

GOVERNMENT OF THE DISTRICT OF COLUMBIA
Department of Energy and Environment

**FACT SHEET AND STATEMENT OF BASIS
FOR PROPOSED PERMITTING ACTION
UNDER 20 DCMR 300 (TITLE V-OPERATING PERMIT PROGRAM)**

This "Fact Sheet and Statement of Basis" has been prepared pursuant to 20 DCMR 303.1(c) and 40 CFR 70.7(a)(5).

PERMIT NO. 048

APPLICANT AND PERMITTEE:

Roubin & Janeiro Inc.
15441 Farm Creek Drive
Woodbridge, VA 20018

FACILITY LOCATION:

Roubin & Janeiro Inc.
Hot Mix Asphalt Plant
4901 Shepherd Parkway SW
Washington, DC 20032

FACILITY DESCRIPTION:

Roubin & Janeiro Inc. operates an asphalt plant in the District of Columbia producing hot mix asphalt for the paving and construction industries. The plant is located at 4901 Shepherd Parkway SW, Washington DC.

As background, Roubin & Janeiro previously owned and operated an asphalt plant at 40 P Street SE that operated under Title V permit #036. However this plant shut down in the mid-2000s. In April 2011, they were issued Chapter 2 permit #6363 to construct a new facility at 4901 Shepherd Parkway SW. A permit to operate was issued on January 29, 2014 (#6363-O). This permit was renewed on April 15, 2014 (#6363-R1). Additionally, on June 23, 2016, the applicant submitted applications to operate a McCloskey 144R impactor crusher and a McCloskey ST80T stacking conveyor at the site. These were initially covered by a source category permit. Subsequently, permit numbers 7044 and 7045 were issued on February 9, 2016 for the two units, respectively.

The applicant submitted a Chapter 3 (Title V) permit application on January 28, 2015 to cover all operations at the facility. A significant update to this application updating and correcting emission calculations was submitted on October 8, 2015. This permitting action is to address

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this Title V application.

The emission sources related to plant operation at this site consist of: a 225 ton per hour continuous drum-mix asphalt plant (different from traditional drum-mix plants in that the mixer drum is separated from the dryer drum) with a 75 million Btu per hour (MMBtu/hr) Hauck Manufacturing Co., Model ES57-11 dual fuel-fired burner; a 1.41 MMBtu/hr dual fuel-fired oil heater; a baghouse for operational emissions; a McCloskey 144 R impactor crusher powered by a 350 horsepower Caterpillar engine; a McCloskey ST80T stacking conveyor powered by a 49 horsepower Caterpillar engine; various storage piles of rock and asphalt, a small silo of mineral filler; two 20,000 gallon storage tanks for liquid asphalt; one 1,000 gallon storage tank of an “anti-strip” agent; and one 10,000 gallon tank of No. 2 fuel oil. The Permittee is covered under Standard Industrial Classification (SIC) Code 2951.

This facility includes emission units that are physically capable of operating twenty-four (24) hours per day, seven (7) days per week, and fifty-two (52) weeks per year. However the Chapter 2 permits for the facility have established limits on this operation that are being transferred into the Chapter 3 permit that is the subject of this memorandum.

EMISSIONS SUMMARY:

The following table provides a list of the estimated maximum emissions the facility could emit at a maximum allowable production of 800,000 tons per year of asphalt and 1,500 hours per year of operation of the crusher and conveyor, under the terms of the permit and given the physical and operational design of the equipment at the facility.

Plantwide Emissions Summary (tons per year)	
Pollutant	Potential Emissions
Sulfur Dioxide (SO ₂)	7.70
Oxides of Nitrogen (NO _x)	24.2
Total Particulate Matter (PM total)	21.0
Volatile Organic Compounds (VOCs)	13.6
Carbon Monoxide (CO)	53.2
Total Hazardous Air Pollutants (HAPs)	3.02

BASIS OF 20 DCMR CHAPTER 3 (TITLE V) APPLICABILITY:

This facility has the potential to emit more than 25 tons per year of oxides of nitrogen (NO_x) if the facility operated twenty-four (24) hours per day, seven (7) days per week, and fifty-two (52) weeks per year. The facility originally took a maximum asphaltic concrete production limit of 811,350 tons per year in the original Chapter 2 permit for the hot mix asphalt plant to avoid Non-attainment New Source Review (NNSR) applicability. In the original Title V application, dated

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January 27, 2015, the applicant indicated a need for a 700,000 ton per year asphaltic concrete production limit. However in an amendment to that application dated October 8, 2015, the applicant indicated a need for an asphaltic concrete production limit of 800,000 tons per year and maximum limits of 1,500 hours of operation of the crusher and conveyor per year to stay below the 25 ton per year major source and NNSR applicability threshold. With this limit of production and hours of operation, the plant-wide potential to emit for NO_x remained below the 25 tpy threshold. This kind of source would normally qualify as a synthetic minor, but the District of Columbia does not currently have a synthetic minor program. As such, pursuant to 20 DCMR 300.1(a), the source is subject to Chapter 3 and must obtain an operating permit in accordance with that regulation and Title V of the federal Clean Air Act. It is likely that a future regulatory change will allow this facility to be re-classified as a synthetic minor source, but such a regulation is not in effect at this time.

LEGAL AND FACTUAL BASIS FOR DRAFT PERMIT CONDITIONS:

The conditions contained in the Title V operating permit are based on underlying requirements of 20 DCMR as well as various federal regulations promulgated pursuant to the federal Clean Air Act. The regulations that are the basis of each condition are cited in the permit, except that conditions added to make another condition, with a direct underlying regulation, enforceable as a practical matter may, in some cases, not have a specific citation. These latter, un-cited conditions generally consist of monitoring, record keeping, and reporting requirements authorized under 20 DCMR 500.1.

The permit has been developed to incorporate the requirements of all applicable requirements as defined in 20 DCMR 399.1 along with additional conditions necessary to make all such requirements enforceable as a practical matter.

Any condition of the draft Title V Permit that is enforceable by the District but is not federally-enforceable is identified in the Title V permit as such with an asterisk.

It should also be noted that this permit will be issued to include updated requirements established pursuant to 20 DCMR Chapter 2. As such, it will be issued for public notice as a merged permit under the authority of both Chapters 2 and 3.

REGULATORY REVIEW:

This facility has been found to be subject to the requirements of the following regulations, except as noted in the discussion below:

Federal and District Enforceable:

20 DCMR Chapter 1 - General Rules

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- 20 DCMR Chapter 2 - General and Non-Attainment Area Permits
- 20 DCMR Chapter 3 - Operating Permits and Acid Rain Programs
- 20 DCMR 500 - Records and reports
- 20 DCMR 502 - Sampling, tests, and measurements.
- 20 DCMR 600 - Fuel burning particulate emission.
- 20 DCMR 604 - Open Burning
- 20 DCMR 605 - Control of Fugitive Dust
- 20 DCMR 606 - Visible Emissions
- 20 DCMR 800 - Control of Asbestos
- 20 DCMR 801 - Sulfur Contents of Fuel Oils
- 20 DCMR 803 - Sulfur Process Emissions
- 20 DCMR 805 - Reasonably Available Control Technology for Major Stationary Sources of the Oxides of Nitrogen
- 40 CFR 60, Subpart I - Standards of Performance for Hot Mix Asphalt Facilities
- 40 CFR 60, Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels
- 40 CFR 61.12 - Credible Evidence
- 40 CFR 64 - Compliance Assurance Monitoring (CAM)

District Enforceable Only:

- 20 DCMR 402 - Chemical Accident Prevention
- 20 DCMR 900 - Onroad Engine Idling and Nonroad Diesel Engine Idling
- 20 DCMR 901 - Vehicular Exhaust Emissions.
- 20 DCMR 902 - Lead Content of Gasoline
- 20 DCMR 903 - Odorous or Other Nuisance Air Pollutants.

20 DCMR Chapter 2: General and Non-Attainment Area Permits:

Because the facility has stationary equipment that emits air pollutants, it is subject to Chapter 2 permitting requirements. Chapter 2 permit No. 6363-R1 was issued to this facility on April 15, 2014 for the hot mix asphalt plant. Chapter 2 permit Nos. 7044 and 7045 were issued in February 9, 2016 for a crusher and a conveyor. The conditions of the Title V permit will supersede the previous Chapter 2 permit conditions, but incorporates all of the applicable requirements identified in the Chapter 2 permits.

Of particular note is a change in the allowable reclaimed (recycled) asphalt product (RAP) percent allowed to be processed in the equipment. The allowable percent is increasing from 20% to 50% by weight based on information the Department has received indicating that RAP use in this type of equipment generally only increases VOC emissions slightly and likely decreases particulate matter emissions. Stack testing was performed at 45% RAP and found to meet all established emission limits. Previously, AQD had approved operations at 45% RAP, but in order to be consistent with another facility in the District, is proposing to approve a 50% RAP standard in this permit. Because there is no specific VOC emission limit, further stack testing would be of

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minimal additional assistance. Roubin & Janeiro Inc. has been notified, however, that if the increased RAP percentage results in odor violations resulting from VOC emissions, this condition may be revisited.

20 DCMR Chapter 6: Particulates

One of the primary pollutants from an asphalt plant operation is particulate matter from the dryer. Also, fugitive dust from material handling or other industrial-type operation is frequent therefore Chapter 6 requirements are applicable. Associated emission limits are found in Conditions III(a)(1)(A), (D), (E), (G) and (H). Operational limits are found in Conditions III(a)(2)(E), (F), and (G).

20 DCMR Chapter 7: Volatile Organic Compound Emissions Reduction

Chapter 7 requirements are not applicable to this facility as there are no applicable sections.

20 DCMR Chapter 8: Asbestos, Sulfur, Nitrogen Oxides, and Lead

20 DCMR 801 is applicable. Use of fuel oil with a sulfur content of greater than 1% is prohibited. Additionally, recent updates to this regulation tightening the sulfur content requirements over time have been incorporated into Condition II(f) of the permit.

It should be noted that, because the facility has taken limits to their NO_x emissions to keep them below 25 tons per year, 20 DCMR 805 (NO_x RACT) is not applicable to the equipment, and has therefore not been incorporated into the permit.

Greenhouse Gas (GHG) Requirements:

Because Chapter 3 (Title V) was triggered by other pollutants, no evaluation was made to determine if the facility would trigger Title V applicability under the GHG Tailoring Rule. No modifications have been made to the source that would trigger PSD applicability under the GHG Tailoring Rule (which has been overturned by the courts in any case). Other than this requirement, there are no other applicable requirements related to GHGs at this time, therefore none were included in the permit.

40 CFR 60, Subpart I – Standards of Performance for Hot Mix Asphalt Facilities

This regulation is applicable as this facility meets the definition of a hot mix asphalt facility and it commenced construction or modification after June 11, 1973. The 0.03 gr/dscf emission limit has been streamlined with that of 20 DCMR 603.1 and can be found in Condition III(a)(1)(A)(ii) of the permit. The 20% opacity limit can be found in Condition III(a)(1)(E).

Testing requirements required by this subpart and the referenced 40 CFR 60.8 can be found in Condition III(a)(3)(J).

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40 CFR 60, 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

Per 40 CFR 60.110b(b), this subpart is applicable to storage vessels with a capacity greater than or equal to 75 m³ but less than 151 m³ storing a liquid with a maximum true vapor pressure less than 15.0 kPa. Only the two 20,000 gallon liquid asphalt tanks are larger than 75 m³ (75.7 m³). Per the Antoine's equation in AP-42 (page 11.1-9), the vapor pressure at 453 K (180°C) (a typical maximum storage temperature) is 2.08 mmHg (0.277 kPa), well below the 15.0 kPa threshold of applicability. Thus, this subpart is not applicable.

40 CFR Parts 61 and 63 – National Emission Standards for Hazardous Air Pollutants (NESHAPs)

There are no Part 61 or 63 NESHAPs applicable to this facility.

40 CFR 64 – Compliance Assurance Monitoring (CAM)

The requirements of 40 CFR 64 to develop a Compliance Assurance Monitoring (CAM) Plan is applicable to this facility because the asphalt plant cannot achieve compliance without the use of the control device (the baghouse) for compliance. A CAM plan was submitted by the Permittee in 2010 as part of the Chapter 2 permitting process. However, some aspects of this plan were not fully consistent with the requirements of 40 CFR 64. As such, significant revisions to the plan were made by the Department and incorporated into Condition III(b) of the permit.

COMMENT PERIOD:

Beginning Date: May 27, 2016

Ending Date: June 27, 2016

All written comments should be addressed to the following individual and office:

Stephen S. Ours, P.E.
Chief, Permitting Branch
Department of Energy and Environment
Air Quality Division
1200 First Street NE, 5th Floor
Washington, DC 20002

PROCEDURE FOR REQUESTING PUBLIC HEARING:

During the public comment period any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for a public hearing shall be in writing and shall state the nature of the issues proposed

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to be raised in the hearing. The District shall grant such a request if it is deemed appropriate. The venue, date, and time for any public hearing shall be announced in the District Register and a daily newspaper.

POINT OF CONTACT FOR INQUIRIES:

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REVIEWS:

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