TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION

APPLICANT

TAMKO Building Products, Inc.
914 Hall Park Drive
Green Cove Springs, Florida 32043

TAMKO Buildings Products

Facility ID No. 0190019

PROJECT

Project No. 0190019-032-AC
Miscellaneous Changes

COUNTY

Clay, Florida

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Air Resource Section
Northeast District Office
7777 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

July 26, 2012

1. GENERAL PROJECT INFORMATION

Air Pollution Regulations

Projects at stationary sources with the potential to emit air pollution are subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The statutes authorize the Department of Environmental Protection (Department) to establish regulations regarding air quality as part of the Florida Administrative Code (F.A.C.), which includes the following applicable chapters: 62-4 (Permits); 62-204 (Air Pollution Control – General Provisions); 62-210 (Stationary Sources – General Requirements); 62-212 (Stationary Sources – Preconstruction Review); 62-213 (Operation Permits for Major Sources of Air Pollution); 62-296 (Stationary Sources - Emission Standards); and 62-297 (Stationary Sources – Emissions Monitoring). Specifically, air construction permits are required pursuant to Rules 62-4, 62-210 and 62-212, F.A.C.

In addition, the U. S. Environmental Protection Agency (EPA) establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). Part 60 specifies New Source Performance Standards (NSPS) for numerous industrial categories. Part 61 specifies National Emission Standards for Hazardous Air Pollutants (NESHAP) based on specific pollutants. Part 63 specifies NESHAP based on the Maximum Achievable Control Technology (MACT) for numerous industrial categories. The Department adopts these federal regulations on a quarterly basis in Rule 62-204.800, F.A.C.

Glossary of Common Terms

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of this permit.

Facility Process Description

The Asphalt Processing/Roofing Manufacturing Facility consist of an Asphalt Roofing Line, (EU 001) that produces mineral surfaced roll roofing and saturated felt (smooth surface roll roofing); and six heaters/burners (EU 004) that may be fueled with No. 2 fuel oil, LPG, or Natural Gas.

Asphalt roofing production includes the coating of fiberglass or organic mats with asphalt, the addition of minerals to the front and rear surface of the coated mats, cooling and drying of the nearly finished products, and product finishing and packing.

Base fiberglass/organic mat is unrolled from the unwind stand on to the dry looper which maintains a constant tension on the mat. When organic mat is used the mat goes to the saturator to be saturated with asphalt. As the mat substrate (fiberglass/organic) passes through the coater, filled asphalt coating at about 355°F - 425°F is released through a valve onto the mat. Squeeze rollers in the coater apply filled coating to the front and back of the mat distributing it evenly to form a thick base coating to which surface materials will adhere. After leaving the coater, the coated material is passed through a surfacing applicator where surfacing materials are fed onto the hot coated surface. The surfacing materials are then pressed into the coatings as the mat passes through an S-drum where it is reversed, exposing the bottom side. Next, backing materials are applied to the back surface and pressed into the mat. After surfacing, the mat is cooled rapidly by water-cooled rolls and/or water sprays and passed through air pressure-operated press rolls used to embed the surface materials firmly onto the filled coating. The mat then passes through a drying section where it is air dried. A finish looper in the line

allows a continuous movement of the sheet through the preceding operations and serves to further cool and dry the roofing sheets.

Solvent and water based paints are used to paint lines on the finished roll roofing products. Roll roofing then moves to a winder where rolls are formed. The finished rolls are then stacked and packaged for shipment.

Facility Regulatory Categories

- The facility is not a major source of hazardous air pollutants (HAP).
- The facility is not a major source of air pollutants, other than HAPs. The facility has no units subject to the acid rain provisions of the Clean Air Act.
- The facility is not a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is not a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Project Description and Location

The proposed work will be conducted at 914 Hall Park Drive, Green Cove Springs, Florida 32043. The facility is an Asphalt Roofing Manufacturing Facility (Standard Industrial Classification No. 2952).

The applicant applied for an air construction permit on June 11, 2012 and submitted supplemental information (received June 20, 2012) to the application requesting 1) Revisions to the silo loading rates for EU 001, EP Nos. 11 and 14 and updating the maximum air flow rate for the baghouse controlling EU 001, EP 13. 2) Changes to EU 001, EP 12 (Asphalt Coater, No. 9A Surge Tank and Mixer) including replacement of the existing fume hood over the coater 3) Replacement of an existing tarpaulin cover frame that currently acts as a capture hood over the Wet Looper Pull Rolls with a more durable frame and sheet metal structure of similar shape. 4) Installation of vertical panels (some are sliding panels) around the slate application area to improve operational efficiency and improve dust capture 5) Installation of vertical panels (some are sliding panels) around the sand application area to improve operational efficiency and improve dust capture. 6) Correcting emission limits for EU 001, EP 01 and EP 12 as determined by the Federal Register of January 9, 2012, reference pg. 1133.

The following table summarizes the existing and proposed silo loading rates, baghouse air flow rate, and corrected PM emission limits for EU 001, EP 01, EP 11, EP 12, EP 13, and EP 14 as requested by the applicant.

EU 001.	Asphalt Roofing Line		
Em. Pts.	Description	Existing Rate	Proposed Rate
EP-11	Limestone Silo (Tank #21) & Truck Unloading controlled by Pneumafil Model PCFH-8 filter	25 TPH	[6]---
EP-14	Mineral Silo (Tank #20) & Truck Unloading controlled by Pneumafil Model PCFH-8 filter	25 TPH	[6]---

EP-13	#10 Mineral Application Section controlled by a Pneumafil Model PCFH-48 filter	4000 CFM	10,000 CFM
EP-1	Saturator & Wet Looper controlled by CVM 90-CTR-12 filter	0.04 kg/Mg (0.08 lb/ton); 2.40 lbs/hr and 10.5 TPY (1) (2) 0.04 kg/Mg (0.08 lb/ton; 12.00 lbs/hr and 52.56 TPY (1) (3)	0.4 kg/Mg (0.8 lb/ton); 2.40 lbs/hr and 10.5 TPY (1) (2) 0.4 kg/Mg (0.8 lb/ton; 12.00 lbs/hr and 52.56 TPY (1) (3)
EP-12	Coater, #9A Surge Tank & #9B Mixer with common filter (CECO CS-16A10-EA)	0.04 kg/Mg (0.08 lb/ton) (5)	0.4 kg/Mg (0.8 lb/ton) (5)

(1) The averaging time for this condition is based on the run time of the specified test method.
(2) Applicable when producing asphalt shingles or mineral-surfaced roll roofing.
(3) Applicable when producing saturated felt or smooth-surfaced roll roofing.
(4) Applicable to each production mode.
(5) PM from the coater EP12 shall be tested and the emissions shall be added to the results of the mineral roll PM test to determine compliance with 40 CFR 60.472(a)(1)(i).
(6) Not rate limited, estimated maximum loading rate is 30 TPH
(1, 2, 3, 4) Emission limit corrected by January 9, 2012 Federal Register, Page 1133

Proposed Work

Silo Loading Rates (EU 001, EP 11 and 14) -- The applicant has requested that the limitation for the silo loading rates be removed. The silos are currently rated at 25 TPH loading rate each. It is estimated that the maximum loading rate is approximately 30 TPH each. There is no basis for limiting the loading rate. The visible emission limiting standard for the silos remains at one per cent opacity in accordance with 40 CFR 60.472(d), Standards of Performance for New Stationary Sources, Subpart UU Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture. The slightly increased loading rate should not affect the ability of the source to remain in compliance with the opacity standard.

Baghouse (EU 001, EP 13) Airflow Rate -- In December 1998 the fan speed was increased on the existing silo dust collector (Pneumafil Model PCFH-48 filter). The correct airflow rate is approximately 10,000 ACFM.

PM emission limits for EU 001, EP 01 and EP 12 -- The PM emission limits for these EPs have been updated to reflect the correct standards as indicated in the Table above. The PM limits were inadvertently transcribed in an amendment to Subpart UU in the October 17, 2000 Federal Register. The January 9, 2012 Federal Register Page 1133 has corrected this error.

Coater Fume Hood -- A new hood will be installed approximately 24 inches higher than the existing hood. This change in elevation will reduce the need for pipes to penetrate the hood. Vertical panels will be installed on the sides of the hood extending down approximately five feet. some of the vertical panels will be installed on sliding tracks to allow them to be opened during lacing and other maintenance activities. The existing fume control unit will remain unchanged. Ducting will only be modified to the extent required to raise the collection hood approximately 24 inches.

Tarpaulin Covered Frame Replacement, Wet Looper Pull Rolls -- The replacement will be constructed with a more durable frame and sheet metal structure of similar shape.

Installation of Vertical Panels Around Slate Application Area -- The slate application process currently utilizes flexible ducts as ventilation located at the points where the dust is produced. In addition to these flexible ducts, vertical panels will be installed around the area. Some of these vertical panels will be installed on sliding tracks allowing them to be opened during lacing and other maintenance activities.

Installation of Vertical Panels Around Sand Application Area -- The current dust control enclosure for the sand application process is enclosed on two sides and top. To improve the capture system vertical panels will be installed on the other two sides. Some of these vertical panels will be installed on sliding tracks allowing them to be opened during lacing and other maintenance activities. The ductwork and dust collector configuration will remain essentially the same as it is currently installed.

2. PSD APPLICABILITY

A. General PSD Applicability

The Department regulates major stationary sources of air pollution in accordance with Florida's PSD preconstruction review program as defined in Rule 62-212.400, F.A.C. A PSD applicability review is required in areas currently in attainment with the state and federal AAQS or areas otherwise designated as "unclassifiable". A facility is considered a major stationary source with respect to PSD if it emits or has the potential to emit: 5 tons per year or more of lead; 250 tons per year or more of any regulated air pollutant; or 100 tons per year or more of any regulated air pollutant and the facility belongs to one of the 28 PSD-major facility categories (fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input, coal cleaning plants (with thermal dryers), Kraft pulp mills, portland cement plants, primary zinc smelters, iron and steel mill plants, primary aluminum ore reduction plants, primary copper smelters, municipal incinerators capable of charging more than 250 tons of refuse per day, hydrofluoric, sulfuric, and nitric acid plants, petroleum refineries, lime plants, phosphate rock processing plants, coke oven batteries, sulfur recovery plants, carbon black plants (furnace process), primary lead smelters, fuel conversion plants, sintering plants, secondary metal production plants, chemical process plants, fossil fuel boilers (or combinations thereof) totaling more than 250 million British thermal units per hour heat input, petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels, taconite ore processing plants, glass fiber processing plants, and charcoal production plants.). Projects at existing or new major stationary sources are subject to PSD preconstruction review. In addition, proposed projects at existing minor sources are subject to PSD preconstruction review if potential emissions *from the proposed project* will exceed the PSD major stationary source thresholds.

Once a project becomes subject to PSD preconstruction review, each PSD pollutant is reviewed for PSD applicability based on emissions thresholds known as the "significant emission rates" defined in Rule 62-210.200, F.A.C. for the following pollutants: carbon monoxide (CO); nitrogen oxides (NO_X); sulfur dioxide (SO_2); particulate matter (PM); particulate matter with a mean particle diameter of 10 microns or less (PM_{10}); volatile organic compounds (VOC); lead (Pb); Fluorides (F); sulfuric acid mist (SAM); hydrogen sulfide (H_2S); total reduced sulfur (TRS), including H_2S; reduced sulfur compounds, including H_2S; municipal waste combustor organics measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans; municipal waste combustor metals measured as particulate matter; municipal waste combustor acid gases measured as SO_2 and hydrogen chloride (HCl); municipal solid waste landfills emissions measured as nonmethane organic compounds (NMOC); and mercury (Hg). Pollutant emissions from the project exceeding these rates are considered "significant" and the applicant must employ the Best Available Control Technology (BACT) to minimize emissions of each such pollutant and evaluate the air quality impacts. Although a facility or project may be *major* with respect to PSD for only one regulated pollutant, it may be required to install BACT controls for several "significant" regulated pollutants.

B. PSD APPLICABILITY REVIEW

Since the facility is not a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality and the modification themselves are not major, the modification is not subject to Rule 62-212.400, F.A.C.

3. APPLICATION REVIEW

Potential to Emit (PTE) Estimation

The modifications will not result in an increase in potential emissions from the facility. It is estimated that the modifications made to the coater, slate application area, and the sand application area will result in enhanced PM capture resulting in reduced unconfined emissions and lower facility wide actual emissions of PM.

Federal NSPS Provisions

No. 1 Asphalt Roofing Line

The unit is subject to New Source Performance Standards (NSPS), Subpart UU—Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacturer. The PM emissions standards have been corrected as indicated above.

Federal NESHAP Provisions

The unit is subjected to 40 CFR 63, Subpart AAAAAAA –National Emission Standard for Hazardous Air Pollutants for Area Source: Asphalt Processing and Asphalt Roofing Manufacturing.

The above referenced subpart is not yet adopted by the State of Florida. All requirements of Subpart AAAAAAA including but not limited to testing, recordkeeping, monitoring, reports, and plans shall be submitted to:

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Air and EPCRA Enforcement Branch
Air Enforcement Section
61 Forsyth Street
Atlanta, Georgia 30303
Telephone: 404/562-9155, Fax: 404/562-9163

State Requirements

The facility is subject to Florida Administrative Code (F.A.C.) Rule 62-297

4. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the draft permit. Jerry Woosley is the project specialist responsible for reviewing the application and drafting the permit. Additional details of this analysis may be obtained by contacting the project specialist at the Northeast District Air Program, 7777 Baymeadows Way West, Suite 100, Jacksonville, Florida 32256.