

# PERMIT BOOK

## STATE OF MISSOURI



### DEPARTMENT OF NATURAL RESOURCES

#### MISSOURI AIR CONSERVATION COMMISSION

### PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number:

082010-007

Project Number: 2010-04-016

Installation ID: PORT-0668

Parent Company:

Asphalt Recycling Concepts, LLC

Parent Company Address: 600 Riverside Road, St. Joseph, MO 64502

Installation Name:

Asphalt Recycling Concepts, LLC

Installation Address:

6105 N.W. Riverpark Dr., Riverside, MO 64152

Location Information:

Platte County, S6, T50N, R33W

Application for Authority to Construct was made for:

A new portable asphalt shingles crushing plant. This review was conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

Standard Conditions (on reverse) are applicable to this permit.

Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

AUG 19 2010

EFFECTIVE DATE

A handwritten signature in black ink, appearing to read "John L. Kwan".

DIRECTOR OR DESIGNEE  
DEPARTMENT OF NATURAL RESOURCES

## STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

**You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review.** In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Departments' Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available within 30 days of actual startup. Also, you must notify the Department of Natural Resources Regional office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.

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**GENERAL SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

*The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."*

1. **Equipment Identification Requirement**  
Asphalt Recycling Concepts, LLC shall maintain easily read permanent markings on each component of the plant. These markings shall be the equipment's serial number or a company assigned identification number that uniquely identifies the individual component. These identification numbers must be submitted to the Air Pollution Control Program no later than 15 days after start-up of the portable crushing plant.
2. **Relocation of Portable Asphalt Shingles Crushing Plant**
  - A. The portable crushing plant, PORT-0668, shall not be operated at any location longer than twenty-four (24) consecutive months.
  - B. A complete "Portable Source Relocation Request" application must be submitted to the Air Pollution Control Program prior to any relocation of this portable crushing plant.
    - 1) If the portable crushing plant is moving to a site previously permitted, and if the circumstances at the site have not changed (e.g. the site was only permitted for solitary operation and now another plant is located at the site), then the application must be received by the Air Pollution Control Program at least seven days prior to the relocation.
    - 2) If the portable crushing plant is moving to a new site, or if circumstances at the site have changed, then the application must be received by the Air Pollution Control Program at least 21 days prior to the relocation. The application must include written notification of any concurrently operating plants.
3. **Record Keeping Requirement**  
Asphalt Recycling Concepts, LLC shall maintain all records required by this permit for not less than five years and shall make them available to any Missouri Department of Natural Resources' personnel upon request.
4. **Reporting Requirement**  
Asphalt Recycling Concepts, LLC shall report to the Air Pollution Control Program Enforcement Section P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedances of the limitations imposed by this permit.

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**SITE SPECIFIC SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

*The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."*

PORT ID Number: PORT-0668

Site ID Number: 165-0038

Site Name: Riverside Composting and Recycling

Site Address: 6105 N.W. Riverpark Dr. Riverside, MO 64152

Site County: Platte S6, T50N, R33W

1. Best Management Practices Requirement  
Asphalt Recycling Concepts, LLC shall control fugitive emissions from all of the haul roads and vehicular activity areas at this site by performing Best Management Practices as defined in Attachment AA.
2. Ambient Air Impact Limitation
  - A. Asphalt Recycling Concepts, LLC shall not cause an exceedance of the National Ambient Air Quality Standard (NAAQS) for particulate matter less than ten microns in aerodynamic diameter (PM<sub>10</sub>) of 150.0 µg/m<sup>3</sup> 24-hour average in ambient air.
  - B. Asphalt Recycling Concepts, LLC shall demonstrate compliance with special condition 2.A using Attachment A or Attachment B or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form. Asphalt Recycling Concepts LLC shall account for the impacts from other sources of PM<sub>10</sub> as instructed in Attachment A and B.
  - C. Asphalt Recycling Concepts LLC is exempt from the requirements of special condition 2.B when no other plants are at this site and when only plants owned by other companies are located at this site.
3. Operational Limitations
  - A. Asphalt Recycling Concepts, LLC shall not process any material other than asphalt shingles while operating at this site.
  - B. Asphalt Recycling Concepts, LLC shall not crush or grind any asphalt shingles containing asbestos.
  - C. The asphalt shingles processed by the portable plant shall be limited to manufactured shingle wastes, which includes out of spec or damaged shingles; residential shingles and residential roof tear off shingles.

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**SITE SPECIFIC SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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- D. The use of non-residential roof tear off is not permitted. Any unidentified asphalt shingles shall be rejected. Any shingles suspected of containing asbestos shall be rejected. All visible materials not part of the shingle, including but not limited to extra wood, paper, metals and plastics shall be removed before grinding and shall not have been in contact with any hazardous substances.
  
- 4. **Minimum Distance to Property Boundary Requirement**  
The primary emission point shall be located at least 300 feet from the nearest property boundary.
  
- 5. **Primary Equipment Requirement**  
Asphalt Recycling Concepts, LLC shall process all shingles through the primary crusher. Bypassing the primary crusher is prohibited.
  
- 6. **Record Keeping Requirement**  
Asphalt Recycling Concepts, LLC shall maintain all records required by this permit for not less than five years and make them available to any Missouri Department of Natural Resources personnel upon request.
  
- 7. **Reporting Requirement**  
Asphalt Recycling Concepts LLC shall report to the Air Pollution Control Program Enforcement Section P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedances of the limitations imposed by this permit.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE  
SECTION (6) REVIEW

Project Number: 2010-04-016

Installation ID Number: PORT-0668

Permit Number:

Asphalt Recycling Concepts, LLC  
6105 N.W. Riverpark Dr.  
Riverside, MO 64152

Complete: April 5, 2010

Parent Company:  
Asphalt Recycling Concepts, LLC  
600 Riverside Road  
St. Joseph, MO 64502

Platte County, S6, T50N, R33W

PROJECT DESCRIPTION

Asphalt Recycling Concepts, LLC has applied for authority to construct a portable asphalt shingles grinding plant. The plant has a maximum hourly design rate of 100 tons per hour and will be powered by a diesel engine/generator rated at 630 brake horsepower (bhp). The initial site of the portable plant will be a landfill owned and operated by Riverside Composting and Recycling located in Platte County (S6, T50N, R33W). The plant will be grinding residential asphalt shingles and is not permitted to grind any shingles that contains asbestos. There is another portable rock crushing plant, PORT-0527, owned by Riverside Composting and Recycling, operating at the site and it is required, in its own permit, to relocate to another site on or before September 13, 2011.

The portable crushing plant, PORT-0668, is permitted to crush only asphalt shingles at this location. If the facility decides that it would like to crush other material, such as aggregates, at this site, a new permit review will be required.

The applicant will use one of the methods described in Attachment AA, "Best Management Practices," to control emissions from haul roads and vehicular activity areas. This installation will initially be located in Platte County, a maintenance area for ozone and an attainment area for all other criteria pollutants. This installation is not on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. The installation's major source level is 250 tons per year and fugitive emissions are not counted toward major source applicability.

Subpart IIII, "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines," of the New Source Performance Standards (NSPS) applies to stationary engines purchased after July 11, 2005 and manufactured after April 1, 2006, and Subpart ZZZZ, "National Emissions Standards for Hazardous Air Pollutants Stationary Reciprocating Internal Combustion Engines," of the Maximum Achievable Control Technology (MACT) applies to stationary engines if the facility commences construction of the engine after June 12, 2006. Since the engine used by this facility is purchased and

manufactured in 2010, the applicability of the subparts would depend on whether this engine can be classified as a stationary or mobile (nonroad) engine. 40 CFR Part 89 describes an engine as a nonroad engine if it is designed to be portable and if it does not stay at a single location for more than twelve (12) consecutive months. The facility should be aware that if it ever stays at a single location for more than twelve (12) consecutive months, it will become subject to Subpart IIII of the NSPS and Subpart ZZZZ of the MACT.

## TABLES

The table below summarizes the emissions of this project. The potential emissions of the process equipment, which excluded emissions from haul roads and wind erosion, are site specific and should not vary from site to site. The existing actual emissions are not applicable (N/A) because the plant is new. The potential emissions of the application represent the emissions of all equipment and activities assuming continuous operation (8760 hours per year).

**Table 1: Emissions Summary (tons per year)**

Air Pollutant	De Minimis Level	<sup>1</sup> Potential Emission of Process Equipment	Existing Actual Emissions	<sup>2</sup> Potential Emissions of the Application	Conditioned Potential Emissions
PM <sub>10</sub>	15.0	1.45	N/A	21.35	N/A
SO <sub>x</sub>	40.0	1.01	N/A	1.01	N/A
NO <sub>x</sub>	40.0	64.17	N/A	64.17	N/A
VOC	40.0	1.64	N/A	1.64	N/A
CO	100.0	17.05	N/A	17.05	N/A
Total HAPs	25.0	0.03	N/A	0.03	N/A

N/A = Not Applicable

<sup>1</sup>Excludes site specific haul road and storage pile emissions

<sup>2</sup>Includes site specific haul road and storage pile emissions

**Table 2: Ambient Air Quality Impact Analysis**

Pollutant	<sup>1</sup> NAAQS/ RAL (µg/m <sup>3</sup> )	Averaging Time	<sup>2</sup> Maximum Modeled Impact (µg/m <sup>3</sup> )	Limited Impact (µg/m <sup>3</sup> )	Background (µg/m <sup>3</sup> )	<sup>3</sup> Daily Limit (tons/day)
<sup>4</sup> PM <sub>10</sub> (same)	150.0	24-hour	11.62	11.62	20.0	2,400
<sup>5</sup> PM <sub>10</sub> (separate)	150.0	24-hour	N/A	N/A	116.12	N/A
NO <sub>x</sub>	100	Annual	30.57	30.57	N/A	N/A

<sup>1</sup>National Ambient Air Quality Standards (NAAQS) and Risk Assessment Level (RAL)

<sup>2</sup>Modeled impact at maximum capacity with controls

<sup>3</sup>Indirect limit based on compliance with NAAQS.

<sup>4</sup>Solitary operation or operation with other plants that are owned by Asphalt Recycling Concepts, LLC

<sup>5</sup>Operation with other plants that are not owned by Asphalt Recycling Concepts, LLC

The plant's diesel engine/generator was modeled using the SCREEN3 screen modeling software. The stack characteristic entered into the modeled are listed in Table 3.

**Table 3: SCREEN3 Input Parameters**

Equipment Description	Stack Height (m)	Stack Inside Diameter (m)	Stack Gas Exit Velocity (m/s)	Stack Gas Exit Temperature (K)	Dispersion Coefficient
Diesel Engine/Generator	2.53	0.31	28.00	795.4	Rural

### EMISSIONS CALCULATIONS

Emissions for the project were calculated using emission factors found in the United States Environmental Protection Agency (EPA) document AP-42 *Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources*, Fifth Edition (AP-42).

Emissions from the crushing equipment were calculated using emission factors from AP-42 Section 11.19.2, "Crushed Stone Processing and Pulverized Mineral Processing," August 2004. The controlled emission factors were used because the equipment will crush asphalt shingles and the liquid oil contained in the shingles would act as a dust suppressant during crushing and conveying.

Emissions from the diesel engines/generators were calculated using emission factors from AP-42 Section 3.3, "Gasoline and Diesel Industrial Engines," October 1996. Emissions from haul roads and vehicular activity areas were calculated using the predictive equation from AP-42 Section 13.2.2 "Unpaved Roads," November 2006. A 90% control efficiency is applied to the emission calculations for the use of BMPs. Emissions from load-in and load-out of storage piles were calculated using the predictive equation from AP-42 Section 13.2.4. The moisture content of the storage pile was assumed to be 1.5% by weight because of the inherent oil content of the recycled asphalt. Emissions from wind erosion of storage piles were calculated using an equation found in the Air Pollution Control Program's Emissions Inventory Questionnaire Form 2.8 "Storage Pile Worksheet."

### AMBIENT AIR QUALITY IMPACT ANALYSIS

An ambient air quality impact analysis (AAQIA) was performed to determine the impact of the pollutants listed in Table 3. The Air Pollution Control Program requires an AAQIA of PM<sub>10</sub> for all asphalt, concrete and rock-crushing plants regardless of the level of PM<sub>10</sub> emissions if a permit is required. An AAQIA is required for other pollutants if their emissions exceed their respective de minimis or screening model action level (SMAL). The AAQIA was performed using the Air Pollution Control Program's generic nomographs and, when appropriate, the EPA modeling software SCREEN3. For each pollutant that was modeled, the maximum concentration that occurs at or beyond the site boundary was compared to the National Ambient Air Quality Standard (NAAQS) or Risk Assessment Level (RAL) for the pollutant. If during continuous operation the modeled concentration of a pollutant is greater than the applicable NAAQS or RAL, the plant's production is limited to ensure compliance with the standard. In cases where the plant is providing material for a highway project, the ambient impact is evaluated in accordance with a memorandum issued by the Air Pollution Control Program titled "Permitting Asphalt/Concrete Plants for Temporary Highway Projects," dated April 10, 2000.

This memorandum states that air quality should be analyzed at the nearest residence or location where the public could reasonably be expected to be found instead of all ambient air. This practice generally allows for a less restrictive daily production level while protecting the public.

This plant uses BMPs to control emissions from haul roads and vehicular activity areas, so emissions from these sources were not included in the AAQIA. Instead they were addressed as a background concentration of  $20 \mu\text{g}/\text{m}^3$  of  $\text{PM}_{10}$  in accordance with the Air Pollution Control Program's BMPs interim policy.

### OPERATING SCENARIOS

The plant is permitted to operate with other plants located at the site as long as the NAAQS is not exceeded. The following scenarios explain how Asphalt Recycling Concepts, LLC shall demonstrate compliance with the NAAQS.

- When plants that are owned by Asphalt Recycling Concepts, LLC, which are referred to as same owner plants, are located at the site, Asphalt Recycling Concepts, LLC must calculate the daily impact of each plant and limit the total impact of all plants below the NAAQS.
- When plants that are not owned by Asphalt Recycling Concepts, LLC, which are referred to as separate owner plants, are located at the site, Asphalt Recycling Concepts, LLC must account for the impacts of these plants as a background concentration and add it to the total impact of all plants owned by Asphalt Recycling Concepts, LLC that are operating at the site. This total is limited below the NAAQS. Asphalt Recycling Concepts, LLC shall limit the total impact of all plants they own and operate at the site to  $33.88 \mu\text{g}/\text{m}^3$  when any plants they do not own are located at the site. Asphalt Recycling Concepts, LLC is not permitted to operate with any plant that is not owned by Asphalt Recycling Concepts, LLC that has a separate owner background greater than  $96.12 \mu\text{g}/\text{m}^3$ .

### PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of  $\text{PM}_{10}$  are above de minimis levels.

### APPLICABLE REQUIREMENTS

Asphalt Recycling Concepts, LLC shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved. For a complete list of applicable requirements for your installation, please consult your operating permit.

## GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110. The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required June 1 for the previous year's emissions.
- No Operating Permit is required for this installation.
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170
- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-3.090

## SPECIFIC REQUIREMENTS

- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPS) apply to the proposed equipment.
- Subpart IIII, "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines," of the New Source Performance Standards (NSPS) and Subpart ZZZZ, "National Emissions Standards for Hazardous Air Pollutants Stationary Reciprocating Internal Combustion Engines," of the Maximum Achievable Control Technology (MACT) will apply to the diesel engine if the facility ever stays at a site for longer than twelve (12) consecutive months.
- *Restriction of Emission of Sulfur Compounds*, 10 CSR 10-6.260

## STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

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Chia-Wei Young  
Environmental Engineer

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Date

## PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated April 4, 2010, received April 5, 2010, designating Asphalt Recycling Concepts, LLC as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Kansas City Regional Office Site Survey, dated April 9, 2010.





## Attachment AA: Best Management Practices

Haul roads and vehicular activity areas shall be maintained in accordance with at least one of the following options when the portable plant is operating.

1. Pavement
  - A. The operator shall pave the area with materials such as asphalt, concrete or other materials approved by the Air Pollution Control Program. The pavement will be applied in accordance with industry standards to achieve control of fugitive emissions<sup>1</sup> while the plant is operating.
  - B. Maintenance and repair of the road surface will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.
  - C. The operator shall periodically wash or otherwise clean all of the paved portions of the haul roads as necessary to achieve control of fugitive emissions from these areas while the plant is operating.
  
2. Application of Chemical Dust Suppressants
  - A. The operator shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to unpaved areas.
  - B. The quantities of the chemical dust suppressant shall be applied and maintained in accordance with the manufacturer's recommendation (if available) and in sufficient quantities to achieve control of fugitive emissions from these areas while the plant is operating.
  - C. The operator shall record the time, date and the amount of material applied for each application of the chemical dust suppressant agent on the above areas. The operator shall keep these records with the plant for not less than five (5) years and make these records available to Department of Natural Resources personnel upon request.
  
3. Application of Water-Documented Daily
  - A. The operator shall apply water to unpaved areas. Water shall be applied at a rate of 100 gallons per day per 1,000 square feet of unpaved or untreated surface area while the plant is operating.
  - B. Precipitation may be substituted for watering if the precipitation is greater than one quarter of one inch and is sufficient to control fugitive emissions.
  - C. Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads.
  - D. The operator shall record the date, volume of water application and total surface area of active haul roads or the amount of precipitation that day. The operators shall also record the rationale for not watering (e.g. freezing conditions or not operating).
  - E. The operator shall keep these records with the plant for not less than five (5) years, and the operator shall make these records available to Department of Natural Resources personnel upon request

<sup>1</sup>For purposes of this document, Control of Fugitive Emissions means to control particulate matter that is not collected by a capture system and visible emissions to the extent necessary to prevent violations of the air pollution law or regulation. (Note: control of visible emission is not the only factor to consider in protection of ambient air quality.)

**Attachment BB: Emission Calculations**  
 Asphalt Recycling Concepts, LLC  
 2010-04-016

Description	<sup>1</sup> MHDR	MHDR Units	<sup>2</sup> PM <sub>10</sub> EF	EF Units	Control Eff. %	Emissions (lb/hr)	<sup>3</sup> Modeling Rate (lb/hr)
Asphalt Shingles Grinder	100.0000	Tons	0.002400	Lbs/Ton	75.00	0.0600	0.0374
Conveyor Discharge Belt	100.0000	Tons	0.001100	Lbs/Ton	95.80	0.0046	0.0029
Hauling-Delivery	1.0101	VMT	1.695670	Lbs/VMT	90.00	0.1713	0.1068
Hauling-Sales	1.0101	VMT	2.005262	Lbs/VMT	90.00	0.2026	0.1263
Storage Pile Load In	100.0000	Tons	0.004125	Lbs/Tons	0.00	0.4125	0.2572
Storage Pile Load Out	100.0000	Tons	0.004125	Lbs/Tons	0.00	0.4125	0.2572
Storage Pile Wind Erosion	0.2500	Acres	0.089166	Lbs/Acres	0.00	0.0223	0.0139
Storage Pile Vehicular Activity	100.0000	Tons	0.033223	Lbs/Tons	0.00	3.3223	2.0710
Diesel Generator	0.0334	Mgal	7.850000	Lbs/Mgal	0.00	0.2623	0.1635

<sup>1</sup>Maximum Hourly Design Rate (MHDR)

<sup>2</sup>Emission Factor (EF)

<sup>3</sup>The Modeling Rate is the emission rate scaled to the daily hours of operation at MHDR allow by the permit.