Texas Commission on Environmental Quality
INTEROFFICE MEMORANDUM

TO: Office of Chief Clerk **Date:** June 30, 2025

THRU: Amy Browning
Senior Attorney
Environmental Law Division

FROM: Elizabeth Black
Staff Attorney
Environmental Law Division

SUBJECT: Backup Documents Filed for Consideration of Hearing Requests at Agenda

Applicant: TAMKO Building Products LLC
Permit No.: 4421A
Program: Air
Docket No.: TCEQ Docket No. 2025-0791-AIR

Enclosed please find a copy of the following documents for inclusion in the background material for this permit application:

- The final draft of the permit Special Conditions
- The Emission Sources – Maximum Allowable Emission Rates
- The Compliance History Report
- The Permit Renewal Source Analysis & Technical Review

Special Conditions

Permit Number 4421A

Emission Limitations

1. This permit authorizes only those sources of emissions listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates" (MAERT), and those sources are limited to the emission rates and other conditions specified in the table.

   In addition, this permit authorizes all emissions from planned startup and shutdown activities associated with facilities or groups of facilities that are authorized by this permit. Planned maintenance emissions resulting from the cleaning of asphalt from piping and from tool cleaning using heating (EPN F-2), and emissions occurring during DFTO downtime (EPNs listed in Table 1 under Special Condition 12), are authorized by this permit and other planned maintenance emissions are authorized under Permit by Rule (PBR) 106.263.

Fuel Specifications

2. Boilers and Heaters (Emission Point Nos. [EPNs] B-1, B-2, H-1, H-2, H-3, H-4, L-3/H-5, and H-9) shall be fired with natural gas containing no more than 5 grains of total sulfur per 100 dry standard cubic feet (dscf). **(08/2020)**

Federal Applicability

3. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources in Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60):

   A. Subpart A, General Provisions.

   B. Subpart UU, Standards of Performance for Asphalt Processing and Asphalt Roof Manufacture.

4. These facilities shall comply with all applicable requirements of the EPA regulations on National Emission Standards for Hazardous Air Pollutants for Source Categories in 40 CFR Part 63: **(08/2020)**

   A. Subpart A, General Provisions.

   B. Subpart, ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

   C. Subpart AAAAAAA, Area Sources: Asphalt Processing and Asphalt Roof Manufacturing.

Scenario 1: Post-Project

5. Special Condition Nos. 6 through 30 shall apply upon completion and startup of the project represented in the permit amendment application dated November 8, 2019 and amendment application dated October 28, 2021. Scenario 2 Special Condition Nos. 31 through 60 shall apply prior to the completion and startup of the project represented in the permit amendment application dated November 8, 2019(subsequently amended as part of the as-built permit amendment applications dated October 28, 2021 and April 16, 2024). **(09/24)**

Opacity/Visible Emission Limitations

6. Visible fugitive emissions from on-site facilities shall not leave the property for more than 30 cumulative seconds in any six-minute period. **(08/2020)**

7. Opacity of emissions from the Direct Fired Thermal Oxidizer (DFTO) Stack (EPN F-15) shall not exceed 5 percent when the Blowstills are operating, averaged over a six-minute period. **(08/2020)**

8. Opacity of particulate matter emissions from each baghouse (dust collector) or fume filter stack shall not exceed 5 percent, averaged over a six-minute period. **(08/2020)**

9. Visible fugitive emissions from the production building, the mix building, the granule silos, and truck granule unload locations shall not leave the property for more than 30 cumulative seconds in any six-minute period.

Emission Standards and Operational Specifications

10. Emission rates are based on and the facilities shall be limited to the parameters identified in the Special Conditions - Confidential Attachment A of the permit amendment application, September 2, 2022 (issued November 4, 2022). **(09/24)**

11. The following requirements apply to the emergency generator engine (EPN E-1): **(08/2020)**

    A. Fuel shall be limited to ultra-low sulfur diesel (ULSD) containing no more than 15 ppmw total sulfur;

    B. The engine shall be limited to 100 hours per year during non-emergency situations, as defined at 40 CFR §63.6640(f);

    C. The engine shall be equipped with a non-resettable hour meter

    D. The engine shall not be tested between the hours of 6:00 am and 12:00 pm, in accordance with 30TAC §117.2130(c) or 117.410(f), as applicable. **(09/24)**

12. Emissions from the following sources shall be controlled by the DFTO (EPN F-15) once the control device has been installed. Prior to installation and operation of the DFTO for control, as well as during DFTO downtime, fume filters designed to have a reduction efficiency of not less than 99.5% each, properly installed and in good working order, shall control particulate matter emissions from the sources shown in the table below when this equipment is in operation. **(11/22)**

Table 1: Sources Controlled by the DFTO and Alternate Control during DFTO Downtime

FIN	Source Name	Alternate Control (EPN)**
C-28 **(09/24)**	Line 1 Blowstill	Fume Filter (EPN T-3b)
C-27	Line 2 Blowstill	Fume Filter (EPN T-3b)
CTK-1	Coating Tank 1	Fume Filter (EPN T-3b)
CTK-2	Coating Tank 2	Fume Filter (EPN T-3b)
VOT-1*	Vertical Tank 1	Fume Filter (EPN T-3b)

FT-1	Flux Tank 1	Fume Filter (EPN T-3b)
FT-2	Flux Tank 2	Fume Filter (EPN T-3b)
T-4	Sealant Tank	None (EPN T-4)
T-5	Laminant Tank	None (EPN T-5)
*See Special Condition No. 13 below **Default control for all sources listed is the DFTO (EPN F-15)		

13. The existing Vertical Oil Tank shall vent through a fume filter with a PM control efficiency of 99.5% (EPN T-1) until the new Vertical Oil Tank is constructed and operational. **(08/2020)**

14. Baghouses (dust collectors), properly installed and in good working order shall control particulate matter (PM) emissions from the following sources when they are in operation: **(08/2020)**

Table 2: Sources Controlled by Baghouses (Dust Collectors)

EPN	Source Name	PM Outlet grain loading (grains per dry standard cubic feet)
C-1	No. 3 Limestone Silo	0.002
C-2	Line 1 Aggregate Application Process	0.002
C-3	Line 2 Aggregate Application Process	0.002
C-4	Sand Silo	0.01
L1-a	No. 1 Limestone Silo	0.002
L-2	No. 2 Limestone Silo	0.002
L-3/H-5	Horizontal Limestone Run Tank	0.002

15. All hooding, duct, and collection systems shall be effective in capturing emissions from the intended equipment and in preventing fugitive emissions from the building. The hooding and duct systems shall be maintained free of holes, cracks, and other conditions that would reduce the collection efficiency of the emission capture system.

16. Plant personnel shall inspect all piping and equipment conveying exhaust gases from the asphalt blowing stills to the DFTO at least once a week. Any leak must be noted, and appropriate action taken to stop the leak. **(08/2020)**

17. The cleaning of tools and or components, i.e., melting of solidified asphalt with torches shall be conducted inside a roofed enclosure having at least three sides and roof vent. Furthermore, the torches shall be employed in a manner to melt, not combust, the asphalt. If combustion/flaming of the asphalt occur, action shall be taken to extinguish the flames.

18. The paint operation for marking the nail lines on shingles shall be conducted in a manner to minimize fugitive emissions. Good housekeeping procedures to include immediate cleanup of paint spills shall be implemented.

19. The transfer of limestone from the limestone run tank to the asphalt/limestone mix tank by an enclosed screw conveyor is authorized.

20. The combined emissions of all sources of hazardous air pollutants (HAPs) at this site are limited to less than 10 tons per year (tpy) of any single HAP and less than 25 tpy of any combination of aggregate HAPs. Records of the HAP emissions shall be maintained on-site to confirm that this requirement is being met on a rolling 12-month basis. **(08/2020)**

Storage Tanks

21. Storage tanks throughputs and service shall be limited as identified in Special Conditions - Confidential Attachment A of the permit amendment application, PI-1 dated September 2, 2022 (issued November 4, 2022). **(11/22)**

    A. Storage tanks must be equipped with permanent submerged fill pipes.

    B. The permit holder shall maintain a record of total tank throughput for the previous month and the past consecutive 12-month period for each tank.

    C. During DFTO downtime, no tank shall be filled.

    D. While the DFTO is operating, the following requirements apply:

        (1) Both flux tanks may not be filled simultaneously; and

        (2) Both coating tanks may not be filled simultaneously

Thermal Oxidizer

22. The following Special Conditions apply to the DFTO (EPN F-15): **(08/2020)**

    A. The DFTO shall maintain the VOC concentration in the exhaust gas less than 10 ppmv on a dry basis, corrected to 3 percent oxygen, or achieve a VOC destruction efficiency of greater than 99.9 percent.

    B. The DFTO firebox exit temperature shall be maintained at not less than 1400 °F and exhaust oxygen concentration not less than 3 percent on a six-minute average while waste gas is being fed into the oxidizer prior to initial stack testing. After the initial stack test has been completed, the six-minute average temperature shall be equal to, or greater than the respective hourly average maintained during the most recent satisfactory stack testing required by the Special Conditions.

    C. The DFTO firebox exit temperature shall be continuously monitored and recorded when waste gas is directed to the oxidizer. The temperature measurement device shall reduce the temperature readings to an averaging period of 6 minutes or less and record it at that frequency. The temperature measurement device shall be installed, calibrated, and maintained according to accepted practice and the manufacturer's specifications. The device shall have an accuracy of the greater of ±0.75 percent of the temperature being measured expressed in degrees Celsius or ±2.5ºC.

        Quality assured (or valid) data must be generated when the DFTO is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the DFTO operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.

D. The oxygen analyzer used to satisfy these Special Conditions shall continuously monitor and record oxygen concentration when the oxidizer is operational and acting as an emissions control device. It shall reduce the oxygen readings to an averaging period of 6 minutes or less and record it at that frequency.

The oxygen analyzer shall be zeroed and spanned daily and corrective action taken when the 24-hour span drift exceeds two times the amounts specified Performance Specification No. 3, 40 CFR Part 60, Appendix B. Zero and span is not required on weekends and plant holidays if instrument technicians are not normally scheduled on those days.

The analyzer shall be quality-assured at least semiannually using cylinder gas audits (CGAs) in accordance with 40 CFR Part 60, Appendix F, Procedure 1, § 5.1.2, with the following exception: a relative accuracy test audit is not required once every four quarters (i.e., two successive semiannual CGAs may be conducted). An equivalent quality-assurance method approved by the TCEQ may also be used. Successive semiannual audits shall occur no closer than four months. Necessary corrective action shall be taken for all CGA exceedances of ±15 percent accuracy and any continuous emissions monitoring system downtime in excess of 5 percent of the DFTO operating time. These occurrences and corrective actions shall be reported to the appropriate TCEQ Regional Director on a quarterly basis. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Director.

Quality assured (or valid) data must be generated when the DFTO is operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the DFTO operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.

E. DFTO Downtime shall be limited to 500 hrs/year.

F. The DFTO shall be limited to a maximum firing rate of 30 MMBtu/hr, as represented in the permit amendment application, PI-1 dated September 2, 2022 **(11/22)**

Initial Determination of Compliance

23. The permit holder shall perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the Direct Fired Thermal Oxidizer (EPN F-15) to demonstrate compliance with the MAERT and with emission performance levels as specified in the special conditions and/or otherwise prove satisfactory equipment performance. The permit holder is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense. Sampling shall be conducted in accordance with the appropriate procedures of the Texas Commission on Environmental Quality (TCEQ) Sampling Procedures Manual and the U.S. EPA Reference Methods. **(08/2020)**

Requests to waive testing for any pollutant specified in this condition shall be submitted to the TCEQ Office of Air, Air Permits Division. Test waivers and alternate/equivalent procedure proposals for 40 CFR Part 60 testing which must have EPA approval shall be submitted to the TCEQ Regional Director.

A. The appropriate TCEQ Regional Office shall be notified not less than 45 days prior to sampling. The notice shall include:

(1) Proposed date for pretest meeting.

(2) Date sampling will occur.

(3) Name of firm conducting sampling.

(4) Type of sampling equipment to be used.

(5) Method or procedure to be used in sampling.

(6) Description of any proposed deviation from the sampling procedures specified in this permit or TCEQ/EPA sampling procedures.

(7) Procedure/parameters to be used to determine worst case emissions during the sampling period.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for the test reports. The TCEQ Regional Director must approve any deviation from specified sampling procedures.

B. Air contaminants emitted from the thermal oxidizer (EPN F-15) to be tested for include (but are not limited to) VOC, CO, and NOx.

C. Sampling shall occur within 60 days after achieving the maximum operating rate, but no later than 180 days after initial start-up of the facilities (or increase in production, as appropriate) and at such other times as may be required by the TCEQ Executive Director. Requests for additional time to perform sampling shall be submitted to the appropriate regional office.

D. The facility being sampled shall operate at maximum production rates during stack emission testing. These conditions/parameters and any other primary operating parameters that affect the emission rate shall be monitored and recorded during the stack test. Any additional parameters shall be determined at the pretest meeting and shall be stated in the sampling report. Permit conditions and parameter limits may be waived during stack testing performed under this condition if the proposed condition/parameter range is identified in the test notice specified in paragraph A and accepted by the TCEQ Regional Office. Permit allowable emissions and emission control requirements are not waived and still apply during stack testing periods.

During subsequent operations, if the maximum production rate is greater than that recorded during the test period, stack sampling shall be performed at the new operating conditions within 120 days. This sampling may be waived by the TCEQ Air Section Manager for the region.

E. Copies of the final sampling report shall be forwarded to the offices below within 60 days after sampling is completed. Sampling reports shall comply with the attached provisions entitled “Chapter 14, Contents of Sampling Reports” of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:

One copy to the appropriate TCEQ Regional Office.
One copy to each local air pollution control program.

F. Sampling ports and platform(s) shall be incorporated into the design of the thermal oxidizer (EPN F-15) according to the specifications set forth in the attachment entitled “Chapter 2, Guidelines For Stack Sampling Facilities” of the TCEQ Sampling Procedures Manual.

Alternate sampling facility designs must be submitted for approval to the TCEQ Regional Director.

Demonstration of Continuous Compliance

24. Upon request by the TCEQ Executive Director or the TCEQ Regional Director having jurisdiction, the holder of this permit shall perform stack sampling and/or other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere to demonstrate compliance with the MAERT and with emission performance levels as specified in the special conditions and/or otherwise prove satisfactory equipment performance. Sampling must be conducted in accordance with the TCEQ *Guidelines for Stack Sampling Facilities* and in accordance with the applicable EPA 40 CFR procedures. Any deviations from those procedures must be approved by the TCEQ Executive Director or the appropriate TCEQ Regional Director prior to conducting sampling. **(08/2020)**

25. The holder of this permit shall conduct a quarterly visible emissions determination to demonstrate compliance with the visible emissions limitation specified in this permit. This visible emissions determination shall be performed: 1) during normal plant operations, 2) for a minimum of six minutes, 3) approximately perpendicular to plume direction, 4) with the sun behind the observer (to the extent practicable), 5) at least 15 feet, but not more than 0.25 mile, from the plume, and 6) in accordance with EPA 40 CFR Part 60, Appendix A, Test Method 22, except where stated otherwise in this condition. If visible emissions exceed 30 cumulative seconds in any six-minute period, the owner or operator shall take immediate action (as appropriate) to eliminate the excessive visible emissions. The corrective action shall be documented within 24 business hours of completion.

26. The holder of this permit shall conduct a quarterly visible emissions determination to demonstrate compliance with the opacity limitations as specified in this permit. This visible emissions determination shall be performed: 1) during normal plant operations, 2) for a minimum of six minutes, 3) approximately perpendicular to plume direction, 4) with the sun behind the observer (to the extent practicable), and 5) at least two stack heights, but not more than five stack heights, from the emission point. If visible emissions are observed from the emission point, the owner or operator shall:

    A. Take immediate action to eliminate visible emissions, record the corrective action within 24 hours, and comply with any applicable requirements in 30 Texas Administrative Code (TAC) § 101.201, Emissions Event Reporting and Record Keeping Requirements; or

    B. Determine opacity using 40 CFR Part 60, Appendix A, Test Method 9. If the opacity limit is exceeded, take immediate action (as appropriate) to reduce opacity to within the permitted limit, record the corrective action within 24 hours, and comply with applicable requirements in 30 TAC § 101.201, Emissions Event Reporting and Record Keeping Requirements. **(09/15)**

27. The holder of this permit shall install, calibrate, and maintain a device to monitor and record pressure drop in each baghouse (dust collector). The monitoring devices shall be calibrated in accordance with the manufacturer's specifications and shall be calibrated at least annually and shall be accurate to within a range of ± 0.5 inches water gauge pressure (± 125 pascals); or ± 0.5% of span. A minimum and maximum pressure drop shall be maintained in accordance with the manufacturer's specifications. The actual pressure drop shall be recorded at least once per day. **(08/2020)**

PM Monitoring for Cooling Towers

28. The cooling towers (EPNs CT-1, CT-3, and CT-4) shall be operated and monitored in accordance with the following**: (08/2020)**

    A. Each cooling tower shall be equipped with drift eliminators having manufacturer's design assurance of 0.0005% drift or less for EPNs CT-1, CT-3, and CT-4. Drift eliminators shall be maintained and inspected at least annually. The permit holder shall maintain records of all inspections and repairs.

    B. Total dissolved solids (TDS) shall not exceed 12,000 parts per million by weight (ppmw). Dissolved solids in the cooling water drift are considered to be emitted as PM, PM_{10}, and $PM_{2.5}$ as represented in the permit application calculations.

    C. Cooling water shall be sampled at least once per week for TDS.

    D. Cooling water sampling shall be representative of the cooling tower feed water and shall be conducted using approved methods.

        (1) The analysis method for TDS shall be EPA Method 160.1, ASTM D5907, or SM 2540 C [SM - 19th edition of Standard Methods for Examination of Water]. Water samples should be capped upon collection and transferred to a laboratory area for analysis.

        (2) Alternate sampling and analysis methods may be used to comply with D(1) with written approval from the TCEQ Regional Director.

        (3) Records of all instrument calibrations and test results and process measurements used for the emission calculations shall be retained.

    E. Emission rates of PM, PM_{10} and $PM_{2.5}$ shall be calculated using the measured TDS, the design drift rate and the daily maximum and average actual cooling water circulation rate for the short term and annual average rates. Alternately, the design maximum circulation rate may be used for all calculations. Emission records shall be updated monthly.

PBRs Referenced

29. The following sources and/or activities are authorized under a Permit by Rule (PBR) by 30 TAC Chapter 106. These lists are not intended to be all inclusive and can be altered without modifications to this permit. **(11/22)**

Authorization	Source or Activity
§ 106.263	Maintenance, Startup, and Shutdown
164673	Temporary Frac Tank
107586	Fugitive MSS Emissions
168417	Dust Collectors

Recordkeeping Requirements

30. Records shall be maintained at this facility site and made available at the request of personnel from the TCEQ or any other air pollution control program having jurisdiction to demonstrate compliance

with permit limitations. These records shall be totaled for each calendar month, retained for a rolling 24-month period, and include the following:

A. Daily and annual blow still throughput and shingle production records (in tons). These throughput/production records shall be considered confidential business information;

B. Annual polyphosphoric acid use (in tons);

C. Hourly and annual coating throughput records (in tons);

D. Date and time that tool and/or component cleaning is conducted;

E. Records of DFTO Downtime (in total annual hours); **(08/2020)**

F. Quarterly observations for visible emissions and/or opacity determinations; **(08/2020)**

G. Daily baghouse (dust collector) pressure drop readings;

H. Quarterly observations for visible emissions from the production building, the mix building, the granule silos, and truck granule unload locations;

I. All malfunctions, repairs, and maintenance of abatement systems, which includes bag replacement and the manufacturer's suggested cleaning and maintenance schedule; and

J. Records of materials used that have the potential to emit HAPs, kept in sufficient detail in order to allow all required emission rates to be fully and accurately calculated. Using this recorded data, a report shall be produced for the emission of HAPs (in tons per year) over the previous 12 consecutive months. The required records shall be kept with examples of the method of data reduction including units, conversion factors, assumptions, and the basis of the assumptions.

Scenario 2: Pre-Project

Fuel Specifications

31. Fuel for No. 1 Boiler (EPN B-1), No. 2 Boiler (EPN B-2), No. 2 Born Coating Heater (EPN H-1), No. 3 Born Coating Heater (EPN H-2), No. 2 Cuttler Coating Heater (EPN H-3), Hot Oil Heater No. 1 (EPN H-4), Limestone Filler Heater (EPN L-3), Hot Oil Heater No. 2 (EPN H-9), and Afterburner (EPN F-14) shall be pipeline-quality natural gas. Use of any other fuel will require prior approval of the Executive Director of the TCEQ.

32. Fuel used for the 68 KW emergency generator engine shall be No. 2 fuel oil with a maximum sulfur content of no more than 0.3 percent by weight and shall not consist of a blend containing waste oils or solvents. The emergency generator is limited to 100 hours per year of operation. Use of any other fuel shall require prior written approval of the Executive Director of the TCEQ.

33. Upon request by the Executive Director of the TCEQ or the TCEQ Regional Director or any local air pollution control program having jurisdiction, the holder of this permit shall provide a sample and/or an analysis of the fuels used in these facilities or shall allow air pollution control program representatives to obtain a sample for analysis.

Opacity/Visible Emission Limitations

34. Opacity of particulate matter emissions from the Line 1 Mineral Application Process Dust Collector Stack (EPN C-2), Line 2 Mineral Application Process Dust Collector Stack (EPN C-3), No. 1 Tank Fume Filter Vent (EPN T-1), Large Coater/Surge Tank Fume Filter Vent (EPN T-3), and Fume Filter Vent (EPN T-6) shall each not exceed five percent averaged over a six minute period. **(09/15)**

35. Opacity of particulate matter emissions from the No. 2 Tank Fume Filter Vent (EPN T-2) shall not exceed five percent averaged over a six-minute period when controlling emission from only Flux Tanks No. 1 and No. 2, but when controlling emissions from Coating Tank No. 1, opacity of particulate matter emissions shall not exceed zero percent. **(09/15)**

36. Opacity of particulate matter emissions from the No. 1 Boiler Stack (EPN B-1), No. 2 Boiler Stack (EPN B-2), No. 2 Born Coating Heater Stack (EPN H-1), No. 3 Born Coating Heater Stack (EPN H-2), No. 2 Cuttler Coating Heater Stack (EPN H-3), Hot Oil Heater No. 1 Stack (EPN H-4), and Hot Oil Heater No. 2 Stack (EPN H-9) shall not exceed ten percent averaged over a six-minute period except for those periods described in 30 TAC § 111.111(a)(1)(E).

37. Opacity of particulate matter emissions from the No. 3 Limestone Silo Dust Collector Stack (EPN C-1), No. 1 Filler Silo Dust Collector A Vent (EPN L1-A), No. 2 Filler Silo Dust Collector Vent (EPN L-2), and Sand Silo Dust Collector Stack (EPN C-4) shall not exceed 1.0 percent, averaged over a six minute period, except for those periods described in 30 TAC § 101.201 and § 101.211.

38. The Limestone Run Tank and the Limestone Filler Heater shall both exhaust to the same dust collector (Horizon Limestone Dust Collector Vent) EPN L-3. When the Limestone Run Tank is exhausting to the Horizon Limestone Dust Collector, opacity of particulate matter emissions from the Horizon Limestone Dust Collector Vent (EPN L-3) shall not exceed 1 percent, averaged over a six-minute period, except for those periods described in 30 TAC § 101.201 and § 101.211. When the Limestone Run Tank is not exhausting to the Horizon Limestone Dust Collector, opacity of particulate matter emissions from the Horizon Limestone Dust Collector Vent (EPN L-3) shall not exceed 10 percent averaged over a six-minute period except for those periods described in 30 TAC § 111.111(a)(1)(E).

39. Opacity of particulate emissions from the Afterburner Stack (EPN F-14) shall not exceed 0 percent, averaged over a six-minute period when Blowstill No. 3 is operating, except for those periods described in 30 TAC § 101.201 and § 101.211. When Blowstill No.1 is operating, opacity of emissions from the Afterburner Stack (EPN F-14) shall not exceed 5 percent averaged over a six-minute period, except for those periods described in 30 TAC § 101.201 and § 101.211.

40. Visible fugitive emissions from the process buildings or raw material storage buildings, including the two batch houses, shall not leave the property for more than 30 cumulative seconds in any six-minute period.

Operational Limitations, Work Practices, and Plant Design

41. Afterburner operating instructions shall be established and must be posted such that they are available for all the operators.

42. Plant operators shall inspect all piping and equipment conveying exhaust gases from the asphalt blowing stills to the afterburner at least once a week. Any leak must be noted and appropriate action taken to stop the leak.

43. If this facility or any portion of this facility exceeds any of the applicable allowable emission rates or other standards, the holder of this permit shall take immediate corrective action to comply with the applicable standards. These actions may include (but are not limited to) reducing operating temperature, reducing throughput, and the installation of additional control equipment. These corrective actions shall not be considered complete until compliance with the allowable emission rates and other standards has been demonstrated. Additional testing may be required.

44. Emissions from the two asphalt blowing stills shall be vented to the afterburner during the blowing operation. Only one asphalt blowing still may be oxidizing at any one time. The afterburner set point temperature shall be set to at least 1500 degrees Fahrenheit. If the combustion chamber temperature drops below 1490 degrees Fahrenheit for any consecutive two-hour period, all emission sources routed to the afterburner shall be shut down at the conclusion of the blow cycle(s). No emissions shall be routed to the afterburner until repairs have been completed. Asphalt blow still waste gas emissions shall not bypass the afterburner.

45. The service of the tanks in this permit is limited to the storage of chemicals listed on Table 7 forms or chemicals that are covered by one of the TCEQ permit by rule exemptions. Storage of other chemicals is prohibited unless prior approval for such storage is obtained from the Executive Director of the TCEQ. It shall not be necessary to obtain re-approval for chemicals previously approved for storage in a specific tank. A revised Table 7 shall be sent to the TCEQ promptly when there is any change in service of these tanks.

46. The cleaning of tools and or components, i.e., melting of solidified asphalt with torches shall be conducted inside a roofed enclosure having at least three sides and roof vent. Furthermore, the torches shall be employed in a manner to melt, not combust, the asphalt. If combustion/flaming of the asphalt occur, action shall be taken to extinguish the flames.

47. Fabric filter baghouses designed to meet an outlet grain loading of not more than 0.01 grains per dry standard cubic foot of exhaust each, properly installed and in good working order, shall control particulate matter emissions from the No. 1 Filler Silo (EPN L1-A), No. 2 Limestone Silo (EPN L-2), Limestone Run Tank (EPN L-3), and No. 3 Limestone Silo (EPN C-1) when this equipment is in operation.

48. Fabric filter baghouses designed to meet an outlet grain loading of not more than 0.004 grains per dry standard cubic foot of exhaust each, properly installed and in good working order, shall control particulate matter emissions from the Line 1 and Line 2 Mineral Application Process (EPNs C-2 and C-3) when this equipment is in operation. **(09/15)**

49. Fabric filter baghouses designed to meet an outlet grain loading of not more than 0.005 grains per dry standard cubic foot of exhaust each, properly installed and in good working order, shall control particulate matter emissions from the Sand Silo (EPN C-4) when this equipment is in operation.

50. Fume filters (also called fiber bed mist eliminator) designed to have a reduction efficiency of not less than 99% each, properly installed and in good working order, shall control particulate matter emissions from the Large Coater/Surge Tank Fume Filter (EPN T-3); Line 1 Laminator, Line 2 Laminator, and Asphalt Use Tank (EPN T-6), when this equipment is in operation. **(09/15)**

51. All hooding, duct, and collection systems shall be effective in capturing emissions from the intended equipment and in preventing fugitive emissions from the building. The hooding and duct systems shall be maintained free of holes, cracks, and other conditions that would reduce the collection efficiency of the emission capture system.

52. The paint operation for marking the nail lines on shingles shall be conducted in a manner to minimize fugitive emissions. Good housekeeping procedures to include immediate cleanup of paint spills shall be implemented.

53. The transfer of limestone from the limestone run tank to the asphalt/limestone mix tank by an enclosed screw conveyor is authorized.

54. Site-wide emissions of HAPs shall not exceed 10 tpy of any single HAP or 25 tpy of any combination of HAPs.

55. The operations/processes listed in Table 1 are authorized and conducted per the criteria of the listed Permit-by-Rule (PBR). **(11/22)**

Table 1: PBR Authorized Operations/Processes

Operation/Process	Permit By Rule
Maintenance, Startup, and Shutdown	§ 106.263
Fugitive MSS Emissions	107586
Dust Collectors	168417

Demonstration of Continuous Compliance

56. Upon request by the TCEQ Executive Director or the TCEQ Regional Director having jurisdiction, the holder of this permit shall perform stack sampling and/or other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the Afterburner Stack (EPN F-14) to demonstrate compliance with the MAERT and with emission performance levels as specified in the special conditions and/or otherwise prove satisfactory equipment performance. Sampling must be conducted in accordance with the TCEQ Sampling Procedures Manual and in accordance with the applicable EPA 40 CFR procedures. Any deviations from those procedures must be approved by the TCEQ Executive Director or the appropriate TCEQ Regional Director prior to conducting sampling.

57. The holder of this permit shall conduct a quarterly visible emissions determination to demonstrate compliance with the visible emissions limitation specified in this permit. This visible emissions determination shall be performed: 1) during normal plant operations, 2) for a minimum of six minutes, 3) approximately perpendicular to plume direction, 4) with the sun behind the observer (to the extent practicable), 5) at least 15 feet, but not more than 0.25 mile, from the plume, and 6) in accordance with EPA 40 CFR Part 60, Appendix A, Test Method 22, except where stated otherwise in this condition. If visible emissions exceed 30 cumulative seconds in any six-minute period, the owner or operator shall take immediate action (as appropriate) to eliminate the excessive visible emissions. The corrective action shall be documented within 24 business hours of completion.

58. The holder of this permit shall conduct a quarterly visible emissions determination to demonstrate compliance with the opacity limitations specified in this permit for Line 1 Mineral Application Process Dust Collector Stack (EPN C-2), Line 2 Mineral Application Process Dust Collector Stack (EPN C-3), No. 1 Tank Fume Filter Vent (EPN T-1); No. 2 Tank Fume Filter Vent (EPN T-2), Large Coater/Surge Tank Fume Filter Vent (EPN T-3), Fume Filter Vent (EPN T-6), No. 3 Limestone Silo Dust Collector Stack (EPN C-1), No. 1 Filler Silo Dust Collector A Vent (EPN L1-A), No. 2 Filler Silo Dust Collector Vent (EPN L-2), Horizon Limestone Dust Collector Vent (EPN L-3), Sand Silo Dust Collector Stack (EPN C-4), and Afterburner Stack (EPN F-14). This visible emissions determination shall be performed: 1) during normal plant operations, 2) for a minimum of six minutes, 3) approximately perpendicular to plume direction, 4) with the sun behind the observer (to the extent practicable), and 5) at least two stack heights, but not more than five stack heights, from the emission point. If visible emissions are observed from the emission point, the owner or operator shall:

    A. Take immediate action to eliminate visible emissions, record the corrective action within 24 hours, and comply with any applicable requirements in 30 Texas Administrative Code (TAC) § 101.201, Emissions Event Reporting and Record Keeping Requirements; or

    B. Determine opacity using 40 CFR Part 60, Appendix A, Test Method 9. If the opacity limit is exceeded, take immediate action (as appropriate) to reduce opacity to within the permitted limit, record the corrective action within 24 hours, and comply with applicable requirements in 30 TAC § 101.201, Emissions Event Reporting and Record Keeping Requirements. **(09/15)**

Sampling Requirements

59. The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at their own expense. Sampling ports and platforms shall be incorporated into the design of the stack(s) according to the specifications set forth in the attachment entitled “Chapter 2, Stack Sampling Facilities” prior to stack sampling. Alternate sampling facility designs may be submitted for approval by the TCEQ Regional Office with jurisdiction.

    A pretest meeting shall be held with personnel from the TCEQ before the required tests are performed. The TCEQ Regional Office with jurisdiction shall be notified not less than 45 days prior to sampling to schedule a pretest meeting. The notice shall include:

        (1) Date for pretest meeting;

        (2) Date sampling will occur;

        (3) Points or sources to be sampled;

        (4) Name of firm conducting sampling;

        (5) Type of sampling equipment to be used; and

        (6) Method or procedure to be used in sampling.

        The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports.

    B. Alternate sampling methods and representative unit testing may be proposed by the permit holder. A written proposed description of any deviation from sampling procedures or

emission sources specified in permit conditions or TCEQ or EPA sampling procedures shall be made available to the TCEQ prior to the pretest meeting. Such a proposal must be approved by the TCEQ Regional Office with jurisdiction at least two weeks prior to sampling.

C. Requests to waive testing for any pollutant specified shall be submitted, in writing, for approval to the TCEQ Office of Air, Air Permits Division in Austin.

D. During stack sampling emission testing, the facilities shall operate at maximum represented production rates. Primary operating parameters that enable determination of production rates shall be monitored and recorded during the stack test. These parameters are to be determined at the pretest meeting.

If the plant is unable to operate at the maximum represented production rates during testing, then additional stack testing shall be required when the production rate exceeds the previous stack test production rate by +10 percent unless otherwise determined, in writing, by the TCEQ Executive Director.

E. Requests for additional time to perform sampling shall be submitted to the TCEQ Regional Office with jurisdiction. Additional time to comply with the applicable federal requirements requires EPA approval, and requests shall be submitted to the TCEQ Regional Office with jurisdiction.

F. Copies of the final sampling report shall be forwarded to the TCEQ within 60 days after sampling is completed. Sampling reports shall comply with the attached provisions of Chapter 14 of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:

One copy to the TCEQ Regional Office with jurisdiction.

One copy to the TCEQ Office of Air, Air Permits Division in Austin.

One copy to each appropriate local air pollution control program with jurisdiction.

G. If, as a result of stack sampling, compliance with the permitted emission rates cannot be demonstrated, the holder of this permit shall adjust any operating parameters so as to comply with Special Condition No. 1 and the permitted emission rates.

H. If the holder of this permit is required to adjust any operating parameters for compliance, then beginning no later than 60 days after the date of the test conducted, the holder of this permit shall submit to the TCEQ, on a monthly basis, a record of adjusted operating parameters and daily records of production sufficient to demonstrate compliance with the permitted emission rates. Daily records of production and operating parameters shall be distributed as follows:

One copy to the TCEQ Regional Office with jurisdiction.

One copy to the TCEQ Office of Air, Air Permits Division in Austin.

Recordkeeping Requirements

60. Records shall be maintained at this facility site and made available at the request of personnel from the TCEQ or any other air pollution control program having jurisdiction to demonstrate compliance

with permit limitations. These records shall be totaled for each calendar month, retained for a rolling 24-month period, and include the following:

A. Daily and annual blow still throughput and shingle production records (in tons). These throughput/production records shall be considered confidential business information;

B. Annual polyphosphoric acid use (in tons);

C. Hourly and annual coating throughput records (in tons);

D. Date and time that tool and/or component cleaning is conducted;

E. Quarterly observations for visible emissions and/or opacity determinations from the Line 1 Mineral Application Process Dust Collector Stack (EPN C-2), Line 2 Mineral Application Process Dust Collector Stack (EPN C-3), No. 1 Tank Fume Filter Vent (EPN T-1); No. 2 Tank Fume Filter Vent (EPN T-2), Large Coater/Surge Tank Fume Filter Vent (EPN T-3), Fume Filter Vent (EPN T-6), No. 3 Limestone Silo Dust Collector Stack (EPN C-1), No. 1 Filler Silo Dust Collector A Vent (EPN L-1A), No. 2 Filler Silo Dust Collector Vent (EPN L-2), Horizon Limestone Dust Collector Vent (EPN L-3), Sand Silo Dust Collector Stack (EPN C-4), and Afterburner Stack (EPN F-14); **(09/15)**

F. Quarterly observations for visible emissions from the process building or raw material storage buildings, including the two batch houses;

G. All malfunctions, repairs, and maintenance of abatement systems, which includes bag replacement and the manufacturer's suggested cleaning and maintenance schedule; and

H. Records of materials used that have the potential to emit Hazardous Air Pollutants (HAPs), kept in sufficient detail in order to allow all required emission rates to be fully and accurately calculated. Using this recorded data, a report shall be produced for the emission of HAPs (in tons per year) over the previous 12 consecutive months. The required records shall be kept with examples of the method of data reduction including units, conversion factors, assumptions, and the basis of the assumptions.

Date: September 4, 2024

Emission Sources - Maximum Allowable Emission Rates

Permit Number 4421A

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (6)	
			lbs/hour	TPY (4)
Scenario 1: Post-Project Emission Rates (8)				
T-3b	Flux Tank 1 (DFTO Downtime) Fume Filter Stack	VOC	0.13	0.03
		CO	<0.01	<0.01
		PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
		HAPs	<0.01	<0.01
T-3b	Flux Tank 2 (DFTO Downtime) Fume Filter Stack	VOC	0.13	0.03
		CO	<0.01	<0.01
		PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
		HAPs	<0.01	<0.01
T-3b	Coating Tank 2 (DFTO Downtime) Fume Filter Stack	VOC	0.05	0.01
		CO	<0.01	<0.01
		PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
		HAPs	<0.01	<0.01
T-3b	Coating Tank 1 (DFTO Downtime) Fume Filter Stack	VOC	0.05	0.01
		CO	<0.01	<0.01
		PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
		HAPs	<0.01	<0.01
T-3b	Blowstill 1 (DFTO Downtime)	VOC	0.01	<0.01
		CO	0.01	<0.01

Project Numbers: 381867

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (6)	
			lbs/hour	TPY (4)
		PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
		HAPs	<0.01	<0.01
T-3b	Blowstill 2 (DFTO Downtime)	VOC	0.01	<0.01
		CO	<0.01	<0.01
		PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
		HAPs	<0.01	<0.01
T-3b	Vertical Oil Tank 1 (DFTO Downtime) Fume Filter Stack	VOC	0.01	<0.01
		CO	<0.01	<0.01
		PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
		HAPs	<0.01	<0.01
T-4	Sealant Tank (DFTO Downtime) Stack	VOC	0.02	<0.01
		CO	<0.01	<0.01
		PM	0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
		HAPs	<0.01	<0.01
T-5	Laminant Tank (DFTO Downtime) Stack	VOC	0.01	<0.01
		CO	<0.01	<0.01
		PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
		HAPs	<0.01	<0.01
KOTL	Knockout Oil Truck Loading	VOC	0.52	0.01
		CO	0.08	<0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (6)	
			lbs/hour	TPY (4)
		PM	0.15	<0.01
		PM_{10}	0.15	<0.01
		$PM_{2.5}$	0.15	<0.01
		HAPs	0.02	<0.01
F-15	DFTO Stack (Blowing Stills, Flux Storage Tanks, Coating Storage Tanks, Laminant Storage Tank, Sealant Storage Tank, and Vertical Oil Tank)	VOC	0.39	1.09
		NOx	1.93	6.69
		CO	10.02	28.41
		PM	1.52	4.41
		PM_{10}	1.44	4.20
		$PM_{2.5}$	1.21	3.57
		SO_2	14.45	39.45
		HCl	0.18	0.49
		HAPs	0.33	0.89
T-6	Laminators Fume Filter Stack	VOC	0.04	0.04
		CO	<0.01	<0.01
		PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
		HAPs	<0.01	<0.01
T-3a or T-3b	Sealant Vertical Mixer	VOC	0.05	0.05
		CO	0.01	0.01
		HCl	<0.01	<0.01
		SO2	0.03	0.03
		Total HAPs	0.02	0.02
T-3a or T-3b	No. 1 Surge Tank Vertical Mixer	VOC	0.35	0.75
		CO	0.07	0.15
		HCl	<0.01	<0.01
		SO2	0.19	0.41
		Total HAPs	0.12	0.25

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (6)	
			lbs/hour	TPY (4)
T-3a or T-3b	No. 2 Surge Tank Vertical Mixer	VOC	0.35	0.75
		CO	0.07	0.15
		HCl	<0.01	<0.01
		SO2	0.19	0.41
		Total HAPs	0.12	0.25
T-3a or T-3b	No. 3 Surge Tank Vertical Mixer	VOC	0.42	0.95
		CO	0.09	0.20
		HCl	<0.01	<0.01
		SO2	0.23	0.53
		Total HAPs	0.14	0.32
T-6	Asphalt Use Tank	VOC	0.05	0.09
		CO	0.01	0.02
		HCl	<0.01	<0.01
		SO2	0.03	0.05
		Total HAPs	0.02	0.03
MIXERS	Mixers Cap	PM	0.08	0.18
		PM_{10}	0.08	0.18
		$PM_{2.5}$	0.08	0.17
T-3a	Line 1 Coater	VOC	1.92	4.15
		CO	0.18	0.40
		PM	0.26	0.56
		PM_{10}	0.26	0.56
		$PM_{2.5}$	0.04	0.08
		H_2S	<0.01	0.01
		SO_2	0.07	0.16
		HAPs	0.16	0.34
T-3b	Line 2 Coater	VOC	2.34	5.28
		CO	0.23	0.51
		PM	0.32	0.71
		PM_{10}	0.32	0.71

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (6)	
			lbs/hour	TPY (4)
		$PM_{2.5}$	0.05	0.10
		H_2S	<0.01	0.01
		SO_2	0.09	0.20
		HAPs	0.19	0.44
MFGBLDG	Line 1 and Line 2 Coaters (Uncaptured) (5)	VOC	0.24	0.52
		CO	0.02	0.05
		PM	0.14	0.31
		PM_{10}	0.14	0.31
		$PM_{2.5}$	0.14	0.31
		H_2S	<0.01	0.01
		SO_2	0.01	0.02
		HAPs	0.02	0.04
MFGBLDG	Line 1 and Line 2 Laminators (Uncaptured) (5)	VOC	<0.01	<0.01
		CO	<0.01	<0.01
		PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
		HAPs	<0.01	<0.01
MFGBLDG	Line 1 and Line 2 Aggregate Application (Uncaptured) (5)	PM	0.01	0.05
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
MFGBLDG	Line 1 and Line 2 Sand Brushes (5)	PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
MFGBLDG	Line 1 and Line 2 Sealant Pans (5)	VOC	0.04	0.02
		CO	<0.01	<0.01
		PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
		HAPs	<0.01	<0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (6)	
			lbs/hour	TPY (4)
MFGBLDG	Line 1 and Line 2 Cooling Section (Uncaptured) (5)	VOC	0.15	0.68
		CO	0.01	0.07
		PM	0.67	1.49
		PM_{10}	0.36	0.80
		$PM_{2.5}$	0.06	0.13
		H_2S	<0.01	<0.01
		SO_2	0.01	0.03
		Total HAPs	0.01	0.06
MFGBLDG	Line 1 and Line 2 Paint (5)	VOC	0.16	0.35
MFGBLDG	Line 1 and Line 2 Unwind Stands (5)	PM	0.59	2.45
		PM_{10}	0.06	0.27
		$PM_{2.5}$	0.01	0.03
COOL-1	Line No. 1 Cooling Vent	VOC	0.46	2.03
		CO	0.04	0.20
		PM	1.75	3.78
		PM_{10}	0.95	2.04
		$PM_{2.5}$	0.15	0.32
		H_2S	<0.01	<0.01
		SO_2	0.02	0.08
		Total HAPs	0.04	0.17
COOL-2	Line No. 2 Cooling Vent	VOC	0.41	1.81
		CO	0.04	0.17
		PM	1.89	4.27
		PM_{10}	1.02	2.31
		$PM_{2.5}$	0.16	0.36
		H_2S	<0.01	<0.01
		SO_2	0.02	0.07
		Total HAPs	0.03	0.15
C-1	No. 3 Limestone Silo Dust Collector Stack	PM	0.05	0.03
		PM_{10}	0.05	0.03

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (6)	
			lbs/hour	TPY (4)
		$PM_{2.5}$	0.05	0.03
C-2	Line 1 Aggregate Application Process Dust Collector Stack	VOC	0.11	0.23
		CO	0.01	0.02
		PM	0.02	0.11
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
		H_2S	<0.01	<0.01
		SO2	<0.01	0.01
		Total HAPs	0.01	0.02
C-3	Line 2 Aggregate Application Process Dust Collector Stack	VOC	0.13	0.29
		CO	0.01	0.03
		PM	0.02	0.11
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
		H_2S	0.01	0.01
		SO2	0.01	0.01
		Total HAPs	0.01	0.02
C-4	Sand Silo Dust Collector Stack	PM	0.26	1.14
L1-a	No. 1 Limestone Dust Collector Stack	PM	0.05	0.23
		PM_{10}	0.05	0.23
		$PM_{2.5}$	0.05	0.23
L-2	No. 2 Limestone Dust Collector Stack	PM	0.05	0.12
		PM_{10}	0.05	0.12
		$PM_{2.5}$	0.05	0.12
L-3/H-5	Horizontal Limestone Run Tank Dust Collector Stack	PM	0.14	0.61
		PM_{10}	0.14	0.61
		$PM_{2.5}$	0.14	0.61
L-3/H-5	Limestone Filler Heater	VOC	0.03	0.14
		NOx	0.58	2.53
		CO	0.49	2.13

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (6)	
			lbs/hour	TPY (4)
		PM	0.04	0.19
		PM_{10}	0.04	0.19
		$PM_{2.5}$	0.04	0.19
		SO_2	0.09	0.38
		HAPs	0.01	0.05
B-1	No. 1 Boiler	VOC	0.08	0.34
		NO_x	0.39	1.70
		CO	0.50	2.18
		PM	0.08	0.34
		PM_{10}	0.08	0.34
		$PM_{2.5}$	0.08	0.34
		SO_2	0.22	0.98
		HAPs	0.02	0.10
B-2	No. 2 Boiler	VOC	0.07	0.29
		NO_x	1.22	5.32
		NO_x (7)	0.83	3.63
		CO	1.02	4.47
		PM	0.09	0.40
		PM_{10}	0.09	0.40
		$PM_{2.5}$	0.09	0.40
		SO_2	0.18	0.80
		HAPs	0.02	0.10
H-1	No. 2 Born Coating Heater	VOC	0.05	0.23
		NO_x	0.12	0.53
		CO	0.81	3.55
		PM	0.07	0.32
		PM_{10}	0.07	0.32
		$PM_{2.5}$	0.07	0.32
		SO_2	0.14	0.63
		HAPs	0.02	0.08

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (6)	
			lbs/hour	TPY (4)
H-2	No. 3 Born Coating Heater	VOC	0.05	0.23
		NO_x	0.12	0.53
		CO	0.81	3.55
		PM	0.07	0.32
		PM_{10}	0.07	0.32
		$PM_{2.5}$	0.07	0.32
		SO_2	0.14	0.63
		HAPs	0.02	0.08
H-3	No. 2 Cutler Coating Heater	VOC	0.03	0.14
		NO_x	0.21	0.93
		CO	0.49	2.13
		PM	0.04	0.19
		PM_{10}	0.04	0.19
		$PM_{2.5}$	0.04	0.19
		SO_2	0.09	0.38
		HAPs	0.01	0.05
H-4	Hot Oil Heater No. 1	VOC	0.02	0.09
		NO_x	0.39	1.69
		CO	0.32	1.42
		PM	0.03	0.13
		PM_{10}	0.03	0.13
		$PM_{2.5}$	0.03	0.13
		SO_2	0.06	0.25
		HAPS	0.01	0.03
H-9	Hot Oil Heater No. 2	VOC	0.01	0.03
		NO_x	0.13	0.55
		CO	0.11	0.46
		PM	0.01	0.04
		PM_{10}	0.01	0.04
		$PM_{2.5}$	0.01	0.04

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (6)	
			lbs/hour	TPY (4)
		SO_2	0.02	0.08
		HAPS	<0.01	0.01
E-1	Emergency Generator	VOC	0.25	0.01
		NO_x	3.13	0.16
		CO	0.67	0.03
		PM	0.22	0.01
		PM_{10}	0.22	0.01
		$PM_{2.5}$	0.22	0.01
		SO_2	<0.01	<0.01
		HAPs	<0.01	<0.01
CT-1	Process Cooling Tower	PM	0.02	0.08
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
CT-3	Coater Cooling System Tower 1	PM	<0.01	0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
CT-4	Coater Cooling System Tower 2	PM	<0.01	0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
G-1b	Batch House Granules (5)	PM	1.22	0.30
		PM_{10}	0.03	<0.01
		$PM_{2.5}$	0.03	<0.01
G-2a	Intermediate Granule Handling Vents	PM	1.73	1.41
		PM_{10}	0.05	0.05
		$PM_{2.5}$	0.05	0.05
G-2b	Intermediate Granule Handling Vents	PM	2.19	1.65
		PM_{10}	0.05	0.04
		$PM_{2.5}$	0.05	0.04
G-3	Railcar Granule Unloading Facility (5)	PM	2.45	0.95
		PM_{10}	0.05	0.02

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (6)	
			lbs/hour	TPY (4)
		$PM_{2.5}$	0.05	0.02
G-4	Headlap/Granules Unloading Facility (5)	PM	1.22	0.62
		PM_{10}	0.03	0.01
		$PM_{2.5}$	0.03	0.01
G-5	Mix/Production Buildings Vents (5)	PM	2.38	3.84
		PM_{10}	0.18	0.53
		$PM_{2.5}$	0.18	0.53
G-6	Roll-Off Boxes (5)	PM	<0.01	0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
F-1	Stillyard Fugitives (5)	VOC	1.90	8.31
		CO	0.25	1.09
		PM	0.53	2.34
		PM_{10}	0.52	2.3
		$PM_{2.5}$	0.51	2.21
		Total HAPs	0.04	0.18
F-2	Maintenance Fugitives (5)	VOC	<0.01	<0.01
		NO_x	0.04	<0.01
		CO	<0.01	<0.01
		PM	0.01	<0.01
		PM_{10}	0.01	<0.01
		$PM_{2.5}$	0.01	<0.01
		SO_2	0.11	0.01
		Total HAPs	<0.01	<0.01
HAP	Hazardous Air Pollutants (Individual)	HAP	-	<10
HAP	Hazardous Air Pollutants (Total)	HAP	-	<25

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (6)	
			lbs/hour	TPY (4)
Scenario 2: Pre-Project Emission Rates (8)				
B-1	No. 1 Boiler Stack	NO_x	0.39	1.69
		CO	0.50	2.16
		VOC	0.08	0.34
		PM	0.08	0.34
		PM_{10}	0.08	0.34
		$PM_{2.5}$	0.08	0.34
		SO_2	0.01	0.04
		Total HAPs	0.02	0.10
B-2	No. 2 Boiler Stack	NO_x	1.26	5.26
		CO	1.06	4.42
		VOC	0.07	0.40
		PM	0.10	0.40
		PM_{10}	0.10	0.40
		$PM_{2.5}$	0.10	0.40
		SO_2	0.01	0.04
		Total HAPs	0.02	0.10
F-14	Afterburner Stack (Blowstill No. 1 and No. 3 and Knockout Tank)	NO_x	4.62	5.78
		CO	49.80	62.25
		VOC	1.20	1.50
		PM	6.60	8.25
		PM_{10}	6.60	8.25
		$PM_{2.5}$	6.60	8.25
		SO_2	69.60	87.00
		Total HAPs	0.34	0.42
		HCl	0.34	0.42
C-1	No. 3 Limestone Dust Collector Stack	PM	0.26	0.13
		PM_{10}	0.26	0.13
		$PM_{2.5}$	0.26	0.13

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (6)	
			lbs/hour	TPY (4)
C-2	Line 1 Aggregate Application Process Dust Collector Stack (Granule Run Tank and Sand Run Tank)	PM	0.43	1.72
		PM_{10}	0.10	0.43
		$PM_{2.5}$	0.01	0.06
C-3	Line 2 Aggregate Application Process Dust Collector Stack (Granule Run Tank and Sand Run Tank)	PM	0.43	1.72
		PM_{10}	0.10	0.43
		$PM_{2.5}$	0.01	0.06
C-4	Sand Silo Dust Collector Stack	PM	0.03	0.13
		PM_{10}	0.03	0.13
		$PM_{2.5}$	0.03	0.13
H-1	No. 2 Born Coating Heater Stack	NO_x	1.40	5.85
		CO	1.18	4.92
		VOC	0.08	0.33
		PM	0.11	0.45
		PM_{10}	0.11	0.45
		$PM_{2.5}$	0.11	0.45
		SO_2	0.01	0.04
		Total HAPs	0.03	0.11
H-2	No. 3 Born Coating Heater Stack	NO_x	1.40	5.85
		CO	1.18	4.92
		VOC	0.08	0.33
		PM	0.11	0.45
		PM_{10}	0.11	0.45
		$PM_{2.5}$	0.11	0.45
		SO_2	0.01	0.04
		Total HAPs	0.03	0.11
H-3	No. 2 Cutler Coating Heater Stack	NO_x	0.60	2.51
		CO	0.51	2.11
		VOC	0.04	0.14
		PM	0.05	0.19
		PM_{10}	0.05	0.19

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (6)	
			lbs/hour	TPY (4)
		$PM_{2.5}$	0.05	0.19
		SO_2	<0.01	0.02
		Total HAPS	0.01	0.05
H-4	Hot Oil Heater No. 1 Stack	NO_x	0.40	1.67
		CO	0.34	1.41
		VOC	0.03	0.10
		PM	0.03	0.13
		PM_{10}	0.03	0.13
		$PM_{2.5}$	0.03	0.13
		SO_2	<0.01	0.01
		Total HAPS	0.01	0.03
H-9	Hot Oil Heater No. 2 Stack	NO_x	0.13	0.55
		CO	0.11	0.46
		VOC	0.01	0.03
		PM	0.01	0.04
		PM_{10}	0.01	0.04
		$PM_{2.5}$	0.01	0.04
		SO_2	<0.01	0.01
		Total HAPS	<0.01	0.01
T-1	No. 1 Tank Fume Filter Vent	VOC	1.90	8.82
T-2	No. 2 Tank Fume Filter Vent (Coating Tank No. 1 and Flux Tanks No. 1 and No. 2)	VOC	1.90	8.82
		CO	<0.01	<0.01
		PM	<0.01	0.01
		PM_{10}	<0.01	0.01
		$PM_{2.5}$	<0.01	0.01
		HAPs	<0.01	<0.01
T-3	Large Coater/Surge Tank Fume Filter Vent	CO	0.68	3.00
		VOC	6.01	24.04
		PM	0.17	0.75
		PM_{10}	0.17	0.75

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (6)	
			lbs/hour	TPY (4)
		$PM_{2.5}$	0.17	0.75
T-4	Sealant Storage Tank Vent	VOC	0.03	0.05
T-5	Laminant Storage Tank Vent	VOC	0.03	0.11
T-6	Fume Filter Vent (Line 1 Laminator, Line 2 Laminator, and Asphalt Use Tank)	VOC	0.39	1.73
		PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
L-1a	No. 1 Limestone Dust Collector	PM	0.26	1.14
		PM_{10}	0.26	1.14
		$PM_{2.5}$	0.26	1.14
L-2	No. 2 Limestone Dust Collector	PM	0.26	0.59
		PM_{10}	0.26	0.59
		$PM_{2.5}$	0.26	0.59
L-3	Horizon Limestone Dust Collector Vent (Limestone Filler Heater and Limestone Run Tank)	PM	0.69	3.01
		PM_{10}	0.69	3.01
		$PM_{2.5}$	0.69	3.01
		NO_x	0.70	3.05
		CO	0.28	1.20
		VOC	0.04	0.18
		SO_2	0.01	0.02
		Total HAPs	0.01	0.06
F-1	Stillyard Fugitives (5)	VOC	1.90	8.31
F-2	Maintenance Fugitives (5)	NO_x	0.04	<0.01
		CO	<0.01	<0.01
		VOC	<0.01	<0.01
		PM	0.01	<0.01
		PM_{10}	0.01	<0.01
		$PM_{2.5}$	0.01	<0.01
		SO_2	0.11	<0.01
		Total HAPs	<0.01	<0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (6)	
			lbs/hour	TPY (4)
F-5	Line 2 Sealant Applicator System Vent (5)	VOC	0.03	0.10
MFGBLDG	Manufacturing Building Fugitives (Paint and Ink Jet Printer) (5)	VOC	0.27	1.12
E-1	Emergency Generator Stack	NO_x	3.13	0.16
		CO	0.67	0.03
		VOC	0.25	0.01
		PM	0.22	0.01
		PM_{10}	0.22	0.01
		$PM_{2.5}$	0.22	0.01
		SO_2	<0.01	<0.01
		Total HAPs	<0.01	<0.01
G-1	Batch House (Granule Silos and Granule Truck and Rail Unloading) (5)	PM	2.62	2.62
		PM_{10}	2.62	2.62
		$PM_{2.5}$	2.62	2.62
G-2	Intermediate Granule Handling Building Vent	PM	2.55	2.55
		PM_{10}	2.55	2.55
COOL-1	Line No. 1 Cooling Vent	PM	0.10	0.44
		PM_{10}	0.10	0.44
		$PM_{2.5}$	0.10	0.44
COOL-2	Line No. 2 Cooling Vent	PM	0.10	0.44
		PM_{10}	0.10	0.44
		$PM_{2.5}$	0.10	0.44
KOTL	Knockout Oil Truck Loading	VOC	0.52	0.01
		CO	0.08	<0.01
		PM	0.15	<0.01
		PM_{10}	0.15	<0.01
		$PM_{2.5}$	0.15	<0.01
		HAPs	0.02	<0.01
CT-1	Process Cooling Tower	PM	0.35	1.5
		PM_{10}	0.35	1.5

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates (6)	
			lbs/hour	TPY (4)
		$PM_{2.5}$	0.35	1.5
G-3	Railcar Granule Unloading Facility	PM	4.37	3.82
		PM_{10}	4.37	3.82
		$PM_{2.5}$	4.37	3.82
G-4	Headlap/Granules Unloading Facility	PM	0.02	0.04
		PM_{10}	0.01	0.02
		$PM_{2.5}$	0.01	0.01
G-6	Roll-Off Boxes	PM	<0.01	<0.01
		PM_{10}	<0.01	<0.01
		$PM_{2.5}$	<0.01	<0.01
G-5	Mix/Production Buildings Vents	PM	0.72	3.64
		PM_{10}	0.08	0.53
		$PM_{2.5}$	0.02	0.16

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources, use area name or fugitive source name.
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented
PM_{10} - total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
CO - carbon monoxide
HCl - hydrogen chloride
H_2S - hydrogen sulfide
HAPs - hazardous air pollutant as listed in § 112(b) of the Federal Clean Air Act or Title 40 Code of Federal Regulations Part 63, Subpart C
(4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.
(5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
(6) Planned startup and shutdown emissions are included. Planned maintenance emissions resulting from the cleaning of asphalt from piping and from tool cleaning using heating (EPN F-2) are authorized by this permit and other planned maintenance emissions are authorized under PBR 106.263.
(7) NO_x emission rate effective upon installation and operation of the replacement burner represented in the permit amendment dated November 8, 2019.
(8) Scenario 1 emission rates are effective upon completion and startup of the project represented in the permit amendment application, PI-1 dated November 8, 2019, as well as updates represented in the permit amendment application, PI-1 dated September 2, 2022. Scenario 2 emission rates are effective until the startup of the project.

Date: November 12, 2024

Compliance History Summary

Company	**Tamko Building Products Llc**	Permit Number	**4421A**
City	**Dallas**	Project Number	**385195**
County	**Dallas**	Regulated Entity Number	**RN100664853**
Project Type	**Renewal**	Customer Reference Number	**CN600124127**
Project Reviewer	**Kristyn Jacher**		
Site Name	**Asphalt Roofing Manufacturing Plant**		

Program Area: **NSR**
Project Received Date: **November 26, 2024**
Rating Date: **9/1/2024**

RN	
Rating:	4.82
Classification:	Satisfactory
Status:	Published
Repeat Violator:	No
Complexity Points:	13

CN	
Rating:	4.82
Classification:	Satisfactory
Status:	Published
Repeat Violator:	No
:	

Date Compliance History Report Prepared: June 19, 2025

Permit Renewal
Source Analysis & Technical Review

Company	**TAMKO Building Products LLC**	Permit Number	**4421A**
City	**Dallas**	Project Number	**385195**
County	**Dallas**	Regulated Entity Number	**RN100664853**
Project Type	**Renewal**	Customer Reference Number	**CN600124127**
Project Reviewer	**Kristyn Jacher**	Received Date	**November 26, 2024**
Site Name	**Asphalt Roofing Manufacturing Plant**		

Project Overview

TAMKO Building Products, LLC has requested to renew NSR permit no. 4421A which authorizes emissions from an Asphalt Roofing Manufacturing Plant.

A timely renewal application for Permit 4421A was initially submitted under the renewal certification option. However, with a public comment having been submitted, the TCEQ requires a full renewal application to be submitted.

Renewals with no increases, no new contaminants, and a satisfactory compliance history do not require 2nd Public Notice as per 30 TAC §39.419(e)(1).

Compliance History Evaluation - 30 TAC Chapter 60 Rules

A compliance history report was reviewed on:	**February 18, 2025**
Site rating & classification:	**4.82 / Satisfactory**
Company rating & classification:	**4.82 / Satisfactory**
Has the permit changed on the basis of the compliance history or rating?	**N/A**
Did the Regional Office have any comments? If so, explain.	**N/A**

Public Notice Information

Requirement	**Date**
Legislator letters mailed	12/16/2024
Date 1st notice published	1/7/2025
Publication Name: **Lone Star Texas Newspaper**	
Pollutants: Carbon monoxide, hazardous air pollutants, hydrogen chloride, hydrogen sulfide, nitrogen oxides, organic compounds, particulate matter including particulate matter with diameters of 10 microns or less and 2.5 microns or less and sulfur dioxide	
Date 1st notice Alternate Language published	1/7/2025
Publication Name (Alternate Language): **La Prensa Comunidad**	
1st public notice tearsheet(s) received	1/9/2025
1st public notice affidavit(s) received	1/9/2025
1st public notice certification of sign posting/application availability received	2/18/2025

Public Interest

Public Interest Information	
Number of comments received	1
Number of meeting requests received	2
Number of hearing requests received	5
Date meeting held	
Date response to comments filed with OCC	
Date of SOAH hearing	

Renewal Requirements

Requirement	
Date of permit expiration:	**01/22/2025**
Date written notice of review was mailed:	**12/08/2023**
Was there a condition of air pollution that had to be addressed during this project review?	**No**
If yes, explain: N/A	
Permit Renewal Fee: $4721.60	

Federal Rules Applicability

Requirement	
Subject to NSPS?	**Yes**
Subparts A, IIII & UU	
Subject to NESHAP?	**No**
Subject to NESHAP (MACT) for source categories?	**Yes**
Subparts **A, ZZZZ** & **AAAAAAA**	

Title V Applicability

Requirement
Title V applicability: N/A, the site is not a major source nor is it an area source subject to Title V.
Periodic Monitoring (PM) applicability: N/A, the site is not a major source nor is it an area source subject to Title V.
Compliance Assurance Monitoring (CAM) applicability: N/A, the site is not a major source nor is it an area source subject to Title V.

Process Description

TAMKO manufactures asphalt roofing shingles and operates two roofing lines. Asphalt roofing manufacturing involves a

series of processes, each of which is outlined in greater detail within the application and project file. In summary, asphalt from the stillyard has mineral filler added in the Filler System, and the resulting coating is applied to fiberglass mat on one of the shingle lines. Additional materials handled elsewhere at the site (granular, limestone, and sand) are added at various points along the roofing lines in order to produce a finished sheet of shingles. A paint line and adhesive sealant is added to the sheet before it is cut into individual shingles and packaged for sale. Other sources of emissions at the site include an emergency generator, fugitive equipment, cooling towers, and MSS. An alternate operating scenario occurs during DFTO downtime where the blowstills are not operating but still contain residual asphalt, the production lines are not operating, and the storage tanks are not being loaded.

Best Available Control Technology (BACT)

The controls are economically reasonable and technically practicable considering the age of the facility and the impact of its emissions on the surrounding area.

Project Scope

The applicant has requested to renew their current NSR authorization. No changes have been requested. Public comments were received during the comment period therefore the renewal certification option is no longer applicable.

Impacts Evaluation - 30 TAC 116.111(a)(2)(J)

Was modeling conducted?	**No**	Type of Modeling:	**N/A**

Is the site within 3,000 feet of any school? No

Additional site/land use information: Surrounding land use is mainly

Project Reviewer	Date	Team Leader	Date
Kristyn Jacher		Joe Nicosia	

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

February 19, 2025

MR JASON WHITE
GENERAL MANAGER
TAMKO BUILDING PRODUCTS LLC
7910 S CENTRAL EXPY
DALLAS TX 75216-4183

Re: Permit Renewal
Permit Number: 4421A
Expiration Date: February 19, 2035
TAMKO Building Products LLC
Asphalt Roofing Manufacturing Plant
Dallas, Dallas County
Regulated Entity Number: RN100664853
Customer Reference Number: CN600124127

Dear Mr. White:

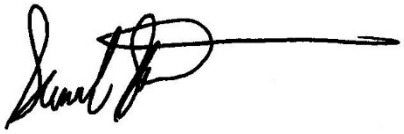
TAMKO Building Products LLC has requested to renew Permit Number 4421A. This letter serves as notice that your application for the above-referenced permit is technically complete as of February 6, 2025.

In accordance with Title 30 Texas Administrative Code Section 116.314(a), Permit Number 4421A is hereby renewed. Enclosed are new general conditions, special conditions, and a maximum allowable emission rates table. This permit will be in effect for ten years from the date this renewal was issued.

Re: Permit Number: 4421A

If you need further information or have any questions, please contact Ms. Kristyn Jacher at (512) 239-1241 or write to the Texas Commission on Environmental Quality, Office of Air, Air Permits Division, MC-163, P.O. Box 13087, Austin, Texas 78711-3087.

Sincerely,



Samuel Short, Deputy Director
Air Permits Division
Office of Air
Texas Commission on Environmental Quality

Enclosure

cc: Manager, Air Pollution Control Program, City of Dallas Office of Environmental Quality, Dallas
Air Section Manager, Region 4 - Dallas/Fort Worth

Project Number: 385195