**STATEMENT OF BASIS**

TAMKO Building Products, LLC
Tuscaloosa Plant
Tuscaloosa, AL
413-0017

The proposed renewal to the Title V Major Source Operating Permit is issued under the provisions of ADEM Admin. Code R. 335-3-16. The applicant has requested authorization to perform the work or operate the facility shown on the application and other documents attached hereto or on file with the Air Division of the Alabama Department of Environmental Management, in accordance with the terms and conditions of this permit. This permit would not allow the emission of additional air pollutants.

TAMKO Building Products, LLC (TAMKO) was issued its existing Major Source Operating Permit (MSOP) on March 28, 2014, with an expiration date of March 27, 2019. Per ADEM Rule 335-3-16-.12(2), an application for permit renewal shall be submitted at least six (6) months, but not more than eighteen (18) months, before the date of expiration of the permit. Based on this rule, the application for renewal was due to the Department no later than September 27, 2018, but no earlier than September 27, 2017. An application for permit renewal was received by the Department on September 27, 2018.

The permitted units are owned by the TAMKO located in Tuscaloosa, AL. The primary components of TAMKO are:

- Refinery
    1. Three Large Storage Tanks
    2. Two Blowstills with associated Thermal Oxidizers
    3. Process Storage tanks with associated Tank Heaters
- Raymond Mills
    1. Three Raymond Mills
    2. Limestone Storage Tanks
    3. Limestone Storage Silos
    4. Limestone Heaters
- Fiberglass Roofing Line (Roofing Line 1)
- Laminator Line (Roofing Line 2)
- Saturated Felt Production Line (Roofing Line 3)
- Boilers
    1. Two 10.5 MMBTU/hr boilers
    2. Two 16.8 MMBTU/hr boilers
- Generators
    1. Three natural gas fired generators with propane backup
    2. One natural gas fired generator
    3. Three diesel fired generators

<u>Significant Changes to Permit</u>

- Permit No. X043 was issued in July 2016 for the Line 1 Laminate System. This will be incorporated into this renewal.

- Permit No. X013 was issued in February 2019 to lower anti-PSD limits for PM and CO for the blowstills. Facility wide limits were also put into place. These changes will be incorporated into this renewal.
- A monitoring requirement for the Red Asphalt Flux Storage Tank contained in 40 CFR 60 Subpart K has been removed.
- A monitoring requirement for the fume filters on the asphalt storage tanks was added. It is Emission Monitoring Proviso 5.
- Raymond Mills No. 1 & 2 were combined into one section since they have the same provisos.
- The Mineral Backing Silo (EP-35a) was moved to Line 1.
- A proviso was added to the Raymond Mills No 1 and 2 section and the Limestone Filler Tanks section to incorporate a combined limit for EP-33b while both the tanks and mills are operating.
- The emission factor for PM on emission point EP-64b was changed from 0.19 lb/hr to 0.194 lb/h to reflect true operational capability.
- The emission limit of 0.006 lb/hr PM for EP-55 on Line 2 was changed to 0.06 lb/hr to fix a typo made in the permit in 2009. TAMKO received approval for the change at that time, but the change was never made in the permit.
- Incorrect provisos for the Emergency Generators have been removed and correct requirements have been added.

TAMKO has requested a Permit Shield with this renewal.

## Asphalt Storage Tanks

AC-5 asphalt is delivered and stored in three large tanks. Most of the asphalt is pumped to a blowstill and converted to coating asphalt. Some is pumped directly to the Saturated Felt Line (Roofing Line 3). Both of these asphalts are then stored in process storage tanks and kept at temperature by asphalt heaters. The asphalt is pumped to the process lines for use as needed. All three tanks share a common control device and emission point (MON-2).

The asphalt storage tanks are subject to ADEM Admin. Code r. 335-3-16 "Major Source Operating Permits." The Red Asphalt Flux Storage Tank (EP-11) is subject to 40 CFR 60 Subpart K. 40 CFR Subpart K provides monitoring exemptions for tanks that store liquids with a Reid Vapor or a maximum true vapor pressure that is less than 1.0 psia. TAMKO has indicated that the vapor pressure of the liquid stored in this tank is 0.41 psia; therefore, TAMKO is exempt from the monitoring requirements of this Subpart. The existing monitoring requirements required by Subpart K in the MSOP should be removed. The blue and white asphalt storage tanks (EP-11 and EP-12, respectively) are subject to the applicable requirements contained in 40 CFR 60 Subpart UU.

Expected Emissions

The expected emissions from these units are calculated by using the average emissions from the three years prior to this renewal. The hourly rate was calculated by dividing the average yearly rate by 8,760 hours/year.

| Tank No. | Pollutant | Expected Emissions | |
|---|---|---|---|
| | | lb/hr | tpy |
| 11 (Red) | VOC | 0.19 | 0.84 |
| 12 (Blue) | VOC | 0.19 | 0.84 |
| 13 (White) | VOC | 0.19 | 0.84 |

Emissions Standards

- The emissions from the Blue and White Asphalt Storage Tanks shall be vented to the fume filter at all times, except during replacement of the fume filter elements, preventative maintenance, or power failure. *(40 CFR 60.470)*
- The exhaust gases from the fume filter when controlling the Blue and White Asphalt Storage Tanks (MON-2) shall not have an opacity greater than zero percent (0%), except for one consecutive 15-minute period in any 24-hour period when the transfer lines are being blown for clearing. The control device shall not be bypassed during this 15-minute period. *(40 CFR 60.472(c))*
- When controlling only the Red Asphalt Storage Tank (EP-11) MON-2 shall not emit exhaust gases which have an opacity greater than that allowed by General Proviso 29. *(ADEM Admin. Code r. 335-3-4-.01)*
- Facility-wide emissions of PM, PM10, and CO shall not exceed 249 tpy in any consecutive twelve month period. *(ADEM Admin Code r. 335-3-14-.04 anti-PSD)*

Emission Monitoring

40 CFR Subpart K and 40 CFR 60 Subpart UU do not contain monitoring requirements that are applicable to the storage tanks. The following monitoring requirements are based on ADEM Admin. Code r. 335-3-16-.05 "Major source Operating Permits: Permit Content" and are meant to ensure reasonable compliance with the emission standards listed above.

- During each calendar week the Asphalt Storage Tanks are in service, an observation of instantaneous visible emissions from the asphalt tanks shall be completed to determine opacity. The instantaneous observation must be taken while the emission source is in operation. Records should reflect weeks the asphalt storage tanks are not in service. *(ADEM Admin. Code 335-3-16-.05(c))*
- If the instantaneous opacity observed is greater than zero (0%) percent for MON-2 (or ten (10%) for the Red Asphalt Storage Tank (EP-11) when emissions are not controlled by the fume filter or when MON-2 is controlling emissions from EP-11 only) then a visible emission observation shall be conducted within thirty (30) minutes of the initial instantaneous observation in accordance with 40 CFR 60 Appendix A, Method 9. The observation period shall be a minimum of twelve (12) consecutive minutes. The average opacity shall be calculated using the maximum six (6) minute average. *(ADEM Admin. Code 335-3-16-.05(c))*
- If the six (6) minute average opacity during the Method 9 visible emissions observation from MON-2 or the White or Blue Asphalt Storage Tanks (EP-12 or EP-13) exceeds zero (0%) percent, then corrective actions to eliminate visible emissions shall be initiated within one (1) hour of the Method 9 observation to identify and correct the malfunction. An additional observation shall be taken to demonstrate that the emissions point no longer has any visible emissions. The subsequent observation shall be completed in accordance with 40 CFR 60 Appendix A, Method 9. The observation period shall be a minimum of twelve (12) consecutive minutes. The average opacity shall be calculated using the maximum six (6) minute average. *(ADEM Admin. Code 335-3-16-.05(c))*
- If the six (6) minute average opacity during the Method 9 visible emissions observation exceeds ten (10%) percent when the Red Asphalt Storage Tank (EP-11) is in service and emissions are not controlled by the fume filter or when MON-2 is controlling emissions from EP-11 only, then corrective action shall be initiated within one (1) hour of the Method 9 observation to evaluate if any corrective action may be required. An additional observation shall be taken to demonstrate that emissions do not exceed the limits allowed in General Proviso 21. The subsequent observation shall be completed in accordance with 40 CFR 60 Appendix A, Method 9. The observation period shall be a minimum of twelve (12) consecutive minutes. The average opacity shall be calculated using the maximum six (6) minute average. *(ADEM Admin. Code 335-3-16-.05(c))*
- At least once per day when the fume filter is in operation, the pressure differential across the fume filter shall be observed and recorded. If the pressure differential is outside the manufacturer's recommended operating range, maintenance, inspections and/or corrective action to bring the pressure differential within the manufacturer's recommended operating range is to be initiated within two (2) hours. Records should reflect weeks that the storage tanks are not in service. *(ADEM Admin. Code 335-3-16-.05(c))*

<u>Recordkeeping and Reporting</u>

- If a visible emissions observation utilizing Method 9 is required, the results shall be documented using the ADEM visible emission observation report. *(ADEM Admin. Code 335-3-16-.05(c))*
- Records of the liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period shall be maintained for the Red Asphalt Storage. *(40 CFR 60.110)*

- Records of the observation date, observation time, emission point designation, emission point, operation mode, name of the observer, observed opacity, and any corrective action taken during each visible emissions observation shall be kept in a form suitable for inspection. *(ADEM Admin. Code 335-3-16-.05(c))*
- Records of readings of the pressure differential across the fume filter shall be kept in a form suitable for inspection. It must be noted each time the fume filter is not operating. *(ADEM Admin. Code 335-3-16-.05(c))*
- All records shall be maintained for at least five years from the date of generation and shall be made available to the permitting authority upon request. *(ADEM Admin. Code 335-3-16-.05(c))*

## Blowstills Nos. 1 & 2

Asphalt is pumped from the storage tanks to the blowstills so that it can be converted into coating asphalt for use in the roofing lines. After the blowstills the coating asphalt is pumped to process storage tanks. Emissions from the blowstills are vented to either a small or large thermal oxidizer (EP-14 and EP-15, respectively).

The blowstills are subject to 40 CFR Subpart UU "Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture," 40 CFR 63 Subpart AAAAAAA "National Emissions Standards for Hazardous Air Pollutants: Asphalt Processing and Roofing Manufacturing," ADEM Admin. Code r. 335-3-16-.03 "Major Source Operating Permits," and ADEM Admin. Code r. 335-3-14-.04 "Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]" because of the anti-PSD limits in place for these units.

Expected Emissions

TAMKO requested an emission limit change as part of this renewal so that there would be a larger difference in the PTE of the facility for certain pollutants and major source thresholds for PSD. These changes were reflected in the issuance of Air Permit 413-0017-X013 for the blowstills. The stricter limits would result in a reduction of the unit PTE of approximately 40 tpy for PM and 30 tpy for CO.

| | **Potential Emissions[1]** |
|---|---|
| **Pollutant** | **tpy** |
| $NO_x$ | 3.86 |
| CO | 13.21 |
| VOC | 0.15 |
| PM | 1.23 |
| $SO_2$ | 65.66 |
| Hexane | 0.11 |
| HCl | 0.72 |

[1] – *Emissions based on average emissions from 2015-2017*

Emission Standards

- Particulate matter emission rate from the blowstills shall not exceed 0.70 lb/ton of asphalt charged. *(ADEM Admin Code r. 335-3-14-.04 anti-PSD)*
- Carbon monoxide emissions from the blowstills shall not exceed 1.84 lb/ton of asphalt charged when firing Natural Gas in the Thermal Oxidizer. Carbon monoxide emissions from the blowstills shall not exceed 2.33 lb/ton of asphalt charged when firing Fuel Oil in the Thermal Oxidizer. *(ADEM Admin Code r. 335-3-14-.04 anti-PSD)*
- Volatile organic compound emission rate from the blowstills shall not exceed 0.10 lb/ton of asphalt charged. *(ADEM Admin Code r. 335-3-14-.04 anti-PSD)*
- Nitrogen oxide emission rate from the blowstills shall not exceed 0.10 lb/ton of asphalt charged. *(ADEM Admin Code r. 335-3-14-.04 anti-PSD)*
- Stack emissions from the blowstills shall not exceed an opacity greater than zero (0%). (*40 CFR Part 60.472(b))*

- Facility-wide emissions of PM, PM10, and CO shall not exceed 249 tpy in any consecutive twelve month period. *(ADEM Admin Code r. 335-3-14-.04 anti-PSD)*

Operational Standards

- No more than 170,000 tons of asphalt may be oxidized in both blowstills combined in any consecutive twelve (12) month period. *(ADEM Admin Code r. 335-3-14-.04 anti-PSD)*
- The small and large thermal oxidizers may use natural gas, propane, and No. 2 fuel oil as fuel. *(ADEM Admin Code r. 335-3-14-.04 anti-PSD)*
- The sulfur content of the No. 2 fuel oil burned in these units shall not exceed 0.5% by weight as determined by a test method as approved by the Department. *(ADEM Admin Code r. 335-3-14-.04 anti-PSD)*
- The small and large thermal oxidizers shall operate on No. 2 fuel oil no more than 2,000 hours in any consecutive twelve (12) month period combined. The Small Thermal Oxidizer (EP-14) may also operate as a backup heater subject to:

    - The Small Thermal Oxidizer (EP-14) shall not be operated as a backup heater to the 7.0 MMBtu Coating Heater (EP-22) for more than 1,300 hours in any twelve (12) month period.

    *(ADEM Admin Code r. 335-3-14-.04 anti-PSD)*

- The 7.0 MMBtu Coating Heater (EP-22) and the Small Thermal Oxidizer (EP-14) shall not be operated simultaneously when used for heat coating. These units may be operated simultaneously when the Small Thermal Oxidizer is used for Blowstill control. *(ADEM Admin Code r. 335-3-14-.04 anti-PSD)*
- The Small Thermal Oxidizer (EP-14) shall not be operated as a backup heater to the 7.0 MMBtu Coating Heater (EP-22) for more than 1,300 hours in any twelve (12) month period. *(ADEM Admin Code r. 335-3-14-.04 anti-PSD)*
- The combustion chamber temperature of the Small Thermal Oxidizer (EP-14) shall be equal to or greater than $1350^0$ F when it is being used to control fumes from the blowstills. If the temperature drops below $1350^0$ F for any consecutive three (3) hour period during a blow cycle, corrective action must be completed prior to initiating the next blow cycle(s). No emissions may be routed the Small Thermal Oxidizer (EP-14) until the appropriate corrective actions have been completed. *(ADEM Admin Code r. 335-3-14-.04 anti-PSD)*
- The combustion chamber temperature of the Large Thermal Oxidizer (EP-15) shall be equal to or greater than $1350^0$ F when it is being used to control fumes from the blowstills. If the temperature drops below $1350^0$ F for any consecutive three (3) hour period during a blow cycle, corrective action must be completed prior to initiating the next blow cycle(s). No emissions may be routed the Large Thermal Oxidizer (EP-15) until the appropriate corrective actions have been completed. *(ADEM Admin Code r. 335-3-14-.04 anti-PSD)*

Compliance Assurance Monitoring (CAM)

These units have the potential to emit greater than major source thresholds for PM, and these units have control devices for PM; however, the applicable requirements which set standards for PM for these units were proposed after November 15, 1990; therefore, these units are not subject to CAM.

Emissions Monitoring

The blowstills have several emission monitoring requirements under 40 CFR 60 Subpart UU, 40 CFR 63 Subpart AAAAAAA, and ADEM Admin. Code r. 335-3-16-.03.

- Emission Monitoring should be conducted as specified by 40 CFR 63 Subpart AAAAAAA, "National Emissions Standards for Hazardous Air Pollutants: Asphalt Processing and Asphalt Roofing Manufacturing." *(40 CFR 63.11563)*
- An observation of instantaneous visible emissions from the stacks associated with each unit (EP-14 and EP-15) shall be accomplished weekly while each unit is operating. Records should reflect weeks when the blowstills are not in service. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- If the instantaneous opacity is greater than zero (0%) percent then a visible emission observation shall be conducted within thirty (30) minutes of the instantaneous observation in accordance with 40 CFR 60 Appendix A, Method 9, unless the source is shutdown within thirty (30) minutes. The observation period shall be a minimum of twelve (12) consecutive minutes. The average opacity shall be calculated using the maximum six (6) minute average. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- If the six (6) minute average opacity during the Method 9 visible emission observation exceeds zero percent (0%), then corrective action must be initiated within one (1) hour to identify and correct the problem. If the Method 9 visible emission observation exceeds zero percent (0%), an additional observation shall be taken after completion of corrective actions to demonstrate that no visible emissions are observed. The subsequent observation shall be completed in accordance with 40 CFR 60 Appendix A, Method 9. The observation period shall be a minimum of twelve (12) consecutive minutes. The average opacity shall be calculated using the maximum six (6) minute average. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- An instantaneous opacity observation that exceeds a unit specific opacity limit or a corrective action level shall not be considered an opacity or particulate matter deviation and is not subject to deviation reporting under General Proviso 21. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- A deviation of the particulate standard for this unit (when completing the periodic monitoring noted above) is defined as an exceedance of the corrective action level defined in this section as measured by a six (6) minute average in accordance with EPA Method 9. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- A deviation of the opacity standard for this unit (when completing periodic monitoring noted above) is defined as an exceedance of the corrective action level defined in this section as measured by a six (6) minute average in accordance with EPA Method 9. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- A monitor which graphically displays the temperature in the firebox of each thermal oxidizer shall be properly maintained and operated continuously when blowing asphalt. This monitor shall have an accuracy of ±18° F over its range. If the temperature drops below 1350° F for any consecutive (3) hour period during a blow cycle, corrective action must be completed prior to initiating the next blow cycle(s). No emissions may be routed to the Thermal Oxidizer until the appropriate corrective actions have been completed. *(40 CFR 60.473(b))*

<u>Recordkeeping and Reporting</u>

- The following compliance report shall be submitted to the Department:
    - The report shall indicate the controlled units covered by the report.
    - If there were no deviations from the emissions limitations for the units, the report must contain the following:

1. Company name and address.
2. A statement by the Responsible Official with the official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
3. Date of report and beginning and ending dates of the reporting period.
4. A statement that there were no deviations from the emission limitations during the reporting period.
5. If there were no periods during which the CPMS was out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period.

- For each deviation from an emission limitation (emission limit and operating limit), you must include the following information:

  1. The date and time that each deviation started and stopped.
  2. The date and time that each CPMS was inoperative, except for zero (low-level) and high-level checks.
  3. The date, time and duration that each CPMS was out-of-control, including the information in §63.8(c)(8).
  4. The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.
  5. A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.
  6. A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.
  7. A summary of the total duration of CPMS downtime during the reporting period and the total duration of CPMS downtime as a percent of the total source operating time during that reporting period.
  8. An identification of each air pollutant that was monitored at the affected source.
  9. A brief description of the process units.
  10. A brief description of the CPMS.
  11. The date of the latest CPMS certification or audit.
  12. A description of any changes in CPMS or controls since the last reporting period.

- Each compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
- Each compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

*(40 CFR 63.11564)*

- The following records shall be maintained:

  - A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirements in §63.10(b)(2)(xiv).
  - Copies of emission tests used to demonstrate compliance and performance evaluations as required in §63.10(b)(2)(viii).

- Documentation that identifies the operating parameters and values specified in Table 4 of this subpart and that contains the data used to establish the parameter values as specified in §63.11562(a)(2), (b)(2), (b)(3), or (c)(2).
- A copy of the site-specific monitoring plan required under §63.11563(b) or (g).
- A copy of the approved alternative monitoring plan required under §63.11563(h), if applicable.
- Records of the operating parameter values required in Table 4 of this subpart to show continuous compliance with each operating limit that applies to you.

*(40 CFR 63.11564)*

- If a visible emission observation is required using Method 9, the results shall be documented using an ADEM visible emissions observation report. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Records of the observation date, observation time, emission point designation, emission point operation mode, name of the observer, observed opacity, and any corrective actions taken during each visible emissions observation shall be kept in a form suitable for inspection. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Records of continuous readings of the combustion chamber temperatures in each thermal oxidizer shall be maintained in a form suitable for inspection. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Records documenting the time, date, and description of any combustion chamber temperature deviation and any corrective action performed on these units shall be maintained in a form suitable for inspection. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Records documenting the monthly and twelve (12) month rolling total of the amount of asphalt oxidized in the blowstills shall be kept in a form suitable for inspection. These records shall be summarized no later than the twentieth ($20^{th}$) day of the month following the last day of the monthly reporting period. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Records of the operation hours and the type of fuel burned during those hours in the heaters and oxidizers shall be kept in a form suitable for inspection. These records shall be summarized no later than the twentieth ($20^{th}$) day of the month following the last day of the monthly reporting period. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- If utilized, fuel oil supplier certificates shall contain the name of the oil supplier, the date the analysis was performed, the sulfur content analysis method used, and the results of the analysis. The fuel oil supplier certificates shall be kept in a form suitable for inspection. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Monthly and accumulated twelve (12) month rolling totals documenting the hours of operation that the 16.8 MMBtu/hr Small Thermal Oxidizer (EP-14) is used as a back-up coating heater shall be kept in a form suitable for inspection. These records shall be summarized no later than the twentieth ($20^{th}$) day of the month following the last day of the monthly reporting period. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Monthly and accumulated twelve (12) month rolling totals documenting the hours of operation that the Small Thermal Oxidizer (EP-14) and Large Thermal Oxidizer (EP-15) operate on No. 2 fuel oil shall be kept in a form suitable for inspection. These records shall be summarized no later than the twentieth ($20^{th}$) day of the month following the last day of the monthly reporting period. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- All records shall be maintained for at least five years from the date of generation and shall be made available to the permitting authority upon request. *(ADEM Admin. Code r. 335-3-16-.05(c))*

## Horizontal Asphalt Storage Tanks

Asphalt is pumped from the blowstills to the process storage tanks. The asphalt is held in the tanks and heated so that it remains ready for use on the lines. The horizontal storage tanks are comprised of three 30,000 gallon coating storage tanks and two 30,000 gallon tanks that hold either flux, saturant, or asphalt coating. These tanks are controlled by a common fume filter designated as MON-1.

The tanks are subject to 40 CFR 60 Subpart UU "Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture" and ADEM Admin. Code 335-3-16-.05 "Major Source Operating Permits."

Expected Emissions

The expected emissions from EP-17, EP-18, and EP-19 are based on testing data at a sister facility and industry-developed emission factors. The expected emissions from AC-5 Tank #4 and AC-5 Tank #5 are also based on emission factors derived from testing at a sister facility and the throughput of the tanks.

| Unit | VOC | | Formaldehyde | |
|---|---|---|---|---|
| | lb/hr | tpy | lb/hr | tpy |
| Coating Tank EP-17 | 0.09 | 0.38 | 0.02 | 0.087 |
| Coating Tank EP-18 | 0.09 | 0.38 | 0.02 | 0.087 |
| Coating Tank EP-19 | 0.09 | 0.38 | 0.02 | 0.087 |
| AC-5 Storage Tank #4 | -- | 21.00 | -- | 0.09 |
| AC-5 Storage Tank #5 | -- | 12.08 | -- | 0.15 |

Emission Standards

- The emissions from the coating storage tanks shall be vented to the fume filters at all times, except during active replacement of fume filter elements, preventative maintenance or power failure. *(ADEM Admin. Code r. 335-3-16-.05(a))*
- The exhaust gases from the fume filter associated with the coating storage tanks shall not have an opacity greater than zero (0%) percent, except for one consecutive 15-minute period in any 24-hour period when the transfer lines are being blown for clearing. The control device shall not be bypassed during this 15-minute period. *(40 CFR 60.472(c))*
- Facility-wide emissions of PM, PM10, and CO shall not exceed 249 tpy in any consecutive twelve month period. *(ADEM Admin Code r. 335-3-14-.04 anti-PSD)*

CAM

These units do not have the potential to emit air pollutants in excess of major source thresholds, nor do they have add on control devices; therefore, CAM does not apply.

Emission Monitoring

- During each calendar week the coating tanks are in service, an observation of instantaneous visible emissions from the coating tanks shall be accomplished weekly to determine opacity. Records should reflect weeks when the coating tanks are not in service. If the instantaneous opacity observed is greater than zero percent (0%), then a visible emission observation shall be conducted immediately

in accordance with 40 CFR 60 Appendix A, Method 9, unless the source is shutdown within thirty (30) minutes. The observation period shall be a minimum of twelve (12) consecutive minutes. The average opacity shall be calculated using the maximum six (6) minute average. *(ADEM Admin. Code r. 335-3-16-.05(c))*

- If the six (6) minute average opacity during the Method 9 visible emission observation exceeds zero percent (0%) from the coating tanks, corrective actions to minimize emissions shall be initiated within two (2) hours. If the Method 9 visible emission observation exceeds zero percent (0%), an additional observation shall be taken after completion of corrective actions to determine that no visible emission are observed. The subsequent observation shall be completed in accordance with 40 CFR 60, Appendix A, Method 9, the observation period shall be a minimum of twelve (12) consecutive minutes. The average opacity shall be calculated using the maximum six (6) minute average. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Once per day, the pressure differential across the fume filter shall be observed and recorded. If the pressure differential is outside the operating outside the manufacturer's recommended operating range, maintenance, inspections, and/or corrective action must be initiated within one (1) hour. Records should reflect weeks that the fume filter was not in service. *(ADEM Admin. Code r. 335-3-16-.05(c))*

<u>Recordkeeping and Reporting</u>

- If a visible emissions observation utilizing Method 9 is required, the results shall be documented using the ADEM visible emission observation report. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Records of the observation date, observation time, emission point designation, emission point operation mode, name of the observer, observed opacity, and any corrective action taken during each visible emissions observation shall be kept in a form suitable for inspection. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Records of daily readings of the pressure differential across the fume filter shall be kept in a form suitable for inspection. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- All records shall be maintained for at least five years from the date of generation and shall be made available to the permitting authority upon request. *(ADEM Admin. Code r. 335-3-16-.05(c))*

## Coating Heaters and Line Heaters

The coating heater is used to heat the coating asphalt stored in the horizontal tanks after being processed in the blowstills. The line heaters heat Roofing Line 2 and Roofing Line 3. There is one 7.0 MMBTU/hr coating heater (EP-22) and two 6.3 MMBTU/hr Born, Inc. line heaters for Roofing Lines 2 & 3 (EP-23 and EP-24).

The coating heater and line heaters are subject to ADEM Admin. Code r. 335-3-14-.04 "Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]" because the heaters have enforceable limits in place to remain a minor source with regard to the PSD program. The heaters are subject to ADEM Admin. Code r. 335-3-16-.05 "Major Source Operating Permits" because they are located at a Major Source of air pollutants.

Expected Emissions

The expected emissions are based on AP-42 emission factors and the heat input rate of the heaters. PM emissions from these units are based on permit limits.

| **Pollutant** | **Coater Heater (EP-22)** | | **Line 3 Born Heater (EP-23)** | | **Born Heater (EP-24)** | |
|---|---|---|---|---|---|---|
| | lb/hr | tpy | lb/hr | tpy | lb/hr | tpy |
| PM | 0.5 | 2.19 | 0.5 | 2.19 | 0.5 | 2.19 |
| $SO_2$ | 3.55 | 15.55 | 3.20 | 13.99 | 3.20 | 13.99 |
| $NO_X$ | 1.00 | 4.38 | 0.90 | 3.94 | 0.90 | 3.94 |
| CO | 0.57 | 2.51 | 0.52 | 2.26 | 0.52 | 2.26 |
| VOC | 0.06 | 0.27 | 0.06 | 0.24 | 0.06 | 0.24 |
| Hexane | 0.01 | 0.05 | 0.011 | 0.05 | 0.011 | 0.05 |

Emission Standards

- Particulate matter emission rate from each of these units shall not exceed the lesser of 0.5 lbs/hr (2.19 TPY) or that set by Rule 335-3-4-.04. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- This source of particulate emissions shall not discharge more than one 6-minute average opacity greater than 20% in any 60-minute period. At no time shall this source discharge a 6-minute average opacity of particulate emissions greater than 40%. *(ADEM Admin. Code r. 335-3-4-.01 "Visible Emissions")*
- Facility-wide emissions of PM, PM10, and CO shall not exceed 249 tpy in any consecutive twelve month period. *(ADEM Admin Code r. 335-3-14-.04 anti-PSD)*

Operational Standards

- The heaters are permitted to burn natural gas, No. 2 fuel oil, or propane as fuel. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- The sulfur content of the No. 2 fuel oil burned in these units shall not exceed 0.5% by weight as determined by a test method approved by the Department. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*

- The 7.0 MMBtu/hr Coating Heater (EP-22) and the 16.8 MMBtu/hr Small Thermal Oxidizer (EP-14) shall not be operated simultaneously when used to heat coating. These units may be operated simultaneously when the small thermal oxidizer is used for blowstill control. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*

Emission Monitoring

- An observation of instantaneous visible emissions from the stacks associated with each unit (EP-22, EP-23, and EP-24) shall be accomplished daily while each unit is operating on fuel oil. Records should reflect weeks when the heaters are not in use or not operating on fuel oil. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- If the instantaneous opacity is greater than ten (10%) percent, a visible emissions observation shall be conducted within (30) minutes of the instantaneous observation in accordance with 40 CFR 60 Appendix A, Method 9 unless the source is shutdown within thirty (30) minutes. The observation period shall be a minimum of twelve (12) consecutive minutes. The average opacity shall be calculated using the maximum six (6) minute average. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- If the average opacity during the Method 9 visible emission observation exceeds ten (10%) percent, then corrective action shall be initiated within one (1) hour to identify and correct the problem. If the Method 9 visible emission observation exceeds ten percent (10%), an additional observation shall be taken after completion of corrective actions to demonstrate that no visible emissions are observed. The subsequent observation shall be completed in accordance with 40 CFR 60 Appendix A, Method 9. The observation period shall be a minimum of twelve (12) consecutive minutes. The average opacity shall be calculated using the maximum six (6) minute average. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- An instantaneous opacity observation that exceeds a unit specific opacity limit or a corrective action level shall not be considered an opacity or particulate matter deviation and is not subject to deviation reporting under General Proviso 21. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- A deviation of the particulate standard for this unit (when completing the periodic monitoring noted above) is defined as an exceedance of the corrective action level defined in this section as measured by a 6-minute average in accordance with EPA Method 9. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- A deviation of the opacity standard for this unit (when completing the periodic monitoring noted above) is defined as an exceedance of the corrective action level defined in this section as measured by a 6-minute average in accordance with EPA Method 9. *(ADEM Admin. Code r. 335-3-16-.05(c))*

Recordkeeping and Reporting

- If a visible emission observation using Method 9 is required, the results shall be documented using an ADEM visible emissions observation report. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Records of the observation date, observation time, emission point designation, emission point operation mode, name of the observer, observed opacity, and any corrective actions taken during each visible emissions observation shall be kept in a form suitable for inspection. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- If utilized, fuel oil supplier certificates shall contain the name of the oil supplier, the date the analysis was performed, the sulfur content analysis method used, and the results of the analysis. The fuel oil supplier certificates shall be kept in a form suitable for inspection. *(ADEM Admin. Code r. 335-3-16-.05(c))*

- Records of the operation hours and the type of fuel burned during those hours in the heaters and oxidizers, as well as records of the sulfur content of the No. 2 fuel oil burned in these units, must be maintained by the facility. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Monthly hours of operation and fuel usage records shall be summarized no later than the twentieth ($20^{th}$) day of the month following the last day of each monthly reporting period. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- All records shall be maintained for at least five years from the date of generation and shall be made available to the permitting authority upon request. *(ADEM Admin. Code r. 335-3-16-.05(c))*

## Limestone/Talc Transfer Area

The Limestone/Talc transfer area consists of several units that prepare and transport limestone to be used in the Raymond Mills. The area consists of a limestone unloading zone (EP-31a), two lower limestone conveyors (EP-31b), a rock hopper (EP-31c), three upper limestone conveyors (EP-31d), and two rock tank conveyors (EP-31e).

The above-listed units are subject to ADEM Admin. Code r. 335-3-16-.05 "Major Source Operating Permits" because they are located at a Major Source of air pollutants. They are also subject to 40 CFR 60 Subpart OOO "Nonmetallic Mineral Processing Plants."

Expected Emissions

The expected emissions from this area are low. All emissions are fugitive. Emissions are based on AP-42 factors found in Chapter 11.6, Table 4. This table assumes controlled emissions, so the emission factors used are 100 times greater than those contained in Table 4. This is deemed to be a conservative estimate of the emissions from these units. The total emissions from this area are expected to be 5.1 tpy PM.

Emission Standards

- The permittee shall not cause to be discharged into the atmosphere from the Lower Rock Conveyor (EP-31b), Rock Hopper (EP-31c), and the Upper Rock Conveyor (EP-31d) any fugitive emissions which exhibit greater than ten (10%) percent opacity. *(40 CFR 60.672(b))*
- Facility-wide emissions of PM, PM10, and CO shall not exceed 249 tpy in any consecutive twelve month period. *(ADEM Admin Code r. 335-3-14-.04 anti-PSD)*

Emission Monitoring

- An observation of instantaneous visible emissions from the Lower Rock Conveyor (EP-31b), Rock Hopper (EP-31c), and Upper Rock Conveyor (EP-31d) shall be accomplished at least weekly while in operation. Records should reflect weeks when the units are not in service. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- If the instantaneous opacity observed from the Lower Rock Conveyor (EP-31b), Rock Hopper (EP-31c), and Upper Rock Conveyor (EP-31d) is greater than zero (0%) percent, then a visible emission observation shall be conducted within thirty (30) minutes of the initial observation in accordance with 40 CFR 60 Appendix A, Method 9. Unless the source is shutdown within thirty (30) minutes. The observation period shall be a minimum of twelve (12) consecutive minutes. The average opacity shall be calculated using the maximum six (6) minute average. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- If the average opacity during the Method 9 visible emission observation of the Lower Rock Conveyor (EP-31b), Rock Hopper (EP-31c), and Upper Rock Conveyor (EP-31d) exceeds five (5%) percent, then corrective action shall be initiated within one (1) hour to identify and correct the problem, if required. If the Method 9 visible emission observation exceeds ten (10%) percent an additional observation shall be taken after completion of corrective actions to demonstrate that the visible emissions are below the limits allowed by Unit Proviso 1. The subsequent observation shall be completed in accordance with 40 CFR 60 Appendix A, Method 9. The observation period shall be a minimum of twelve (12) consecutive minutes. The average opacity shall be calculated using the maximum six (6) minute average. *(ADEM Admin. Code r. 335-3-16-.05(c))*

- An instantaneous opacity observation that exceeds a unit specific opacity limit or a corrective action level shall not be considered an opacity or particulate matter deviation and is not subject to deviation reporting under General Proviso 21. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- A deviation of the particulate standard for this unit (when completing the periodic monitoring noted above) is defined as an exceedance of the corrective action level defined in this section as measured by a 6-minute average in accordance with EPA Method 9. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- A deviation of the opacity standard for this unit (when completing the periodic monitoring above) is defined as an exceedance of the opacity limit defined in this section as measured by a six (6) minute average in accordance with EPA Method 9. *(ADEM Admin. Code r. 335-3-16-.05(c))*

<u>Recordkeeping and Reporting</u>

- If a visible emission observation is required using Method 9, the results shall be documented using an ADEM visible emissions observation report. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Records of the observation date, observation time, emission point designation, emission point operation mode, name of the observer, observed opacity, and any corrective actions taken during each visible emissions observation shall be kept in a form suitable for inspection. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- All records shall be maintained for at least five (5) years from the date of generation and shall be made available to the permitting authority upon request. *(ADEM Admin. Code r. 335-3-16-.05(c))*

## Raymond Mill Nos. 1 & 2

Raymond Mills 1 & 2 are used for crushing and grinding limestone that will be used in the shingle lines. The limestone is delivered to the Raymond Mill Area, where it is conveyed to storage tanks beside each mill. As needed, the rock is metered into the mills to be ground up. The crushed limestone is then stored in silos and conveyed to the shingle lines. During deliver, the limestone is heated by the Raymond Mill heaters.

Raymond Mills 1 & 2 are subject to ADEM Admin. Code r. 3353-16 "Major Source Operating Permits." The mills are also subject to ADEM Admin. Code r. 335-3-14-.04 "Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]" because they have limits in place to remain a minor source with regard to the PSD program. The mills are also subject to 40 CFR 64 "Compliance Assurance Monitoring."

Expected Emissions

The expected emissions from these units are from the rock tanks associated with each Raymond Mill and each Raymond Mill itself. The Raymond Mill emissions are controlled by baghouses with 99% control efficiency. Emissions are based on enforceable permit limits for the Mills and AP-42 for the tanks.

| Unit | PM Emissions | |
|---|---|---|
| | lb/hr | tpy |
| Raymond Mill #1 (EP-32b) | 2.00 | 8.80 |
| Raymond Mill #1 Rock Tank (EP-32c) | 0.05 | 0.21 |
| Raymond Mill #2 (EP-33b) | 2.00 | 8.80 |
| Raymond Mill #2 Rock Tank (EP-33c) | 0.05 | 0.21 |

Emission Standards

- The 2.4 MMBtu/hr Heater is permitted to burn only natural gas and propane. *(ADEM Admin. Code r. 335-3-16-.05(a))*
- There are no unit specific opacity standards other than those listed in the General Proviso 29 of this permit. *(ADEM Admin. Code r. 335-3-4-.01 "Visible Emissions")*
- Particulate matter emission rate from this unit shall not exceed the lesser of 2.0 lbs/hr or that set by Rule 335-3-4-.04 *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- If both the Raymond Mill No. 2 and the Limestone Filler Tanks are operating, the particulate matter emission rate from the baghouse associated with these units shall not exceed the lesser of 2.23 lb/hr or that set by Rule 335-3-4-.04. *(ADEM Admin Code r. 335-3-14-.04 anti-PSD)*
- Facility-wide emissions of PM, PM10, and CO shall not exceed 249 tpy in any consecutive twelve month period. *(ADEM Admin Code r. 335-3-14-.04 anti-PSD)*

CAM

These units have a precontrolled PTE greater than major source thresholds for PM and add on control devices to control PM emissions; therefore, these units are subject to CAM. The CAM plan consists of visual observations of the baghouse stacks and pressure differential readings across the baghouse. A full CAM plan is located in Appendix A.

Emission Monitoring

- During each calendar week Raymond Mill No. 2 is in operation, an observation of instantaneous visible emissions from the baghouse stack associated with this unit (EP-33b) shall be accomplished weekly while in operation. Records should reflect weeks when the mill is not in service. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- If the instantaneous opacity observed is greater than ten (10%) percent, then a visible emission observation shall be conducted within thirty (30) minutes of the initial observation in accordance with 40 CFR 60 Appendix A, Method 9, unless the source is shutdown within thirty (30) minutes. The observation period shall be a minimum of twelve (12) consecutive minutes. The average opacity shall be calculated using the maximum six (6) minute average. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- If the average opacity during the Method 9 visible emission observation exceeds ten (10%) percent, then corrective action shall be initiated within one (1) hour to identify and correct the problem, if required. An additional observation shall be taken after completion of corrective actions to demonstrate that the visible emissions are below the limits allowed by General Proviso 29. The subsequent observation shall be completed in accordance with 40 CFR 60 Appendix A, Method 9. The observation period shall be a minimum of twelve (12) consecutive minutes. The average opacity shall be calculated using the maximum six (6) minute average. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- An instantaneous opacity observation that exceeds a unit specific opacity limit or corrective action level shall not be considered an opacity or particulate matter deviation and is not subject to deviation reporting under General Proviso 21. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- A deviation of the particulate standard for this unit (when completing the periodic monitoring noted above) is defined as an exceedance of the corrective action level defined in this section as measured by a 6-minute average in accordance with EPA Method 9. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- A deviation of the opacity standard for this unit (when completing the periodic monitoring noted above) is defined as an exceedance of the opacity limit defined in this section as measured by a 6-minute average in accordance with EPA Method 9. *(ADEM Admin. Code r. 335-3-16-.05(c))*

Recordkeeping and Reporting

- If a visible emission observation is required using Method 9, the results shall be documented using an ADEM visible emissions observation report. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Records of the observation date, observation time, emission point designation, emission point operation mode, name of the observer, observed opacity, and any corrective actions taken during each visible emissions observation shall be kept in a form suitable for inspection. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- All records shall be maintained for at least five years from the date of generation and shall be made available to the permitting authority upon request. *(ADEM Admin. Code r. 335-3-16-.05(c))*

## Raymond Mill No. 3

Raymond Mill 3 is used for crushing and grinding limestone that will be used in the shingle lines. The limestone is delivered to the Raymond Mill Area, where it is conveyed to storage tanks beside each mill. As needed, the rock is metered into the mills to be ground up. The crushed limestone is then stored in silos and conveyed to the shingle lines. During deliver, the limestone is heated by the Raymond Mill heaters.

Raymond Mill 3 is subject to ADEM Admin. Code r. 3353-16 "Major Source Operating Permits." The mill is also subject to ADEM Admin. Code r. 335-3-14-.04 "Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]" because it has limits in place to remain a minor source with regard to the PSD program. The mill is also subject to the applicable requirements of 40 CFR 60 Subpart OOO "Nonmetallic Mineral Processing Plants."

Expected Emissions

The expected emissions from Raymond Mill 3 are from the rock tank associated with the mill and the mill itself. The Raymond Mill emissions are controlled by a baghouse with 99% control efficiency. Emissions are based on enforceable permit limits for the Mill and AP-42 for the tank.

| Unit | PM Emissions | |
|---|---|---|
| | lb/hr | tpy |
| Raymond Mill #3 (EP-62b) | 2.00 | 8.80 |
| Raymond Mill #3 Rock Tank (EP-62c) | 0.05 | 0.21 |

Emission Standards

- No person shall cause to be discharged into the atmosphere any stack emissions from the baghouse associated with this source (EP-62b) which:

    - Contain particulate matter in excess of 0.05 g/dscm (0.022gr/dscf); and
    - Exhibit greater than seven (7%) percent opacity.

    *(40 CFR 60.672(a))*

- The 4.718 MMBtu/hr Heater may burn natural gas, No. 2 fuel oil, or propane as fuel. *(ADEM Admin. Code r. 335-3-16)*
- The sulfur content of the No. 2 fuel oil burned in this unit shall not exceed 0.5% by weight. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- Facility-wide emissions of PM, PM10, and CO shall not exceed 249 tpy in any consecutive twelve month period. *(ADEM Admin Code r. 335-3-14-.04 anti-PSD)*

CAM

Raymond Mill 3 has precontrolled potential to emit PM in excess of major source thresholds and has a control device for PM; however, Raymond Mill 3 is subject to 40 CFR 60 Subpart OOO, which was proposed after November 15, 1990; therefore, Raymond Mill 3 is not subject to CAM.

Emission Monitoring

- During each calendar week Raymond Mill No. 3 is in operation an observation of instantaneous visible emissions from the baghouse associated with this unit (EP-62b) shall be accomplished weekly while in operation. Records should reflect weeks when the units are not in service. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- If the instantaneous opacity observed is greater than zero (0%) percent, then a visible emission observation shall be conducted within 30 minutes of the initial observation in accordance with 40 CFR 60 Appendix A, Method 9, unless the source is shutdown within thirty (30) minutes. The observation period shall be a minimum of twelve (12) consecutive minutes. The average opacity shall be calculated using the maximum six (6) minute average. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- If any visible emissions are observed during the Method 9 observation, corrective action shall be initiated within one (1) hour to identify and correct the problem, if required. If the Method 9 visible emission observation exceeds seven (7%) percent an additional observation shall be taken after completion of corrective actions to demonstrate that the visible emissions are below the limits allowed by Unit Specific Proviso Emissions Standards 1. The subsequent observation shall be completed in accordance with 40 CFR 60 Appendix A, Method 9. The observation period shall be a minimum of twelve (12) consecutive minutes. The average opacity shall be calculated using the maximum six (6) minute average. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- An instantaneous opacity observation that exceeds a unit specific opacity limit or corrective action level shall not be considered an opacity or particulate matter deviation and is not subject to deviation reporting under General Proviso 21. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- A deviation of the particulate standard for this unit (when completing the periodic monitoring noted above) is defined as an exceedance of the corrective action level defined in this section as measured by a 6-minute average in accordance with EPA Method 9. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- A deviation of the opacity standard for this unit (when completing the periodic monitoring noted above) is defined as an exceedance of the opacity limit defined in this section as measured by a 6-minute average in accordance with EPA Method 9. *(ADEM Admin. Code r. 335-3-16-.05(c))*

Recordkeeping and Reporting

- If a visible emission observation is required using Method 9, the results shall be documented using an ADEM visible emissions observation report. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Records of the observation date, observation time, emission point designation, emission point operation mode, name of the observer, observed opacity, and any corrective actions taken during each visible emissions observation shall be kept in a form suitable for inspection. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Records of the sulfur content of the No. 2 fuel oil burned in these units must be kept in a form suitable for inspection. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- If utilized, fuel oil supplier certificates shall contain the name of the oil supplier and a statement from the oil supplier that the oil complies with the sulfur content limit. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- All records shall be maintained for at least five years from the date of generation and shall be made available to the permitting authority upon request. *(ADEM Admin. Code r. 335-3-16-.05(c))*

## Limestone Filler Tanks

There are four limestone filler tanks: the east filler tank, the west filler tank, the south filler tank, and Mill #3 filler tank. There are two baghouses common to the tanks with emission point designations as EP-33b and EP-35b. The tanks hold the processed limestone that will be transferred to the lines for use.

The tanks are subject to ADEM Admin. Code r. 335-3-14-.04 "Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]" because they have limits in place to remain a minor source with regard to the PSD program. EP-33b and EP-35b are subject to 40 CFR 60 Subpart UU "Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture" because they were installed after the applicability date of November 18, 1980. EP-33b is a shared emission point with Raymond Mill #2 and a limit has been included in this section with this renewal.

Expected Emissions

Emissions from the tanks are vented to bin vents. Only PM emissions are expected from these units, and the emissions are 1.5 tpy, as determined by the last three years of emissions data.

Emission Standards

- Particulate matter emission rate from EP-35b shall not exceed the lesser of 0.23 lbs/hr or the amount set by the equation in ADEM Admin. Code r. 335-3-4-.04. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- If both the Raymond Mill No. 2 and the Limestone Filler Tanks are operating, the particulate matter emission rate from the baghouse associated with these units shall not exceed the lesser of 2.23 lb/hr or that set by Rule 335-3-4-.04. (ADEM Admin Code r. 335-3-14-.04 anti-PSD)
- The visible emissions from the tanks (EP-33b and EP-35b) shall not exceed 1% opacity while the Mill #3 Filler tank is in use. *(40 CFR 60.472(d))*
- When the Mill #3 Filler Tank is not in use, visible emissions from these units shall not exceed the amount specified in General Proviso 29. *(ADEM Admin. Code r. 335-3-4-.01)*
- Facility-wide emissions of PM, PM10, and CO shall not exceed 249 tpy in any consecutive twelve month period. *(ADEM Admin Code r. 335-3-14-.04 anti-PSD)*

Emission Monitoring

- During each calendar week the Mill #3 Filler Tank is in service, an observation of instantaneous visible emissions from the baghouses associated with it (EP-33b & EP-35b) shall be made. Any week Raymond Mills 1, 2, or 3 are in operation, an observation of instantaneous emissions from the baghouses associated (EP-33b & EP-35b) shall be accomplished weekly. Records should reflect weeks when the Mill #3 Filler Tank is not in service. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- If the instantaneous opacity observed is greater than zero (0%) percent, then a visible emission observation shall be conducted within thirty (30) minutes of the initial observation in accordance with 40 CFR 60 Appendix A, Method 9, unless the source is shutdown within thirty (30) minutes. The observation period shall be a minimum of twelve (12) consecutive minutes. The average opacity shall be calculated using the maximum six (6) minute average. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- If any visible emission are observed during the Method 9 observation, corrective action shall be initiated within one (1) hour to identify and correct the problem, if required. If the Method 9 visible

emission observation exceeds zero (0%) percent an additional observation shall be taken after completion of corrective actions to demonstrate that the visible emissions are below the limits allowed by Unit Specific Proviso Emissions Standard 2. The subsequent observation shall be completed in accordance with 40 CFR 60 Appendix A, Method 9. The observation period shall be a minimum of twelve (12) consecutive minutes. The average opacity shall be calculated using the maximum six (6) minute average. *(ADEM Admin. Code r. 335-3-16-.05(c))*

- An instantaneous opacity observation that exceeds a unit specific opacity limit or corrective action level shall not be considered an opacity or particulate matter deviation and is no subject to deviation reporting under General Proviso 21. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- A deviation of the particulate standard for this unit (when completing the periodic monitoring noted above) is defined as an exceedance of the corrective action level defined in this section as measured by a 6-minute average in accordance with EPA Method 9. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- A deviation of the opacity standard for this unit (when completing periodic monitoring noted above) is defined as an exceedance of the opacity limit defined in this section as measured by a six (6) minute average in accordance with EPA Method 9. *(ADEM Admin. Code r. 335-3-16-.05(c))*

<u>Recordkeeping and Reporting</u>

- If a visible emission observation is required using Method 9, the results shall be documented using an ADEM visible emissions observation report. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Records of the observation date, observation time, emission point designation, emission point operation mode, name of the observer, observed opacity, and any corrective actions taken during each visible emissions observation shall be kept in a form suitable for inspection. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- All records shall be maintained for at least five years from the date of generation and shall be made available to the permitting authority upon request. *(ADEM Admin. Code r. 335-3-16-.05(c))*

## Roofing Line No. 1

Line 1 has two process lines for the shingles: two-tab and laminate. Fiberglass mat is unwound from rolls and passed through a coater where asphalt and limestone is applied to the top and bottom of the mat. It then goes under a blender, where mineral granules are dropped onto the sheet. After this, sand is applied to the bottom of the sheet. The sheet then goes through a cooling section and an accumulator before going to either of the shingle machines. In the 3-tab line, the sheet goes through a sealdown applicator and is cut to length and width. In the laminate line, the sheet goes through a sealdown applicator, pattern cutter, and a laminator. In both lines, the auto-catcher then stacks the shingles, and they are conveyed to a wrapper.

Line 1 is subject to ADEM Admin. Code r. 335-3-16 "Major Source Operating Permits." Line 1 is subject to ADEM Admin. Code R. 335-3-14-.04, "Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]" because they have enforceable limits in place to remain a minor source with regard to the PSD program. The mineral backing conveyor and storage system and the sealdown systems are subject to 40 CFR 60 Subpart UU, "Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture." The coating operations are subject to 40 CFR 63 Subpart AAAAAAA "National Emission Standards for Hazardous Air Pollutants for Area Sources: Asphalt Processing and Asphalt Roofing Manufacturing."

Expected Emissions

Baghouses and fume filters are employed on Line 1 to reduce emissions. The baghouses and filters draw emissions off the line and exit to the atmosphere. The line is contained inside of a building. Expected emissions were derived from the last two years of emissions data. The lb/hr number was averaged to an hourly rate from the yearly rate.

| Pollutant | Emissions (lb/hr) | Emissions (tpy) |
|---|---|---|
| Formaldehyde | 0.09 | 0.40 |
| CO | 0.64 | 2.79 |
| $NO_X$ | 0.71 | 3.13 |
| PM | 0.26 | 1.14 |
| $PM_{10}$ | 0.22 | 0.95 |
| $PM_{2.5}$ | 0.15 | 0.64 |
| $SO_2$ | 0.002 | 0.015 |
| VOC | 2.32 | 10.2 |

Emissions Standards

- Particulate matter emission rate from the Talc Silo with Baghouse (EP-34) shall not exceed the lesser of 0.01 lbs/hr or the allowable set by Rule 335-3-4-.04. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- Particulate matter emission rate from the Mineral Backing Conveyor and Storage System (EP-35c) shall not exceed the lesser of 0.24 lbs/hr or the allowable set by Rule 335-3-4-.04. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- The particulate matter emission rate from the Mineral Backing Silo (EP-35a) shall not exceed the lesser of 0.24 lbs/hr or the allowable set by Rule 335-3-4-.04. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*

- Particulate matter emission rate from the Fiberglass Rack Splicer (EP-36) shall not exceed the lesser of 0.04 lbs/hr or the allowable set by Rule 335-3-4-.04. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- Particulate matter emission rate from the Filler Surge Hopper with Baghouse (EP-41) shall not exceed the lesser of 0.01 lbs/hr or the allowable set by Rule 335-3-4-.04. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- Particulate matter emission rate from the Mineral Application Section with Baghouse (EP-43a) shall not exceed the lesser of 0.04 lbs/hr or the allowable set by Rule 335-3-4-.04. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- Particulate matter emission rate from Fourteen (14) Headlap and Granule Bins 64c (EP-43g) shall not exceed the lesser of 0.19 lbs/hr each or the allowable set by Rule 335-3-4-.04. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- Particulate matter emission rate from the Roofing Line No. 1 Coater (CVM-EP-50c and 50d) shall not exceed the lesser of 0.06 lb/ton of shingles produced or the allowable set by Rule 335-3-4-.04. *(40 CFR 63.11561, ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- No more than 701,000 tons of shingles shall be manufactured on Roofing Line No. 1 per consecutive twelve (12) month period. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- Particulate matter emission rate from the Twenty Six (26) Headlap and Granule Silos (EP-64d) shall not exceed the lesser of 0.19 lbs/hr or the allowable set by Rule 335-3-4-.04. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- Particulate matter emission rate from the Cutter (EP-70c) shall not exceed the lesser of 0.13 lbs/hr or the allowable set by Rule 335-3-4-.04. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- The Mineral Backing Conveyor and Storage System with Baghouse (EP-35c) shall not have an opacity greater than one (1%) percent. *(40 CFR 60.472(d))*
- The Shuttle Sealdown Tank (EP-46) and Laminate Run Tank (EP-59h) shall not have an opacity greater than zero (0%) percent, except for one consecutive fifteen (15) minute period in any twenty-four (24) hour period when the transfer lines are being blown for clearing. The control device shall not be bypassed during this fifteen (15) minute period. *(40 CFR 60.472(c))*
- Stack emissions not subject to NSPS Subpart UU are subject to the opacity standard listed in General Proviso 29. *(ADEM Admin. Code r. 335-3-4-.04)*
- The emissions from the Roofing Line No. 1 Coater shall be vented to the fume filters (CVM-EP-50c and 50d). *(ADEM Admin. Code r. 335-3-16-.05(a))*
- The emissions from the Line 1 Laminate System shall be vented to the fume filter (EP-78). *(ADEM Admin. Code r. 335-3-16-.05(a))*
- The fume filters (EP-50c and 50d) shall be properly maintained and operated at all times when the Roofing Line No. 1 Coater is in operation. *(ADEM Admin. Code r. 335-3-16-.05(a))*
- All heaters on Roofing Line No. 1 may burn only natural gas or propane as fuel. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- Facility-wide emissions of PM, PM10, and CO shall not exceed 249 tpy in any consecutive twelve month period. (ADEM Admin Code r. 335-3-14-.04 anti-PSD)

<u>Emission Monitoring</u>

- Emission Monitoring should be conducted as specified by 40 CFR 63 Subpart AAAAAAA, "National Emissions Standards for Hazardous Air Pollutants: Asphalt Processing and Asphalt Roofing Manufacturing."
- During each calendar week that the Line 1 Laminate System is in service, an observation of instantaneous visible emissions from the Laminate Run Tank (EP-59H), Pattern Cutter (EP-74),

Laminator (EP-75), Cutter (EP-76), Laminate Run Tank Heater (EP-77), and Fume Filter (EP-78) shall be accomplished weekly while in operation. Records should reflect weeks when the units are not in service. *(ADEM Admin. Code r. 335-3-16-.05(c))*

- During each calendar week that Line 1 is in service, an observation of instantaneous visible emissions from the Talc Silo (EP-34), Fiberglass Rack Splicer (EP-36), Filler Surge Hopper (EP-41), Mineral Application Section (EP-43a), Coater (CVM-EP-50c and 50d), and Headlap and Granule Bins (EP-43g) shall be accomplished weekly while in operation. Whenever active, whether line is in operation or not, visible emissions from the Headlap and Granule Silos (EP-64d), Shuttle Sealdown Tank (CECO-EP-46), and Mineral Backing Conveyor and Storage System with Baghouse (EP-35c) shall be accomplished weekly while in service. Records should reflect weeks when the units are not in service. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- If the instantaneous opacity observed from the Talc Silo (EP-34), Felt Rack (EP-36), Filler Surge Hopper (EP-41), Mineral Application Section (EP-43a), Coater (CVM-EP-50c and EP-50d), Headlap and Granule Bins 64c (EP-43g), Headlap and Granule Silos (EP-64d), Pattern Cutter (EP-74), Laminator (EP-75), or Cutter (EP-76) is greater than ten (10%) percent, then a visible emission observation shall be conducted within thirty (30) minutes of the initial observation in accordance with 40 CFR 60 Appendix A, Method 9, unless the source is shutdown within thirty (30) minutes. The observation period shall be a minimum of twelve (12) consecutive minutes. The average opacity shall be calculated using the maximum six (6) minute average. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- If the average opacity during the Method 9 visible emission observations of the Talc Silo (EP-34), Felt Rack (EP-36), Filler Surge Hopper (EP-41), Mineral Application Section (EP-43a), Coater (CVM-EP-50c and 50d), Headlap and Granule Bins 64c (EP-43g), Headlap and Granule Silos (EP-64d), Pattern Cutter (EP-74), Laminator (EP-75), or Cutter (EP-76) is greater than ten (10%) percent, then corrective action shall be taken within one (1) hour to identify and correct the problem, if required. If the Method 9 visible emission observation exceeds ten (10%) percent an additional observation shall be taken after completion of corrective actions to demonstrate that the visible emissions are below the limits allowed by General Proviso 29. The subsequent observation shall be completed in accordance with 40 CFR 60 Appendix A, Method 9. The observation period shall be a minimum of twelve (12) consecutive minutes. The average opacity shall be calculated using the maximum six (6) minute average. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- If the instantaneous opacity observed from the Shuttle Sealdown Tank (CECO-EP-46), Mineral Backing Conveyor and Storage System with Baghouse (EP-35), Laminate Run Tank (EP-59H), or Fume Filter (EP-78) is greater than zero percent (0%), then a visible emission observation shall be conducted within thirty (30) minutes of the instantaneous observation in accordance with 40 CFR 60, Appendix A, Method 9, unless the source is shutdown within thirty (30) minutes. The observation period shall be a minimum of twelve (12) consecutive minutes. The average opacity shall be calculated using the maximum six (6) minute average. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- If the average opacity during the Method 9 visible emission observation of the Shuttle Sealdown Tank (CECO EP-46), Mineral Backing Conveyor and Storage System with Baghouse (EP-35c), Laminate Run Tank (EP-59H), or Fume Filter (EP-78) corrective actions to minimize emissions shall be taken within one (1) hour, if required. If the Method 9 visible emission observation exceeds zero (0%) percent an additional observation shall be taken after completion of corrective actions to demonstrate that the visible emissions are below the limits allowed by Unit Specific Proviso Emissions Standards 13/14. The subsequent observation shall be completed in accordance with 40 CFR 60 Appendix A, Method 9. The observation period shall be a minimum of twelve (12) consecutive minutes. The average opacity shall be calculated using the maximum six (6) minute average. *(ADEM Admin. Code r. 335-3-16-.05(c))*

- Once per day, the pressure differential across the fume filters shall be observed and recorded. If the pressure differential is outside the manufacturer's recommended operating range, maintenance, inspections, and/or corrective action must be initiated within two (2) hours. Records should reflect the weeks the fume filter is not in service. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- An instantaneous opacity observation that exceeds a unit specific opacity limit or corrective action level shall not be considered an opacity or particulate matter deviation and is no subject to deviation reporting under General Proviso 21. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- A deviation of the particulate standard for this unit (when completing the periodic monitoring noted above) is defined as an exceedance of the corrective action level defined in this section as measured by a 6-minute average in accordance with EPA Method 9. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- A deviation of the opacity standard for this unit (when completing periodic monitoring noted above) is defined as an exceedance of the opacity limit defined in this section as measured by a six (6) minute average in accordance with EPA Method 9. *(ADEM Admin. Code r. 335-3-16-.05(c))*

<u>Recordkeeping and Reporting</u>

- The following compliance report shall be submitted to the Department:

    - The report shall indicate the controlled units covered by the report.
    - If there were no deviations from the emissions limitations for the units, the report must contain the following:

        1. Company name and address.
        2. A statement by the Responsible Official with the official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
        3. Date of report and beginning and ending dates of the reporting period.
        4. A statement that there were no deviations from the emission limitations during the reporting period.
        5. If there were no periods during which the CPMS was out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period.

    - For each deviation from an emission limitation (emission limit and operating limit), you must include the following information:

        1. The date and time that each deviation started and stopped.
        2. The date and time that each CPMS was inoperative, except for zero (low-level) and high-level checks.
        3. The date, time and duration that each CPMS was out-of-control, including the information in §63.8(c)(8).
        4. The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.
        5. A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.
        6. A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

7. A summary of the total duration of CPMS downtime during the reporting period and the total duration of CPMS downtime as a percent of the total source operating time during that reporting period.
8. An identification of each air pollutant that was monitored at the affected source.
9. A brief description of the process units.
10. A brief description of the CPMS.
11. The date of the latest CPMS certification or audit.
12. A description of any changes in CPMS or controls since the last reporting period.

- Each compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
- Each compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

*(40 CFR 63.11564)*

- The following records shall be maintained:

  - A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirements in §63.10(b)(2)(xiv).
  - Copies of emission tests used to demonstrate compliance and performance evaluations as required in §63.10(b)(2)(viii).
  - Documentation that identifies the operating parameters and values specified in Table 4 of this subpart and that contains the data used to establish the parameter values as specified in §63.11562(a)(2), (b)(2), (b)(3), or (c)(2).
  - A copy of the site-specific monitoring plan required under §63.11563(b) or (g).
  - A copy of the approved alternative monitoring plan required under §63.11563(h), if applicable.
  - Records of the operating parameter values required in Table 4 of this subpart to show continuous compliance with each operating limit that applies to you.

  *(40 CFR 63.11564)*

- The owner/operator is required to record and report the operating temperature of the control device during the performance test and, as required by §60.7(d), maintain a file of the temperature monitoring results for at least two years. *(40 CFR 60.413(d))*
- If a visible emission observation is required using Method 9, the results shall be documented using an ADEM visible emissions observation report. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Records of the observation date, observation time, emission point designation, emission point operation mode, name of the observer, observed opacity, and any corrective actions taken during each visible emissions observation shall be kept in a form suitable for inspection. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- If utilized, fuel oil supplier certificates shall contain the name of the oil supplier, the date the analysis was performed, the sulfur content analysis method used, and the results of the analysisi. The fuel oil supplier certificates shall be kept in a form suitable for inspection. *(ADEM Admin. Code r. 335-3-16-.05(c))*

- Records documenting the monthly and twelve (12) month rolling total of the amount of roofing shingles (in tons) produced on Roofing Line No. 1 shall be kept in a form suitable for inspection. These records shall be summarized no later than the twentieth ($20^{th}$) day of the month following the last day of the monthly reporting period. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Records of daily readings of the pressure differential across the fume filter (CVM-EP-50c and 50d) shall be kept in a form suitable for inspection and made available upon request. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- All records shall be maintained for at least five years from the date of generation and shall be made available to the permitting authority upon request. *(ADEM Admin. Code r. 335-3-16-.05(c))*

## Roofing Line No. 2

Line 2 is similar to Line 1, except that it has two shingle machines. Line 2 also includes sand application, similar to Line 1. In the first shingle machine, the coated mat is cut to width. At this point, the laminator overlaps part of one lane onto the top of another land and glues the overlap with asphalt. The overlapped lanes then go to the second shingle machine, where they are cut to length. They are then packaged and sent to a warehouse.

Line 2 is subject to ADEM Admin. Code r. 335-3-16 "Major Source Operating Permits." Line 2 is subject to ADEM Admin. Code R. 335-3-14-.04, "Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]" because they have enforceable limits in place to remain a minor source with regard to the PSD program. The mineral backing conveyor and storage system and the sealdown systems are subject to 40 CFR 60 Subpart UU, "Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture." The coating operations are subject to 40 CFR 63 Subpart AAAAAAA "National Emission Standards for Hazardous Air Pollutants for Area Sources: Asphalt Processing and Asphalt Roofing Manufacturing."

Expected Emissions

Baghouses and fume filters are employed on Line 2 to reduce emissions. The baghouses and filters draw emissions off the line and exit to the atmosphere. The line is contained inside of a building. Expected emissions were derived from the last two years of emissions data. The lb/hr number was averaged to an hourly rate from the yearly rate.

| Pollutant | Emissions (lb/hr) | Emissions (tpy) |
|---|---|---|
| Formaldehyde | 0.15 | 0.64 |
| CO | 0.59 | 2.6 |
| $NO_X$ | 0.63 | 2.78 |
| PM | 0.82 | 3.61 |
| $PM_{10}$ | 0.71 | 3.09 |
| $PM_{2.5}$ | 0.63 | 2.76 |
| $SO_2$ | 0.004 | 0.02 |
| VOC | 2.74 | 12.01 |

Emission Standards

The emission limit for EP-64b has been changed from 0.19 lb/hr of PM to 0.194 lb/hr PM at the facility's request. 0.194 lb/hr PM represents the unit's true maximum emission rate, and as such the 0.19 lb/hr places an unnecessary operational limit on the unit. This increase in allowable emissions should not make the facility major with regard to $PM_{10}$ or $PM_{2.5}$.

- Particulate matter emission rate from the Roofing Line No. 2 Coater (EP #50e) shall not exceed 0.06 lb/ton of shingles produced or the allowable set by Rule 335-3-4-.04. *(40 CFR 63.11561, ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- No more than 616,500 tons of shingles shall be manufactured on Roofing Line No. 2 per consecutive twelve (12) month period. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*

- Particulate matter emission rate from the Felt Rack (EP #49) shall not exceed 0.03 lbs/hr or the allowable set by Rule 335-3-4-.04. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- Particulate matter emission rate from the Filler Transfer with Heater (EP #53) shall not exceed 0.11 lbs/hr or the allowable set by Rule 335-3-4-.04. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- Particulate matter emission rate from the Receiving/Surge Filler Hopper (EP #54) shall not exceed 0.001 lbs/hr or the allowable set by Rule 335-3-4-.04. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- Particulate matter emission rate from the Backing Storage, Handling, and Application System (EP #55) shall not exceed 0.06 lbs/hr or the allowable set by Rule 335-3-4-.04. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- Particulate matter emission rate from the Granule Application System (EP #55a) shall not exceed 0.19 lbs/hr or the allowable set by Rule 335-3-4-.04. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- Particulate matter emission rate from the Laminator (EP #59b) shall not exceed 0.85 lbs/hr or the allowable set by Rule 335-3-4-.04. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- Particulate matter emission rate from the Cutter No. 1 (EP #59c) shall not exceed 0.11 lbs/hr or the allowable set by Rule 335-3-4-.04. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- Particulate matter emission rate from the Cutter No. 2 (EP #59d) shall not exceed 0.11 lbs/hr or the allowable set by Rule 335-3-4-.04. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- Particulate matter emission rate from the Headlap Granule Bins (EP #64a) shall not exceed 0.19 lbs/hr or the allowable set by Rule 335-3-4-.04. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- Particulate matter emission rate from the Headlap Granule Silos (EP #64b) shall not exceed 0.194 lbs/hr or the allowable set by Rule 335-3-4-.04. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- The exhaust gases from the Laminate Storage Tank EP #59a (EP-72), Laminate Run Tank EP #59e (CECO-EP-59g), and Sealdown Run Tank (CECO-EP-59g) shall not have an opacity greater than zero (0%) percent, except for one consecutive 15-minute period in any 24-hour period when the transfer lines are being blown for clearing. The control device shall not be bypassed during this 15-minute period.*(40 CFR 60.472(c))*
- Stack emissions not subject to NSPS Subpart UU are subject to opacity standards listed in General Proviso 29. *(ADEM Admin. Code r. 335-3-4-.01)*
- The emissions from the Roofing Line No. 2 Coater (EP #50e) shall be vented to the fume filter. *(ADEM Admin. Code r. 335-3-16-.05(a))*
- The fume filter shall be properly maintained and operated at all times when the Roofing Line #2 Coater is in operation. *(ADEM Admin. Code r. 335-3-16-.05(a))*
- Heaters on Roofing Line No. 2 may burn only natural gas or propane as fuel. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- Facility-wide emissions of PM, PM10, and CO shall not exceed 249 tpy in any consecutive twelve month period. *(ADEM Admin Code r. 335-3-14-.04 anti-PSD)*

<u>Emission Monitoring</u>

- Emission Monitoring should be conducted as specified by 40 CFR 63 Subpart AAAAAAA, "National Emissions Standards for Hazardous Air Pollutants: Asphalt Processing and Asphalt Roofing Manufacturing."
- During each calendar week that Line 2 is in service an observation of instantaneous visible emissions from Fiberglass Rack Splicer (EP-49), Coater (EP-50e), Receiver/Surge Hopper (EP-54), Backing, Storage, Handling and Application System (EP-55), Granule Application System (EP-55a), Laminator (EP-59b), Cutter No.1 (EP-59c), Cutter No. 2 (EP-59d), Headlap and Granule Bins (EP-64a) Headlap and Granule Silos (EP-64b), Talc/backing Storage (EP-56) shall be accomplished weekly while in service.

Whenever active, whether line is in operation or not, visible emissions from Laminate Storage Tank 59a (EP-72), Laminate Run Tank 59e (CECO-EP-59g), and Sealdown Run Tank 59g (CECO-EP-59g) shall be accomplished weekly while in service. Records must indicate weeks when Line 2 is not in service. *(ADEM Admin. Code r. 335-3-16-.05(c))*

- If the instantaneous opacity observed from the Fiberglass Rack Splicer (EP #49), Coater (EP #50e), Receiver/Surge Hopper (EP #54), Backing Storage, Handling, and Application System (EP #55), Granule Application System (EP #55a), Laminator (EP #59b), Cutter No. 1 (EP#59c), Cutter No. 2 (EP #59d), Headlap and Granule Bins (EP #64a), and Headlap and Granule Silos (EP #64b) is greater than ten (10%) percent, then a visible emission observation shall be conducted within 30 minutes of the initial observation in accordance with 40 CFR 60 Appendix A, Method 9, unless the source is shutdown within thirty (30) minutes. The observations period shall be a minimum of twelve (12) consecutive minutes. The average opacity shall be calculated using the maximum six (6) minute average. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- If the average opacity during the Method 9 visible emission observations of the Fiberglass Rack Splicer (EP #49), Coater (EP #50e), Receiver/Surge Hopper (EP #54), Backing Storage, Handling, and Application System (EP #55), Granule Application System (EP #55a), Laminator (EP #59b), Cutter No. 1 (EP#59c), Cutter No. 2 (EP #59d), Headlap Granule Bins (EP #64a), and Headlap Granule Silos (EP #64b) is greater than ten percent (10%) then corrective action shall be initiated within one (1) hour, if required. If the Method 9 visible emission observation exceeds ten percent (10%), an additional observation shall be taken after completion of corrective actions to demonstrate the visible emissions are below the limits allowed by General Proviso 29. The subsequent observation period shall be a minimum of twelve (12) consecutive minutes. The average opacity shall be calculated using the maximum six (6) minute average. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- If the instantaneous opacity observed from the Laminate Storage Tank EP #59a (EP-72), Laminate Run Tank EP #59e (CECO-EP-59g) or Sealdown Run Tank EP #59g (CECO-EP-59g) is greater than zero percent (0%), then a visible emission observation shall be conducted immediately in accordance with 40 CFR 60 Appendix A, Method 9, unless the source is shutdown within thirty (30) minutes. The observation period shall be a minimum of twelve (12) consecutive minutes. The average opacity shall be calculated using the maximum six (6) minute average. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- If the average opacity during the Method 9 visible emission observations of the Laminate Storage Tank EP #59a (EP-72), Laminate Run Tank EP #59e (CECO-EP-59g) or Sealdown Run Tank EP #59g (CECO-EP-59a) is greater than zero percent (0%), then corrective action shall be initiated within one (1) hour if required. If the Method 9 visible emission observation exceeds zero percent (0%), an additional observation shall be taken after completion of corrective actions to demonstrate that the visible emissions are below the limits allowed by Unit Specific Proviso Emission Standard 14/15. The subsequent observation shall be completed in accordance with 40 CFR 60 Appendix A, Method 9. The observation period shall be a minimum of twelve (12) consecutive minutes. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- An instantaneous opacity observation that exceeds a unit specific opacity limit or corrective action level shall not be considered an opacity or particulate matter deviation and is no subject to deviation reporting under General Proviso 21. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- A deviation of the particulate standard for this unit (when completing the periodic monitoring noted above) is defined as an exceedance of the corrective action level defined in this section as measured by a 6-minute average in accordance with EPA Method 9. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- A deviation of the opacity standard for this unit (when completing periodic monitoring noted above) is defined as an exceedance of the opacity limit defined in this section as measured by a six (6) minute average in accordance with EPA Method 9. *(ADEM Admin. Code r. 335-3-16-.05(c))*

- Once per day, the pressure differential across the fume filter (EP-50e) shall be observed and recorded. If the pressure differential is outside the manufacturers recommended operating range, maintenance, inspections, and/or corrective action to bring the pressure differential within the manufacturer's recommended operating range shall be initiated within two (2) hours. Records should reflect weeks the fume filter is not in service. *(ADEM Admin. Code r. 335-3-16-.05(c))*

<u>Recordkeeping and Reporting</u>

- The following compliance report shall be submitted to the Department:

  - The report shall indicate the controlled units covered by the report.
  - If there were no deviations from the emissions limitations for the units, the report must contain the following:

    1. Company name and address.
    2. A statement by the Responsible Official with the official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
    3. Date of report and beginning and ending dates of the reporting period.
    4. A statement that there were no deviations from the emission limitations during the reporting period.
    5. If there were no periods during which the CPMS was out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period.

  - For each deviation from an emission limitation (emission limit and operating limit), you must include the following information:

    1. The date and time that each deviation started and stopped.
    2. The date and time that each CPMS was inoperative, except for zero (low-level) and high-level checks.
    3. The date, time and duration that each CPMS was out-of-control, including the information in §63.8(c)(8).
    4. The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.
    5. A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.
    6. A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.
    7. A summary of the total duration of CPMS downtime during the reporting period and the total duration of CPMS downtime as a percent of the total source operating time during that reporting period.
    8. An identification of each air pollutant that was monitored at the affected source.
    9. A brief description of the process units.
    10. A brief description of the CPMS.
    11. The date of the latest CPMS certification or audit.
    12. A description of any changes in CPMS or controls since the last reporting period.

- Each compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
- Each compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

*(40 CFR 63.11564)*

- The following records shall be maintained:

  - A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirements in §63.10(b)(2)(xiv).
  - Copies of emission tests used to demonstrate compliance and performance evaluations as required in §63.10(b)(2)(viii).
  - Documentation that identifies the operating parameters and values specified in Table 4 of this subpart and that contains the data used to establish the parameter values as specified in §63.11562(a)(2), (b)(2), (b)(3), or (c)(2).
  - A copy of the site-specific monitoring plan required under §63.11563(b) or (g).
  - A copy of the approved alternative monitoring plan required under §63.11563(h), if applicable.
  - Records of the operating parameter values required in Table 4 of this subpart to show continuous compliance with each operating limit that applies to you.

  *(40 CFR 63.11564)*

- The owner/operator is required to record and report the operating temperature of the control device during the performance test and, as required by §60.7(d), maintain a file of the temperature monitoring results for at least two years. *(40 CFR 60.473(d))*
- If a visible emission observation is required using Method 9, the results shall be documented using an ADEM visible emissions observation form. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Records of daily readings of pressure differential across the fume filter (EP-50e), shall be kept in a form suitable for inspection. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Records of the observation date, observation time, emission point designation, emission point operation mode, name of observer, observed opacity, and any corrective actions taken during each visible emissions observation shall be kept in a form suitable for inspection . Records shall be maintained for a minimum of five (5) years and shall be made available to the permitting authority upon request. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Records documenting the monthly and twelve (12) month rolling total of the amount of roofing shingles (in tons) produced on Roofing Line No. 2 shall be kept in a form suitable for inspection. These records shall be summarized no later than the twentieth ($20^{th}$) day of the month following the last day of each monthly reporting period. *(ADEM Admin. Code r. 335-3-16-.05(c))*

## Roofing Line No. 3

On Line 3, organic felt is unwound from rolls before going through a saturator filled with hot asphalt. After being dipped and saturated, the material is cooled and goes through an accumulator before being wound onto rolls by a winder. The rolls are then transported to storage.

Line 3 is subject to ADEM Admin. Code r. 335-3-16 "Major Source Operating Permits," 335-3-4-.01 "Visible Emissions," 335-3-4-.04 "Process Industries – General," and 335-3-14-.04. It is not subject to 40 CFR 60 Subpart UU "Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture" because the line was constructed before the applicability date in 40 CFR 60.470. Line 3 is subject to 40 CFR 63 Subpart AAAAAAA "National Emissions Standards for Hazardous Air Pollutants: Asphalt Processing and Asphalt Roofing Manufacturing."

Expected Emissions

Baghouses and fume filters are employed on Line 1 to reduce emissions. The baghouses and filters draw emissions off the line and exit to the atmosphere. The line is contained inside of a building. Expected emissions were derived from the last two years of emissions data. The lb/hr number was averaged to an hourly rate from the yearly rate.

| Pollutant | Emissions (lb/hr) | Emissions (tpy) |
|---|---|---|
| CO | 0.04 | 0.185 |
| $NO_X$ | 0.048 | 0.21 |
| PM | 0.09 | 0.43 |
| $PM_{10}$ | 0.09 | 0.43 |
| $PM_{2.5}$ | 0.08 | 0.35 |
| VOC | 0.68 | 3.00 |

Emission Standards

- Particulate matter emission rate from 7 TPH Line #3 Saturator shall not exceed the lesser of 0.30 lbs/ton or the allowable set by Rule 335-3-4-.03. *(40 CFR 63.11561, ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- Particulate matter emission rate from the 4 TPH Felt Rack (EP-60) shall not exceed the lesser of 0.07 lbs/ton or the allowable set by Rule 335-3-4-.03. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- This source shall not discharge into the atmosphere particulates with an opacity greater than that designated as twenty percent (20%) opacity, as determined by a six (6) minute average. During one six (6) minute period in any sixty (60) minute period, this unit may discharge into the atmosphere particulate emissions of an opacity no greater than that designated as forty percent (40%) opacity. *(ADEM Admin. Code r. 335-3-4-.01)*
- The emissions from the Roofing Line No. 3 Saturator and Wet Looper shall be vented to the fume filter. *(ADEM Admin. Code r. 335-3-16-.05(a))*
- The fume filter shall be properly maintained and operated at all times when the Roofing Line No. 3 Saturator and Wet Looper are in operation. *(ADEM Admin. Code r. 335-3-16-.05(a))*
- No more than 62,500 tons of saturated felt shall be manufactured on Roofing Line No. 3 per consecutive twelve (12) month period. *(ADEM Admin. Code r. 335-3-16-.05(a))*

- Facility-wide emissions of PM, PM10, and CO shall not exceed 249 tpy in any consecutive twelve month period. *(ADEM Admin Code r. 335-3-14-.04 anti-PSD)*

Emission Monitoring

- Emission Monitoring should be conducted as specified by 40 CFR 63 Subpart AAAAAAA, "National Emissions Standards for Hazardous Air Pollutants: Asphalt Processing and Asphalt Roofing Manufacturing."
- During each calendar week that Line #3 is in service an observation of instantaneous visible emissions from the Line #3 Saturator/Wet Looper (EP-50) and Felt Rack (EP-60) shall be accomplished weekly while in operation. Records should reflect weeks when the units are not in service. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- If the instantaneous opacity observed from the Line #3 Saturator/Looper (EP-50) or the Felt Rack (EP-60) is greater than ten(10%) percent, then a visible emission observation shall be conducted within 30 minutes of the initial observation in accordance with 40 CFR 60 Appendix A, Method 9, unless the source is shutdown within thirty (30) minutes. The observation period shall be a minimum of twelve (12) consecutive minutes. The average opacity shall be calculated using the maximum six (6) minute average. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- If the average opacity observed during the Method 9 visible emission observations is greater than ten percent (10%) then corrective action shall be initiated within one (1) hour, if required. If the Method 9 visible emission observation exceeds ten percent (10%), an additional observation shall be taken after completion of corrective actions to demonstrate that the visible emission are below the limits allowed by General Proviso 29. The subsequent observation shall be completed in accordance with 40 CFR 60, Appendix A, Method 9. The observation period shall be a minimum of twelve (12) consecutive minutes. The average opacity shall be calculated using the maximum six (6) minute average. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- An instantaneous opacity observation that exceeds a unit specific opacity limit or corrective action level shall not be considered an opacity or particulate matter deviation and is no subject to deviation reporting under General Proviso 21. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- A deviation of the particulate standard for this unit (when completing the periodic monitoring noted above) is defined as an exceedance of the corrective action level defined in this section as measured by a 6-minute average in accordance with EPA Method 9. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- A deviation of the opacity standard for this unit (when completing periodic monitoring noted above) is defined as an exceedance of the opacity limit defined in this section as measured by a six (6) minute average in accordance with EPA Method 9. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Once per day, the pressure differential across the fume filters (EP-50) shall be observed and recorded. *(ADEM Admin. Code r. 335-3-16-.05(c))*

Recordkeeping and Reporting

- The following compliance report shall be submitted to the Department:
    - The report shall indicate the controlled units covered by the report.
    - If there were no deviations from the emissions limitations for the units, the report must contain the following:

        1. Company name and address.

2. A statement by the Responsible Official with the official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
3. Date of report and beginning and ending dates of the reporting period.
4. A statement that there were no deviations from the emission limitations during the reporting period.
5. If there were no periods during which the CPMS was out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period.

- For each deviation from an emission limitation (emission limit and operating limit), you must include the following information:

  1. The date and time that each deviation started and stopped.
  2. The date and time that each CPMS was inoperative, except for zero (low-level) and high-level checks.
  3. The date, time and duration that each CPMS was out-of-control, including the information in §63.8(c)(8).
  4. The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.
  5. A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.
  6. A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.
  7. A summary of the total duration of CPMS downtime during the reporting period and the total duration of CPMS downtime as a percent of the total source operating time during that reporting period.
  8. An identification of each air pollutant that was monitored at the affected source.
  9. A brief description of the process units.
  10. A brief description of the CPMS.
  11. The date of the latest CPMS certification or audit.
  12. A description of any changes in CPMS or controls since the last reporting period.

- Each compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
- Each compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

*(40 CFR 63.11564)*

- The following records shall be maintained:

  - A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirements in §63.10(b)(2)(xiv).
  - Copies of emission tests used to demonstrate compliance and performance evaluations as required in §63.10(b)(2)(viii).

- Documentation that identifies the operating parameters and values specified in Table 4 of this subpart and that contains the data used to establish the parameter values as specified in §63.11562(a)(2), (b)(2), (b)(3), or (c)(2).
- A copy of the site-specific monitoring plan required under §63.11563(b) or (g).
- A copy of the approved alternative monitoring plan required under §63.11563(h), if applicable.
- Records of the operating parameter values required in Table 4 of this subpart to show continuous compliance with each operating limit that applies to you.

*(40 CFR 63.11564)*

- If a visible emission observation is required using Method 9, the results shall be documented using an ADEM visible emissions observation report. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Records of observation date, observation time, emission point designation, emission point operation mode, name of observer, observed opacity, and any corrective actions taken during each visible emissions observation shall be kept ina form suitable for inspection. All records shall be maintained for a minimum of five (5) years and made available to the permitting authority upon request. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Records of daily readings of the pressure differential across the fume filter shall be kept in a form suitable for inspection and made available to the permitting authority upon request. These records shall be maintained for a period of five (5) years. *(ADEM Admin. Code r. 335-3-16-.05(c))*

## Boilers

TAMKO currently utilizes four boilers: two 10.5 MMBTU/hr power boilers (EP-29 and EP-30) and two 16.8 MMBTU/ hr steam-generating boilers (EP-67 and EP-68). The boilers are used to generate steam and to heat the asphalt production lines. The boilers are able to combust natural gas, propane, and No. 2 fuel oil.

The boilers are subject to ADEM Admin. Code r. 335-3-16-.05 "Major Source Operating Permits" because they are located at a major source of air pollutants. The boilers are also subject to ADEM Admin. Code r. 335-3-14-.04 "Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]" because they have enforceable limits in place to be a minor source with regard to the PSD program. EP-67 and EP-68 are subject to 40 CFR 60 Subpart Dc "Small, Industrial, Commercial, and Institutional Steam Generating Units" because they are used for steam generation and have a heat input capacity greater than or equal to 10 MMBTU/hr and less than 100 MMBTU/hr. EP-29 and EP-30 are not subject to Subpart Dc because they were constructed before the applicability date of June 9, 1989, and have not been modified since. 40 CFR 63 Subpart JJJJJJ "Industrial, Commercial, and Institutional Boilers at Area Sources" does not apply to the boilers because the boilers conform to the definition of gas-fired boilers as outlined in 63.11195(e).

Emission Standards

- Particulate matter emission rates from each boiler shall not exceed the lesser of 0.5 lb/hr (2.19 TPY) or that set by Rule 335-3-4-.04. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- This source of particulate emissions shall not discharge more than one 6-minute average opacity greater than 20% in any 60-minute period. At no time shall this source discharge a 6-minute average opacity of particulate emissions greater than 40%. Opacity will be determined by 40 CFR Part 60, Appendix A, Method 9. *(ADEM Admin. Code r. 335-3-4-.01 "Visible Emissions")*
- Facility-wide emissions of PM, PM10, and CO shall not exceed 249 tpy in any consecutive twelve month period. *(ADEM Admin Code r. 335-3-14-.04 anti-PSD)*

Operational Standards

- The boilers are permitted to burn only natural gas, No. 2 fuel oil, or propane as fuel. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- The sulfur content of the No. 2 fuel oil burned in the boilers shall not exceed 0.5% by weight. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- Boilers No. 1 and No. 2 shall not be operated simultaneously, except during switchover from one boiler to the other. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*
- Boilers No. 3 and No. 4 may be operated simultaneously.
- Boilers No. 3 and No. 4 shall operate a maximum of 300 hours in a twelve month rolling period when operating on fuel oil. *(ADEM Admin. Code r. 335-3-14-.04 Anti-PSD)*

Expected Emissions

The expected emissions from the boilers are based on anti-PSD permit limits for PM andAP-42 emission factors for all other pollutants.

| Pollutant | Power Boiler #1 (EP-30) | | Power Boiler #2 (EP-29) | | Steam Boiler #1 (EP-67) | | Steam Boiler #1 (EP-68) | |
|---|---|---|---|---|---|---|---|---|
| | lb/hr | tpy | lb/hr | tpy | lb/hr | tpy | 0.40 | 0.60 |
| PM | 0.5 | 1.10 | 0.5 | 1.10 | 0.40 | 0.60 | 8.52 | 1.32 |
| $SO_2$ | 5.33 | 11.70 | 5.33 | 11.70 | 8.52 | 1.32 | 2.40 | 10.46 |
| $NO_X$ | 1.50 | 3.29 | 1.50 | 3.29 | 2.40 | 10.46 | 1.38 | 5.91 |
| CO | 0.86 | 1.88 | 0.86 | 1.88 | 1.38 | 5.91 | 0.15 | 0.63 |
| VOC | 0.09 | 0.20 | 0.09 | 0.20 | 0.15 | 0.63 | 0.03 | 0.13 |
| Hexane | 0.02 | 0.04 | 0.02 | 0.04 | 0.03 | 0.13 | 0.40 | 0.60 |

Emission Monitoring

- An observation of instantaneous visible emissions from the boilers shall be accomplished daily while operating on fuel oil. Records should reflect weeks when the boilers are not in service or when not operating on fuel oil. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- If the instantaneous opacity observed from the boilers is greater than ten (10%) percent, then a visible emission observation shall be conducted within thirty (30) minutes of the initial observation in accordance with 40 CFR 60 Appendix A, Method 9, unless the source is shutdown within thirty (30) minutes. The observation period shall be a minimum of twelve (12) consecutive minutes. The average opacity shall be calculated using the maximum six (6) minute average. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- If the average opacity during the Method 9 visible emission observation of the boilers exceeds ten (10%) percent, then corrective action shall be initiated within one (1) hour to identify and correct the problem, if required. If the Method 9 visible emission observation exceeds ten percent (10%), an additional observation shall be taken after completion of corrective actions to demonstrate that the visible emissions are below the limits allowed by General Proviso 29. The subsequent observation shall be completed in accordance with 40 CFR 60, Appendix A, Method 9. The observation period shall be a minimum of twelve (12) consecutive minutes. The average opacity shall be calculated using the maximum six (6) minute average. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- An instantaneous opacity observation that exceeds a unit specific opacity limit or corrective action level shall not be considered an opacity or particulate deviation and is not subject to deviation reporting under General Proviso 21. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- A deviation of the particulate standard for this unit (when completing the periodic monitoring noted above) is defined as an exceedance of the corrective action level defined in this section as measured by a 6-minute average in accordance with EPA Method 9. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- A deviation of the opacity standard for this unit (when completing the periodic monitoring noted above) is defined as an exceedance of the corrective action level defined in this section as measured by a 6-minute average in accordance with EPA Method 9. *(ADEM Admin. Code r. 335-3-16-.05(c))*

Recordkeeping and Reporting

- If a visible emission observation is required using Method 9, the results shall be documented using an ADEM visible emissions observation report. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Records of the observation date, observation time, emission point designation, emission point operation mode, name of the observer, observed opacity, and any corrective actions taken during

each visible emissions observation shall be kept in a form suitable for inspection. *(ADEM Admin. Code r. 335-3-16-.05(c))*

- Records of the dates of operation of these units shall be kept in a form suitable for inspection. These records shall be summarized no later than the twentieth ($20^{th}$) day of the month following the last day of the monthly reporting period. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Records of the operation hours and the type of fuel burned during those hours of the boilers, as well as records of the sulfur content of the No. 2 fuel oil burned in these units, must be maintained by the facility. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Monthly hours of operation and fuel usage records shall be summarized no later than the twentieth ($20^{th}$) day of the month following the last day of each monthly reporting period. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- Records of the sulfur content of the No. 2 fuel oil burned in these units must be kept in a form suitable for inspection. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- If utilized, fuel oil supplier certificates shall contain the name of the oil supplier and a statement from the oil supplier that the oil complies with the sulfur content limit. *(ADEM Admin. Code r. 335-3-16-.05(c))*
- All records shall be maintained for at least five years from the date of generation and shall be made available to the permitting authority upon request. *(ADEM Admin. Code r. 335-3-16-.05(c))*

## Emergency Generators

TAMKO currently has seven emergency generator engines on site. Three of the engines fire natural gas with propane as a backup fuel for gas curtailments, one fires only natural gas, and three fire diesel fuel.

The diesel-fired generator engines are subject to 40 CFR 60 Subpart IIII "Stationary Compression Ignition Internal Combustion Engines" because they were installed after the applicability dates listed in this subpart. A new 151-hp, natural-gas-fired engine, as well as two 208-hp, natural-gas-fired engines with propane backup are subject to 40 CFR 60 Subpart JJJJ "Stationary Spark Ignition Internal Combustion Engines" because they were installed after the applicability dates listed in this subpart. All engines are subject to 40 CFR 63 Subpart ZZZZ "National Emission Standards for Stationary Reciprocating Internal Combustion Engines." All engines, with the exception of the 144-hp South generator, are subject to 40 CFR 60 Subpart IIII or JJJJ, and they are deemed to be in compliance with 40 CFR 63 Subpart ZZZZ per 63.6590(c)(1). The 144-hp South generator must comply with the requirements of 40 CFR 63 Subpart ZZZZ.

<u>Expected Emissions</u>

Due to the limited use of these engines to emergency situations and readiness testing, the expected emissions are minimal.

<u>Emission Standards</u>

- The 198-hp Smoke Evacuation System #1 and #2 diesel engines shall meet the emission standards listed in 40 CFR 89.112 and 40 CFR 89.113. *(40 CFR 60.4205(b), 60.4202(a)(2))*
- The 398-hp diesel Fire Pump engine shall meet the following emission standards:
    - $4.0\ \frac{g}{kW-hr}$ ($3.0\ \frac{g}{hp-hr}$) $NO_x$ + NMHC
    - $0.20\ \frac{g}{kW-hr}$ ($0.15\ \frac{g}{kW-hr}$) PM

    *(40 CFR 60.4205(c))*

- The diesel engines shall only fire diesel fuel which meets the criteria outlined in 40 CFR 80.510(b). *(40 CFR 60.4207(b))*
- The 208-hp Boiler System Engine and the 208-hp L1 Process engine must meet the emission standards outlined in 40 CFR 63.4231(c) while firing propane. *(40 CFR 60.4233(c))*
- The 208-hp Boiler System Engine, 208-hp L1 Process engine, and the 151-hp Server Room engine must meet the following emission standards while firing natural gas:
    - $2.0\ \frac{g}{hp-hr}$ $NO_x$
    - $4.0\ \frac{g}{hp-hr}$ CO
    - $1.0\ \frac{g}{hp-hr}$ VOC

    *(40 CFR 60.4233(e))*

- If the engines are not operated according to the manufacturer's emission-related written instructions, a maintenance plan shall be developed and the engines shall be operated in a manner consistent with good air pollution control practices for minimizing emissions. *(40 CFR 60.4243(b)(2)(i))*
- The 144-hp South Emergency Engine must meet the following requirements:

    - The oil and filter must be changed every 500 hours of operation or annually, whichever comes first;
    - The spark plugs must be inspected every 1,000 hours of operation or annually, whichever comes first;
    - And all hoses and belts must be inspected every 500 hours of operation or annually, whichever comes first, and replace as necessary.

  *(40 CFR 63.6603(a))*

- The South engine shall be operated at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. *(40 CFR 63.6605(b)*
- The South engine shall be operated and maintained according to the manufacturer's emission-related written instructions or a maintenance plan must be developed which must provide to the extent practicable the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. *(40 CFR 63.6625(e)(3))*
- The idle time of the South engine during startup shall be minimized, and the total startup time shall not exceed 30 minutes. *(40 CFR 63.6625(h))*
- A non-resettable hour meter shall be installed on each engine. *(40 CFR 60.4209(a), 40 CFR 60.4237(b), 40 CFR 63.6625(f))*
- To remain emergency engines, the engines shall not operate more than 50 hours per year for purposes other than emergency operation, maintenance and testing, and emergency demand response. *(40 CFR 60.4211(f), 40 CFR 60.4243(d), 40 CFR 63.6640(f))*
- The engines may be operated for up to 100 hours per year for maintenance and readiness testing. *(40 CFR 60.4211(f)(2)(i), 40 CFR 60.4243(d)(2)(i), 40 CFR 63.6640(f)(2)))*
- The engines may be operated for up to 50 hours per year in non-emergency situations. These 50 hours count toward the 100 hours allowed for maintenance and readiness testing. *(40 CFR 60.4211(f)(3), 40 CFR 60.4211(d)(3), 63.6640(f)(4))*
- Facility-wide emissions of PM, PM10, and CO shall not exceed 249 tpy in any consecutive twelve month period. *(ADEM Admin Code r. 335-3-14-.04 anti-PSD)*

<u>Recordkeeping and Reporting</u>

- If the natural gas engines are operated according to the manufacturer's emissions-related written instructions, records shall be kept documenting conducted maintenance to demonstrate compliance with these instructions. *(40 CFR 60.4243(a)(1), 40 CFR 60.4243(b)(1&2))*
- If the natural gas engines are not operated according to the manufacturer's emissions-related written instructions, a maintenance plan and records of conducted maintenance shall be kept on site. *(40 CFR 60.4243(a)(2), 40 CFR 60.4243(b)(1&2))*
- Records of all maintenance performed on the gas engines shall be kept on-site. *(40 CFR 60.4245(a), 40 CFR 63.6655(e))*
- Records of the hours of operation for the engines, the reason, and whether it was an emergency or non-emergency shall be kept on-site. *(40 CFR 60.4214(b), 40 CFR 60.4245(b), 40 CFR 63.6655(f))*

Recommendations

I recommend that the TAMKO Building Products MSOP No. 413-0017 be renewed as outlined above, pending public comment and EPA review.

Jacob Olinger
Energy Branch
Air Division

Date