PART 70
PERMIT TO OPERATE

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

Operating Permit Number: OP2019-029
Expiration Date: AUG 14 2024
Installation ID: 163-0031
Project Number: 2018-02-028

Installation Name and Address
Dyno Nobel Inc.
11025 Highway D
Louisiana, MO 63353
Pike County

Parent Company's Name and Address
Dyno Nobel Inc.
2795 East Cottonwood Parkway, Suite 500
Salt Lake City, UT 84121

Installation Description:
The Dyno Nobel Inc. - LOMO Plant, built in the 1960s, produces five products: weak nitric acid, blended nitric acid, concentrated nitric acid, ammonium nitrate solution, and ammonium nitrate prill. For operating permit purposes, the installation is a major source for nitrogen oxides (NOx), particulate matter of less than 10 microns in diameter (PM10), and particulate matter of less than 2.5 microns in diameter (PM2.5). This installation is an area source for hazardous air pollutants (HAP).

AUG 14 2019
Effective Date

Director or Designee
Department of Natural Resources
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I. Installation Equipment Listing

EMISSION UNITS WITH LIMITATIONS
The following list provides a description of the equipment at this installation that emits air pollutants and that are identified as having unit-specific emission limitations.

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>E01</td>
<td>Ammonia Oxidation Process (42 tons) (1964) (2016 SCR)</td>
</tr>
<tr>
<td>E01a</td>
<td>Preheater for Selective Catalytic Reduction (9.6 MMBtu) (Natural Gas) (July 2016)</td>
</tr>
<tr>
<td>E02</td>
<td>Nitric Acid Storage/Blend (42 tons) (1964)</td>
</tr>
<tr>
<td>E03</td>
<td>Ammonium Nitrate Neutralizer (47 tons) (1964) (CD2, CD3, CD4, CD5)</td>
</tr>
<tr>
<td>E04</td>
<td>Prill Evaporator (40 tons) (1966)</td>
</tr>
<tr>
<td>E05</td>
<td>Prilling Tower (40 tons) (1962)</td>
</tr>
<tr>
<td>E06</td>
<td>#1 Prill Predryer (20 tons) (1962)</td>
</tr>
<tr>
<td>E07</td>
<td>#1 Prill Dryer (20 tons) (1962)</td>
</tr>
<tr>
<td>E08</td>
<td>#1 Prill Cooler (20 tons) (1962)</td>
</tr>
<tr>
<td>E09</td>
<td>#2 Prill Predryer (20 tons) (1966)</td>
</tr>
<tr>
<td>E10</td>
<td>#2 Prill Dryer (20 tons) (1966)</td>
</tr>
<tr>
<td>E11</td>
<td>#2 Prill Cooler (20 tons) (1966)</td>
</tr>
<tr>
<td>E12</td>
<td>Prill Remelt Evaporator (7 tons) (1965)</td>
</tr>
<tr>
<td>E13</td>
<td>Prill Bulk Loadout (100 tons) (1962)</td>
</tr>
<tr>
<td>E14</td>
<td>Nitric Acid Concentrator (1970)</td>
</tr>
<tr>
<td>E15</td>
<td>Boiler (98.991 MMBtu/Hr) (June 2011) (Low NOx Burners and Flue Gas Recirculation)</td>
</tr>
<tr>
<td>EP-16</td>
<td>68% Nitric Acid Concentrator (2.98 tons) (1981)</td>
</tr>
<tr>
<td>EP099</td>
<td>Emergency Filter Plant Engine: Ford (240 HP) (Gasoline SI) (May 2016)</td>
</tr>
<tr>
<td>EP101</td>
<td>Emergency Generator Engine: Kohler (2.2 MMBtu, 858 hp, 640 kW) (Diesel CI) (July 2014)</td>
</tr>
<tr>
<td>EP103</td>
<td>Firewater Pump (305 HP) (Diesel CI) (1993)</td>
</tr>
<tr>
<td>-</td>
<td>Gasoline Storage Tanks (2 – 560 Gal tanks)</td>
</tr>
</tbody>
</table>

EMISSION UNITS WITHOUT SPECIFIC LIMITATIONS
The following list provides a description of the equipment, which does not have unit specific limitations at the time of permit issuance.

<table>
<thead>
<tr>
<th>Description</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diesel Fuel Tanks (300, 560, 320 gal)</td>
<td>AN Prill Bulk Storage Building</td>
</tr>
<tr>
<td>Parts Cleaning and Degreasing</td>
<td>Fertilizer Solution Recovery Tank</td>
</tr>
<tr>
<td>Laboratory Fume Hoods</td>
<td>Cooling Towers</td>
</tr>
<tr>
<td>Ammonium Nitrate Solution Storage Tanks</td>
<td>EDR Evaporator</td>
</tr>
<tr>
<td>Screening and Coating Operations</td>
<td>Haul Roads</td>
</tr>
</tbody>
</table>
II. Plant Wide Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued. The plant wide conditions apply to all emission units at this installation. All emission units are listed in Section I under Emission Units with Limitations and Emission Units without Specific Limitations.

None.
III. Emission Unit Specific Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

PERMIT CONDITION 092010-001
10 CSR 10-6.060 Construction Permits Required
Construction Permit 092010-001, Issued September 1st, 2010

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-15</td>
<td>Boiler (98.991 MMBtu/Hr) (June 2011) (Low NOx Burners and Flue Gas Recirculation)</td>
</tr>
</tbody>
</table>

**Operational Limitations:**
The permittee shall control emissions from the boiler using low NO\textsubscript{x} burners and flue gas recirculation as specified in the construction permit application. The low NO\textsubscript{x} burners and flue gas recirculation shall be operated and maintained in accordance with the manufacturer's specifications.

[Special Condition 1.A.]

**Monitoring/Recordkeeping:**
1) The permittee shall maintain an operating and maintenance log using Attachment A or an equivalent for the low NO\textsubscript{x} burners and flue gas recirculation which shall include the following:
   [Special Condition 1.B.]
   a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
   b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
2) The permittee shall maintain all records required by this permit for no less than five years and shall make them available to any Missouri Department of Natural Resources' personnel upon request.

**Reporting:**
1) The permittee shall report any deviations from the monitoring, recordkeeping, and reporting requirements of this permit condition in the annual compliance certification, as required by Section V of this permit.
2) All reports and certifications shall be submitted to the Air Pollution Control Program’s Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or AirComplianceReporting@dnr.mo.gov.
PERMIT CONDITION 102012-007
10 CSR 10-6.060 Construction Permits Required
Construction Permit 102012-007, Issued October 16th, 2012

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP-16</td>
<td>68% Nitric Acid Concentrator (2.98 tons) (1981)</td>
</tr>
</tbody>
</table>

**Operational Limitations:**
The permittee shall install, operate and maintain a high pressure shut down loop which will initiate 68% concentrator unit shut down prior to reaching 15 pounds per square inch (psi). [Special Condition 1.A.]

**Monitoring/Recordkeeping:**
1) The permittee shall maintain an operating and maintenance log using Attachment A or an equivalent for the high pressure shut down loop, which shall include the following: [Special Condition 1.B.]
   a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
   b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
   c) The permittee may use their computerized maintenance tracking system (SAP) to track maintenance and repairs of the unit as an ongoing record.
2) The permittee shall maintain all records required by this permit for no less than five years and shall make them available to any Missouri Department of Natural Resources' personnel upon request. [Special Condition 2]

**Reporting:**
1) The permittee shall report any deviations from the monitoring, recordkeeping, and reporting requirements of this permit condition in the annual compliance certification, as required by Section V of this permit.
2) All reports and certifications shall be submitted to the Air Pollution Control Program’s Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or AirComplianceReporting@dnr.mo.gov.
PERMIT CONDITION 6.220
10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Description</th>
<th>Opacity Limit (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E01</td>
<td>Ammonia Oxidation Process (42 tons) (1964) (2016 SCR)</td>
<td>40</td>
</tr>
<tr>
<td>E02</td>
<td>Nitric Acid Storage/Blend (42 tons) (1964)</td>
<td>40</td>
</tr>
<tr>
<td>E03</td>
<td>Ammonium Nitrate Neutralizer (47 tons) (1964) (CD2, CD3, CD4, CD5)</td>
<td>40</td>
</tr>
<tr>
<td>E04</td>
<td>Prill Evaporator (40 tons) (1966)</td>
<td>40</td>
</tr>
<tr>
<td>E05</td>
<td>Prilling Tower (40 tons) (1962)</td>
<td>40</td>
</tr>
<tr>
<td>E06</td>
<td>#1 Prill Predryer (20 tons) (1962)</td>
<td>40</td>
</tr>
<tr>
<td>E07</td>
<td>#1 Prill Dryer (20 tons) (1962)</td>
<td>40</td>
</tr>
<tr>
<td>E08</td>
<td>#1 Prill Cooler (20 tons) (1962)</td>
<td>40</td>
</tr>
<tr>
<td>E09</td>
<td>#2 Prill Predryer (20 tons) (1966)</td>
<td>40</td>
</tr>
<tr>
<td>E10</td>
<td>#2 Prill Dryer (20 tons) (1966)</td>
<td>40</td>
</tr>
<tr>
<td>E11</td>
<td>#2 Prill Cooler (20 tons) (1966)</td>
<td>40</td>
</tr>
<tr>
<td>E12</td>
<td>Prill Remelt Evaporator (7 tons) (1965)</td>
<td>40</td>
</tr>
<tr>
<td>E14</td>
<td>Nitric Acid Concentrator (1970)</td>
<td>40</td>
</tr>
<tr>
<td>EP-16</td>
<td>68% Nitric Acid Concentrator (2.98 tons) (1981)</td>
<td>20</td>
</tr>
</tbody>
</table>

**Emission Limitation:**
1) The permittee shall not cause or permit to be discharged into the atmosphere from these emission units any visible emissions with an opacity greater than the corresponding opacity value in the accompanying table for any continuous six-minute period. [10 CSR 10-6.220(3)(A)1]
2) Exception: The permittee may discharge into the atmosphere from any emission unit visible emissions with an opacity up to 60 percent for one continuous six-minute period in any 60 minutes. [10 CSR 10-6.220(3)(A)2]
3) Failure to demonstrate compliance with 10 CSR 10-6.220(3)(A) solely because of the presences of uncombined water shall not be a violation. [10 CSR 10-6.220(3)(B)]

**Monitoring:**
1) Monitoring schedule:
   The permittee shall conduct weekly observations for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then:
   a) The permittee shall conduct observations once every two weeks for a period of eight weeks. If a violation is noted, the permittee shall revert to weekly monitoring. Should no violation of this regulation be observed during this period then:
   b) The permittee shall conduct observations once per month. If a violation is noted, the permittee shall revert to weekly monitoring.
2) If the permittee reverts to weekly monitoring at any time, the monitoring schedule shall progress in an identical manner from the initial monitoring schedule.
3) Observations are only required when the emission units are operating and when the weather conditions allow.
4) Issuance of a new, amended, or modified operating permit does not restart the monitoring schedule.
5) The permittee shall conduct visible emissions observation on these emission units using the procedures contained in U.S. EPA Test Method 22. Each Method 22 observation shall be conducted
for a minimum of six-minutes. If no visible emissions are observed from the emission unit using Method 22, then no Method 9 is required for the emission unit.

6) For emission units with visible emissions, the permittee shall have a certified Method 9 observer conduct a U.S. EPA Test Method 9 opacity observation. The permittee may choose to forego Method 22 observations and instead begin with a Method 9 opacity observation. The certified Method 9 observer shall conduct each Method 9 opacity observation for a minimum of 30-minutes.

Record Keeping:
1) The permittee shall maintain records of all observation results for each emission unit using Attachments B and C or equivalent forms.
2) The permittee shall make these records available for inspection to the Department of Natural Resources’ personnel upon request.
3) The permittee shall retain all records for five years.

Reporting:
1) The permittee shall report any exceedance of the limitations no later than ten days after an exceedance of the emission limitation.
2) The permittee shall report any deviations from the monitoring, recordkeeping, and reporting requirements of this permit condition in the annual compliance certification, as required by Section V of this permit.
3) All reports and certifications shall be submitted to the Air Pollution Control Program’s Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or AirComplianceReporting@dnr.mo.gov.

### PERMIT CONDITION 6.260

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP099</td>
<td>240 HP gasoline emergency filter plant engine: Ford (spark)</td>
</tr>
<tr>
<td>EP101</td>
<td>2.2 MMBtu/Hr diesel emergency generator engine: Kohler (compression) (858 hp)</td>
</tr>
<tr>
<td>EP103</td>
<td>305 HP diesel firewater pump installed (compression)</td>
</tr>
</tbody>
</table>

**Note:** As of issuance of this permit, 10 CSR 10-6.260 is a Federal Only requirement

### Emission Limitation:
The permittee shall not cause or permit the emission into the atmosphere gases containing more than five hundred parts per million by volume (500 ppmv) of sulfur dioxide or more than thirty-five milligrams per cubic meter (35 mg/m³) of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three hour time period. [6.260(3)(A)2.]

### Monitoring/Recordkeeping/Reporting
None, see Statement of Basis.

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1 This regulation was rescinded from Missouri Code of State Regulations on November 30, 2015 but it remains in Missouri’s SIP and thus still remains an applicable federal regulation. Upon adoption of 10 CSR 10-6.261 into Missouri’s SIP, 10 CSR 10-6.260 will be removed from the SIP and thus this rule will no longer be applicable to the installation.
PERMIT CONDITION 6.261
10 CSR 10-6.261 Control of Sulfur Dioxide Emissions
10 CSR 10-6.065, Operating Permits – Voluntary Limitation(s)

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Description (ignition type)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E01a</td>
<td>9.6 MMBtu/Hr Preheater Natural Gas Fired for Selective Catalytic Reduction</td>
</tr>
<tr>
<td>E15</td>
<td>98.991 MMBtu/Hr Boiler</td>
</tr>
<tr>
<td>EP101</td>
<td>2.2 MMBtu/Hr diesel emergency generator engine: Kohler (compression)</td>
</tr>
<tr>
<td>EP103</td>
<td>305 HP diesel firewater pump installed (compression)</td>
</tr>
</tbody>
</table>

Note: As of issuance of this permit, 10 CSR 10-6.261 is a State Only requirement²

Operational Limitation:
1) For Diesel Units: The permittee shall burn diesel with a maximum sulfur content 15 ppm.
2) For Natural Gas Units: The permittee shall combust exclusively natural gas as defined in 40 CFR 72.2

Recordkeeping:
1) The permittee shall determine compliance using fuel delivery records.
2) The permittee must maintain a record of fuel deliveries.
3) The permittee must maintain the fuel supplier information to certify all fuel deliveries. Bills of lading and/or other fuel deliver documentation containing the following information for all fuel purchases or deliveries are deemed acceptable to comply with the requirements of this rule:
   a) The name, address, and contact information of the fuel supplier;
   b) The type of fuel;
   c) The sulfur content or maximum sulfur content expressed in percent sulfur by weight or in ppm sulfur; and
   d) The heating value of the fuel.
4) The permittee must furnish the Director all data necessary to determine compliance status.
5) Records may be kept electronically using database or workbook systems, as long as all required information is readily available for compliance determinations.
6) All records must be kept for a minimum of 5 years and be made available to Department of Natural Resources’ personnel upon request.

Reporting:
1) The permittee shall report any deviations from the monitoring, recordkeeping, and reporting requirements of this permit condition in the annual compliance certification, as required by Section V of this permit.
2) All reports and certifications shall be submitted to the Air Pollution Control Program’s Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or AirComplianceReporting@dnr.mo.gov.

² Missouri’s SIP has not adopted this regulation; therefore, this regulation is a state only requirement. Upon adoption into Missouri’s SIP this regulation will be both a state and federal requirement.
PERMIT CONDITION 6.400
10 CSR 10-6.400 Restriction of Emission of Particulate Matter From Industrial Processes

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Description (ignition type)</th>
<th>Allowable PM Emission Rate (lbs/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E04</td>
<td>Prill Evaporator</td>
<td>42.53</td>
</tr>
<tr>
<td>E05</td>
<td>Prilling Tower</td>
<td>42.53</td>
</tr>
<tr>
<td>E12</td>
<td>Prill Remelt Evaporator</td>
<td>15.10</td>
</tr>
<tr>
<td>E14</td>
<td>Nitric Acid Concentrator</td>
<td>10.03</td>
</tr>
</tbody>
</table>

**Emission Limitations:**
The permittee shall not emit more than the established amount of particulate matter in the above table for each corresponding emission unit. [6.400(3)(A)1.]

**Monitoring/Recordkeeping/Reporting**
None, see Statement of Basis.

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PERMIT CONDITION NSPS De
10 CSR 10-6.070 New Source Performance Standards
40 CFR Part 60, Subpart De – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Description</th>
<th>Construction Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>E15</td>
<td>98.991 MMBtu/Hr Boiler</td>
<td>June 2011</td>
</tr>
</tbody>
</table>

**Recordkeeping/Reporting:**
1) The permittee shall provide fuel supplier certification that includes the following information: [§60.48c(f)]
   a) The name of the supplier of the fuel; [§60.48c(f)(4)(i)]
   b) The potential sulfur emissions rate or maximum potential sulfur emissions rate of the fuel in ng/J heat input; and [§60.48c(f)(4)(ii)]
   c) The method used to determine the potential sulfur emissions rate of the fuel. [§60.48c(f)(4)(iii)]
2) The permittee shall record and maintain records of the amount of each fuel combusted during each operating day. [§60.48c(g)(1)]
   a) As an alternative to meeting the requirements of §60.48c(g)(1), the permittee that combusts only natural gas may elect to record and maintain records of the amount of each fuel combusted during each calendar month. [§60.48c(g)(2)]
3) All records required shall be maintained by the permittee of the affected facility for a period of five years following the date of such record. [§60.48c(i)]
4) The reporting period for the reports required is each six-month period. All reports shall be submitted to the Director and shall be postmarked by the 30th day following the end of the reporting period.
5) The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
6) All reports and certifications shall be submitted to the Air Pollution Control Program’s Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or AirComplianceReporting@dnr.mo.gov.

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Description (ignition type)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP101</td>
<td>Emergency Generator Engine: Kohler (2.2 MMBtu, 858 hp, 640 kW) (Diesel CI) (July 2014))</td>
</tr>
</tbody>
</table>

**Emission Limitations**

1) The permittee must comply with the emission standards for new nonroad CI engines in §60.4202 for all pollutants. [§60.4205(b)]
   a) The permittee must certify their emergency stationary CI ICE to the emission standards specified in §60.4202(a)(2). [§60.4202(a)]
      i. The certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 (seen in the table below) and 40 CFR 89.113 for all pollutants beginning in model year 2007. [§60.4205(a)(2)]
      ii. Exhaust opacity from compression-ignition nonroad engines for which this subpart is applicable must not exceed: [§89.113(a)]
          1. 20 percent during the acceleration mode; [§89.113(a)(1)]
          2. 15 percent during the lugging mode; and [§89.113(a)(2)]
          3. 50 percent during the peaks in either the acceleration or lugging modes. [§89.113(a)(3)]
      iii. Opacity levels are to be measured and calculated as set forth in 40 CFR part 86, subpart I. Notwithstanding the provisions of 40 CFR part 86, subpart I, two-cylinder nonroad engines may be tested using an exhaust muffler that is representative of exhaust mufflers used with the engines in use. [§89.113(b)]

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>NMHC + NOx</th>
<th>CO</th>
<th>PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limitation (g/kW-hr)</td>
<td>6.4</td>
<td>3.5</td>
<td>0.20</td>
</tr>
</tbody>
</table>

**Operational Limitations**

1) The permittee must use diesel fuel that meets the requirements of 40 CFR 80.510(a). [§60.4207(a)]
   a) All nonroad, locomotive, and marine (NRLM) diesel fuel is subject to the following per-gallon standards: [§80.510(c)]
      i. Sulfur content. 15 ppm maximum. [§80.510(c)(1)]
      ii. Cetane index or aromatic content, as follows: [§80.510(c)(2)]
          1. A minimum cetane index of 40; or [§80.510(c)(2)(i)]
          2. A maximum aromatic content of 35 volume percent. [§80.510(c)(2)(ii)]
2) The permittee must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. [§60.4207(b)]

**Performance Testing:**
The permittee shall conduct all required performance tests according to §60.4212(a) through (c) and (e), as applicable. [§60.4212]

**Monitoring:**
1) The permittee must install a non-resettable hour meter prior to startup of the engine. [§60.4209(a)]
2) The permittee must comply with the emission standards specified, the permittee must do all of the following, except as allowed under §60.4211(g): [§60.4211(a)]
   a) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions; [§60.4211(a)(1)]
   b) Change only those emission-related settings that are permitted by the manufacturer; and [§60.4211(a)(2)]
   c) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply. [§60.4211(a)(3)]
3) The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in §60.4211(g). [§60.4211(c)]
4) The permittee must operate the emergency stationary ICE according to the requirements in §60.4211(f)(1) through (3). In order for the engine to be considered an emergency stationary ICE, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in §60.4211(f)(1) through (3), is prohibited. If the permittee does not operate the engine according to the requirements in §60.4211(f)(1) through (3), the engine will not be considered an emergency engine and must meet all requirements for non-emergency engines. [§60.4211(f)]
   a) There is no time limit on the use of emergency stationary ICE in emergency situations. [§60.4211(f)(1)]
   b) The permittee may operate your emergency stationary ICE for any combination of the purposes specified in §60.4211(f)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by §60.4211(f)(3) counts as part of the 100 hours per calendar year allowed by §60.4211(f)(2). [§60.4211(f)(2)]
      i. Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Director for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. [§60.4211(f)(2)(i)]
   c) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in §60.4211(f)(2). Except as provided in §60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [§60.4211(f)(3)]
i. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: [§60.4211(f)(3)(i)]

1. The engine is dispatched by the local balancing authority or local transmission and distribution system operator; [§60.4211(f)(3)(i)(A)]

2. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. [§60.4211(f)(3)(i)(B)]

3. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. [§60.4211(f)(3)(i)(C)]

4. The power is provided only to the facility itself or to support the local transmission and distribution system. [§60.4211(f)(3)(i)(C)]

5. The permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the permittee. [§60.4211(f)(3)(i)(C)]

6. The permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the permittee. [§60.4211(f)(3)(i)(C)]

5) If the permittee does not install, configure, operate, and maintain their engine and control device according to the manufacturer's emission-related written instructions, or the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee must demonstrate compliance as follows: [§60.4211(g)]

   a) The permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. The permittee must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards. [§60.4211(g)(3)]

6) The requirements specified in 40 CFR 1039.665 apply to the permittee’s stationary CI ICE equipped with AECDs for qualified emergency situations as allowed by 40 CFR 1039.665. [§60.4211(h)]

**Reporting and Recordkeeping:**

1) The permittee is not required to submit an initial notification. If the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the permittee must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The permittee must record the time of operation of the engine and the reason the engine was in operation during that time. [§60.4214(b)]

2) If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the permittee must keep records of any corrective action taken after the backpressure monitor has notified the permittee that the high backpressure limit of the engine is approached. [§60.4214(c)]

3) The permittee of stationary CI ICE equipped with AECDs pursuant to the requirements of 40 CFR 1039.665 must report the use of AECDs as required by 40 CFR 1039.665(e). [§60.4214(e)]
4) The permittee shall report any exceedance of any of the terms imposed by this permit condition, or any malfunction which could cause an exceedance of any of the terms imposed by this permit condition, no later than ten (10) days after the exceedance or event causing the exceedance.

5) The permittee shall report any deviations from the monitoring, recordkeeping, and reporting requirements of this permit condition in the annual compliance certification, as required by Section V of this permit.

6) All reports and certifications shall be submitted to the Air Pollution Control Program’s Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or AirComplianceReporting@dnr.mo.gov.

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**PERMIT CONDITION NSPS JJJJ**

10 CSR 10-6.070 New Source Performance Regulations
40 CFR Part 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Description (ignition type)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP099</td>
<td>Emergency Filter Plant Engine: Ford (240 HP) (Gasoline SI) (May 2016)</td>
</tr>
</tbody>
</table>

**Emission Requirements:**

1) The permittee must comply with the emission standards in §60.4231(b). [§60.4233(b)]
   a) The permittee must certify their stationary ICE to the certification emission standards and other requirements for new nonroad SI engines in 40 CFR part 1048. [§60.4231(b)]

2) The permittee must comply with the emission standards in §60.4231(b). [§60.4233(b)]
   a) The permittee must meet the emission standards and other requirements in 40 CFR part 1048. [§60.4231(b)]

3) If the permittee is required to meet standards that reference 40 CFR 1048.101, the permittee must, if testing their engines in use, meet the standards applicable to field testing, except as indicated in §60.4233(e). [§60.4233(h)]

4) The permittee must operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine. [§60.4234]

5) The permittee must use gasoline that meets the per gallon sulfur limit of 80 ppm in 40 CFR 80.195. [§60.4235]

**Monitoring:**

1) The permittee must install a non-resettable hour meter. [§60.4237(b)]

2) The permittee must meet one of the requirements specified in §60.4243(a)(1) and (2). [§60.4243(a)]
   a) If the permittee operates and maintains the certified stationary SI internal combustion engine and control device according to the manufacturer’s emission-related written instructions, the permittee must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required for the permittee. The permittee must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply. If the permittee adjusts engine settings according to and consistent with the manufacturer’s instructions, the stationary SI internal combustion engine will not be considered out of compliance. [§60.4243(a)(1)]
   b) If the permittee does not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer’s emission-related written instructions,
the engine will be considered a non-certified engine, and the permittee must demonstrate compliance according to §60.4243(a)(2)(ii), as appropriate. [§60.4243(a)(2)]

i. The permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. [§60.4243(a)(2)(ii)]

3) The permittee must operate the emergency stationary ICE according to the requirements in §60.4243(d)(1) through (3). In order for the engine to be considered an emergency stationary ICE, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in §60.4243 (d)(1) through (3), is prohibited. If the permittee does not operate the engine according to the requirements in §60.4243(d)(1) through (3), the engine will not be considered an emergency engine and must meet all requirements for non-emergency engines. [§60.4243(d)]

a) There is no time limit on the use of emergency stationary ICE in emergency situations. [§60.4243(d)(1)]

b) The permittee may operate the emergency stationary ICE for any combination of the purposes specified §60.4243(d)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by §60.4243(d)(3) counts as part of the 100 hours per calendar year allowed by §60.4243(d)(2).[§60.4243(d)(2)]

i. Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Director for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. [§60.4243(d)(2)(i)]

c) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in §60.4243(d)(2). Except as provided in §60.4243(d)(3)(i), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [§60.4243(d)(3)]

4) If the permittee purchases a non-certified engine or the permittee does not operate and maintain their certified stationary SI internal combustion engine and control device according to the manufacturer's written emission-related instructions, the permittee is required to perform initial performance testing, but the permittee is not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR 94.11(a). [§60.4243(f)]

5) It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. [§60.4243(g)]

Performance Testing:

1) The permittee shall conduct all required performance tests according to the requirements in §60.4244(a) through (e). [§60.4244]
2) The permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. [§60.4243(b)(2)(i)]

**General Provisions:**
Table 3 to Subpart JJJJ shows which parts of the General Provisions in §§60.1 through 60.19 apply.

**Reporting and Recordkeeping:**
1) The permittee must keep records of the information in §60.4245(a)(1) through (4). [§60.4245(a)]
   a) All notifications submitted to comply with subpart JJJJ and all documentation supporting any notification. [§60.4245(a)(1)]
   b) Maintenance conducted on the engine. [§60.4245(a)(2)]
   c) If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable. [§60.4245(a)(3)]
   d) If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards. [§60.4245(a)(4)]
2) The permittee shall report any exceedance of any of the terms imposed by this permit condition, or any malfunction which could cause an exceedance of any of the terms imposed by this permit condition, no later than ten (10) days after the exceedance or event causing the exceedance.
3) The permittee shall report any deviations from the monitoring, recordkeeping, and reporting requirements of this permit condition in the annual compliance certification, as required by Section V of this permit.
4) All reports and certifications shall be submitted to the Air Pollution Control Program’s Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 or AirComplianceReporting@dnr.mo.gov.
PERMIT CONDITION MACT ZZZZ

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Description (ignition type)</th>
<th>Construction Date (source type)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP099</td>
<td>Emergency Filter Plant Engine: Ford (240 HP) (Gasoline SI)</td>
<td>May 2016 (new)</td>
</tr>
<tr>
<td>EP101</td>
<td>Emergency Generator Engine: Kohler (2.2 MMBtu, 858 hp, 640 kW) (Diesel CI)</td>
<td>July 2014 (new)</td>
</tr>
<tr>
<td>EP103</td>
<td>Firewater Pump (305 HP) (Diesel CI)</td>
<td>1993 (existing)</td>
</tr>
</tbody>
</table>

**New Sources**

The permittee meets the requirements of MACT ZZZZ by meeting the requirements of Permit Condition NSPS III for compression ignition engines or Permit Condition NSPS JJJJ for spark ignition engines. No further requirements apply for such engines under MACT ZZZZ.

**Existing Sources**

**Operational Limitation:**

The permittee must comply with the requirements in Table 2d that apply. [§63.6603(a)]

**Table 2d to Subpart ZZZZ of Part 63—Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions**

<table>
<thead>
<tr>
<th>For each . . .</th>
<th>The permittee must meet the following requirement, except during periods of startup . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency stationary CI RICE.³</td>
<td>a. Change oil and filter every 500 hours of operation or annually, whichever comes first.⁴</td>
</tr>
<tr>
<td></td>
<td>b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and</td>
</tr>
<tr>
<td></td>
<td>c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.</td>
</tr>
<tr>
<td>Emergency stationary SI RICE³</td>
<td>a. Change oil and filter every 500 hours of operation or annually, whichever comes first⁴;</td>
</tr>
<tr>
<td></td>
<td>b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and</td>
</tr>
</tbody>
</table>

³ If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

⁴ The permittee has the option to utilize an oil analysis program as described in §63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2d.
<table>
<thead>
<tr>
<th>For each . . .</th>
<th>The permittee must meet the following requirement, except during periods of startup . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.</td>
<td></td>
</tr>
</tbody>
</table>

**General Requirements**

1) The permittee must be in compliance with the operating limitations that apply at all times. 
   \[§63.6605(a)\]

2) At all times the permittee must operate and maintain any affected source in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. 
   \[§63.6605(b)\]

**Monitoring/Maintenance and Operating Requirements**

1) The permittee must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. 
   \[§63.6625(e)\]

2) The permittee must install a non-resettable hour meter if one is not already installed. \[§63.6625(f)\]

3) The permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Table 2d apply. \[§63.6625(h)\]

4) For the stationary CI engines, operation or management practices in “Emergency stationary CI RICE” of Table 2d, the permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Table 2d. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2d. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the permittee is not required to change the oil. If any of the limits are exceeded, the permittee must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee must change the oil within 2 business days or before commencing operation, whichever is later. The permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. \[§63.6625(i)\]

5) For the stationary SI engines subject to the work, operation or management practices in “Emergency stationary SI RICE” of Table 2d the permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Table 2d. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2d. The analysis program must at a
minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the permittee is not required to change the oil. If any of the limits are exceeded, the permittee must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee must change the oil within 2 business days or before commencing operation, whichever is later. The permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [§63.6625(j)]

**Continuous Compliance Requirements:**

1) The permittee must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Table 2d that apply according to methods specified in Table 6. [§63.6640(a)]

**Table 6 - Continuous Compliance With Emission Limitations, and Other Requirements**

<table>
<thead>
<tr>
<th>For each . . .</th>
<th>Complying with the requirement to . . .</th>
<th>The Permittee must demonstrate continuous compliance by . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing emergency stationary RICE located at an area source of HAP</td>
<td>Work or Management practices</td>
<td>Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.</td>
</tr>
</tbody>
</table>

2) The permittee must report each instance in which the permittee did not meet each operating limitation in Table 2d. These instances are deviations from the emission and operating limitations. These deviations must be reported according to the requirements in §63.6650. If the permittee changes their catalyst, the permittee must reestablish the values of the operating parameters measured during the initial performance test. When the permittee reestablishes the values of their operating parameters, the permittee must also conduct a performance test to demonstrate that the permittee is meeting the required emission limitation applicable to your stationary RICE. [§63.6640(b)]

3) The permittee must also report each instance in which the permittee did not meet the requirements in Table 8 to subpart ZZZZ. [§63.6640(e)]
4) In order for the engine to be considered an emergency stationary RICE, any operation other than emergency operations, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in §63.6640(f)(1) through (4), is prohibited. If the permittee does not operate the engine according to the requirements in §63.6640(f)(1) through (4), the engine will not be considered an emergency engine and must meet all requirements for non-emergency engines. [§63.6640(f)]

a) There is no time limit on the use of emergency stationary RICE in emergency situations. [§63.6640(f)(1)]

b) The permittee may operate the emergency stationary RICE for any combination of the purposes specified in §63.6640(f)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by §63.6640(f)(3) and (4) counts as part of the 100 hours per calendar year allowed by this paragraph. [§63.6640(f)(2)]

i. Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. [§63.6640(f)(2)(i)]

c) Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in §63.6640(f)(2). Except as provided §63.6640(f)(4)(ii), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [§63.6640(f)(4)]

i. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

   [§63.6640(f)(4)(ii)]
   1. The engine is dispatched by the local balancing authority or local transmission and distribution system operator. [§63.6640(f)(4)(ii)(A)]
   2. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. [§63.6640(f)(4)(ii)(B)]
   3. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. [§63.6640(f)(4)(ii)(C)]
   4. The power is provided only to the facility itself or to support the local transmission and distribution system. [§63.6640(f)(4)(ii)(D)]
   5. The permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the permittee. [§63.6640(f)(4)(ii)(E)]
Recordkeeping:
1) The permittee must keep the records described in §63.6655(a)(1) through (a)(5), (b)(1) through (b)(3) and (c). [§63.6655(a)]
   a) A copy of each notification and report that the permittee submitted to comply, including all documentation supporting any Initial Notification or Notification of Compliance Status that the permittee submitted, according to the requirement in §63.10(b)(xiv). [§63.6655(a)(1)]
   b) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. [§63.6655(a)(2)]
   c) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii). [§63.6655(a)(3)]
   d) Records of all required maintenance performed on the air pollution control and monitoring equipment. [§63.6655(a)(4)]
   e) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [§63.6655(a)(5)]
2) The permittee must keep the records required in Table 6 of Subpart ZZZZ to show continuous compliance with each emission or operating limitation that applies. [§63.6655(d)]
3) The permittee must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the permittee operated and maintained the stationary RICE and after-treatment control device (if any) according to their own maintenance plan. [§63.6655(e)]
4) The permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in §63.6640(f)(4)(ii), the permittee must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes. [§63.6655(f)]
5) The permittee’s records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1). [§63.6660(a)]
6) As specified in §63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [§63.6660(b)]
7) The permittee must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). [§63.6660(c)]

Reporting
1) The permittee must submit all of the notifications in §63.7(b) that apply by the dates specified. [§63.6645(a)]
2) The permittee must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in §63.7(b)(1). [§63.6645(g)]
3) The permittee shall report any exceedance of any of the terms imposed by this permit condition, or any malfunction which could cause an exceedance of any of the terms imposed by this permit condition, no later than ten (10) days after the exceedance or event causing the exceedance.
4) The permittee shall report any deviations from the monitoring, recordkeeping, and reporting requirements of this permit condition in the annual compliance certification.
5) All reports and certifications shall be submitted to the Missouri Compliance Coordinator, Air Branch Enforcement and Compliance Assurance Division U.S. EPA Region 7, 11201 Renner Blvd., Lenexa, Kansas 66219.

PERMIT CONDITION MACT CCCCCC
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Description</th>
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<td>Gasoline Storage</td>
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**Management Practices**
1) The permittee must comply with the requirements of §63.11115(a) and (b). [§63.11115]
   a. The permittee must, at all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [§63.11115(a)]
   b. The permittee must keep applicable records and submit reports as specified in §63.11125(d) and §63.11126(b). [§63.11115(b)]
2) The permittee must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following: [§63.11116(a)]
   a. Minimize gasoline spills; [§63.11116(a)(1)]
   b. Clean up spills as expeditiously as practicable; [§63.11116(a)(2)]
   c. Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use; [§63.11116(a)(3)]
   d. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators. [§63.11116(a)(4)]
3) The permittee is not required to submit notifications or reports as specified in §63.11125, §63.11126, or §63.1, but the permittee must have records available within 24 hours of a request by the Administrator to document gasoline throughput. [§63.11116(b)]
4) Portable gasoline containers that meet the requirements of 40 CFR part 59, subpart F, are considered acceptable for compliance with §63.11116(a)(3). [§63.11116(d)]

**Recordkeeping and Reporting**
1) The permittee shall keep records as specified in paragraphs §63.11125(d)(1) and (2). [§63.11125(d)]
   a. Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. [§63.11125(d)(1)]
   b. Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.11115(a), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [§63.11125(d)(2)]
2) The permittee shall report, by March 15 of each year, the number, duration, and a brief description of each type of malfunction which occurred during the previous calendar year and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by the permittee during a malfunction of an affected source to minimize emissions in accordance with §63.11115(a), including actions taken to correct a malfunction. No report is necessary for a calendar year in which no malfunctions occurred. [§63.11126(b)]

3) All reports and certifications shall be submitted to the Missouri Compliance Coordinator, Air Branch Enforcement and Compliance Assurance Division U. S. EPA Region 7, 11201 Renner Blvd., Lenexa, Kansas 66219.
IV. Core Permit Requirements

The installation shall comply with each of the following regulations or codes. Consult the appropriate sections in the Code of Federal Regulations (CFR), the Code of State Regulations (CSR), and local ordinances for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued. The following are only excerpts from the regulation or code, and are provided for summary purposes only.

10 CSR 10-6.045 Open Burning Requirements
1) General Provisions. The open burning of tires, petroleum-based products, asbestos containing materials, and trade waste is prohibited, except as allowed below. Nothing in this rule may be construed as to allow open burning which causes or constitutes a public health hazard, nuisance, a hazard to vehicular or air traffic, nor which violates any other rule or statute.
2) Certain types of materials may be open burned provided an open burning permit is obtained from the director. The permit will specify the conditions and provisions of all open burning. The permit may be revoked if the permittee fails to comply with the conditions or any provisions of the permit.

10 CSR 10-6.050 Start-up, Shutdown and Malfunction Condition
1) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the director within two business days, in writing, the following information:
   a) Name and location of installation;
   b) Name and telephone number of person responsible for the installation;
   c) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
   d) Identity of the equipment causing the excess emissions;
   e) Time and duration of the period of excess emissions;
   f) Cause of the excess emissions;
   g) Air pollutants involved;
   h) Estimate of the magnitude of the excess emissions expressed in the units of the applicable requirement and the operating data and calculations used in estimating the magnitude;
   i) Measures taken to mitigate the extent and duration of the excess emissions; and
   j) Measures taken to remedy the situation that caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.
2) The permittee shall submit the paragraph 1 information to the director in writing at least ten days prior to any maintenance, start-up or shutdown activity which is expected to cause an excessive release of emissions that exceed one hour. If notice of the event cannot be given ten days prior to the planned occurrence, notice shall be given as soon as practicable prior to the activity.
3) Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under section 643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, start-up or shutdown. The information, at a minimum, should be the paragraph 1 list and shall be submitted not later than 15 days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other pertinent information available, the director or the commission shall make a determination whether the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under section 643.080 or 643.151, RSMo.
4) Nothing in this rule shall be construed to limit the authority of the director or commission to take appropriate action, under sections 643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule.

5) Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.

**10 CSR 10-6.060 Construction Permits Required**
The permittee shall not commence construction, modification, or major modification of any installation subject to this rule, begin operation after that construction, modification, or major modification, or begin operation of any installation which has been shut down longer than five years without first obtaining a permit from the permitting authority.

**10 CSR 10-6.065 Operating Permits**
The permittee shall file a complete application for renewal of this operating permit at least six months before the date of permit expiration. In no event shall this time be greater than eighteen months. The permittee shall retain the most current operating permit issued to this installation on-site. The permittee shall make such permit available within a reasonable period of time to any Missouri Department of Natural Resources personnel upon request.

The permittee shall follow the procedures and requirements of 40 CFR Part 61, Subpart M for any activities occurring at this installation which would be subject to provisions for 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos.

**10 CSR 10-6.110 Reporting of Emission Data, Emission Fees and Process Information**
1) The permittee shall submit a Full Emissions Report either electronically via MoEIS, which requires Form 1.0 signed by an authorized company representative, or on Emission Inventory Questionnaire (EIQ) paper forms on the frequency specified in this rule and in accordance with the requirements outlined in this rule. Alternate methods of reporting the emissions, such as spreadsheet file, can be submitted for approval by the director.

2) Public Availability of Emission Data and Process Information. Any information obtained pursuant to the rule(s) of the Missouri Air Conservation Commission that would not be entitled to confidential treatment under 10 CSR 10-6.210 shall be made available to any member of the public upon request.

3) The permittee shall pay an annual emission fee per ton of regulated air pollutant emitted according to the schedule in the rule. This fee is an emission fee assessed under authority of RSMo. 643.079.

**10 CSR 10-6.130 Controlling Emissions During Episodes of High Air Pollution Potential**
This rule specifies the conditions that establish an air pollution alert (yellow/orange/red/purple), or emergency (maroon) and the associated procedures and emission reduction objectives for dealing with each. The permittee shall submit an appropriate emergency plan if required by the Director.

**10 CSR 10-6.150 Circumvention**
The permittee shall not cause or permit the installation or use of any device or any other means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission or air contaminant which violates a rule of the Missouri Air Conservation Commission.
10 CSR 10-6.165 Restriction of Emission of Odors
This requirement is a State Only permit requirement.
No person may cause, permit or allow the emission of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one volume of odorous air is diluted with seven volumes of odor-free air for two separate trials not less than 15 minutes apart within the period of one hour. This odor evaluation shall be taken at a location outside of the installation’s property boundary.

10 CSR 10-6.170
Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin

Emission Limitation:
1) The permittee shall not cause or allow to occur any handling, transporting or storing of any material; construction, repair, cleaning or demolition of a building or its appurtenances; construction or use of a road, driveway or open area; or operation of a commercial or industrial installation without applying reasonable measures as may be required to prevent, or in a manner which allows or may allow, fugitive particulate matter emissions to go beyond the premises of origin in quantities that the particulate matter may be found on surfaces beyond the property line of origin. The nature or origin of the particulate matter shall be determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the director.
2) The permittee shall not cause nor allow to occur any fugitive particulate matter emissions to remain visible in the ambient air beyond the property line of origin.
3) Should it be determined that noncompliance has occurred, the director may require reasonable control measures as may be necessary. These measures may include, but are not limited to, the following:
   a) Revision of procedures involving construction, repair, cleaning and demolition of buildings and their appurtenances that produce particulate matter emissions;
   b) Paving or frequent cleaning of roads, driveways and parking lots;
   c) Application of dust-free surfaces;
   d) Application of water; and
   e) Planting and maintenance of vegetative ground cover.

Monitoring:
The permittee shall conduct inspections of its facilities sufficient to determine compliance with this regulation. If the permittee discovers a violation, the permittee shall undertake corrective action to eliminate the violation.
The permittee shall maintain the following monitoring schedule:
1) The permittee shall conduct weekly observations for a minimum of eight (8) consecutive weeks after permit issuance.
2) Should no violation of this regulation be observed during this period then-
   a) The permittee may observe once every two (2) weeks for a period of eight (8) weeks.
   b) If a violation is noted, monitoring reverts to weekly.
   c) Should no violation of this regulation be observed during this period then-
      i) The permittee may observe once per month.
      ii) If a violation is noted, monitoring reverts to weekly.
3) If the permittee reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner to the initial monitoring frequency.
Recordkeeping:
The permittee shall document all readings on Attachment A, or its equivalent, noting the following:
1) Whether air emissions (except water vapor) remain visible in the ambient air beyond the property line of origin.
2) Whether equipment malfunctions contributed to an exceedance.
3) Any violations and any corrective actions undertaken to correct the violation.

10 CSR 10-6.180 Measurement of Emissions of Air Contaminants
1) The director may require any person responsible for the source of emission of air contaminants to make or have made tests to determine the quantity or nature, or both, of emission of air contaminants from the source. The director may specify testing methods to be used in accordance with good professional practice. The director may observe the testing. All tests shall be performed by qualified personnel.
2) The director may conduct tests of emissions of air contaminants from any source. Upon request of the director, the person responsible for the source to be tested shall provide necessary ports in stacks or ducts and other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices as may be necessary for proper determination of the emission of air contaminants.
3) The director shall be given a copy of the test results in writing and signed by the person responsible for the tests.

10 CSR 10-6.250 Asbestos Abatement Projects
Certification, Accreditation, and Business Exemption Requirements
This is a State Only permit requirement.
The permittee shall conduct all asbestos abatement projects within the procedures established for certification and accreditation by 10 CSR 10-6.250. This rule requires individuals who work in asbestos abatement projects to be certified by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires training providers who offer training for asbestos abatement occupations to be accredited by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires persons who hold exemption status from certain requirements of this rule to allow the department to monitor training provided to employees.

10 CSR 10-6.280 Compliance Monitoring Usage
1) The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
   a) Monitoring methods outlined in 40 CFR Part 64;
   b) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, “Operating Permits”, and incorporated into an operating permit; and
   c) Any other monitoring methods approved by the director.
2) Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at an installation:
   a) Monitoring methods outlined in 40 CFR Part 64;
   b) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, “Operating Permits”, and incorporated into an operating permit; and
   c) Compliance test methods specified in the rule cited as the authority for the emission limitations.
3) The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
   a) Applicable monitoring or testing methods, cited in:
      i) 10 CSR 10-6.030, “Sampling Methods for Air Pollution Sources”;
      ii) 10 CSR 10-6.040, “Reference Methods”;
      iii) 10 CSR 10-6.070, “New Source Performance Standards”;
      iv) 10 CSR 10-6.080, “Emission Standards for Hazardous Air Pollutants”; or
   b) Other testing, monitoring, or information gathering methods, if approved by the director, that produce information comparable to that produced by any method listed above.

40 CFR Part 82 Protection of Stratospheric Ozone (Title VI)
1) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
   a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to 40 CFR §82.106.
   b) The placement of the required warning statement must comply with the requirements of 40 CFR §82.108.
   c) The form of the label bearing the required warning statement must comply with the requirements of 40 CFR §82.110.
   d) No person may modify, remove, or interfere with the required warning statement except as described in 40 CFR §82.112.
2) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B of 40 CFR Part 82:
   a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices described in 40 CFR §82.156.
   b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment described in 40 CFR §82.158.
   c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR §82.161.
   d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with the record keeping requirements of 40 CFR §82.166. ("MVAC-like" appliance as defined at 40 CFR §82.152).
   e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR §82.156.
   f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR §82.166.
3) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
4) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements contained in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been
completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.

5) The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. Federal Only - 40 CFR Part 82.
V. General Permit Requirements

The installation shall comply with each of the following requirements. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

Permit Duration and Extension of Expired Permits
This permit is issued for a term of five years, commencing on the date of issuance. This permit will expire at the end of this period unless renewed. If a timely and complete application for a permit renewal is submitted, but the Air Pollution Control Program fails to take final action to issue or deny the renewal permit before the end of the term of this permit, this permit shall not expire until the renewal permit is issued or denied.

General Record Keeping and Reporting Requirements
10 CSR 10-6.065(5)(C)1.C
1) Record Keeping
   a) All required monitoring data and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.
   b) Copies of all current operating and construction permits issued to this installation shall be kept on-site for as long as the permits are in effect. Copies of these permits shall be made available within a reasonable period of time to any Missouri Department of Natural Resources' personnel upon request.

2) Reporting
   a) All reports shall be submitted to the Air Pollution Control Program, Compliance and Enforcement Section, P. O. Box 176, Jefferson City, MO 65102 or AirComplianceReporting@dnr.mo.gov.
   b) The permittee shall submit a report of all required monitoring by:
      i) October 1st for monitoring which covers the January through June time period, and
      ii) April 1st for monitoring which covers the July through December time period.
   c) Each report shall identify any deviations from emission limitations, monitoring, record keeping, reporting, or any other requirements of the permit, this includes deviations or Part 64 exceedances.
   d) Submit supplemental reports as required or as needed. All reports of deviations shall identify the cause or probable cause of the deviations and any corrective actions or preventative measures taken.
      i) Notice of any deviation resulting from an emergency (or upset) condition as defined in paragraph (5)(C)7.A of 10 CSR 10-6.065 (Emergency Provisions) shall be submitted to the permitting authority either verbally or in writing within two working days after the date on which the emission limitation is exceeded due to the emergency, if the permittee wishes to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and the permittee can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or requirements in the permit. The notice
must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.

ii) Any deviation that poses an imminent and substantial danger to public health, safety or the environment shall be reported as soon as practicable.

iii) Any other deviations identified in the permit as requiring more frequent reporting than the permittee’s semiannual report shall be reported on the schedule specified in this permit.

e) Every report submitted shall be certified by the responsible official, except that, if a report of a deviation must be submitted within ten days after the deviation, the report may be submitted without a certification if the report is resubmitted with an appropriate certification within ten days after that, together with any corrected or supplemental information required concerning the deviation.

f) The permittee may request confidential treatment of information submitted in any report of deviation.

Risk Management Plan Under Section 112(r)

10 CSR 10-6.065(5)(C)1.D
If the installation is required to develop and register a risk management plan pursuant to Section 112(R) of the Act, the permittee will verify that it has complied with the requirement to register the plan.

Severability Clause

10 CSR 10-6.065(5)(C)1.F
In the event of a successful challenge to any part of this permit, all uncontested permit conditions shall continue to be in force. All terms and conditions of this permit remain in effect pending any administrative or judicial challenge to any portion of the permit. If any provision of this permit is invalidated, the permittee shall comply with all other provisions of the permit.

General Requirements

10 CSR 10-6.065(5)(C)1.G
1) The permittee must comply with all of the terms and conditions of this permit. Any noncompliance with a permit condition constitutes a violation and is grounds for enforcement action, permit termination, permit revocation and re-issuance, permit modification or denial of a permit renewal application.

2) The permittee may not use as a defense in an enforcement action that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.

3) The permit may be modified, revoked, reopened, reissued or terminated for cause. Except as provided for minor permit modifications, the filing of an application or request for a permit modification, revocation and reissuance, or termination, or the filing of a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

4) This permit does not convey any property rights of any sort, nor grant any exclusive privilege.

5) The permittee shall furnish to the Air Pollution Control Program, upon receipt of a written request and within a reasonable time, any information that the Air Pollution Control Program reasonably may require to determine whether cause exists for modifying, reopening, reissuing or revoking the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the Air Pollution Control Program copies of records required to be kept by the permittee. The permittee may make a claim of confidentiality for any information or records submitted pursuant to 10 CSR 10-6.065(5)(C)1.
Incentive Programs Not Requiring Permit Revisions
10 CSR 10-6.065(5)(C)1.H
No permit revision will be required for any installation changes made under any approved economic incentive, marketable permit, emissions trading, or other similar programs or processes provided for in this permit.

Reasonably Anticipated Operating Scenarios
10 CSR 10-6.065(5)(C)1.I
There are no reasonably anticipated operating scenarios.

Compliance Requirements
10 CSR 10-6.065(5)(C)3
1) Any document (including reports) required to be submitted under this permit shall contain a certification signed by the responsible official.
2) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized officials of the Missouri Department of Natural Resources, or their authorized agents, to perform the following (subject to the installation’s right to seek confidential treatment of information submitted to, or obtained by, the Air Pollution Control Program):
   a) Enter upon the premises where a permitted installation is located or an emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
   b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
   c) Inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
   d) As authorized by the Missouri Air Conservation Law, Chapter 643, RSMo or the Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the terms of this permit, and all applicable requirements as outlined in this permit.
3) All progress reports required under an applicable schedule of compliance shall be submitted semiannually (or more frequently if specified in the applicable requirement). These progress reports shall contain the following:
   a) Dates for achieving the activities, milestones or compliance required in the schedule of compliance, and dates when these activities, milestones or compliance were achieved, and
   b) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measures adopted.
4) The permittee shall submit an annual certification that it is in compliance with all of the federally enforceable terms and conditions contained in this permit, including emissions limitations, standards, or work practices. These certifications shall be submitted annually by April 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, as well as the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. All deviations and Part 64 exceedances and excursions must be included in the compliance certifications. The compliance certification shall include the following:
   a) The identification of each term or condition of the permit that is the basis of the certification;
   b) The current compliance status, as shown by monitoring data and other information reasonably available to the installation;
c) Whether compliance was continuous or intermittent;
d) The method(s) used for determining the compliance status of the installation, both currently and
   over the reporting period; and
e) Such other facts as the Air Pollution Control Program will require in order to determine the
   compliance status of this installation.

Permit Shield

10 CSR 10-6.065(5)(C)6

1) Compliance with the conditions of this permit shall be deemed compliance with all applicable
   requirements as of the date that this permit is issued, provided that:
   a) The applicable requirements are included and specifically identified in this permit, or
   b) The permitting authority, in acting on the permit revision or permit application, determines in
      writing that other requirements, as specifically identified in the permit, are not applicable to the
      installation, and this permit expressly includes that determination or a concise summary of it.

2) Be aware that there are exceptions to this permit protection. The permit shield does not affect the
   following:
   a) The provisions of section 303 of the Act or section 643.090, RSMo concerning emergency
      orders,
   b) Liability for any violation of an applicable requirement which occurred prior to, or was existing
      at, the time of permit issuance,
   c) The applicable requirements of the acid rain program,
   d) The authority of the Environmental Protection Agency and the Air Pollution Control Program of
      the Missouri Department of Natural Resources to obtain information, or
   e) Any other permit or extra-permit provisions, terms or conditions expressly excluded from the
      permit shield provisions.

Emergency Provisions

10 CSR 10-6.065(5)(C)7

1) An emergency or upset as defined in 10 CSR 10-6.065(5)(C)7.A shall constitute an affirmative
defense to an enforcement action brought for noncompliance with technology-based emissions
limitations. To establish an emergency- or upset-based defense, the permittee must demonstrate,
through properly signed, contemporaneous operating logs or other relevant evidence, the following:
   a) That an emergency or upset occurred and that the permittee can identify the source of the
      emergency or upset,
   b) That the installation was being operated properly,
   c) That the permittee took all reasonable steps to minimize emissions that exceeded technology­
      based emissions limitations or requirements in this permit, and
   d) That the permittee submitted notice of the emergency to the Air Pollution Control Program
      within two working days of the time when emission limitations were exceeded due to the
      emergency. This notice must contain a description of the emergency, any steps taken to mitigate
      emissions, and any corrective actions taken.

2) Be aware that an emergency or upset shall not include noncompliance caused by improperly
designed equipment, lack of preventative maintenance, careless or improper operation, or operator
error.
Operational Flexibility
10 CSR 10-6.065(5)(C)8
An installation that has been issued a Part 70 operating permit is not required to apply for or obtain a
permit revision in order to make any of the changes to the permitted installation described below if the
changes are not Title I modifications, the changes do not cause emissions to exceed emissions allowable
under the permit, and the changes do not result in the emission of any air contaminant not previously
emitted. The permittee shall notify the Air Pollution Control Program, Compliance and Enforcement
Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd.,
Lenexa, KS 66219, at least seven days in advance of these changes, except as allowed for emergency or
upset conditions. Emissions allowable under the permit means a federally enforceable permit term or
condition determined at issuance to be required by an applicable requirement that establishes an
emissions limit (including a work practice standard) or a federally enforceable emissions cap that the
source has assumed to avoid an applicable requirement to which the source would otherwise be subject.
1) Section 502(b)(10) changes. Changes that, under section 502(b)(10) of the Act, contravene an
express permit term may be made without a permit revision, except for changes that would violate
applicable requirements of the Act or contravene federally enforceable monitoring (including test
methods), record keeping, reporting or compliance requirements of the permit.
a) Before making a change under this provision, The permittee shall provide advance written notice
to the Air Pollution Control Program, Compliance and Enforcement Section, P.O. Box 176,
Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219,
describing the changes to be made, the date on which the change will occur, and any changes in
emission and any permit terms and conditions that are affected. The permittee shall maintain a
copy of the notice with the permit, and the APCP shall place a copy with the permit in the public
file. Written notice shall be provided to the EPA and the APCP as above at least seven days
before the change is to be made. If less than seven days notice is provided because of a need to
respond more quickly to these unanticipated conditions, the permittee shall provide notice to the
EPA and the APCP as soon as possible after learning of the need to make the change.
b) The permit shield shall not apply to these changes.

Off-Permit Changes
10 CSR 10-6.065(5)(C)9
1) Except as noted below, the permittee may make any change in its permitted operations, activities or
emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a
permit revision. Insignificant activities listed in the permit, but not otherwise addressed in or
prohibited by this permit, shall not be considered to be constrained by this permit for purposes of the
off-permit provisions of this section. Off-permit changes shall be subject to the following
requirements and restrictions:
a) The change must meet all applicable requirements of the Act and may not violate any existing
permit term or condition; the permittee may not change a permitted installation without a permit
revision if this change is subject to any requirements under Title IV of the Act or is a Title I
modification;
b) The permittee must provide contemporaneous written notice of the change to the Air Pollution
Control Program, Compliance and Enforcement Section, P.O. Box 176, Jefferson City, MO
65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219. This notice shall
not be required for changes that are insignificant activities under 10 CSR 10-6.065(5)(B)3 of this
rule. This written notice shall describe each change, including the date, any change in emissions,
pollutants emitted and any applicable requirement that would apply as a result of the change.
c) The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes; and

d) The permit shield shall not apply to these changes.

Responsible Official
10 CSR 10-6.020(2)(R)34
The application utilized in the preparation of this permit was signed by Samuel J Correnti, Plant Manager. If this person terminates employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Director of the Air Pollution Control Program of the change. Said notification shall be in writing and shall be submitted within 30 days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

Reopening-Permit for Cause
10 CSR 10-6.065(5)(E)6
This permit shall be reopened for cause if:

1) The Missouri Department of Natural Resources (MoDNR) receives notice from the Environmental Protection Agency (EPA) that a petition for disapproval of a permit pursuant to 40 CFR § 70.8(d) has been granted, provided that the reopening may be stayed pending judicial review of that determination,

2) MoDNR or EPA determines that the permit contains a material mistake or that inaccurate statements were made which resulted in establishing the emissions limitation standards or other terms of the permit,

3) Additional applicable requirements under the Act become applicable to the installation; however, reopening on this ground is not required if—:
   a) The permit has a remaining term of less than three years;
   b) The effective date of the requirement is later than the date on which the permit is due to expire;
   or
   c) The additional applicable requirements are implemented in a general permit that is applicable to the installation and the installation receives authorization for coverage under that general permit,

4) The installation is an affected source under the acid rain program and additional requirements (including excess emissions requirements), become applicable to that source, provided that, upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the permit;
   or

5) MoDNR or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.
Statement of Basis
10 CSR 10-6.065(5)(E)1.C
This permit is accompanied by a statement setting forth the legal and factual basis for the permit conditions (including references to applicable statutory or regulatory provisions). This Statement of Basis, while referenced by the permit, is not an actual part of the permit.

VI. Attachments

Attachments follow.
### Attachment A

**Inspection/Maintenance/Repair/Malfunction Log**

Emission Unit #

<table>
<thead>
<tr>
<th>Date/Time</th>
<th>Inspection/Maintenance Activities</th>
<th>Malfunction Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Malfunction</td>
</tr>
<tr>
<td></td>
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</tr>
</tbody>
</table>
### Attachment B

#### Method 22 Visible Emissions Observations

<table>
<thead>
<tr>
<th>Installation Name</th>
<th>Observer Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>Date</td>
</tr>
<tr>
<td>Sky Conditions</td>
<td>Wind Direction</td>
</tr>
<tr>
<td>Precipitation</td>
<td>Wind Speed</td>
</tr>
<tr>
<td>Time</td>
<td>Emission unit</td>
</tr>
</tbody>
</table>

Sketch emission unit: indicate observer position relative to emission unit; indicate potential emission points and/or actual emission points.

<table>
<thead>
<tr>
<th>Minute</th>
<th>Seconds</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Visible Emissions Yes (Y) or No (N)</td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

If visible emissions are observed, the installation is not required to complete the entire six-minute observation. The installation shall note when the visible emissions were observed and shall conduct a Method 9 opacity observation.
### Attachment C

#### Method 9 Opacity Observations

<table>
<thead>
<tr>
<th>Installation Name:</th>
<th>Sketch of the observer’s position relative to the emission unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Point:</td>
<td></td>
</tr>
<tr>
<td>Emission Unit:</td>
<td></td>
</tr>
<tr>
<td>Observer Name and Affiliation:</td>
<td></td>
</tr>
<tr>
<td>Observer Certification Date:</td>
<td></td>
</tr>
<tr>
<td>Method 9 Observation Date:</td>
<td></td>
</tr>
<tr>
<td>Height of Emission Point:</td>
<td></td>
</tr>
<tr>
<td>Time:</td>
<td>Start of observations</td>
</tr>
<tr>
<td>Distance of Observer from Emission Point:</td>
<td></td>
</tr>
<tr>
<td>Observer Direction from Emission Point:</td>
<td></td>
</tr>
<tr>
<td>Approximate Wind Direction:</td>
<td></td>
</tr>
<tr>
<td>Estimated Wind Speed:</td>
<td></td>
</tr>
<tr>
<td>Ambient Temperature:</td>
<td></td>
</tr>
<tr>
<td>Description of Sky Conditions (Presence and color of clouds):</td>
<td></td>
</tr>
<tr>
<td>Plume Color:</td>
<td></td>
</tr>
<tr>
<td>Approximate Distance Plume is Visible from Emission Point:</td>
<td></td>
</tr>
</tbody>
</table>
## Attachment C (continued) Method 9 Opacity Observations

<table>
<thead>
<tr>
<th>Minute</th>
<th>Seconds</th>
<th>1-minute Avg. % Opacity</th>
<th>6-minute Avg. % Opacity</th>
<th>Steam Plume (check if applicable)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>15</td>
<td>N/A</td>
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<tr>
<td>2</td>
<td>30</td>
<td>N/A</td>
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<tr>
<td>3</td>
<td>45</td>
<td>N/A</td>
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<td>30</td>
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</tbody>
</table>

The emission unit is in compliance if each six-minute average opacity is less than or equal to the specified values in Permit Condition 6.220. Exception: The emission unit is in compliance if one six-minute average opacity is greater than the values in Permit Condition 6.220, but less than 60 %.

Was the emission unit in compliance at the time of evaluation (yes or no)?

Signature of Observer

---

5 1-minute avg. % opacity is the average of the four 15 second opacity readings during the minute.

6 6-minute avg. % opacity is the average of the six most recent 1-minute avg. % opacities.

7 Each 15 second opacity reading shall be recorded to the nearest 5% opacity as stated within Method 9.
### Attachment D
Fugitive Emission Observations

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Visible Emissions</th>
<th>If There Are Visible Emissions Beyond the Property Boundary</th>
<th>Cause</th>
<th>Corrective Action</th>
<th>Initial</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No</td>
<td>Yes</td>
<td></td>
<td></td>
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</tbody>
</table>
STATEMENT OF BASIS

Installation Description
The Dyno Nobel Inc. - LOMO Plant is located in the town of Louisiana, Missouri, in Pike County. The current plant, which was built in the 1960s, and includes a water treatment plant for raw water supply built in the 1940’s, produces five products: weak nitric acid, blended nitric acid, concentrated nitric acid, ammonium nitrate solution, and ammonium nitrate prill.

The manufacture of nitric acid is the first step in the operation. Most of the nitric acid produced at the LOMO Plant is neutralized with ammonia to form an 83% solution of nitrate of ammonia liquor (NAL) which can be further processed into other products or used for direct sales. Some of the nitric acid is sold at strengths of 56%, 67%, 83%, and 98%.

The raw materials used in the ammonia oxidation (nitric acid) process (E01) are anhydrous ammonia, air, and water. An air-ammonia mixture is reacted in a catalytic converter to form nitric oxide (NO) and water. The NO formed is oxidized to NO2 by combining with excess oxygen present in the gas stream. The reaction products are cooled as air is added later in the process. The cooled NO2 then flows counter currently with water in an absorber to form nitric acid. The desired strength acid is removed from the bottom of the absorber and makeup water is added to the top. Additional air is added at the absorber bottom to “bleach” the product acid and to supply oxygen for converting any remaining NO to NO2. The spent gas leaving the absorber is saturated with weak acid droplets which are removed in an acid mist separator. The gas then proceeds to the reheater, superheater, power recovery turbine, economizer, and exhaust stack. Production operators routinely sample the stack for unreacted NOx. This measurement is used to calculate NOx emissions from the exhaust stack.

The nitric acid produced in the ammonia oxidation process can be further concentrated. Ninety-eight percent (98%) nitric acid is made in the nitric acid concentrator (E14). Fifty-six percent (56%) acid is distilled in the presence of magnesium nitrate salt solution. Concentrated acid vapors leaving the top of the column are condensed in the dehydration column condenser as cool- water entering the bottom of the condenser on the shell side flows upward to cool the vapors. 98% acid from the condenser is collected in a reflux tank. Vacuum is maintained on the column through the use of one or two steam ejectors depending on operating and weather conditions.

Various acid strengths can be produced by mixing 98% and 56% nitric acid. Existing storage tanks (E02) limit the ability to produce one or two specific blends at any one time.

Ammonium nitrate is made by neutralizing 56% nitric acid with anhydrous ammonia to produce a liquid solution that is approximately eighty-three percent (83%) ammonium nitrate and seventeen percent (17%) water. This reaction takes place within the neutralizer (E03). Nitric acid is fed to the neutralizer (E03) to maintain a slightly acidic ammonium nitrate liquor which overflows to the adjusting tub. The adjusting tub pH is continuously monitored and ammonia is added as needed to complete the neutralization of acid to NAL. Water is evaporated from the neutralizer (E03) by the heat of reaction of nitric acid and ammonia. Ammonium nitrate solution can then either be sent to the prill tower evaporator (E04) or else be stored, further concentrated and shipped as liquid product.
NAL is converted to a dry product by a process called “prilling”. NAL is first concentrated in the prill tower (falling film-type) evaporator (E04) where the product flows down the inside surfaces of the tubes. The tubes are enclosed in a steam chest. This evaporator (E04) is located at the top of the prill tower (E05). Steam pressure is controlled as necessary to evaporate the water and thus reduce the water content of the NAL. A flow of hot air is directed through the tubes countercurrent to the film of NAL flowing downward from the top. The heat on the outside surface of the tubes boils water out of the NAL. The forced air stream carries the steam upward and exhausts through a stack.

The prills are formed by spraying the concentrated NAL from spray nozzles located at the top of a tall column called the “prill tower” (E05). The NAL, melt flows out of each of the holes, creating a shower of droplets. These droplets cool while falling and form prills. There are six fans surrounding the louvered section at the bottom of the tower. One or more of these fans are utilized in warm weather to force outside air through the louvers and up the inside of the tower to cool the prills as they fall. At the bottom of the tower, the prills enter a series of concentric louvers that funnel the prills to a conveyor on the ground floor. The prills are then conveyed to the predryers. Emission from the prill tower is mostly particulate matter that escapes the tower with the countercurrent air.

The drying system consists of two processing lines. Each line includes three large drums (a predryer (E06 & E09), dryer (E07 & E10), and cooler (E08 & E11)). An air stream is drawn through each drum. The air flows countercurrent to the prills as they move through each rotating drum. The air from the drying drum contains a considerable amount of entrained nitrate dust. This air is directed through hydroclean separators at each drum. The hydrocleans use a dilute water solution of nitrate to remove the dust.

The prills are then screened, coated and conveyed to bulk storage.

The stacked material in bulk storage is transferred via a conveyor to the final loadout system. Fines are conveyed off and stacked separately through a different system for later sales.

Ancillary equipment at the plant includes a wastewater treatment system, cooling towers, and a number of raw material and product storage tanks.

This installation is an area source for HAPs. This installation is not a named source. The installation is in an attainment/unclassifiable area.

**Potential to Emit Calculations**

All emission points were evaluated independently based on their maximum hourly design rate (MHDR) and emission factors. The individual values were then summed to obtain the potential emissions for the installation for each criteria pollutant. Emission units without limitations were not included within the PTE calculations because they were considered to have insignificant impact on the overall PTE.

Based on their AP-42 source, all emission points are categorized into the following groups: nitric acid production, ammonium nitrate production, boilers, and RICE. For nitric acid production (E01, E02, E14, and E16), the emission factors were obtained from Tables 8.8-1. Ammonium nitrate production (E03, E04, E05, E06, E07, E08, E09, E10, E11, E12, and E13) values were obtained from Tables 8.3-2 and 8.3-3. Boiler (E01a and EP-16) emission factors were obtained in Tables 1.4-1 and 1.4-2. RICE (EP099,
EP101, EP102, EP103, EP104) emission factors were obtained from Tables 3.3-1 and 3.3-2, for RICE ≤ 600 HP, and Tables 3.4-1, 3.4-2, and 3.4-3, for RICE > 600 HP.

PTE calculations accounted for all limitations in the operating permit. Permit Condition Voluntary Sulfur set the sulfur content of the fuel to be 15 ppm, influencing EP101’s emissions. Permit Condition NSPS Subpart JJJJ set emission requirements for EP099 and were used in place of the emission factors found in AP-42 when they are more stringent.

All units, other than emergency generators, were evaluated at 8760 hours per year. 500 hours per year was used in calculations for emergency units (EP099, EP101, EP102, EP103, and EP104).

Calculations are based upon control device efficiencies and/or controlled emission factors as required by the operating permit. Only federally enforceable controls were factored into the PTE calculations. The following table indicates emission units and their associated controls and which controls are federally enforceable.

A combined control efficiency was calculated for CD2, CD3, CD4, and CD5 by using the following equation recursively, replacing CE2 with the previously calculated combined efficiency:

\[
\text{Combined Control Efficiency} = \left( CE_1 + CE_2 - \left[ \left( CE_1 \times CE_2 \right) / 100 \right] \right) \times CP_1/100
\]

The combined control efficiency was calculated to be 98.4 % for particulate matter.

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Control ID</th>
<th>Description</th>
<th>Federally Enforceable</th>
</tr>
</thead>
<tbody>
<tr>
<td>E01</td>
<td>2016 SCR</td>
<td>Selective Catalytic Reduction</td>
<td>No</td>
</tr>
<tr>
<td>E03</td>
<td>CD2</td>
<td>Mist Eliminator</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>CD3</td>
<td>Wet Cyclonic Separator &amp; Tube and Shell Condenser</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>CD4</td>
<td>Mist Eliminator</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>CD5</td>
<td>Economizer Tube Bundle</td>
<td>Yes</td>
</tr>
<tr>
<td>E04</td>
<td>CD17</td>
<td>Mist Eliminator High Velocity</td>
<td>No</td>
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<tr>
<td>E05</td>
<td>CD6</td>
<td>Wet Scrubber – High Efficiency</td>
<td>No</td>
</tr>
<tr>
<td>E06</td>
<td>CD7</td>
<td>Wet Scrubber – High Efficiency</td>
<td>No</td>
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<td>E07</td>
<td>CD8</td>
<td>Wet Scrubber – High Efficiency</td>
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<td>CD9</td>
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<td>Tube and Shell Condenser</td>
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<td></td>
<td>CD14</td>
<td>Vacuum System</td>
<td>No</td>
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</tbody>
</table>
Updated Potential to Emit for the Installation and Reported Air Pollutant Emissions, in tons per year

<table>
<thead>
<tr>
<th>Pollutants</th>
<th>Potential Emissions</th>
<th>Reported Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Particulate Matter ≤ Ten Microns (PM₁₀)</td>
<td>341.76</td>
<td>27.14</td>
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<tr>
<td>Particulate Matter ≤ 2.5 Microns (PM₂.₅)</td>
<td>225.53</td>
<td>20.17</td>
</tr>
<tr>
<td>Sulfur Oxides (SO₃)</td>
<td>0.40</td>
<td>0.03</td>
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<tr>
<td>Nitrogen Oxides (NOₓ)</td>
<td>10,823.35</td>
<td>260</td>
</tr>
<tr>
<td>Volatile Organic Compounds (VOC)</td>
<td>3.65</td>
<td>0.21</td>
</tr>
<tr>
<td>Carbon Monoxide (CO)</td>
<td>40.63</td>
<td>1.94</td>
</tr>
<tr>
<td>Hazardous Air Pollutants (HAPs)</td>
<td>5.26</td>
<td>0.09</td>
</tr>
</tbody>
</table>

**Permit Reference Documents**

These documents were relied upon in the preparation of the operating permit. Because they are not incorporated by reference, they are not an official part of the operating permit.

1) Part 70 Operating Permit Application, received February 16th 2018;
2) 2017 Emissions Inventory Questionnaire, received April 30th, 2018;
3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition; and
4) All documents listed under Construction Permit History.

**Applicable Requirements Included in the Operating Permit but Not in the Application or Previous Operating Permits**

In the operating permit application, the installation indicated they were not subject to the following regulation(s). However, in the review of the application, the agency has determined that the installation is subject to the following regulation(s) for the reasons stated.

None.

**Other Air Regulations Determined Not to Apply to the Operating Permit**

The Air Pollution Control Program (APCP) has determined the following requirements to not be applicable to this installation at this time for the reasons stated.

10 CSR 10-6.405, *Restriction of Particulate Matter Emissions From Fuel Burning Equipment Used For Indirect Heating*

- This installation is exempt from this regulation because all of its indirect heating sources combust only natural gas. [6.405(1)(E)]
Construction Permit History

Construction Permit 0792-005, Issued July 6th, 1992
1. This permit authorized the installation of a pilot scale ammonium nitrate prilling plant, similar in design to the existing prilling plant. The existing prilling plant is a grandfathered facility.
2. This permit contained no special conditions

Construction Permit 0893-003, Issued July 21st, 1993
1. This permit authorized the construction of a new 7,000 gallon stainless steel tank for storage of ammonium nitrate solution.
2. This permit contained no special conditions.

Construction Permit 1294-029, Issued December 22nd, 1994
1. This permit authorized the installation of a new non sensitized emulsion processing facility
2. This permit contained no special conditions

Construction Permit 0396-002, Issued August 5th, 1998
1. This permit authorized the addition of a new 145,000 gallon nitric acid storage and blending tank (E02).
2. This permit contained no special conditions.

Construction Permit 092010-001, Issued September 1st, 2010
1. This permit authorized the installation of a 99.0 MMBtu/Hr natural gas-fired boiler (E15).
2. The permit authorized the installation with the following special condition(s):
   a) Special Condition 1: This condition required a low NOx burners and flue gas recirculation control devices for the boiler as well as appropriate monitoring and record keeping.
   b) All special conditions are cited in the operating permit under Permit Condition 092010-001.

Construction Permit 102012-007, Issued October 16th, 2012
1. This permit authorized the installation of a 68% nitric acid concentrator unit (EP-16).
2. The permit authorized the installation with the following special condition(s):
   a) Special Condition 1: This condition required a high pressure shutdown loop which will initiate prior to reaching 15 psi for the unit as well as appropriate monitoring.
   b) Special Condition 2: This condition required record keeping and reporting requirements for Special Condition 1.
   c) All special conditions are cited in the operating permit under Permit Condition 102012-007.

No Construction Permit Required Project No. 2014-08-007, Completed August 25th, 2014
1. This project was for the replacement of a 7.5 kW Briggs & Stratton emergency generator with a 230 kW Kohler emergency generator (EP018).
2. The emission increase remained below insignificant levels for construction permitting.

No Construction Permit Required Project No. 2014-11-060, Completed June 8th, 2015
1. This project was for the installation of a selective catalytic reduction (SCR) bed off of the ammonia oxidation process (E01).
2. The SCR has a natural gas 14 MMBtu/Hr preheater (E01a). This preheater resulted in an increase of emissions. However, this increase was below the insignificant levels for construction permitting.
3. The 14 MMBtu/Hr preheater was replaced with a 9.6 MMBtu/Hr preheater as outlined in NCPR project No. 2016-06-056

No Construction Permit Required Project No. 2016-06-056, Completed July 13th, 2016
1. This project was for the replacement of the 14 MMBtu/Hr preheater, as outlined in NCPR project No. 2014-11-060, with a natural gas 9.6 MMBtu/Hr preheater (E01a).

New Source Performance Standards (NSPS) Applicability

40 CFR Part 60, Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators
This regulation does not apply to the preheater (E01a) or the boiler (E15) because they are each rated for less than 73 MW (250 MMBtu/Hr). [§60.40(a)(1)]

40 CFR Part 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units
This regulation does not apply to the preheater (E01a) or the boiler (E15) because they are not considered Electric Utility Steam Generating Units.

40 CFR Part 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. This regulation does not apply to the preheater (E01a) or the boiler (E15) because they are each rated for less than 29 MW (100 MMBtu/Hr). [§60.40b(a)(1)]

40 CFR Part 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
1. This regulation does not apply to the preheater (E01a) because it is rated for less than 2.9 MW (10MMBtu/Hr). [§60.40c(a)(1)]
2. This regulation applies to the boiler (E15) and has been cited in the operating permit under Permit Condition NSPS Dc.

40 CFR Part 60, Subpart K, Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction Or Modification Commenced After June 11, 1973, and Prior to May 19, 1978. Diesel Fuel and Gasoline Storage Tanks: The tanks’ capacities are each less than the applicable threshold of 40,000 gallons and thus the regulation does not apply. [§60.110(a)]

40 CFR Part 60, Subpart Ka, Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction Or Modification Commenced After May 19, 1978, and Prior to July 23, 1984. Diesel Fuel and Gasoline Storage Tanks: The tanks’ capacities are each less than the applicable threshold of 40,000 gallons and thus the regulation does not apply. [§60.110a(a)]

1. Diesel Fuel and Gasoline Storage Tanks: The tanks’ capacities are each less than the applicable threshold of 19,813 gallons (75 m³) and thus the regulation does not apply. [§60.110b(a)]
2. Prill Coating and Additives Storage Tanks: Neither the prill coating nor the additives contain VOC or HAPs. Thus, the regulation does not apply.
3. Ammonium Nitrate Solution Storage Tanks: The tanks’ capacities are each less than the applicable threshold of 19,813 gallons (75 m³) and thus the regulation does not apply. [§60.110b(a)]
40 CFR Part 60, Subpart G, Standards of Performance for Nitric Acid Plants
1. The emission units at this installation related to the production of nitric acid were not constructed or modified after August 17, 1971. Therefore, this regulation does not apply. [§60.70(b)]
2. If the installation should undertake any projects, in the future, which involve construction, reconstruction, or modification of any equipment related to the production of nitric acid, the installation must follow all applicable requirements related to that specific project.

40 CFR Part 60, Subpart Ga, New Source Performance Standards for Nitric Acid Plants for Which Construction, Reconstruction, or Modification Commenced After October 14, 2011
1. The emission units at this installation related to the production of nitric acid were not constructed reconstructed, or modified after October 14th, 2011. Therefore, this regulation does not apply. [§60.70a(b)]
2. The 68% concentrator unit (EP-16) is the only unit installed after October 14th, 2011. However, it will not produce any weak nitric acid; it will use nitric acid (56%) produced at the ammonia oxidation process and concentrate it to 68% via the use of excess process steam to drive off moisture. The unit does not incorporate the use of either the pressure or atmospheric pressure process to produce nitric acid. Thus, the regulation does not apply.

40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. This regulation applies to EP101, the 2.2 MMBtu/Hr diesel emergency generator engine: Kohler (compression) (858 hp), and is cited in Permit Condition NSPS IIII

40 CFR Part 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. This regulation applies to EP099, 240 HP gasoline emergency filter plant engine: Ford (spark), and is cited in Permit Condition NSPS JJJJ.

Maximum Achievable Control Technology (MACT) Applicability
40 CFR Part 63, Subpart Q, National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers. The provisions of this subpart apply to all new and existing industrial process cooling towers that are operated with chromium-based water treatment chemicals on or after September 8, 1994, and are either major sources or are integral parts of facilities that are major sources as defined in 40 CFR 63.401. [§63.400(a)]

40 CFR Part 63, Subpart T, National Emission Standards for Halogenated Solvent Cleaning
1. The provisions of this subpart apply to each individual batch vapor, in-line vapor, in-line cold, and batch cold solvent cleaning machine that uses any solvent containing methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride or chloroform, or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent. Wipe cleaning activities, such as using a rag containing halogenated solvent are not covered under the provisions of this subpart. [§63.460(a)]
2. Parts Cleaning and Degreasing. The parts cleaner/degreaser does not contain HAPs; thus, the regulation does not apply.

1. This regulation applies to all reciprocating internal combustion engines at the installation. This regulation has been cited in the operating permit under Permit Condition MACT ZZZZ.
2. For the engines that meet the definition of a new source, they demonstrate compliance with MACT ZZZZ by complying with Permit Conditions IIII for compression ignition and JJJJ for spark ignition.

40 CFR 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters. This regulation does not apply to the preheater (E01a) or the boiler (E15) because the installation is not a major source for HAPs.

40 CFR 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters
1. This regulation does not apply to the preheater (E01a) or the boiler (E15) because they meet the definition of gas-fired boiler. [§63.11195(e)]
2. Gas-fired boiler includes any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or for periodic testing, maintenance, or operator training on liquid fuel. Periodic testing, maintenance, or operator training on liquid fuel shall not exceed a combined total of 48 hours during any calendar year. [§63.11237]

National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability
None.

Compliance Assurance Monitoring (CAM) Applicability
40 CFR Part 64, Compliance Assurance Monitoring (CAM)
1. The CAM rule applies to each pollutant specific emission unit that:
   a) Is subject to an emission limitation or standard, and
   b) Uses a control device to achieve compliance, and
   c) Has pre-control emissions that exceed or are equivalent to the major source threshold.
2. CAM does not apply to any emission units. All emission units comply with pollutant specific regulations without the use of control devices. Control devices are required for the ammonium nitrate neutralizer (E03) to be exempt from 10 CSR 10-6.220, but not to comply.

Greenhouse Gas Emissions
This source may be subject to the Greenhouse Gas Reporting Rule. However, the preamble of the GHG Reporting Rule clarifies that Part 98 requirements do not have to be incorporated in Part 70 operating permits at this time. In addition, Missouri regulations do not require the installation to report CO₂ emissions in their Missouri Emissions Inventory Questionnaire; therefore, the installation’s CO₂ emissions were not included within this permit. If required to report, the applicant is required to report the data directly to EPA. The public may obtain CO₂ emissions data by visiting http://epa.gov/ghgreporting/ghgdata/reportingdatasets.html.

Other Regulatory Determinations
Dismantled and Removed Emission Units:
1. The following emission units have been dismantled and removed from the installation since the previous operating permit:
   a) EP102 16 HP gasoline emergency generator (spark)
   b) EP104 208 HP gasoline backup firewater pump (spark)
c) EP100: Water Pump Diesel Engine (at the time of the operating permit’s issuance the EIQ references this emission point as EP017)
d) 20 HP gasoline emergency generator installed 1980's (part of Ashland purchase effective 1/28/13)
e) 11 HP gasoline backup air compressor installed 1970's (part of Ashland purchase effective 1/28/13)
f) 15 HP gasoline backup air compressor installed 2011 (part of Ashland purchase effective 1/28/13)

Emission Point Identification Changes:
A new emission point identification system is used to easily identify and keep track of internal combustion engines. The basis is derived from the pre-2016 EIQ. The 2016 EIQ and those that followed listed the gasoline generators under EP016 (previously listed as EP099). This led to confusion because the 68% Nitric Acid Concentrator established in Construction Permit 102012-007 was designated as EP-16. The new concentrator has retained the EP-16 designation. The following table details the changes:

<table>
<thead>
<tr>
<th>Previous Emission Unit ID</th>
<th>Description</th>
<th>Current Emission Unit ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>E01</td>
<td>Ammonia Oxidation Process (42 tons) (1964) (2016 SCR)</td>
<td>E01</td>
</tr>
<tr>
<td>E02</td>
<td>Nitric Acid Storage/Blend (42 tons) (1964)</td>
<td>E02</td>
</tr>
<tr>
<td>E03</td>
<td>Ammonium Nitrate Neutralizer (47 tons) (1964) (CD2, CD3, CD4, CD5)</td>
<td>E03</td>
</tr>
<tr>
<td>E04</td>
<td>Prill Evaporator (40 tons) (1966)</td>
<td>E04</td>
</tr>
<tr>
<td>E05</td>
<td>Prilling Tower (40 tons) (1962)</td>
<td>E05</td>
</tr>
<tr>
<td>E06</td>
<td>#1 Prill Predryer (20 tons) (1962)</td>
<td>E06</td>
</tr>
<tr>
<td>E07</td>
<td>#1 Prill Dryer (20 tons) (1962)</td>
<td>E07</td>
</tr>
<tr>
<td>E08</td>
<td>#1 Prill Cooler (20 tons) (1962)</td>
<td>E08</td>
</tr>
<tr>
<td>E09</td>
<td>#2 Prill Predryer (20 tons) (1966)</td>
<td>E09</td>
</tr>
<tr>
<td>E10</td>
<td>#2 Prill Dryer (20 tons) (1966)</td>
<td>E10</td>
</tr>
<tr>
<td>E11</td>
<td>#2 Prill Cooler (20 tons) (1966)</td>
<td>E11</td>
</tr>
<tr>
<td>E12</td>
<td>Prill Remelt Evaporator (7 tons) (1965)</td>
<td>E12</td>
</tr>
<tr>
<td>E13</td>
<td>Prill Bulk Loadout (100 tons) (1962)</td>
<td>E13</td>
</tr>
<tr>
<td>E14</td>
<td>Nitric Acid Concentrator (1970)</td>
<td>E14</td>
</tr>
<tr>
<td>E15</td>
<td>Boiler (98,991 MMBtu/Hr) (June 2011) (Low NOx Burners and Flue Gas Recirculation)</td>
<td>E15</td>
</tr>
<tr>
<td>E16</td>
<td>68% Nitric Acid Concentrator (2.98 tons) (1981)</td>
<td>EP-16</td>
</tr>
<tr>
<td>EP017</td>
<td>Emergency Generator Engine: Kohler (2.2 MMBtu, 858 hp, 640 kW) (Diesel CI) (July 2014)</td>
<td>EP101</td>
</tr>
<tr>
<td>N/A</td>
<td>Firewater Pump (305 HP) (Diesel CI) (1993)</td>
<td>EP103</td>
</tr>
</tbody>
</table>
Inherent Control Device: Economizer Tube Bundle (CD5)

Economizer Tube Bundle (CD5) was built in 1967 and an addition was made in 1971 with the purpose of recovering heat from the neutralizer off-gas, not to be used as an air pollution control device. The equipment is necessary to the process to vaporize ammonia. Based on criteria established by EPA guidance documentation, the equipment is necessary to the process and thus inherent.

10 CSR 10-6.220, Restriction of Emission of Visible Air Contaminants
1. This regulation does not apply to the following emission units because of the corresponding exemption:

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Description</th>
<th>Citation Under 6.220</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>E01a</td>
<td>Preheater for Selective Catalytic Reduction (9.6 MMBtu) (Natural Gas) (July 2016)</td>
<td>(1)(L)</td>
<td>Natural Gas Fired</td>
</tr>
<tr>
<td>E13</td>
<td>Prill Bulk Loadout Prill Bulk Loadout (100 tons) (1962)</td>
<td>(1)(K)</td>
<td>Fugitive Source under 6.170</td>
</tr>
<tr>
<td>E15</td>
<td>Boiler (98.991 MMBtu/Hr) (June 2011) (Low NOx Burners and Flue Gas Recirculation)</td>
<td>(1)(L)</td>
<td>Natural Gas Fired</td>
</tr>
<tr>
<td>EP101</td>
<td>Emergency Generator Engine: Kohler (2.2 MMBtu, 858 hp, 640 kW) (Diesel CI) (July 2014)</td>
<td>(1)(A)</td>
<td>Internal Combustion Engine</td>
</tr>
</tbody>
</table>

2. This regulation applies to the remaining emission points at the installation and has been applied in the operating permit under Permit Condition 6.220.
   a) EP-16 is the only source that was installed on or after February 24, 1971 (i.e. a new source for outstate Missouri). Therefore, its opacity limitation is 20%.
   b) All other emission units are existing sources and thus have opacity limits of 40%.

10 CSR 10-6.260, Restriction of Emission of Sulfur Compounds
1. This regulation was rescinded from the code of state regulations (CSR). However, this regulation is still contained in Missouri’s State Implementation Plan (SIP). This regulation is a federally enforceable requirement until it is removed from the SIP; therefore, it must appear in this Operating Permit. This regulation is cited in Permit Condition 6.260.
2. This regulation does not apply to the preheater (E01a) or the boiler (E15) because they are natural gas fired. [6.260(1)(A)2.]
3. This regulation applies to the following diesel fueled RICE: EP101 and EP103. [6.260(3)(A)2.]
   a. Based on the following calculations, the emission points are in compliance with the emission limits. Because EP101 is a large diesel engine (>600 hp), calculations depend on sulfur content. Permit Condition 6.261 requires ultra-low sulfur content diesel to be burned and fuel delivery records to be kept and reported for EP101.
4. This regulation applies to the following gasoline fueled RICE: EP099, EP102, and EP104.

   [6.260(3)(A)2.]
   a. Based on the following calculations, the emission points are in compliance with the emission limits.

5. Emission Factors for sulfur were obtained from the following sources:

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP103</td>
<td>AP-42 Table 3.3-1</td>
</tr>
<tr>
<td>EP101</td>
<td>AP-42 Table 3.4-1</td>
</tr>
<tr>
<td>EP099, EP102, and EP104</td>
<td>AP-42 Table 3.3-1</td>
</tr>
</tbody>
</table>

Calculations:

\[\text{[EP103]}\]

For \(SO_2\):

\[C_{SO_2} (\text{ppm}_v) = \left( \frac{0.287 \text{ lb}}{\text{MMBtu}} \right) \times \left( \frac{\text{MMBtu}}{10,320 \text{ wscf}} \right) \times \left( \frac{\text{ppm}_w}{1.660 \times 10^{-7} \text{ lb/scf}} \right) \times \left( \frac{45 \text{ ppm}_v}{\text{ppm}_w} \right) = 75.42 \text{ ppm}_v\]

For \(SO_3\):

\[C_{SO_3} (\text{mg/m}^3) = \left( \frac{0.004 \text{ lb}}{\text{MMBtu}} \right) \times \left( \frac{\text{MMBtu}}{10,320 \text{ wscf}} \right) \times \left( \frac{1.602 \times 10^7 \text{ mg ft}^3}{\text{lb m}^3} \right) = 4.50 \text{ mg/m}^3\]

\[\text{[EP101]}\]

For \(SO_2\):

\[C_{SO_2} (\text{ppm}_v) = \left( \frac{0.0015 \text{ lb}}{\text{MMBtu}} \right) \times \left( \frac{\text{MMBtu}}{10,320 \text{ wscf}} \right) \times \left( \frac{\text{ppm}_w}{1.660 \times 10^{-7} \text{ lb/scf}} \right) \times \left( \frac{45 \text{ ppm}_v}{\text{ppm}_w} \right) = 0.39 \text{ ppm}_v\]

For \(SO_3\):

\[C_{SO_3} (\text{mg/m}^3) = \left( \frac{1.5 \times 10^{-5} \text{ lb}}{\text{MMBtu}} \right) \times \left( \frac{\text{MMBtu}}{10,320 \text{ wscf}} \right) \times \left( \frac{1.602 \times 10^7 \text{ mg ft}^3}{\text{lb m}^3} \right) = 0.02 \text{ mg/m}^3\]

\[\text{[EP099]}\]

For \(SO_2\):

\[C_{SO_2} (\text{ppm}_v) = \left( \frac{0.083 \text{ lb}}{\text{MMBtu}} \right) \times \left( \frac{\text{MMBtu}}{10,320 \text{ wscf}} \right) \times \left( \frac{\text{ppm}_w}{1.660 \times 10^{-7} \text{ lb/scf}} \right) \times \left( \frac{45 \text{ ppm}_v}{\text{ppm}_w} \right) = 18.55 \text{ ppm}_v\]

For \(SO_3\):

\[C_{SO_3} (\text{mg/m}^3) = \left( \frac{8.4 \times 10^{-4} \text{ lb}}{\text{MMBtu}} \right) \times \left( \frac{\text{MMBtu}}{10,320 \text{ wscf}} \right) \times \left( \frac{1.602 \times 10^7 \text{ mg ft}^3}{\text{lb m}^3} \right) = 1.30 \text{ mg/m}^3\]
10 CSR 10-6.261, Control of Sulfur Dioxide Emissions

1. Missouri’s SIP has not adopted this regulation; therefore, this regulation is a state only requirement. Upon adoption into Missouri’s SIP this regulation will be both a state and federal requirement.

2. For the ultra-low sulfur diesel fired emergency generators (EP101 and EP103), this regulation requires only record keeping under section (4) of the rule. The record keeping is applied under Permit Condition 6.261. [6.261(1)(A)]

3. For the natural gas fired preheater (E01a) and the boiler (E15), this regulation requires only record keeping under section (4) of the rule. The record keeping is applied under Permit Condition 6.261. [6.261(1)(A)]
   a) Permit Condition Voluntary - Sulfur requires recordkeeping and is the same as required under 10 CSR 10-6.261 and thus the recordkeeping under Permit Condition 6.261 refers to Permit Condition Voluntary - Sulfur.

4. The gasoline burning generators (EP099, EP102, and EP104) can emit sulfur dioxide, thus the rule applies to them. However, there are no specific requirements in this regulation for gasoline, thus this rule does not appear in the operating permit for these emission units.

10 CSR 10-6.400, Restriction of Emission of Particulate Matter From Industrial Processes

1. This regulation does not apply to the following emission points because they do not meet the definition of process weight: E01a, E15, EP099, EP101, EP102, EP103, and EP104.
   a) Process Weight; The total weight of all materials introduced into an emission unit, including solid fuels which may cause any emission of particulate matter, but excluding liquids and gases used solely as fuels and air introduced for purposes of combustion. [6.020(2)(P)60.]

2. This regulation does not apply to the Ammonia Oxidation Process (E01), the Nitric Acid Storage/Blend (E02), and all emission units listed under Emission Units Without Specific Limitations because they are not expected to emit significant amounts of particulate matter.

3. This regulation does not apply to the Bulk Prill Loadout (E13) because it is a fugitive source. [6.400(1)(B)7.]

4. This regulation does not apply to emission unit E03 because it uses control devices with an overall efficiency greater than 90%. [6.400(1)(B)15.]

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Description</th>
<th>Control ID</th>
<th>Control Device</th>
<th>Capture Eff. (%)</th>
<th>Control Eff. (%)</th>
<th>Overall Eff. (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E03</td>
<td>Ammonium Nitrate Neutralizer</td>
<td>CD2</td>
<td>Mist Eliminator</td>
<td>99</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>CD3</td>
<td>Wet Cyclonic Separator</td>
<td>N/A</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>CD4</td>
<td>Mist Eliminator</td>
<td>N/A</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>CD5</td>
<td>Economizer Tube Bundle</td>
<td>N/A</td>
<td>95</td>
<td>98.4</td>
</tr>
</tbody>
</table>

5. This regulation does not apply to the 68% Nitric Acid Concentrator (EP-16) because its PTE is less than the allowable emissions under (3)(A)1. Note: (3)(A)2. does not apply because it does not have a stack. The following calculations demonstrate that the unit meets the exemption: [6.400(1)(B)16.]
Calculations:

\[ \text{PTE} = E \times \text{MHDR} \]

\[ E = 4.10P_{0.67} \] when Process Weight Rate (i.e. MHDR) < 30 tons

\[ E = 55.0P_{0.11} - 40 \] when Process Weight Rate (i.e. MHDR) > 30 tons

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Emission Factor (lb/ton)</th>
<th>MHDR (tons)</th>
<th>PTE (lb/hr)</th>
<th>Allowable Emissions (lb/hr)</th>
<th>Exempt</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP-16</td>
<td>0.52</td>
<td>2.98</td>
<td>1.55</td>
<td>8.52</td>
<td>Yes</td>
</tr>
</tbody>
</table>

6. This regulation does not apply to the following emission units because their calculated PTE are less than the allowable thresholds under (3)(A)1. and (3)(A)2. The following calculations demonstrate that the unit meets the exemption.

Calculations:

\[ \text{PTE} = E \times \text{MHDR} \]

\[ E = 4.10P_{0.67} \] when Process Weight Rate (i.e. MHDR) < 30 tons

\[ E = 55.0P_{0.11} - 40 \] when Process Weight Rate (i.e. MHDR) > 30 tons

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Emission Factor (lb/ton)</th>
<th>MHDR (tons)</th>
<th>PTE (lb/hr)</th>
<th>Allowable Emissions (lb/hr)</th>
<th>Compliant</th>
</tr>
</thead>
<tbody>
<tr>
<td>E06</td>
<td>0.2</td>
<td>20</td>
<td>4</td>
<td>30.51</td>
<td>Yes</td>
</tr>
<tr>
<td>E07</td>
<td>0.2</td>
<td>20</td>
<td>4</td>
<td>30.51</td>
<td>Yes</td>
</tr>
<tr>
<td>E08</td>
<td>0.2</td>
<td>20</td>
<td>4</td>
<td>30.51</td>
<td>Yes</td>
</tr>
<tr>
<td>E09</td>
<td>0.2</td>
<td>20</td>
<td>4</td>
<td>30.51</td>
<td>Yes</td>
</tr>
<tr>
<td>E10</td>
<td>0.2</td>
<td>20</td>
<td>4</td>
<td>30.51</td>
<td>Yes</td>
</tr>
<tr>
<td>E11</td>
<td>0.2</td>
<td>20</td>
<td>4</td>
<td>30.51</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Grain Loading Value \( \left( \frac{gr}{scf} \right) \) = \( \text{PTE} \times \frac{7000 \frac{gr}{lb}}{1 \frac{lb}{hr}} \times \frac{1}{\text{Stack Flow Rate (scf)}} \times \frac{1 \text{ hr}}{60 \text{ min}} \)

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>PTE (lb/hr)</th>
<th>Stack Flow Rate</th>
<th>Grain Loading Value</th>
<th>Allowable</th>
<th>Compliant</th>
</tr>
</thead>
<tbody>
<tr>
<td>E06</td>
<td>4</td>
<td>19126.12</td>
<td>0.024</td>
<td>0.073</td>
<td>Yes</td>
</tr>
<tr>
<td>E07</td>
<td>4</td>
<td>17274.46</td>
<td>0.027</td>
<td>0.076</td>
<td>Yes</td>
</tr>
<tr>
<td>E08</td>
<td>4</td>
<td>16105.63</td>
<td>0.028</td>
<td>0.078</td>
<td>Yes</td>
</tr>
<tr>
<td>E09</td>
<td>4</td>
<td>15233.67</td>
<td>0.030</td>
<td>0.080</td>
<td>Yes</td>
</tr>
<tr>
<td>E10</td>
<td>4</td>
<td>17851.80</td>
<td>0.026</td>
<td>0.075</td>
<td>Yes</td>
</tr>
<tr>
<td>E11</td>
<td>4</td>
<td>20856.95</td>
<td>0.022</td>
<td>0.070</td>
<td>Yes</td>
</tr>
</tbody>
</table>

7. The following emission units are in compliance with their respective emission limitations based upon their uncontrolled PM potential to emit rates. However, the units do not meet allowable grain

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8 Uncontrolled. Source: AP-42 Table 8.3-2.
loading values and thus are not exempt. The limitations are established in Permit Condition 6.400. Calculations also follow for their demonstration of compliance:

Calculations:

\[
PTE = E\frac{f}{(\text{tons})} \times MHDR(\text{tons})
\]

\[
E = 4.10P^{0.67} \quad \text{when Process Weight Rate (i.e. } MHDR < 30 \text{ tons}
\]

\[
E = 55.0P^{0.11} - 40 \quad \text{when Process Weight Rate (i.e. } MHDR > 30 \text{ tons}
\]

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Emission Factor (lb/ton) (^s)</th>
<th>MHDR (tons)</th>
<th>PTE (lb/hr)</th>
<th>Allowable Emissions (lb/hr)</th>
<th>Compliant</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP04</td>
<td>0.52</td>
<td>40.00</td>
<td>20.80</td>
<td>42.53</td>
<td>Yes</td>
</tr>
<tr>
<td>EP05</td>
<td>0.92</td>
<td>40.00</td>
<td>36.80</td>
<td>42.53</td>
<td>Yes</td>
</tr>
<tr>
<td>EP12</td>
<td>0.52</td>
<td>7.00</td>
<td>3.64</td>
<td>15.10</td>
<td>Yes</td>
</tr>
<tr>
<td>EP14</td>
<td>0.52</td>
<td>3.80</td>
<td>1.98</td>
<td>10.03</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Other Regulations Not Cited in the Operating Permit or the Above Statement of Basis**

Any regulation which is not specifically listed in either the Operating Permit or in the above Statement of Basis does not appear, based on this review, to be an applicable requirement for this installation for one or more of the following reasons:

1. The specific pollutant regulated by that rule is not emitted by the installation;
2. The installation is not in the source category regulated by that rule;
3. The installation is not in the county or specific area that is regulated under the authority of that rule;
4. The installation does not contain the type of emission unit which is regulated by that rule;
5. The rule is only for administrative purposes.

Should a later determination conclude that the installation is subject to one or more of the regulations cited in this Statement of Basis or other regulations which were not cited, the installation shall determine and demonstrate, to the APCP's satisfaction, the installation's compliance with that regulation(s). If the installation is not in compliance with a regulation which was not previously cited, the installation shall submit to the APCP a schedule for achieving compliance for that regulation(s).
Response to Public Comments

The draft Part 70 Operating Permit for Dyno Nobel (163-0031) was placed on public notice as of June 21st, 2019 for a 30-day comment period. The public notice was published on the Department of Natural Resources’ Air Pollution Control Program’s web page at: http://dnr.mo.gov/env/apcp/permit-public-notices.htm.

The Air Pollution Control Program received comments from Mr. Bob Cheever from EPA Region 7. The comments are addressed in the order in which they appear within the letter(s).

Comment 1: First, the Operational Limitation 1) a), Permit Condition NSPS IIII, includes the acronym NRLM which is not frequently used and therefore may not familiar to all permit reviewers. EPA suggests MoDNR may want to consider providing the definition of NRLM.

Response to Comment: The definition was added and the acronym was included in parenthesis.

Comment 2: Second, Permit Condition MACT ZZZZ and Permit Condition MACT CCCCCC both incorporate area source hazardous air pollutant (HAP) requirements and as indicated in 10 CSR 10-6.075, EPA is designated the regulating agency. Therefore, the reporting requirements, in these two (2) permit conditions, should reflect the Region 7 Missouri Air Compliance Coordinator, Air Branch, Enforcement & Compliance Assurance Division as the primary recipient of compliance reports, with MoDNR receiving copies as required.

Response to Comment: The following language was added to MACT ZZZZ and MACT CCCCCC:

“All reports and certifications shall be submitted to the Missouri Compliance Coordinator, Air Branch Enforcement and Compliance Assurance Division U. S. EPA Region 7, 11201 Renner Blvd., Lenexa, Kansas 66219.”
AUG 14 2019

Mr. Samuel J Correnti
Dyno Nobel Inc.
PO Box 450
Louisiana, MO 63353

Re: Part 70 Operating Permit Renewal
Installation ID: 163-0031, Permit Number: OP2019-029

Dear Mr. Correnti,

Enclosed with this letter is your Part 70 operating permit. Please review this document carefully. Operation of your installation in accordance with the rules and regulations cited in this document is necessary for continued compliance. It is very important that you read and understand the requirements contained in your permit.

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 http://dnr.mo.gov/regions/. The online CAV request can be found at http://dnr.mo.gov/cav/compliance.htm.

You may appeal this permit to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.078.16 and 621.250.3. If you choose to appeal, you must file a petition with the AHC 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 AHC.

If you have any questions or need additional information regarding this permit, please contact the Air Pollution Control Program (APCP) at (573) 751-4817, or you may write to the Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Michael J. Stansfield, P.E.
Operating Permit Unit Chief

MJS:jj

Enclosures

c: PAMS File: 2018-02-028

Recycled paper