



**TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION**

APPLICANT

Owens Corning Roofing and Asphalt, LLC
1035 Talleyrand Avenue
Jacksonville, Florida, 32206

Jacksonville Plant
Facility ID No. 0310050

PROJECT

Project No. 0310050-028-AC
Application for Minor Source Air Construction Permit
Asphalt Storage Tank No. 8
New Source Review Reform Project

COUNTY

Duval County, Florida

PERMITTING AUTHORITY

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

July 19, 2018

Commented [RP1]:

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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 Chapters 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 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 Description and Location

The Jacksonville Plant manufactures asphalt and roofing products, including asphalt shingles. The plant manufactures several types of asphalts with various characteristics. Regulated emission units include material handling operations, a mineral application area (surfacing area), an asphalt coater system, asphalt convertors (blowing stills), asphalt and asphalt products storage tanks, and asphalt loading equipment. The facility operates emissions units subject to NSPS and NESHAP standards. Potential to Emit (PTE) facility-wide emissions are more than 250 TPY for at least one criteria pollutant, less than 10 TPY for each Hazardous Air Pollutant (HAP) and less than 25 TPY for total HAPs. This makes the facility a Title V and PSD major source but not a HAP major source. The facility uses add-on control devices that include a fume incinerator, fiber fed filters, and dust collectors.

The Jacksonville Plant is an existing manufacturer of asphalt and roofing products, including asphalt shingles, which is categorized under Standard Industrial Classification Code No. 2952. The existing Jacksonville Plant is located in Duval County at 1035 Talleyrand Avenue in Jacksonville, Florida. The UTM coordinates of the existing facility are Zone 17, 439.5 km East, and 3356.2 km North. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to Ambient Air Quality Standards (AAQS).

Facility Regulatory Categories

- The facility **is not** a major source of hazardous air pollutants (HAP).
- The facility **is** a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The facility **is** a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.
- The facility **does operate** units subject to the NSPS of 40 CFR 60.
- The facility **does operate** units subject to the NESHAP of 40 CFR 63.

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Project Description

This is the final air construction permit, which authorizes the applicant to reconstruct Asphalt Storage Tank No. 8 and install a CECO filter for particulate air pollution control and a 2.5 MMBtu/hr natural gas (NG) fired burner for asphalt heating. The CECO candle filter captures and removes submicron liquid and soluble particulate from process gas streams. With the asphalt tank reconstructed and addition of a control device, Asphalt Storage Tank No. 8 become a regulated emissions unit (EU) subject to New Source Performance Standards (NSPS) Subpart UU - Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture. The 2.5 MMBtu/hr NG fired burner becomes a part of the facility unregulated EU 014 heaters group. Project Potential To Emit (PTE) emissions by pollutant are less than the PSD significant emission threshold by pollutant thereby avoiding PSD permit requirements.

The following Asphalt Storage Tank No. 8 existing emissions unit (EU) becomes a regulated emissions unit by this project.

EU No.	Description
048	Asphalt Storage Tank No. 8

The following new emissions unit, a 2.5 MMBtu/hour natural gas fired heater, becomes included within emission unit (EU 014) that is the facility EU group of unregulated heaters.

EU No.	Description
014	2.5 MMBtu/hr Heater

Processing Schedule

May 7, 2018 Received the application for a minor source air pollution construction permit.

May 10, 2018 Requested additional information.

July 18, 2018 Received additional information; application complete.

2. PSD APPLICABILITY

General PSD Applicability

For areas currently in attainment with the 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, F.A.C. Under preconstruction review, the Department first must determine if a project is subject to the PSD requirements ("PSD applicability review") and, if so, must conduct a PSD preconstruction review. 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:

- 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

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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 (SO₂); particulate matter (PM); particulate matter with a mean particle diameter of 10 microns or less (PM₁₀); particulate matter with a mean particle diameter of 2.5 microns or less (PM_{2.5}); volatile organic compounds (VOC); lead (Pb); fluorides (F); sulfuric acid mist (SAM); hydrogen sulfide (H₂S); total reduced sulfur (TRS), including H₂S; reduced sulfur compounds, including H₂S; 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 SO₂ 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 µg/m³, 24-hour average.

If the potential emission equals or 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

As provided in the application, the following table summarizes potential emissions and PSD applicability for the project. Again, the project consists of Asphalt Storage Tank No. 8 with a CECO filter for particulate air pollution control and a 2.5 MMBtu/hour natural gas burner.

Table 1. Summary of the Applicant’s PSD Applicability Analysis

Pollutant	Annual Emissions, Tons/Year					Is the Project Subject to PSD?
	Baseline Actual	Could Have Accommodated/ Demand Growth	PTE (tank + heater)	Increase	SER/ PSD Threshold	
CO	Not Provided	Not Provided	0.54 + 0.90	1.44	100/250	No
NO _x	Not Provided	Not Provided	0.00 + 1.07	1.07	40/250	No
PM	Not Provided	Not Provided	0.03 + 0.08	0.11	25/250	No
PM ₁₀	Not Provided	Not Provided	0.03 + 0.08	0.11	15/250	No
PM _{2.5}	Not Provided	Not Provided	0.03 + 0.08	0.11	10/250	No
SO ₂	Not Provided	Not Provided	0.01 + 0.01	0.02	40/250	No
VOC	Not Provided	Not Provided	22.13 + 0.06	22.19	40/250	No
H ₂ S	Not Provided	Not Provided	0.52 + 0.00	0.52	10/250	No
a. Baseline actual emissions (BAE) were not provided. b. Potential to Emit (PTE) for each pollutant was based on the following: <i>The asphalt tank PTE emissions were developed from test results of similar tanks. The 2.5 MMBtu/hr (21.47 MMscf/yr) NG heater emission factors used in the application were 84, 100, 0.60 and 5.50 lb/MMscf for CO, NO_x, SO₂ and VOC and 7.6 lb/MMscf each for PM, PM₁₀ and PM_{2.5}; AP-42, Chapter 1.3, Table 1.3-1.</i> c. The increase in emissions from the project is represented by the PTE from the emissions units.						

As shown in the above table, total project emissions will not exceed the PSD significant emissions rates; therefore, the project is not subject to PSD preconstruction review.

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3. DEPARTMENT REVIEW

The applicant proposes to reconstruct Asphalt Storage Tank No. 8, add a CECO filter for particulate air pollution control, and install a 2.5 MMBtu/hr natural gas (NG) fired burner for asphalt heating. With the asphalt tank reconstructed and addition of a control device, Asphalt Storage Tank No. 8 become a regulated emissions unit (EU) subject to New Source Performance Standards (NSPS) Subpart UU - Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture.

Brief Discussion of Emissions

The application submitted for Asphalt Storage Tank No. 8 with operation of the add-on CECO air filter reports Potential To Emit (PTE) CO, NO_x, SO₂, VOC, PM (equal to PM₁₀ and PM_{2.5}), and H₂S air emissions of 1.44, 1.07, 0.02, 22.19, 0.11, and 0.52 tpy, respectively. These PTE emissions are less than the PSD major source significant emission rate (SER) threshold by pollutant.

State Requirements

The project emissions units are regulated by Rules 62-204.800 (Federal Regulations Adopted By Reference), 62-210.200 (PTE), and 62-297.310 (General Emissions Test Requirements), Florida Administrative Code (F.A.C.).

Federal NSPS Provisions

With reconstruction, Asphalt Storage Tank No. 8 becomes subject to NSPS Subpart UU – Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture.

Federal NESHAP Provisions

This project regulated emission units are not the subject of a federal NESHAP requirement.

Other Draft Permit Requirements

This existing emissions unit becomes subject to an initial and annual visible emissions tests by becoming subject to NSPS Subpart UU – Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture. The facility shall evaluate events that could result in the emissions unit exceeding the emissions limit calculations presented by the applicant.

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. No air quality modeling analysis is required because the project does not result in a significant increase in emissions. Pat Ryan is the project engineer responsible for reviewing the application and drafting the permit. Additional details of this analysis may be obtained by contacting the project engineer at the Department's Northeast District Office, 8800 Baymeadows Way West, Suite 100, Jacksonville, Florida 32256, phone (904) 256-1657, or by email Pat.Ryan@dep.state.fl.us.