

V.11 For Emission Point AA-101 and AA-201, the permittee shall submit semi-annual reports by July 31st and January 31st for the preceding six month period containing the emission rates of $NO_x$, CO, $SO_2$, VOC, PM (filterable), $PM/PM_{10}$ (filterable and condensable), $PM_{2.5}$ (filterable and condensable), $H_2SO_4$, $SO_2$, and HF, for demonstrating compliance with the Emission Limitations in Conditions III.16 through III.23 and the Monitoring and Recordkeeping in Condition IV.14. (Ref.: PSD Construction Permit Issued August 22, 2012)

V.12 For Emission Point AA-102, AA-202, AA-105, AA-205, AA-107, AA-207, AA-108, AA-208, AA-302, and AA-500, the permittee shall submit semi-annual reports by July 31st and January 31st for the preceding six month period containing the emission rate of $PM/PM_{10}$ (filterable and condensable) and $PM_{2.5}$ (filterable and condensable) for demonstrating compliance with the Emission Limitations in Conditions III.24, III.25, III.36, III.37, III.51, III.52, III.53, III.54, III.55, III.56, III.57, and III.58 and the Monitoring and Recordkeeping in Condition IV.15. (Ref.: PSD Construction Permit Issued August 22, 2012)

V.13 For Emission Point AA-103 and AA-203, the permittee shall submit semi-annual reports by July 31st and January 31st for the preceding six month period containing the emission rate of $PM/PM_{10}$ (filterable and condensable), $PM_{2.5}$ (filterable and condensable), $NO_x$, and Formaldehyde (surrogate for CO and VOC) for demonstrating compliance with the Emission Limitations in Conditions III.27,

III.28, III.29, and III.31 and the Monitoring and Recordkeeping in Condition IV.17 through IV.19. (Ref.: PSD Construction Permit Issued August 22, 2012)

V.14 For Emission Points AA-104 and AA-204, the permittee shall submit semi-annual reports by July 31st and January 31st for the preceding six month period containing the emission rate of PM/$PM_{10}$ (filterable and condensable), $PM_{2.5}$ (filterable and condensable), and $NO_x$ for demonstrating compliance with the Emission Limitations in Conditions III.32, III.33, III.34 and the Monitoring and Recordkeeping in Condition IV.17. (Ref.: PSD Construction Permit Issued August 22, 2012)

V.15 For Emission Points AA-504, AA-505, AA-506, and AA-507, the permittee shall submit semi-annual reports by July 31st and January 31st for the preceding six month period containing the emission rate of VOC for determining compliance with the Emission Limitation in Condition III.60 and the Monitoring and Recordkeeping Condition IV.28. The report shall contain the following:

(a) Quantity used (gal or lb)
(b) The content (gram per liter)
(c) The density (lbs per gallon)
(d) The permittee may utilize data supplied by the manufacturer, or analysis of VOC and HAP content by EPA Test Method 24 and/or 311. 40 CFR 60, Appendix A
(e) The permittee shall calculate the VOC and HAP emissions from the use of these material each month and compare the VOC emissions to those allowed under Condition III.60 of the permit herein

(Ref.: PSD Construction Permit Issued August 22, 2012)

V.16 For Emission Point AA-100 and AA-200, the permittee shall comply with the applicable provisions of 40 CFR 63 - Subpart DDD, specifically 40 CFR 63.1191 and submit Notification Requirements. (Ref.: 40 CFR 63.1191)

V.17 For Emission Point AA-100 and AA-200, the permittee shall comply with the applicable provisions of 40 CFR 63 - Subpart DDD, specifically 40 CFR 63.1193 and submit Reporting Requirements. (Ref.: 40 CFR 63.1193)

V.18 For Emission Point AA-400, the permittee shall comply with the applicable provisions of 40 CFR 63 - Subpart LLLLL, specifically 40 CFR 63.8692 and submit Notification Requirements. (Ref.: 40 CFR 63.8692)

V.19 For Emission Point AA-400, the permittee shall comply with the applicable provisions of 40 CFR 63 - Subpart LLLLL, specifically 40 CFR 63.8693 and submit Reporting Requirements. (Ref.: 40 CFR 63.8693)

V.20 For the Entire Facility, the permittee shall submit semi-annual reports by July 31st and January 31st for the preceding six month period. Where a specific requirement states 30 days from the semi-annual period ending June 30th and December 31st, the permittee shall comply with the more stringent reporting requirement of 30 days and submit said reports of all semi-annual monitoring in its entirety collectively. (Ref.: PSD Construction Permit Issued August 22, 2012)