TECHNICAL EVALUATION

AND

PRELIMINARY DETERMINATION

I. GENERAL INFORMATION

A. APPLICANT

Owens Corning Roofing and Asphalt, LLC
Jacksonville Plant
1035 Talleyrand Avenue
Jacksonville, FL 32206-6019

REVISED DRAFT Permit No.: 0310050-015-AC
County: Duval

B. PROJECT

On August 20, 2010, Owens Corning Roofing and Asphalt, LLC, applied to the Permitting Authority for a permit for the construction of new storage tank No. 44 and the construction of a CECO fiber bed filter to control emissions from Tank No. 44, Asphalt Storage Tank Nos. 15 and 47 (EU 015), Asphalt Storage Tank Nos. 48 and 49 (EU 018), Coating Tank No. 1 (EU 038), Asphalt Storage Tank No. 42 (EU 039), and Storage Tank No. 45 (EU 040). Owens Corning Roofing and Asphalt proposes to replace the existing fiber bed filter controlling emissions from Asphalt Storage Tank Nos. 9 and 10 (EU 017) with a new CECO fiber bed filter.

In addition, Owens Corning Roofing and Asphalt will relocate existing Tank No. 46 next to Tank No. 45 for storage of paving grade asphalt. Asphalt will be transferred into Tank No. 45 from the relocated Tank No. 46. Excess sealant material produced in Tank No. 45 will be stored in the new Tank No. 44. The asphalt and sealant product will be heated in Tanks Nos. 44 and 46. Tank No. 44 will be physically located next to Tank No. 45 as part of this process change.

Owens Corning Roofing and Asphalt, LLC is located at 1035 Talleyrand Avenue, Jacksonville, Duval County, FL 32206-6019.

II. RULE APPLICABILITY

The facility is located in an area designated as unclassifiable for the air pollutants particulate matter less than or equal to ten (10) micrometers, sulfur dioxide, and lead; and in an air quality maintenance area for ozone, and in the area of influence of an air quality maintenance area for particulate matter pursuant to Chapter 62-204. Florida Administrative Code (FAC), and Rule 2.201, Jacksonville Environmental Protection Board (JEPB).

The facility is a major source of air pollution because the potential emissions of regulated air pollutants are greater than 100 tons per year pursuant to Chapter 62-210, FAC, and Rule 2.301, JEPB. Based upon the Title V Air Construction Permit Application received August 20, 2010, this facility is a synthetic minor source of hazardous air pollutants (HAPs) since the use of ferric chloride as a catalyst in the asphalt blowing stills is prohibited, thereby limiting HAP emissions to less than 10 tons per year of a single HAP and to less than 25 tons per year of total HAPs.

Owens Corning Roofing and Asphalt, LLC is proposing to install a CECO fiber bed filter to control exhaust from the storage tanks, thereby allowing the incinerator to only operate when asphalt is being oxidized in the convertors. Emissions from the storage tanks will continue to be controlled by the fume incinerator when the convertors (blowing stills) are operating at the Jacksonville plant. In order for the plant to maintain VOC emissions below 250 tons per year and remain a minor source with respect to the PSD permitting program, the incinerator must operate a minimum of 6,100 hours per year. Owens Corning Roofing and Asphalt, LLC will

maintain records of hours of operation for the incinerator to demonstrate that the incinerator operates at least 6,100 hours per year.

The project shall be subject to the provisions of 40 CFR 60, Subpart UU, Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture and 40 CFR 60, Subpart A, General Provisions, General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited, Rule 62-296.320(2), FAC, and Rule 2.1101, JEPB, General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emission or Organic Solvents (OS) Emissions, Rule 62-296.320(1)(a), FAC, and Rule 2.1101, JEPB, City of Jacksonville 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], JEPB Rule 2, Part Nos. I through VII, and Part Nos. IX through XIV, and Unconfined Emissions of Particulate Matter, Rule 62-296.320(4)(c)1. & 3., FAC, and Rule 2.1101, JEPB

III. TECHNICAL EVALUATION

EU 015 Asphalt Storage Tank Nos. 15 and 47

Emissions from this emission unit are vented to the fume incinerator or CECO fiber bed filter.

This EU shall be allowed to operate continuously, i.e., 8,760 hours per year (hrs/yr).

40 CFR 60, Subpart UU, Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture and 40 CFR 60, Subpart A, General Provisions shall apply to this emission unit.

VE shall be limited to zero (0) percent (%) opacity.

The 0% opacity may be exceeded during one consecutive 15 minute period per 24 hours when the transfer lines are being blown for clearance, provided the control device is not bypassed during this period.

Testing for demonstration of compliance shall be performed in accordance with EPA Reference Method 9 (as described in 40 CFR 60, Appendix A), and the procedures in 40 CFR 60.11, for the visual determination of opacity.

Initial VE testing shall be conducted within 60 days after achieving the maximum production rate at which the EU will operate but no later than 180 days after initial startup of the EU. Initial VE compliance testing shall be conducted for a minimum period of three (3) hours.

The owner/operator shall maintain a file of the temperature monitoring results for at least two years.

Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

Any owner or operator shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR 60 (applicable to these tanks) recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records.

EU 038 Coating Tank No. 1

Emissions from this emission unit are vented to the fume incinerator or CECO fiber bed filter.

This EU shall be allowed to operate continuously, i.e., 8,760 hrs/yr.

40 CFR 60, Subpart UU, Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture and 40 CFR 60, Subpart A, General Provisions shall apply to this emission unit.

VE shall be limited to zero (0) percent (%) opacity.

The 0% opacity may be exceeded during one consecutive 15 minute period per 24 hours when the transfer lines are being blown for clearance, provided the control device is not bypassed during this period.

Testing for demonstration of compliance shall be performed in accordance with EPA Reference Method 9 (as described in 40 CFR 60, Appendix A), and the procedures in 40 CFR 60.11, for the visual determination of opacity.

Initial VE testing shall be conducted within 60 days after achieving the maximum production rate at which the EU will operate but no later than 180 days after initial startup of the EU. Initial VE compliance testing shall be conducted for a minimum period of three (3) hours.

The owner/operator shall maintain a file of the temperature monitoring results for at least two years.

Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

Any owner or operator shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR 60 (applicable to these tanks) recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records.

EU 039 Asphalt Storage Tank No. 42

Kb does not apply to Emissions Unit No. 039, Asphalt Storage Tank No. 42 (See Below)

Gross Volume of Tank No. 42

35,188 Gallons = 133.20 m^3

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES
Subpart Kb—Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

§ 60.110b Applicability and designation of affected facility.
(a) Except as provided in paragraph (b) of this section, the affected facility to which this subpart applies is each storage vessel with a capacity greater than or equal to 75 cubic meters (m^3) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.
(b) This subpart does not apply to storage vessels with a capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) or with a capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure less than 15.0 kPa.

75 m^3 = 19,812.90 Gallons
151 m^3 = 39,889.98 Gallons

The true vapor pressure (psia) is calculated using the following formula:

V_p = 10^(Vp-alpha*(log(daily average liquid surface temperature))+vp-beta)/51.7

For oxidized finished product:

Alpha = Slope of the line
Beta = Intercept

V_p (psia) = 10^(7.0607*(log(440 F))+(-16.9570))/51.7

$$V_p = \frac{10^{[(7.0607 \times (\log 440) - (16.9570)]}}{51.7}$$

$$V_p = \frac{10^{[(7.0607 \times (2.6435) - (16.9570)]}}{51.7}$$

$$V_p = \frac{10^{[(18.6650 - 16.9570)]}}{51.7}$$

$$V_p = \frac{10^{1.708}}{51.7}$$

$$V_p = \frac{51.0505}{51.7}$$

V_p = 0.9874 = 0.99 psia

0.99 psia = 6.83 kPa

Emissions from this emission unit are vented to the fume incinerator or CECO fiber bed filter.

This EU shall be allowed to operate continuously, i.e., 8,760 hrs/yr.

40 CFR 60, Subpart UU, Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture; and 40 CFR 60, Subpart A, General Provisions shall apply to this emission unit.

VE shall be limited to zero (0) percent (%) opacity

The 0% opacity may be exceeded during one consecutive 15 minute period per 24 hours when the transfer lines are being blown for clearance, provided the control device is not bypassed during this period.

Testing for demonstration of compliance shall be performed in accordance with EPA Reference Method 9 (as described in 40 CFR 60, Appendix A), and the procedures in 40 CFR 60.11, for the visual determination of opacity.

Initial VE testing shall be conducted within 60 days after achieving the maximum production rate at which the EU will operate but no later than 180 days after initial startup of the EU. Initial VE compliance testing shall be conducted for a minimum period of three (3) hours.

The owner/operator shall maintain a file of the temperature monitoring results for at least two years.

Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

Any owner or operator shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR 60 (applicable to these tanks) recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records.

EU 040 Asphalt Storage Tank No. 46

Emissions from this emission unit are vented to the fume incinerator or CECO fiber bed filter.

This EU shall be allowed to operate continuously, i.e., 8,760 hrs/yr.

40 CFR 60, Subpart UU, Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture; and 40 CFR 60, Subpart A, General Provisions shall apply to this emission unit.

VE shall be limited to zero (0) percent (%) opacity.

The 0% opacity may be exceeded during one consecutive 15 minute period per 24 hours when the transfer lines are being blown for clearance, provided the control device is not bypassed during this period.

Testing for demonstration of compliance shall be performed in accordance with EPA Reference Method 9 (as described in 40 CFR 60, Appendix A), and the procedures in 40 CFR 60.11, for the visual determination of opacity.

Initial VE testing shall be conducted within 60 days after achieving the maximum production rate at which the EU will operate but no later than 180 days after initial startup of the EU. Initial VE compliance testing shall be conducted for a minimum period of three (3) hours.

The owner/operator shall maintain a file of the temperature monitoring results for at least two years.

Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

Any owner or operator shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR 60 (applicable to these tanks) recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records.

EU 043 Storage Tank Nos. 44 and 45

Emissions from this emission unit are vented to the fume incinerator or CECO fiber bed filter.

This EU shall be allowed to operate continuously, i.e., 8,760 hrs/yr.

40 CFR 60, Subpart UU, Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture; and 40 CFR 60, Subpart A, General Provisions shall apply to this emission unit.

The total potential production rate for laminate-adhesive and sealant products shall not exceed 12,000 tons/yr.

VE shall be limited to zero (0) percent (%) opacity.

The 0% opacity may be exceeded during one consecutive 15 minute period per 24 hours when the transfer lines are being blown for clearance, provided the control device is not bypassed during this period.

Testing for demonstration of compliance shall be performed in accordance with EPA Reference Method 9 (as described in 40 CFR 60, Appendix A), and the procedures in 40 CFR 60.11, for the visual determination of opacity.

Initial VE testing shall be conducted within 60 days after achieving the maximum production rate at which the EU will operate but no later than 180 days after initial startup of the EU. Initial VE compliance testing shall be conducted for a minimum period of three (3) hours.

The owner/operator shall maintain a file of the temperature monitoring results for at least two years.

Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

Any owner or operator shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR 60 (applicable to these tanks) recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records.

IV. CONCLUSION

Based upon information provided by Owens Corning Roofing and Asphalt, LLC, the Permitting Authority has reasonable assurance that the construction of new storage tank No. 44, the construction of a CECO fiber bed filter to control emissions from Tank No. 44 and several existing tanks, the replacement of the existing fiber bed filter controlling emissions from Asphalt Storage Tank Nos. 9 and 10 (EU 017) with a new CECO fiber bed filter, the changes to Tank Nos. 45 and 46, as described in the application and subject to the conditions proposed herein, will not cause, or contribute to a violation of any ambient air quality standard or other technical provision of Chapters 62-296 and 62-297, FAC, Rules 2.1001 and 2.1101, JEPB.