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: 042018-012
Project Number: 2018-03-028
Installation ID: PORT-0770

Parent Company Address: 18521 E Queen Creek Road
Suite 105-480,
Queen Creek, AZ 85142
Installation Name: P. W. Feenstra Construction, Inc. - PORT-0770
Installation Address: 600 State Highway A, Lucerne, MO 64655
Location Information: Putman County, S5 T65N R21W

Application for Authority to Construct was made for:
Portable concrete 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.

Prepared by
Kathy Kolb
New Source Review Unit

Director or Designee
Department of Natural Resources

Effective Date
APR 13 2018
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 Enforcement and Compliance Section of 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 Enforcement and Compliance Section of the Department's 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's 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 the permit application and this permit and permit review shall be kept at the installation address and shall be made available to Department's 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 using the contact information below.

Contact Information:
Missouri Department of Natural Resources
Air Pollution Control Program
P.O. Box 176
Jefferson City, MO 65102-0176
(573) 751-4817

The regional office information can be found at the following website: http://dnr.mo.gov/regions/
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
   P. W. Feenstra Construction, Inc. - PORT-0770 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.

2. Relocation of Portable Concrete Plant
   A. P. W. Feenstra Construction, Inc. - PORT-0770 shall not be operated at any location longer than 24 consecutive months except if the Site Specific Special Conditions of this portable plant, PORT-00770, contain a nonroad engine requirement limiting the portable plant at the site specific location to 12 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 concrete plant.
      1) If the portable concrete plant is moving to a site previously permitted, and if the circumstances at the site have not changed, then the application must be received by the Air Pollution Control Program at least seven days prior to the relocation.
      2) If the portable concrete 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
   P. W. Feenstra Construction, Inc. - PORT-0770 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
   P. W. Feenstra Construction, Inc. - PORT-0770 shall report to the Air Pollution Control Program Enforcement Section P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after any exceedances of the limitations imposed by this permit.
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-0770
Site ID Number: 171-0006 Murphy-Brown of Missouri, LLC, Lucerne Mill (Smithfield Foods)
Site Name: Lucerne Feed Mill
Site Address: 600 State Highway A, Lucerne, MO 64655
Site County: Putman S5 T65N R21W

1. Annual Emission Limit
   A. P. W. Feenstra Construction, Inc. - PORT-0770 shall emit less than 15.0 tons of PM\textsubscript{10} in any 12-month period from the entire installation which consists of the equipment listed in Table 1. The SSM emissions as reported to the Air Pollution Control Program's Compliance/Enforcement Section in accordance with the requirements of 10 CSR 10-6.050 Start-Up, Shutdown, and Malfunction Conditions shall be included in the limit.
   B. P. W. Feenstra Construction, Inc. - PORT-0770 shall demonstrate compliance with Special Condition 1.A using Attachment A or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form.

2. Undocumented Watering Requirement
   P. W. Feenstra Construction, Inc. - PORT-0770 shall apply a water spray on all haul roads and vehicular activity areas whenever conditions exist that would allow visible emissions from these sources to leave the property.

3. Control Device Requirement-Baghouse
   A. P. W. Feenstra Construction, Inc. - PORT-0770 shall control emissions from the EU-03 through EU-06 using a baghouse as specified in the permit application.
      1) Cement Silo EU-03
      2) Supplement Silo EU-04
      3) Weigh Hopper EU-05
      4) Truck Mix Loadout (shroud vented to baghouse) EU-06
   B. The baghouse shall be operated and maintained in accordance with the manufacturer's specifications. The baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that Department of Natural Resources' employees may easily observe them.
SITE SPECIFIC SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

C. Replacement filters for the baghouse shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).

D. P. W. Feenstra Construction, Inc. - PORT-0770 shall monitor and record the operating pressure drop across the baghouse at least once every 24 hours when the associated equipment is in operation. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.

E. P. W. Feenstra Construction, Inc. - PORT-0770 shall maintain a copy of the baghouse manufacturer's performance warranty on site.

F. P. W. Feenstra Construction, Inc. - PORT-0770 shall maintain an operating and maintenance log for the baghouse which shall include the following:
   1) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
   2) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.

4. Nonroad Engine Requirement
   P. W. Feenstra Construction, Inc. - PORT-0770's engine shall not remain at one location within this site longer than 12 consecutive months in order for the engine to meet the definition of a nonroad engine as stated in 40 CFR 89.2. These engines shall be moved with its associated equipment at least once every 12 consecutive months at this site.

5. Record Keeping Requirement
   P. W. Feenstra Construction, Inc. - PORT-0770 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.

6. Reporting Requirement
   P. W. Feenstra Construction, Inc. - PORT-0770 shall report to the Air Pollution Control Program, Compliance / Enforcement Section by mail to P.O. Box 176, Jefferson City, MO 65102 or by email at AirComplianceReporting@dnr.mo.gov, no later than 10 days after any exceedances of the limitations imposed by this permit.
P. W. Feenstra Construction, Inc. - PORT-0770: Complete: March 19, 2018
600 State Highway A
Lucerne, MO 64655

Parent Company:
P.W. Feenstra Construction, Inc.
18521 E Queen Creek Road
Suite 105-480
Queen Creek, AZ 85142

Putman County, S5 T65N R21W

PROJECT DESCRIPTION

P. W. Feenstra Construction, Inc. is a commercial contractor based outside of Phoenix, Arizona, specializing in the construction of agri-business facilities. These types of facilities are typically located in rural areas and require a large amount of concrete. The most efficient way to manage the construction process is to place one of their mobile concrete batch plants (PORT-0770) on the Lucerne feed mill site owned by Smithfield Foods (Site ID: 171-0006). The portable plant will operate there for the duration of less than 12 months.

The portable concrete plant will have a MHDR of 303.75 tons per hour (150 cubic yards per hour). Undocumented watering of the haul roads and vehicular activity areas will control particulate matter emissions.

This installation is located in Putman County, an attainment area for all criteria pollutants.

This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2].

No permits have been issued to P. W. Feenstra Construction, Inc. - PORT-0770 from the Air Pollution Control Program.
Table 1: Emission Point List

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Description</th>
<th>MHDR</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU-01</td>
<td>Aggregate Transfer</td>
<td>140.78tph</td>
</tr>
<tr>
<td>EU-02</td>
<td>Sand Transfer</td>
<td>107.79tph</td>
</tr>
<tr>
<td>EU-03</td>
<td>Cement Unloading to Silo</td>
<td>37.06tph</td>
</tr>
<tr>
<td>EU-04</td>
<td>Supplement Unloading</td>
<td>5.51tph</td>
</tr>
<tr>
<td>EU-05</td>
<td>Weigh Hopper</td>
<td>248.57tph</td>
</tr>
<tr>
<td>EU-06</td>
<td>Truck Loading (Cement and Supplement loading per AP-42)</td>
<td>42.57tph</td>
</tr>
<tr>
<td>EU-07a</td>
<td>Aggregate Storage Pile-Load in</td>
<td>140.78tph</td>
</tr>
<tr>
<td>EU-07b</td>
<td>Aggregate Storage Pile-Load out</td>
<td>140.78tph</td>
</tr>
<tr>
<td>EU-07c</td>
<td>Aggregate Storage Pile-Vehicular Activity</td>
<td>1.33 VMT</td>
</tr>
<tr>
<td>EU-07d</td>
<td>Aggregate Storage Pile-Wind Erosion</td>
<td>0.50 acres</td>
</tr>
<tr>
<td>EU-08a</td>
<td>Sand Storage Pile-Load in</td>
<td>107.79tph</td>
</tr>
<tr>
<td>EU-08b</td>
<td>Sand Storage Pile-Load out</td>
<td>107.79tph</td>
</tr>
<tr>
<td>EU-08c</td>
<td>Sand Storage Pile-Vehicular Activity</td>
<td>1.02 VMT</td>
</tr>
<tr>
<td>EU-08d</td>
<td>Sand Storage Pile-Wind Erosion</td>
<td>0.50 acres</td>
</tr>
<tr>
<td>EU-9</td>
<td>Material Haul Road</td>
<td>15.34 VMT</td>
</tr>
<tr>
<td>EU-10</td>
<td>Finished Product Haul Road</td>
<td>4.31 VMT</td>
</tr>
</tbody>
</table>

Note: The concrete plant has a maximum design capacity of 303.75 tons per hour

Table 2 below summarizes the emissions of this project. The potential emissions of the process equipment, which excluded emissions from haul roads and wind erosion, are not site specific and should not vary from site to site. There are no existing actual emissions since this is a new plant. The potential emissions of the application represent the emissions of all equipment and activities assuming continuous operation (8760 hours per year). Conditioned potential emissions account for a voluntary annual PM$_{10}$ emission limit of 15.0 tons per year in order to avoid refined modeling according to 10 CSR 10-6.060 (6)(B)3.

Table 2: Emissions Summary (tons per year)

<table>
<thead>
<tr>
<th>Air Pollutant</th>
<th>De Minimis Level/SMAL</th>
<th>Potential Emissions from Process Equipment</th>
<th>Existing Actual Emissions</th>
<th>Potential Emissions of Application</th>
<th>Conditioned Potential Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>25.0</td>
<td>20.40</td>
<td>N/A</td>
<td>569.00</td>
<td>48.27</td>
</tr>
<tr>
<td>PM$_{10}$</td>
<td>15.0</td>
<td>9.40</td>
<td>N/A</td>
<td>176.91</td>
<td>&lt;15.0</td>
</tr>
<tr>
<td>PM$_{2.5}$</td>
<td>10.0</td>
<td>2.72</td>
<td>N/A</td>
<td>23.0</td>
<td>1.95</td>
</tr>
<tr>
<td>SO$_x$</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>NO$_x$</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>VOC</td>
<td>40.0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>CO</td>
<td>100.0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>GHG (CO$_2$e)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>GHG (mass)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Total HAPs</td>
<td>25.0</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

N/A = Not Applicable

*Excludes site specific haul road and storage pile emissions

*bIncludes site specific haul road and storage pile emissions

Page 7
EMISSIONS CALCULATIONS

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

Emissions from the concrete batch plant:
- Calculated using emission factors from AP-42 Section 11.12 “Concrete Batching,” June 2006.
- This section cites Equation (1) in Section 13.2.4 “Aggregate Handling and Storage Piles,” November 2006 for calculating the emissions from aggregate and sand transfer.
- The cement and supplement silos are controlled with baghouses, so the controlled emission factors were used.

Emissions from the aggregate weigh hopper:
- Calculated using AP-42 Section 13.2.4, Equation (1).
- These emissions are controlled by a baghouse so a 99% control factor was applied to the calculation.
- Emissions from mix truck loading are controlled by a shroud vented to a baghouse, so the controlled emission factor was used.

Emissions from aggregate handling:
- The uncontrolled emission factors were used because the inherent moisture content of the crushed rock is less than 1.5% by weight.

Emissions from haul roads and vehicular activity areas:
- Calculated using the predictive equation from AP-42 Section 13.2.2 “Unpaved Roads,” November 2006.
- A 50% control efficiency for PM and PM$_{10}$ and a 41% control efficiency for PM$_{2.5}$ were applied to the emission calculations for the use of undocumented watering.

Emissions from storage piles:
- 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 aggregate is less than 1.5% by weight.
- 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.”
PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060, Construction Permits Required. The conditioned potential emissions include emissions from sources that will limit their production to ensure compliance with the annual PM$_{10}$ emission limit of 15.0 tons per year for stationary plants in order to avoid refined modeling according to 10 CSR 10-6.060 (6)(B)3. Potential emissions of PM are above de minimis but below major source levels. There are no modeling requirements for PM.

APPLICABLE REQUIREMENTS

P. W. Feenstra Construction, Inc. - PORT-0770 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.

GENERAL REQUIREMENTS


- *Operating Permits*, 10 CSR 10-6.065 does not apply because this is a portable plant.

- *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 10-6.165

SPECIFIC REQUIREMENTS


- None of the National Emission Standards for Hazardous Air Pollutants
(NESHAPS) or National Emission Standards for Hazardous Air Pollutants for Source Categories (MACTS) apply to the proposed equipment.

- *Control of Sulfur Dioxide Emissions*, 10 CSR 10-6.261 does not apply because the engine/genset is non-road status.

**STAFF RECOMMENDATION**

On the basis of this review conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, it is recommended that this permit be granted with special conditions.

**PERMIT DOCUMENTS**

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated March 15, 2018, received March 15, 2018, designating P.W. Feenstra Construction, Inc. as the owner and operator of the installation.
Attachment A: PM<sub>10</sub> 12-Month Rolling Total Emissions Tracking Sheet

P. W. Feenstra Construction, Inc. - PORT-0770

Project Number: 2018-03-028

Permit Number: 042018-012

Site Name: Lucerne Feed Mill
Site Address: 600 State Highway A, Lucerne, MO 64655
Site County: Putman

This sheet covers the period from ________ to ________ (Copy as needed)

<table>
<thead>
<tr>
<th>Month</th>
<th>Production (tons)</th>
<th>PM&lt;sub&gt;10&lt;/sub&gt; Composite Emission Factor (lb/ton)</th>
<th>Monthly PM&lt;sub&gt;10&lt;/sub&gt; Emissions (lbs)</th>
<th>Startup, Shutdown and Malfunction PM&lt;sub&gt;10&lt;/sub&gt; Emissions (lbs)</th>
<th>Monthly PM&lt;sub&gt;10&lt;/sub&gt; Emissions (tons)</th>
<th>12-Month Rolling Total Emissions (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example</td>
<td>15,000</td>
<td>0.1330</td>
<td>1995</td>
<td>0.0</td>
<td>1.0</td>
<td>1.0+11 previous months</td>
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<tr>
<td>0.1330</td>
<td>0.1330</td>
<td>0.1330</td>
<td>0.1330</td>
<td>0.1330</td>
<td>0.1330</td>
<td>0.1330</td>
</tr>
</tbody>
</table>

1Multiply the monthly production by the PM<sub>10</sub> composite emission factor.
2As reported to the Air Pollution Control Program’s Compliance/Enforcement Section according to the provisions of 10 CSR 10-6.050 for the month.
3Add the monthly PM<sub>10</sub> emissions plus the SSM emissions from the same time period and divide by 2000 and
4Add the monthly emissions (tons) to the sum of the monthly emissions from the previous eleven months. A total of less than 15.0 tons of PM<sub>10</sub> per consecutive 12 months is necessary for compliance.
APPENDIX A

Abbreviations and Acronyms

% .............. percent
°F .............. degrees Fahrenheit
acfm ........... actual cubic feet per minute
BACT .......... Best Available Control Technology
BMPs .......... Best Management Practices
Btu ........... British thermal unit
CAM .......... Compliance Assurance Monitoring
CAS .......... Chemical Abstracts Service
CEMS ....... Continuous Emission Monitor System
CFR .......... Code of Federal Regulations
CO .......... carbon monoxide
CO₂ .......... carbon dioxide
CO₂e ........ carbon dioxide equivalent
COMS ...... Continuous Opacity Monitoring System
CSR .......... Code of State Regulations
dscf .......... dry standard cubic feet
EIQ .......... Emission Inventory Questionnaire
EP .......... Emission Point
EPA ......... Environmental Protection Agency
EU ............ Emission Unit
fps .......... feet per second
ft ............ feet
GACT .... Generally Available Control Technology
GHG .......... Greenhouse Gas
gpm .......... gallons per minute
gr ........... grains
GWP .......... Global Warming Potential
HAP ......... Hazardous Air Pollutant
hr ........... hour
hp .......... horsepower
lb ........... pound
lbs/hr ....... pounds per hour
MACT .... Maximum Achievable Control Technology
µg/m³ ........ micrograms per cubic meter
m/s .......... meters per second
Mgal ....... 1,000 gallons
MW .......... megawatt
MHDR .... maximum hourly design rate

MMBtu .... Million British thermal units
MMCF ..... million cubic feet
MSDS ...... Material Safety Data Sheet
NAAQS .... National Ambient Air Quality Standards
NESHAPs .. National Emissions Standards for Hazardous Air Pollutants
NOₓ ........ nitrogen oxides
NSPS ....... New Source Performance Standards
NSR ......... New Source Review
PM .......... particulate matter
PM₂.₅ ....... particulate matter less than 2.5 microns in aerodynamic diameter
PM₁₀ ....... particulate matter less than 10 microns in aerodynamic diameter
ppm .......... parts per million
PSD .......... Prevention of Significant Deterioration
PTE .......... potential to emit
RACT ...... Reasonable Available Control Technology
RAL .......... Risk Assessment Level
SCC .......... Source Classification Code
scfm ....... standard cubic feet per minute
SDS .......... Safety Data Sheet
SIC .......... Standard Industrial Classification
SIP .......... State Implementation Plan
SMAL ....... Screening Model Action Levels
SOₓ .......... sulfur oxides
SO₂ .......... sulfur dioxide
SSM ......... startup, shutdown, & malfunction
tph .......... tons per hour
tpy .......... tons per year
VMT ........ vehicle miles traveled
VOC .......... Volatile Organic Compound
NOTICE: This spreadsheet is for your use only and should be used with caution. MoDNR does not guarantee the accuracy of the information it contains. This spreadsheet is subject to continual revision and updating. It is your responsibility to be aware of the most current, accurate and complete information available. MoDNR is not responsible for errors or omissions in this spreadsheet. Submittal of the information contained in this spreadsheet (workbook) does not relieve the responsible official of the certification statement signed on the first page of the application.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Potential Emissions of Process Equipment (tons/yr)</th>
<th>Potential Emissions including fugitives (tons/yr)</th>
<th>Allowable Emissions for 70 hours/week year (tons/yr)</th>
<th>Limit Hours per Year</th>
<th>GHGmass</th>
<th>CO2eq</th>
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<td>PM</td>
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<td>0.00</td>
<td>-</td>
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<td>0.01</td>
<td>0.00</td>
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<tr>
<td>HAPs</td>
<td>0.00</td>
<td>0.00</td>
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<td>0.00</td>
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<tr>
<td>CO2</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>100</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>N2O</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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<td>0.00</td>
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<tr>
<td>CH4</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>100</td>
<td>0.00</td>
<td>0.00</td>
</tr>
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<td>GHGmass</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>100</td>
<td>0.00</td>
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<td>CO2eq</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>100,000</td>
<td>0.00</td>
<td>0.00</td>
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</table>

Maximum hourly design rate (tons/hr): 303.75

Tons of product per day: 7,290.0
Tons of product per year: 225,605.2
<table>
<thead>
<tr>
<th>Emission Point Number</th>
<th>Emission Unit Number</th>
<th>Description</th>
<th>OCC</th>
<th>MHDR</th>
<th>Units</th>
<th>Control Device Number</th>
<th>Control Type</th>
<th>Emission Factors</th>
<th>Emission</th>
<th>Potential Emissions</th>
<th>Allowable Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Aggregate transfer</td>
<td>3-05-011-04</td>
<td>140.78</td>
<td>tons per hour</td>
<td>N/A</td>
<td>N/A</td>
<td>PM</td>
<td>0.0254</td>
<td>3,575+05</td>
<td>16.63</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>Sand transfer</td>
<td>3-05-011-06</td>
<td>167.79</td>
<td>tons per hour</td>
<td>N/A</td>
<td>N/A</td>
<td>PM</td>
<td>0.0221</td>
<td>2,255+01</td>
<td>0.56</td>
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<td>3</td>
<td>3</td>
<td>Cement unloading to silo</td>
<td>3-05-011-07</td>
<td>37.26</td>
<td>tons per hour</td>
<td>100%</td>
<td>N/A</td>
<td>PM</td>
<td>0.0186</td>
<td>1,696+03</td>
<td>7.29</td>
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<td>4</td>
<td>4</td>
<td>Supplement unloading (pneumatic)</td>
<td>3-05-011-17</td>
<td>0.51</td>
<td>tons per hour</td>
<td>100%</td>
<td>N/A</td>
<td>PM</td>
<td>0.0035</td>
<td>2,085+01</td>
<td>0.97</td>
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<tr>
<td>5</td>
<td>5</td>
<td>Weigh hopper loading</td>
<td>3-05-011-08</td>
<td>248.57</td>
<td>tons per hour</td>
<td>100%</td>
<td>N/A</td>
<td>PM</td>
<td>0.0014</td>
<td>1,615+03</td>
<td>0.07</td>
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<tr>
<td>6</td>
<td>6</td>
<td>Truck loading (truck mix)</td>
<td>3-05-011-10</td>
<td>43.57</td>
<td>tons per hour</td>
<td>100%</td>
<td>N/A</td>
<td>PM</td>
<td>0.0120</td>
<td>99.0%</td>
<td>0.70</td>
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**Generator**

<table>
<thead>
<tr>
<th>Model Year</th>
<th></th>
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<tbody>
<tr>
<td>Year</td>
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</tr>
<tr>
<td>Hours</td>
<td></td>
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</tr>
<tr>
<td>Gas</td>
<td></td>
<td></td>
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<tr>
<td>Oil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diesel</td>
<td></td>
<td></td>
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</table>

**GHGs**

- N2O
- CO2
- CH4

**HAPs**

- VOC
- HAPs
- CO

**CO2**

- N2O
- CO2
- CH4

**CH4**

- N2O
- CO2
- CH4

**N,O**

- N2O
- CO2
- CH4

**GHG**

- N2O
- CO2
- CH4
### Emission Calculations

**MO Plant - Lucerne Project.xlsx**

#### Equipment Descriptions/SCC

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Unit ID</th>
<th>Description of Unit</th>
<th>Heat Rate</th>
<th>Load per hour</th>
<th>Emission Factor (g/kWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

#### Load In

<table>
<thead>
<tr>
<th>Unit</th>
<th>Description</th>
<th>Heat Rate</th>
<th>Load per hour</th>
<th>Emission Factor (g/kWh)</th>
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</thead>
<tbody>
<tr>
<td></td>
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</table>

#### Load Out

<table>
<thead>
<tr>
<th>Unit</th>
<th>Description</th>
<th>Heat Rate</th>
<th>Load per hour</th>
<th>Emission Factor (g/kWh)</th>
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</thead>
<tbody>
<tr>
<td></td>
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</table>

#### Vehicular Activity

<table>
<thead>
<tr>
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<th>Description</th>
<th>Heat Rate</th>
<th>Load per hour</th>
<th>Emission Factor (g/kWh)</th>
</tr>
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<tbody>
<tr>
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</table>

#### Wind Erosion

<table>
<thead>
<tr>
<th>Unit</th>
<th>Description</th>
<th>Heat Rate</th>
<th>Load per hour</th>
<th>Emission Factor (g/kWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

### Notes

- PM: Particulate Matter
- NOx: Nitrogen Oxides
- CO: Carbon Monoxide
- VOC: Volatile Organic Compounds
- CH4: Methane
- CO2: Carbon Dioxide
- N2O: Nitrous Oxide
- CH2O: Formaldehyde
- PM2.5: Fine Particulate Matter
- PM10: Coarse Particulate Matter
- GHG: Greenhouse Gases

### Conversion Factors

- mg/mg = 0.001 ton
- 3.57E+00 = 1 ton
- 15.625 = 1 acre
- 3.57E+00 = 1 acre

### Emission Calculations

<table>
<thead>
<tr>
<th>Unit</th>
<th>Description</th>
<th>Heat Rate</th>
<th>Load per hour</th>
<th>Emission Factor (g/kWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</table>

### Conversion to Metric Tons

<table>
<thead>
<tr>
<th>Unit</th>
<th>Description</th>
<th>Heat Rate</th>
<th>Load per hour</th>
<th>Emission Factor (g/kWh)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

### Emission Factors

- PM: Particulate Matter
- NOx: Nitrogen Oxides
- CO: Carbon Monoxide
- VOC: Volatile Organic Compounds
- CH4: Methane
- CO2: Carbon Dioxide
- N2O: Nitrous Oxide
- CH2O: Formaldehyde
- PM2.5: Fine Particulate Matter
- PM10: Coarse Particulate Matter
- GHG: Greenhouse Gases
<table>
<thead>
<tr>
<th>Load In</th>
<th>Load Out</th>
<th>VMT</th>
<th>VMT</th>
<th>Wind Erosion</th>
<th>Road#1</th>
<th>Road#2</th>
<th>Road#3</th>
<th>Road#4</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>PM10</td>
<td>PM2.5</td>
<td>PM</td>
<td>acre-hr</td>
<td>VMT</td>
<td>VMT</td>
<td>VMT</td>
<td>VMT</td>
</tr>
<tr>
<td>ton</td>
<td>ton</td>
<td>ton</td>
<td>ton</td>
<td>acre-hr</td>
<td>VMT</td>
<td>VMT</td>
<td>VMT</td>
<td>VMT</td>
</tr>
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<td></td>
<td></td>
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</tbody>
</table>
NOTICE: This spreadsheet is for your use only and should be used with caution. MoDNR does not guarantee the accuracy of the information it contains. This spreadsheet is subject to continual revision and updating. It is your responsibility to be aware of the most current, accurate and complete information available. MoDNR is not responsible for errors or omissions in this spreadsheet. Submittal of the information contained in this spreadsheet (workbook) does not relieve the responsible official of the certification statement signed on the first page of the application.

**Plant Information**

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Truck mix</td>
<td></td>
</tr>
<tr>
<td>303.75</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
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**Emission Point Information**

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Stack Height (feet)</th>
<th>Stack Inside Diameter (feet)</th>
<th>Stack Gas Blow Rate (ACFM)</th>
<th>Stack Gas Exit Temp. (°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
<tr>
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</tbody>
</table>

**Material Information**

<table>
<thead>
<tr>
<th>Material</th>
<th>Crushed Limestone</th>
<th>66.35%</th>
<th>66.35%</th>
<th>0.7</th>
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<tbody>
<tr>
<td></td>
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<td></td>
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</tbody>
</table>
### Storage Pile Information

<table>
<thead>
<tr>
<th>Storage Pile ID No.</th>
<th>Pile #1 (used for Aggregate transfer)</th>
<th>Pile #2 (used for Sand transfer)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Area of Storage Pile (Acre)</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Type of Material Stored:</td>
<td>Crushed limestone</td>
<td>Sand</td>
</tr>
<tr>
<td>Moisture Content %:</td>
<td>0.7</td>
<td>4.17</td>
</tr>
<tr>
<td>Silt Content %:</td>
<td>1.6</td>
<td>2.6</td>
</tr>
<tr>
<td>Method of Load In to Storage Pile</td>
<td>Truck</td>
<td>Truck</td>
</tr>
<tr>
<td>Method of Load Out from Storage Pile</td>
<td>Loader</td>
<td>Loader</td>
</tr>
<tr>
<td>Distance Loader Travels (feet)</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>Unloaded Loader Weight (tons)</td>
<td>21.00</td>
<td>21.00</td>
</tr>
<tr>
<td>Loaded Loader Weight (tons)</td>
<td>27.00</td>
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</tr>
<tr>
<td>Rate (tons/hour)</td>
<td>140.78</td>
<td>107.79</td>
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<tr>
<td>max VMT per hour</td>
<td>1.3331</td>
<td>1.0208</td>
</tr>
<tr>
<td>Surface Treatment</td>
<td>Unpaved</td>
<td>Unpaved</td>
</tr>
<tr>
<td>Vehicular Area Control</td>
<td>Undocumented Watering</td>
<td>Undocumented Watering</td>
</tr>
</tbody>
</table>

### Haul Road Information

<table>
<thead>
<tr>
<th>Haul Road ID No.</th>
<th>Receiving raw material</th>
<th>finished</th>
</tr>
</thead>
</table>

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**Control Device Information (select all that apply)**

- Aggregate weigher was calibrated by the supplier: Yes
- Aggregate weigher was utilized for calibration: Yes
- Aggregate weigher was utilized for distribution: Yes
- Aggregate weigher was utilized for storage: Yes

**Data Entry**

MO Plant - Lucerne Project.xlsm

- Sand: 35.49%
- Cement: 12.20%
- Supplement to Cement: 1.81%
- Water: 4.15%

100% 100%
### Length of Haul Road (feet)
Enter the length of each roadway in feet. The plant layout diagram (drawn to scale) should document and support the value entered. **Note:** Twice this distance is used, one trip in and one out.

<table>
<thead>
<tr>
<th>Length of Haul Road (feet)</th>
<th>2000</th>
<th>750</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unloaded Truck Weight (tons)</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>Loaded Truck Weight (tons)</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Rate Hauled (tons/hour)</td>
<td>303.75</td>
<td>303.75</td>
</tr>
<tr>
<td>max VMT per hour</td>
<td>15.3409</td>
<td>4.3146</td>
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<tr>
<td>Surface Treatment</td>
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</tr>
<tr>
<td>Haul Road Control</td>
<td>Undocumented Watering</td>
<td>Undocumented Watering</td>
</tr>
</tbody>
</table>

### Engine Set Information

<table>
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<tr>
<th>Type of Fuel</th>
<th>7A</th>
<th>7B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brake Horsepower (bhp)</td>
<td>Engine kilowatt rating (kW)</td>
<td></td>
</tr>
<tr>
<td>gallons per hour</td>
<td>Engine MHDR (mmBtu per hour, input)</td>
<td>Is this a generator-set engine?</td>
</tr>
<tr>
<td>Model Year (yyyy)</td>
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<tr>
<td>Fuel Sulfur Content (% weight sulfur)</td>
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### Combustion Sources

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<thead>
<tr>
<th>Combustion ID - Description</th>
<th>Combustion #1</th>
<th>Desc #1</th>
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<tbody>
<tr>
<td>Heat Rate</td>
<td>mmBtu/hour</td>
<td>mgal/hour</td>
</tr>
<tr>
<td>In regards to</td>
<td>mmaf/hour</td>
<td>40 CFR Part 98</td>
</tr>
<tr>
<td>AP-42 Chapter 1</td>
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</tbody>
</table>
APR 13 2018

Mr. Kreg Korinek
CFO
P. W. Feenstra Construction, Inc. - PORT-0770
18521 E Queen Creek Road
Suite 105-480
Queen Creek, AZ 85142

RE: New Source Review Project Number: 2018-03-028;
Installation Number: PORT-0770

Dear Mr. Korinek:

Enclosed with this letter is your permit to construct. Please study it carefully and refer to Appendix A for a list of common abbreviations and acronyms used in the permit. Also, note the special conditions on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files. Operation in accordance with these conditions, your new source review permit application is necessary for continued compliance. In addition, please note that P. W. Feenstra Construction, Inc. - PORT-0770 cannot operate with any other plants that have ambient impact limits based on the Air Pollution Control Program’s nomographs. Please refer to the permits of any plant that you are operating with to see if their respective permits contain an ambient impact limit. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

This permit may include requirements with which you may not be familiar. If you would like the department to meet with you to discuss how to understand and satisfy the requirements contained in this permit, an appointment referred to as a Compliance Assistance Visit (CAV) can be set up with you. To request a CAV, please contact your local regional office or fill out an online request. The regional office contact information can be found at the following website: http://dnr.mo.gov/regions/. The online CAV request can be found at http://dnr.mo.gov/cav/compliance.htm.

If you were adversely affected by this permit decision, you may be entitled to pursue an appeal before the administrative hearing commission pursuant to Sections 621.250 and 643.075.6 RSMo. To appeal, you must file a petition with the administrative hearing commission within thirty 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 administrative hearing commission, whose contact information is: Administrative Hearing Commission, United States Post Office Building, 131 West High Street, Third Floor, P.O. Box 1557, Jefferson City, Missouri 65102, phone: 573-751-2422, fax: 573-751-5018, website: www.oa.mo.gov/ahc.

If you have any questions, please do not hesitate to contact Kathy Kolb, at the department’s Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Susan Heckenkamp
New Source Review Unit Chief

SH:kkj

Enclosures

c: NERO Regional Office
   PAMS File: 2018-03-028

Permit Number: 042018-012