TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION

APPLICANT

Owens Corning Roofing and Asphalt, LLC
1035 Talleyrand Ave
Jacksonville, Florida 32206
Jacksonville Plant
Facility ID No. 0310050

PROJECT

Project No. 0310050-020-AC
Application for Air Construction Permit
Shingle Surface Modifier Application System

COUNTY

Duval, Florida

PERMITTING AUTHORITY

Florida Department of Environmental Protection
Northeast District Office
Waste and Air Resource Management
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

COMPLIANCE AUTHORITY

Florida Department of Environmental Protection
Northeast District Office
Compliance Assurance
8800 Baymeadows Way West, Suite 100
Jacksonville, Florida 32256

December 30, 2013

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 (FS). 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. The City of Jacksonville (COJ), Jacksonville Environmental Protection Board (JEPB), regularly adopts these state regulations in Rule 2, JEPB.

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, FAC.

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 Description and Location

This facility consists of a manufacturing plant for the production of asphalt and a manufacturing plant for the production of roofing products, including asphalt shingles. The plant processes several types of asphalts with various characteristics such as non-oxidized and oxidized. Regulated emission units include material handling operations, mineral application area (surfacing area), asphalt coater system, asphalt convertors (blowing stills), asphalt and asphalt products storage tanks, and asphalt loading equipment. The facility does not utilize a catalyst in the asphalt blowing process.

The existing facility is located at 1035 Talleyrand Avenue, in Duval County, Fl. UTM Coordinates: Zone 17, 439.5 km East and 3356.2 km North. Latitude: 30º 20` 14.9675" North and Longitude: 81º 37` 48.2012" West.

This site is an area that is in attainment (or designated as unclassifiable) for all pollutants subject to a National Ambient Air Quality Standard (NAAQA).

Facility Regulatory Categories

- The facility **is not** a major source of hazardous air pollutants (HAP).
- The facility **has no** units subject to the acid rain provisions of the Clean Air Act.
- The facility **is 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

The purpose of this permit is to authorize the installation of a Shingle Surface Modifier Application System (EU 046); for the OCRA Jacksonville Plant. Installation includes a 100 gallon mixing tank with a 160 scfm vent , a 100 gallon holding tank, an electric pump, 12 application nozzles, a 300 gallon tote, a use tank (< 300 gal), a slot die applicator, electric pumps, and associated piping and valves. The change in operation also includes a pre-treatment process of the mat prior to asphalt coating.

Proposed Work

Shingle Surface Modifier Application System (EU 046): The permittee is authorized to install and operate (for purposes of testing and unit shakedown) a shingle surface modifier spray application system. Associated equipment includes a 100 gallon mixing tank, a 100 gallon holding tank, an electric pump, 12 application nozzles, a 160 scfm vent at the mixing tank, and associated piping and valves. Base on supplemental information provided by the applicant, the surface modifier contains negligible solids therefore PM emissions will not be created by the process. An estimated 7.51 tpy VOC of emissions which consist primarily of ethanol from working losses associated with mixing and evaporative loss during spray application is expected. A minimal emission of HAP as toluene (0.09 tpy) is expected. Based on data provided by the applicant, Toluene is the only HAP emissions associated with the process.

Pre-Treatment Process The Pre-treatment Process is designed to enhance product quality. Associated equipments include 300 gallon tote, a < 300 gallons use tank, a slot die applicator, two electric pumps, and electrically heated piping. Based on supplemental information provided by the applicant, this process involves the use of non-volatile compounds with low vapor pressure; no emission of any regulated pollutant is expected from the process. Pursuant to Rule 62-4.040(1)(b) of the Florida Administrative Code (F.A.C.) this process is exempt from the requirement to obtain an air construction permit.

Processing Schedule

November 25, 2013 -- Received EPSAP 3647- 1 application for a construction permit.
December 03, 2013 – Confidential Information received.
December 13, 2013 -- Additional Information received.

2. PSD APPLICABILITY

General PSD Applicability

For areas currently in attainment with the state and federal AAQS or areas otherwise designated as unclassifiable, 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, FAC. Under preconstruction review, it must first be determined if a project is subject to the PSD requirements ("PSD applicability review") and, if so, a PSD preconstruction review must be conducted. A PSD applicability review is required for projects at new and existing major stationary sources. In addition, proposed projects at existing minor sources are subject to a PSD applicability review to determine whether potential emissions *from the proposed project itself* will exceed the PSD major stationary source thresholds. 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 following 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.

Once it is determined that a project is subject to PSD preconstruction review, the project emissions are compared to 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 (Fl); 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 non-methane organic compounds (NMOC); and mercury (Hg). In addition, significant emissions rate also means any emissions rate or any net emissions increase associated with a major stationary source or major modification which would construct within 10 kilometers of a Class I area and have an impact on such area equal to or greater than 1 $\mu g/m^3$, 24-hour average.

If the potential emission exceeds the defined significant emissions rate of a PSD pollutant, the project is considered "significant" for the pollutant and the applicant must employ the Best Available Control Technology (BACT) to minimize the emissions 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.

PSD Applicability for Project

The existing facility is not a major stationary source of air pollution for Prevention of Significant Deterioration (PSD) purposes because the potential emissions of PSD air pollutants are less than 250 tons per year pursuant to Rule 62-210.200(194), F.A.C., and Rule 2.301, JEPB. This project is not subject to PSD preconstruction review requirements since the proposed project itself has potential emissions of PSD air pollutants that are less than 250 tons per year pursuant to Rule 62-210.200(194), F.A.C., and Rule 2.301, JEPB. The facility after completion of this project will not be a major stationary source of air pollution for PSD purposes because the potential emissions of PSD air pollutants will be less than 250 tons per year pursuant to Rule 62-210.200(194), F.A.C., and Rule 2.301, JEPB. Therefore, additional Prevention of Significant Deterioration analysis is not required.

Based on the submitted application there will be no increase in production or throughput at the Jacksonville Plant No other emissions units at the facility will be affected by the proposed project therefore there will be no increase in emissions from other emissions units as a result of the installation of the of the new unit.

3. DEPARTMENT OF ENVIRONMENTAL PROTECTION APPLICATION REVIEW

A. Local COJ, JEPB Requirements

The EU shall be subject to the COJ Ordinance Code, Title X, Chapter 360 [Environmental Regulation], Chapter 362 [Air and Water Pollution], Chapter 376 [Odor Control], and JEPB Rule 1 [Final Rules with Respect to Organization, Procedure, and Practice].

The EU shall be subject to JEPB Rule 2, Parts I through VII, and Parts IX through XIV.

B. State Requirements

The Shingle Surface Modifier System (EU 046) is not subject to any unit-specific rule that establishes an emissions standard, however the unit is subject to the General Visible Emissions standard in Rule 62-296.320(4)(b), F.A.C. of less than 20% opacity.

The facility may be required to perform a visible emissions compliance test when the Department believes that the general visible emissions standard is being violated in accordance with Chapter 62-297.310(7)(b), Special Compliance Tests.

Application No. 0310050-020-AC estimates potential VOC emissions of 7.51 TPY and potential HAP emissions of 0.09 TPY.

<u>Emissions Unit (EU) Classification</u>

EU 046 will be classified as unregulated emissions unit in the Title V Operation Permit, Appendix U.

C. NSPS Review

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. This emission unit is not subject to any applicable NSPS Requirements.

D. NESHAP Review

The U. S. Environmental Protection Agency (EPA) establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). 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. This emission unit is not subject any applicable NESHAP Requirements.

4. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project will comply with all applicable local, 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. No air quality modeling analysis is required because the project does not result in a significant increase in emissions. Yasmin K. Enriquez 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 Florida Department of Environmental Protection, Northeast District Office, Waste and Air Resource Management Program, 8800 Baymeadows Way West, Suite 100, Jacksonville, FL 32256, Phone: 904-256-1700.