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: OP2017-017
Expiration Date: MAR 2 2 2022
Installation ID: 095-2001
Project Number: 2007-07-035

Installation Name and Address
Cargill, Incorporated
2306 Rochester
Kansas City, MO 64120
Jackson County

Parent Company's Name and Address
Cargill, Incorporated
15407 McGinty Road West
Wayzata MN, 55391

Installation Description:
Cargill, Inc. owns and operates a soybean processing and oil extraction plant in Kansas City, Missouri. The installation includes receiving and conveying of soybeans, grain drying, preparation of soybeans for oil extraction, oil extraction, meal processing, and loadout of finished products. The installation is a major source of VOC and hexane (110-54-3).

Prepared by
Alana L. Hess
Operating Permit Unit

Director or Designee
Department of Natural Resources

MAR 2 2 2017
Effective Date
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<tr>
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<th>Control Device</th>
<th>Emission Source</th>
<th>Description</th>
<th>Applicable Requirement</th>
</tr>
</thead>
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<td>2001 DC Elevator Dust Collector</td>
<td>EU0030</td>
<td>Elevator Conveyor Transfer of Soybeans to/from Steel Soybean Storage Silo</td>
<td>PSD Permit 1140A, PSD Permit 1140B, NSPS DD</td>
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<td>EU0040</td>
<td>Elevator Conveyor Transfer of Soybeans to/from Concrete Soybean Storage Silo</td>
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<tr>
<td></td>
<td></td>
<td>EU0500(a)</td>
<td>Whole Bean Leg 1</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>EU0500(b)</td>
<td>Whole Bean Scale</td>
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<td></td>
<td>EU0400</td>
<td>Elevator</td>
<td></td>
</tr>
<tr>
<td>EP100</td>
<td>7001 DC Pre-Cleaning Dust Collector</td>
<td>EU0500(c)</td>
<td>Whole Bean Cleaner</td>
<td>PSD Permit 1140A, PSD Permit 1140B, 40 CFR 64, NSPS DD</td>
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<tr>
<td></td>
<td></td>
<td>EU0500(d)</td>
<td>Whole Bean Leg 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>EU0500(e)</td>
<td>Whole Bean Bin</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>EU0500(f)</td>
<td>Whole Bean Aspirator</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>EU0500(g)</td>
<td>VSC Feed Leg</td>
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<td></td>
<td>EU0500(h)</td>
<td>Jet Dryer Feed Leg</td>
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<tr>
<td>EP101</td>
<td>7001 CY VSC #1 Cyclone</td>
<td>EU0510</td>
<td>Vertical Seed Conditioner</td>
<td>PSD Permit 1140A, PSD Permit 1140B</td>
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<tr>
<td>EP102</td>
<td>7002 CY VSC #2 Cyclone</td>
<td>EU0520</td>
<td>Jet Dryer #1</td>
<td>PSD Permit 1140A, PSD Permit 1140B, NSPS DD</td>
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<td>EP103a</td>
<td>7002 DC Jet Dryer Dust Collector</td>
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<td>Jet Dryer #2</td>
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<tr>
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<td>7003 DC Jet Dryer Dust Collector</td>
<td>EU0590</td>
<td>Flaker Rollers</td>
<td>Construction Permit 092012-007, Construction Permit 092012-007A, PSD Permit 1140A, PSD Permit 1140B, 10 CSR 10-6.220</td>
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<tr>
<td>EP105</td>
<td>7005 CY Flaker Aspiration Cyclone #1</td>
<td>EU0600</td>
<td>Flaker Rollers</td>
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<td>EP106</td>
<td>7006 CY Flaker Aspiration Cyclone #2</td>
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<td>Hull Grinder</td>
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<tr>
<td>EP107</td>
<td>7004 CY &amp; 7005 DC Hull Grinding Bag Filter</td>
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<td></td>
<td>7005 DC Hull Grinding Bag Filter</td>
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<td>Emission Point</td>
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<td>Emission Source</td>
<td>Description</td>
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<tr>
<td>EP108</td>
<td>7001 FGD Meal Dryer/Cooler Scrubber</td>
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<td>Meal Dryer/Cooler #1</td>
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<td></td>
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<tr>
<td>EP109</td>
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<td>Meal Dryer/Cooler #3</td>
<td>PSD Permit 1140A, PSD Permit 1140B, 10 CSR 10-6.220</td>
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<tr>
<td>EP110</td>
<td>7008 CY Meal Dryer/Cooler Cyclone</td>
<td>EU0650</td>
<td>Meal Dryer/Cooler #4</td>
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<tr>
<td>EP111</td>
<td>7009 CY Meal Dryer/Cooler Cyclone</td>
<td>EU0660</td>
<td>Meal Dryer/Cooler #5</td>
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<tr>
<td>EP112</td>
<td>7006 DC Meal Grinding Dust Collector</td>
<td>EU0670</td>
<td>Meal Grinding</td>
<td>PSD Permit 1140A, PSD Permit 1140B, 40 CFR 64</td>
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<td>EP113</td>
<td>7007 DC Meal Storage Dust Collector</td>
<td>EU0680</td>
<td>Meal Storage</td>
<td>PSD Permit 1140A, PSD Permit 1140B, 10 CSR 10-6.220</td>
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<tr>
<td>EP114</td>
<td>7008 DC Meal Rail Loadout Dust Collector</td>
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<td>Meal Rail Loadout</td>
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<tr>
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<td>7014 DC Meal Truck Loadout Dust Collector</td>
<td>EU0790</td>
<td>Meal Truck Loadout</td>
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<tr>
<td>EP116</td>
<td>7015 DC Prep Hull Storage Tank Bin Vent Filter</td>
<td>EU0760</td>
<td>Prep Hull Storage Tank</td>
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<tr>
<td>EP117</td>
<td>7009 DC Hull Storage Tank Bin Vent Filter</td>
<td>EU0700</td>
<td>Hull Storage Tank</td>
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<td></td>
<td></td>
<td>EU0730</td>
<td>Hull Conveyance</td>
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<tr>
<td>EP118</td>
<td>7010 DC Meal Flow Additive Tank Bin Vent Filter</td>
<td>EU0710</td>
<td>Meal Flow Additive Tank</td>
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<tr>
<td>EP119A</td>
<td>7011 DC New Truck Receiving Dust Collector</td>
<td>EU0740</td>
<td>New Truck Receiving Bay</td>
<td>PSD Permit 1140A, PSD Permit 1140B, 40 CFR 64</td>
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<td>EP119B</td>
<td>New Truck Receiving Fugitives</td>
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<td></td>
<td>NSPS DD</td>
</tr>
<tr>
<td>EP120A</td>
<td>7012 DC New Rail Receiving Dust Collector</td>
<td>EU0750</td>
<td>New Rail Receiving Bay</td>
<td>PSD Permit 1140A, PSD Permit 1140B, 40 CFR 64</td>
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<tr>
<td>EP120B</td>
<td>New Rail Receiving Fugitives</td>
<td></td>
<td></td>
<td>NSPS DD</td>
</tr>
<tr>
<td>Emission Point</td>
<td>Control Device</td>
<td>Emission Source</td>
<td>Description</td>
<td>Applicable Requirement</td>
</tr>
<tr>
<td>----------------</td>
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<tr>
<td>EP121</td>
<td>7010 CY Pellet Mill Cooler Cyclone</td>
<td>EU0770</td>
<td>Pellet Mill Cooler</td>
<td>PSD Permit 1140A, PSD Permit 1140B, 10 CSR 10-6.220</td>
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<tr>
<td>EP122</td>
<td>7013 DC Pellet Storage Tank Bin Vent Filter</td>
<td>EU0780</td>
<td>Pellet Storage Tank</td>
<td>PSD Permit 1140A</td>
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<tr>
<td>EP123</td>
<td>7016 DC Pod Grinder Filter</td>
<td>EU0800</td>
<td>Pod Grinding</td>
<td>PSD Permit 1140A, PSD Permit 1140B, 10 CSR 10-6.220</td>
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<tr>
<td>Haul Roads</td>
<td>Paved Roads</td>
<td>EU0820</td>
<td>Paved Roads</td>
<td>PSD Permit 1140A</td>
</tr>
<tr>
<td>EP126</td>
<td>7003 CY &amp; 7004 DC Cascade Dryer/Cooler Dust Collector and Air Regulator Box</td>
<td>EU0540, EU0550, EU0560, EU0570</td>
<td>Cascade Dryer #1, Cascade Dryer #2, Cascade Cooler #1, Cascade Cooler #2</td>
<td>PSD Permit 1140A, PSD Permit 1140B, 40 CFR 64</td>
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<tr>
<td></td>
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<td>EU0900</td>
<td>Cooling Tower</td>
<td>PSD Permit 1140A</td>
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<td>EU0830</td>
<td>Mineral Oil Absorber</td>
<td>PSD Permit 1140A</td>
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<td>EU0901</td>
<td>Parts Washer</td>
<td>10 CSR 10-2.210</td>
</tr>
</tbody>
</table>
EMISSION UNITS WITHOUT LIMITATIONS
The following list provides a description of the equipment that does not have unit specific limitations at the time of permit issuance. These emission sources are subject to the plant wide permit conditions.

<table>
<thead>
<tr>
<th>Emission Source</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TK-091050</td>
<td>6,367 gallon Caustic Tank</td>
</tr>
<tr>
<td>TK-091060</td>
<td>6,367 gallon Phosphoric Acid Tank</td>
</tr>
<tr>
<td>TK-061001</td>
<td>248,088 gallon Crude Soybean Oil Tank #1</td>
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<tr>
<td>TK-061002</td>
<td>500,774 gallon Crude Soybean Oil Tank #3</td>
</tr>
<tr>
<td>TK-061003</td>
<td>551,557 gallon Crude Soybean Oil Tank #4</td>
</tr>
<tr>
<td>TK-061005</td>
<td>413,046 gallon Crude Soybean Oil Tank #5</td>
</tr>
<tr>
<td>N/A</td>
<td>100 gallon Gasoline Tank</td>
</tr>
<tr>
<td>N/A</td>
<td>1,000 gallon Diesel Tank</td>
</tr>
<tr>
<td>N/A</td>
<td>(2) 35,000 gallon underground solvent storage tanks</td>
</tr>
</tbody>
</table>
II. Plant Wide Permit Conditions

The installation shall comply with each of the following limitations. Consult the appropriate sections in the CFR and 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 or Emission Units without Limitations.

PERMIT CONDITION PW001
10 CSR 10-6.060 Construction Permits Required
Construction Permit 1140A, Issued December 1, 2015

Operational Limitations:
1. Special Condition 3.A: The permittee shall not receive more than 4,588,050 tons of soybeans by truck in any consecutive 12-month rolling total period.
2. Special Condition 3.B: The permittee shall not receive more than 4,588,050 tons of soybeans by rail in any consecutive 12-month rolling total period.
3. Special Condition 3.C: The permittee shall not process (i.e. convey, pre-clean, and dry) more than 2,212,995 tons of soybeans in any consecutive 12-month rolling total period. The amount of soybeans processed shall be calculated in accordance with Attachment J with the exception that actual soybeans processed shall include all periods (i.e. the permittee shall not exclude soybeans processed during non-operating periods, initial startup periods, malfunction periods, or exempt operation periods).
4. Special Condition 3.D: The permittee shall not load-out more than 2,628,000 tons of meal and hull by truck in any consecutive 12-month rolling total period.
5. Special Condition 3.E: The permittee shall not load-out more than 2,628,000 tons of meal and hull by rail in any consecutive 12-month rolling total period.
6. Special Conditions 3.F: The permittee shall not cause the loss of more than 1,006 tons of solvent from the extraction process in any consecutive 12-month rolling total period. The amount of solvent lost shall be calculated in accordance with Attachment J with the exception that actual solvent loss shall include all periods (i.e. the permittee shall not exclude solvent lost during non-operating periods, initial startup periods, malfunction periods, or exempt operation periods).

Monitoring/Recordkeeping:
1. Special Condition 3.G: The permittee shall maintain monthly and 12-month rolling total records using Attachments A, B, C, and D or equivalent forms approved by the Air Pollution Control Program of the following:
   a) The tonnage of soybeans received by truck
   b) The tonnage of soybeans received by rail
   c) The tonnage of soybeans processed as determined by Attachment J with the exception that actual soybeans processed shall include all periods (i.e. the permittee shall not exclude soybeans processed during non-operating periods, initial startup periods, malfunction periods, or exempt operation periods).
   d) The tonnage of meals and hulls loaded out by truck
   e) The tonnage of meals and hulls loaded out by rail
   f) The tonnage of solvent lost by the extraction process as determined by Attachment J with the exception that actual solvent loss shall include all periods (i.e. the permittee shall not exclude
solvent lost during non-operating periods, initial startup periods, malfunction periods, or exempt operation periods).

2. Special Condition 17.A: The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to Missouri Department of Natural Resources’ personnel upon request.

**Reporting:**

1. Special Condition 17.B: The permittee shall report to the Air Pollution Control Program’s Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 and the Kansas City Health Department’s Air Quality Program, 2400 Troost Avenue, Kansas City, MO 64108, no later than ten days after the end of the month during which records indicate an exceedance of any of the operational limitations.

2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

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**PERMIT CONDITION PW002**

10 CSR 10-6.060 Construction Permits Required

Construction Permit 1140A, Issued December 1, 2015

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**Operational Limitation:**

Special Condition 11.A: The permittee shall limit the daily solvent loss ratio, in gallons of solvent lost per ton of soybeans processed) to value calculated by the following equation:

\[
\text{Maximum Allowable Solvent Loss Ratio} \left( \frac{\text{gal}}{\text{ton}} \right) = \frac{(X \times 0.14 \text{ gal/ton} + Y \times 0.165 \text{ gal/ton})}{365 \text{ days}}
\]

Where:

- \( X \) = Number of days in the previous 365 days where the daily soybean processing operating capacity was less than 5,456.7 tons of soybeans.
- \( Y \) = Number of days in the previous 365 days where the daily soybean processing operating capacity was greater than or equal to 5,456.7 tons of soybeans.

**Monitoring/Recordkeeping:**

1. Special Condition 11.B: The permittee shall develop an electronic tracking sheet approved by the Air Pollution Control Program to track the following:
   a) The daily tonnage of soybeans processed
   b) The gallons of solvent in the inventory at the beginning of the day (SOLVB)
   c) The gallons of solvent in the inventory at the end of the day (SOLVE)
   d) The gallons of solvent received each day (SOLVR)
   e) The gallons of solvent added or removed from the extraction solvent inventory each day (SOLVA)
   f) The actual daily solvent loss, in gallons, calculated using the following equation:
      \[
      \text{Actual Daily Solvent Loss (gallons)} = \text{SOLVB} - \text{SOLVE} + \text{SOLVR} \pm \text{SOLVA}
      \]
   g) The actual daily solvent loss ratio, gal/ton, calculated using the actual daily solvent loss, in gallons, divided by the daily tonnage of soybeans processed.
   h) The calculated daily solvent loss ratio limit.

2. Special Condition 11.C: The permittee shall calculate the daily solvent loss ratio limit and the actual daily solvent loss at the end of each calendar day.
3. Special Condition 11.D: The permittee shall include all solvent losses, including losses during startup, shutdown, and malfunction, in the calculations for the actual daily solvent loss.

4. Special Condition 17.A: The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to Missouri Department of Natural Resources’ personnel upon request.

**Reporting:**

1. Special Condition 17.B: The permittee shall report to the Air Pollution Control Program’s Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 and the Kansas City Health Department’s Air Quality Program, 2400 Troost Avenue, Kansas City, MO 64108, no later than ten days after the end of the calendar day during which records indicate an exceedance of the operational limitation.

2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

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**PERMIT CONDITION PW003**  
10 CSR 10-6.060 Construction Permits Required  
Construction Permit 1140B, Issued October 25, 2016

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**Operational Limitation:**

1. Special Condition 4.A: The permittee shall employ an LDAR program to minimize fugitive VOC emissions from equipment leaks. The written LDAR program shall be made available to Department of Natural Resources’ personnel upon request.

2. Special Condition 4.B: The following are minimum requirements for the LDAR program:
   a) The permittee shall operate and maintain continuous flammable gas monitors in the extraction building that shall measure the flammable gas concentration as a percentage of the hexane lower explosive limit (Hexane LEL = 10,000 ppm)
   b) The permittee shall set the minimum detection level for the monitors to 5% of the hexane LEL (500 ppm)
   c) The equipment shall be operated and maintained in accordance with the manufacturer’s specifications. A copy of the manufacturer’s specifications shall be kept onsite.
   d) If the monitors detect concentrations above 5% of the hexane LEL, the permittee shall immediately determine the source of the hexane leaks and tag all detected leaks with a visible identification tag.
   e) The permittee shall make first-attempt repairs to the leak within 15 days of discovery. If the repair(s) cannot be accomplished within 15 days, the permittee shall send a notice of inability to repair to the Enforcement/Compliance Unit of the Missouri Air Pollution Control Program within 20 days of the leak detection. The notice shall include a description of the leaking component, the measured concentration, and the reason for the inability to repair the leak within 15 days.
   f) The permittee shall maintain records of each instance where flammable gas monitor measures a concentration above 5% of the hexane LEL (500 ppm)
   g) The permittee shall maintain records of the equipment determined to be leaking, the leak repair action, and date of the repair action.
Recordkeeping:
The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to Missouri Department of Natural Resources’ personnel upon request.

Reporting:
The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

PERMIT CONDITION PW004
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations

Standards:
1. The permittee shall comply with either the requirements specified in §63.2840(a) through (d), or the requirements §63.2840(e). [§63.2840]
   a) The emission requirements limit the number of gallons of HAP lost per ton of listed oilseeds processed. For each operating month, the permittee shall calculate a compliance ratio which compares the actual HAP loss to the allowable HAP loss for the previous 12 operating months as shown in Equation 1 of §63.2840. An operating month, as defined in §63.2872, is any calendar month in which a source processes a listed oilseed, excluding any entire calendar month in which the source operated under an initial startup period subject to §63.2850(c)(2) or (d)(2) or a malfunction period subject to §63.2850(e)(2). Equation 1 of §63.2840 follows: [§63.2840(a)(1)]
   \[
   \frac{\text{Actual HAP Loss}}{\text{Allowable HAP Loss}} = \text{Compliance Ratio}
   \]  
   Equation 1
   b) Equation 1 of §63.2840 can also be expressed as a function of total solvent loss as shown in Equation 2 of §63.2840. Equation 2 of §63.2840 follows: [§63.2840(a)(2)]
   \[
   \frac{f \times \text{Actual Solvent Loss}}{0.64 \times \sum_{i=1}^{n} [(\text{Oilseed})_i \times (\text{SLF})_i]} = \text{Compliance Ratio}
   \]  
   Equation 2
   Where:
   f = The weighted average volume fraction of HAP in solvent received during the previous 12 operating months, as determined in §63.2854, dimensionless.
   0.64 = The average volume fraction of HAP in solvent in the baseline performance data, dimensionless.
   Actual Solvent Loss = Gallons of actual solvent loss during previous 12 operating months, as determined in §63.2853.
   Oilseed = Tons of each oilseed type “i” processed during the previous 12 operating months.
   SLF = The corresponding solvent loss factor (gal/ton) for oilseed “i” listed in Table 1 of §63.2840, as follows:

Table 1 of §63.2840—Oilseed Solvent Loss Factors for Determining Allowable HAP Loss

<table>
<thead>
<tr>
<th>Type of Oilseed Process</th>
<th>A source that...</th>
<th>Oilseed Solvent Loss Factor (gal/ton)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(ix) Soybean, Conventional</td>
<td>uses a conventional style desolventizer to produce crude soybean oil products and soybean animal feed products</td>
<td>0.2</td>
</tr>
</tbody>
</table>
When the source has processed listed oilseed for 12 operating months, calculate the compliance ratio by the end of each calendar month following an operating month using Equation 2 of §63.2840. When calculating the compliance ratio, consider the conditions and exclusions in §63.2840(b)(1) through (6): §63.2840(b)(1)

i) If the source processes any quantity of listed oilseeds in a calendar month and the source is not operating under an initial startup period or malfunction period subject to §63.2850, then the permittee shall categorize the month as an operating month, as defined in §63.2872. §63.2840(b)(1)

ii) The 12-month compliance ratio may include operating months occurring prior to a source shutdown and operating months that follow after the source resumes operation. §63.2840(b)(2)

iii) If the source shuts down and processes no listed oilseed for an entire calendar month, then the permittee shall categorize the month as a nonoperating month, as defined in §63.2872. Exclude any nonoperating months from the compliance ratio determination. §63.2840(b)(3)

iv) If the source is subject to an initial startup period as defined in §63.2872, exclude from the compliance ratio determination any solvent and oilseed information recorded for the initial startup period. §63.2840(b)(4)

v) If the source is subject to a malfunction period as defined in §63.2872, exclude from the compliance ratio determination any solvent and oilseed information recorded for the malfunction period. §63.2840(b)(5)

d) If the compliance ratio is less than or equal to 1.00, the source was in compliance with the HAP emission requirements for the previous operating month. §63.2840(c)

e) To determine the compliance ratio in Equation 2 of §63.2840, the permittee shall select the appropriate oilseed solvent loss factor from Table 1 of §63.2840. §63.2840(d)

f) The permittee may change compliance options for the source if the permittee submits a notice to the Director at least 60 days prior to changing compliance options. §63.2840(f)

Compliance Requirements:

1. General requirements. The requirements in §63.2850(a)(1)(i) through (iv) apply to all affected sources: §63.2850(a)

a) Submit the necessary notifications in accordance with §63.2860, which include: §63.2850(a)(1)

i) Initial notifications for new and reconstructed sources. §63.2850(a)(1)(ii)

ii) Initial notifications for significant modifications to existing or new sources. §63.2850(a)(1)(iii)

iii) Notification of compliance status. §63.2850(a)(1)(iv)

b) Develop and implement a plan for demonstrating compliance in accordance with §63.2851. §63.2850(a)(2)

c) Develop a written startup, shutdown and malfunction (SSM) plan in accordance with the provisions in §63.2852. §63.2850(a)(3)

d) Maintain all the necessary records the permittee has used to demonstrate compliance with MACT GGGG in accordance with §63.2862. §63.2850(a)(4)

e) Submit the reports in §63.2850(a)(5)(i) through (iii): §63.2850(a)(5)

i) Annual compliance certifications in accordance with §63.2861(a). §63.2850(a)(5)(i)

ii) Periodic SSM reports in accordance with §63.2861(c). §63.2850(a)(5)(ii)

iii) Immediate SSM reports in accordance with §63.2861(d). §63.2850(a)(5)(iii)
f) Submit all notifications and reports and maintain all records required by the General Provisions for performance testing if the permittee adds a control device that destroys solvent. [§63.2850(a)(6)]

2. The permittee shall meet the requirements associated with one of two compliance options. Within 15 days of the startup date, the permittee shall choose to comply with: [§63.2850(c)]
   a) The permittee shall meet all of the requirements listed in §63.2850(a) and Table 1 of §63.2850 for sources under normal operation, and the schedules for demonstrating compliance for new sources under normal operation in Table 2 of §63.2850. [§63.2850(c)(1)]

3. A malfunction is defined in §63.2. In general, it means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment or process equipment to function in a usual manner. If the permittee experiences an unscheduled shutdown as a result of a malfunction, continues to operate during a malfunction (including the period reasonably necessary to correct the malfunction), or starts up after a shutdown resulting from a malfunction, then the permittee shall meet the requirements associated with one of two compliance options. Routine or scheduled process startups and shutdowns resulting from, but not limited to, market demands, maintenance activities, and switching types of oilseed processed, are not startups or shutdowns resulting from a malfunction and, therefore, do not qualify for this provision. Within 15 days of the beginning date of the malfunction, the permittee chooses to comply with one of the options listed in §63.2850(e)(1) through (2): [§63.2850(e)]
   a) Normal operation. The permittee shall meet all of the requirements listed in §63.2850(a) and: [§63.2850(e)(1)]
      i) Normal operation requirements in §63.2850(c)(1). [§63.2850(e)(1)(ii)]
   b) Malfunction period. Throughout the malfunction period, the permittee shall meet all of the requirements listed in §63.2850(a) and Table 1 of §63.2850 for sources operating during a malfunction period. At the end of the malfunction period, the permittee shall then meet all of the requirements listed in Table 1 of §63.2850 for sources under normal operation. [§63.2850(e)(2)]

Table 1 of §63.2850—Requirements for Compliance with HAP Emission Standards

<table>
<thead>
<tr>
<th>Are you required to...</th>
<th>For periods of normal operation?</th>
<th>For malfunction periods subject to §63.2850(e)(2)?</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Operate and maintain your source in accordance with general duty provisions of §63.6(e)?</td>
<td>Yes. Additionally, the HAP emission limits will apply</td>
<td>Yes, the permittee is required to minimize emissions to the extent practicable throughout the initial startup period. Such measures should be described in the SSM plan.</td>
</tr>
<tr>
<td>(b) Determine and record the extraction solvent loss in gallons from your source?</td>
<td>Yes, as described in §63.2853</td>
<td>Yes, as described in §63.2862(e).</td>
</tr>
<tr>
<td>(c) Record the volume fraction of HAP present at greater than 1 percent by volume and gallons of extraction solvent in shipment received?</td>
<td>Yes.</td>
<td>Yes.</td>
</tr>
<tr>
<td>(d) Determine and record the tons of each oilseed type processed by your source?</td>
<td>Yes, as described in Attachment J</td>
<td>No.</td>
</tr>
<tr>
<td>(e) Determine the weighted average volume fraction of HAP in extraction solvent received as described in §63.2854 by the end of the following calendar month?</td>
<td>Yes.</td>
<td>No, the HAP volume fraction in any solvent received during a malfunction period is included in the weighted average HAP determination for the next operating month.</td>
</tr>
<tr>
<td>(f) Determine and record the actual solvent</td>
<td>Yes.</td>
<td>No, these requirements are not applicable</td>
</tr>
</tbody>
</table>
### Are you required to...

<table>
<thead>
<tr>
<th>For periods of normal operation?</th>
<th>For malfunction periods subject to §63.2850(e)(2)?</th>
</tr>
</thead>
<tbody>
<tr>
<td>loss, weighted average volume fraction HAP, oilseed processed and compliance ratio for each 12 operating month period as described in §63.2840 by the end of the following calendar month?</td>
<td>because the source is not required to determine the compliance ratio with data recorded for a malfunction period.</td>
</tr>
<tr>
<td>(g) Submit a Notification of Compliance Status or Annual Compliance Certification as appropriate?</td>
<td>No. However, the permittee may be required to submit an annual compliance certification for previous operating months, if the deadline for the annual compliance certification happens to occur during the malfunction period.</td>
</tr>
<tr>
<td>(h) Submit a Deviation Notification Report by the end of the calendar month following the month in which the permittee determined that the compliance ratio exceeds 1.00 as described in §63.2861(b)?</td>
<td>No, these requirements are not applicable because the source is not required to determine the compliance ratio with data recorded for a malfunction period.</td>
</tr>
<tr>
<td>(i) Submit a Periodic SSM Report as described in §63.2861(c)?</td>
<td>Yes.</td>
</tr>
<tr>
<td>(j) Submit an Immediate SSM Report as described in §63.2861(d)?</td>
<td>Yes, only if the source does not follow the SSM plan.</td>
</tr>
</tbody>
</table>

### Table 2 of §63.2850—Schedules for Demonstrating Compliance Under Various Source Operating Modes

<table>
<thead>
<tr>
<th>If the source is...</th>
<th>And is operating under...</th>
<th>Then the permittee’s recordkeeping schedule...</th>
<th>The permittee shall determine the first compliance ratio by the end of the calendar month following...</th>
<th>Base the first compliance ratio on information recorded...</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b) New</td>
<td>(1) Normal operation</td>
<td>Begins on the startup date of your new source</td>
<td>The first 12 operating months after the startup date of the new source</td>
<td>During the first 12 operating months after the startup date of the new source.</td>
</tr>
</tbody>
</table>

### Compliance Plan:

1. The permittee shall develop and implement a written plan for demonstrating compliance that provides the detailed procedures the permittee will follow to monitor and record data necessary for demonstrating compliance with MACT GGGG. Procedures followed for quantifying solvent loss from the source and amount of oilseed processed vary from source to source because of site-specific factors such as equipment design characteristics and operating conditions. Typical procedures include one or more accurate measurement methods such as weigh scales, volumetric displacement, and material mass balances. Because the industry does not have a uniform set of procedures, the permittee shall develop and implement a site-specific plan for demonstrating compliance before the compliance date for the source. The permittee shall also incorporate the plan for demonstrating compliance by reference in the source's title V permit and keep the plan on-site and readily available as long as the source is operational. If the permittee makes any changes to the plan for demonstrating compliance.
compliance, then the permittee shall keep all previous versions of the plan and make them readily available for inspection for at least five years after each revision. The plan for demonstrating compliance must include the items in §63.2851(a)(1) through (7): 

(a) The name and address of the owner or operator. [§63.2851(a)(1)]
(b) The physical address of the vegetable oil production process. [§63.2851(a)(2)]
(c) A detailed description of all methods of measurement the source will use to determine the solvent losses, HAP content of solvent, and the tons of each type of oilseed processed. [§63.2851(a)(3)]
(d) When each measurement will be made. [§63.2851(a)(4)]
(e) Examples of each calculation the permittee will use to determine the compliance status. Include examples of how the permittee will convert data measured with one parameter to other terms for use in compliance determination. [§63.2851(a)(5)]
(f) Example logs of how data will be recorded. [§63.2851(a)(6)]
(g) A plan to ensure that the data continue to meet compliance demonstration needs. [§63.2851(a)(7)]

2. The Director may require the permittee to revise the plan for demonstrating compliance. The Director may require reasonable revisions if the procedures lack detail, are inconsistent or do not accurately determine solvent loss, HAP content of the solvent, or the tons of oilseed processed. [§63.2851(b)]

3. The installation’s MACT GGGG Compliance Plan is available in Attachment J.

**SSM Plan:**
The permittee shall develop a written SSM plan in accordance with §63.6(e)(3). The permittee shall complete the SSM plan before the compliance date for the source. The permittee shall also keep the SSM plan on-site and readily available as long as the source is operational. The SSM plan provides detailed procedures for operating and maintaining the source to minimize emissions during a qualifying SSM event for which the source chooses the §63.2850(e)(2) malfunction period, or the §63.2850(c)(2) or (d)(2) initial startup period. The SSM plan must specify a program of corrective action for malfunctioning process and air pollution control equipment and reflect the best practices now in use by the industry to minimize emissions. Some or all of the procedures may come from plans the permittee developed for other purposes such as a Standard Operating Procedure manual or an Occupational Safety and Health Administration Process Safety Management plan. To qualify as a SSM plan, other such plans must meet all the applicable requirements of these NESHAP. [§63.2852]

**Determining Actual Solvent Loss:**
1. By the end of each calendar month following an operating month, the permittee shall determine the total solvent loss in gallons for the previous operating month. The total solvent loss for an operating month includes all solvent losses that occur during normal operating periods within the operating month. If the permittee has determined solvent losses for 12 or more operating months, then the permittee shall also determine the 12 operating months rolling sum of actual solvent loss in gallons by summing the monthly actual solvent loss for the previous 12 operating months. The 12 operating months rolling sum of solvent loss is the “actual solvent loss,” which is used to calculate the compliance ratio as described in §63.2840. [§63.2853]
   a) To determine the actual solvent loss from the source, follow the procedures in the compliance plan to determine the items in §63.2853(a)(1) through (7): [§63.2853(a)]
      i) The dates that define each operating status period during a calendar month. The dates that define each operating status period include the beginning date of each calendar month and
the date of any change in the source operating status. If the source maintains the same operating status during an entire calendar month, these dates are the beginning and ending dates of the calendar month. If, prior to the effective date of MACT GGGG, the source determined the solvent loss on an accounting month, as defined in §63.2872, rather than a calendar month basis, and the permittee had 12 complete accounting months of approximately equal duration in a calendar year, the permittee may substitute the accounting month time interval for the calendar month time interval. If the permittee chooses to use an accounting month rather than a calendar month, the permittee shall document this measurement frequency selection in the compliance plan, and the permittee shall remain on this schedule unless the permittee requests and receive written approval from the Director. [§63.2853(a)(1)]

ii) Source operating status. The permittee shall categorize the operating status of the source for each recorded time interval in accordance with criteria in Table 1 of §63.2853, as follows: [§63.2853(a)(2)]

<table>
<thead>
<tr>
<th>If during the recorded time interval...</th>
<th>Then the source operating status is...</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) The source processes any amount of listed oilseed and source is not operating under a malfunction period subject to §63.2850(e)(2)</td>
<td>A normal operating period.</td>
</tr>
<tr>
<td>(ii) The source processes no agricultural product and the source is not operating under a malfunction period subject to §63.2850(e)(2)</td>
<td>A nonoperating period.</td>
</tr>
<tr>
<td>(iv) The permittee chooses to operate the source under a malfunction period subject to §63.2850(e)(2)</td>
<td>A malfunction period.</td>
</tr>
<tr>
<td>(v) The source processes agricultural products not defined as listed oilseed</td>
<td>An exempt period.</td>
</tr>
</tbody>
</table>

iii) Measuring the beginning and ending solvent inventory. The permittee shall measure and record the solvent inventory on the beginning and ending dates of each normal operating period that occurs during an operating month. An operating month is any calendar month with at least one normal operating period. The permittee shall consistently follow the procedures described in the compliance plan, as specified in §63.2851, to determine the extraction solvent inventory, and maintain readily available records of the actual solvent loss inventory, as described in §63.2862(c)(1). In general, the permittee shall measure and record the solvent inventory only when the source is actively processing any type of agricultural product. When the source is not active, some or all of the solvent working capacity is transferred to solvent storage tanks which can artificially inflate the solvent inventory. [§63.2853(a)(3)]

iv) Gallons of extraction solvent received. Record the total gallons of extraction solvent received in each shipment. For most processes, the gallons of solvent received represents purchases of delivered solvent added to the solvent storage inventory. However, if the process refines additional vegetable oil from off-site sources, recovers solvent from the off-site oil, and adds it to the on-site solvent inventory, then the permittee shall determine the quantity of recovered solvent and include it in the gallons of extraction solvent received. [§63.2853(a)(4)]

v) Solvent inventory adjustments. In some situations, solvent losses determined directly from the measured solvent inventory and quantity of solvent received is not an accurate estimate of the “actual solvent loss” for use in determining compliance ratios. In such cases, the permittee may adjust the total solvent loss for each normal operating period as long as the
The permittee provides a reasonable justification for the adjustment. Situations that may require adjustments of the total solvent loss include, but are not limited to, situations in §63.2853(a)(5)(i) and (ii): [§63.2853(a)(5)]

1) Solvent destroyed in a control device. The permittee may use a control device to reduce solvent emissions to meet the emission standard. The use of a control device does not alter the emission limit for the source. If the permittee uses a control device that reduces solvent emissions through destruction of the solvent instead of recovery, then determine the gallons of solvent that enter the control device and are destroyed there during each normal operating period. All solvent destroyed in a control device during a normal operating period can be subtracted from the total solvent loss. Examples of destructive emission control devices include catalytic incinerators, boilers, or flares. Identify and describe, in the compliance plan, each type of reasonable and sound measurement method that the permittee uses to quantify the gallons of solvent entering and exiting the control device and to determine the destruction efficiency of the control device. The permittee may use design evaluations to document the gallons of solvent destroyed or removed by the control device instead of performance testing under §63.7. The design evaluations must be based on the procedures and options described in §63.985(b)(1)(i)(A) through (C) or §63.11, as appropriate. All data, assumptions, and procedures used in such evaluations must be documented and available for inspection. If the permittee uses performance testing to determine solvent flow rate to the control device or destruction efficiency of the device, follow the procedures as outlined in §63.997(e)(1) and (2). Instead of periodic performance testing to demonstrate continued good operation of the control device, the permittee may develop a monitoring plan, following the procedures outlined in §63.988(c) and using operational parametric measurement devices such as fan parameters, percent measurements of lower explosive limits, and combustion temperature. [§63.2853(a)(5)(i)]

2) Changes in solvent working capacity. In records the permittee keeps on-site, document any process modifications resulting in changes to the solvent working capacity in the vegetable oil production process. Solvent working capacity is defined in §63.2872. In general, solvent working capacity is the volume of solvent normally retained in solvent recovery equipment such as the extractor, desolventizer-toaster, solvent storage, working tanks, mineral oil absorber, condensers, and oil/solvent distillation system. If the change occurs during a normal operating period, the permittee shall determine the difference in working solvent volume and make a one-time documented adjustment to the solvent inventory. [§63.2853(a)(5)(ii)]

b) Use Equation 1 of §63.2853 to determine the actual solvent loss occurring from the affected source for all normal operating periods recorded within a calendar month. Equation 1 of §63.2853 follows: [§63.2853(b)]

\[
\text{Monthly Actual Solvent (gal)} = \sum_{i=1}^{n} (\text{SOLV}_B - \text{SOLV}_E + \text{SOLV}_R \pm \text{SOLV}_A) \]

Equation 1

Where:

\( \text{SOLV}_B \) = Gallons of solvent in the inventory at the beginning of normal operating period “\( i \)” as determined in §63.2853(a)(3).

\( \text{SOLV}_E \) = Gallons of solvent in the inventory at the end of normal operating period “\( i \)” as determined in §63.2853(a)(3).

\( \text{SOLV}_R \) = Gallons of solvent received between the beginning and ending inventory dates of normal operating period “\( i \)” as determined in §63.2853(a)(4).
SOLV_A = Gallons of solvent added or removed from the extraction solvent inventory during normal operating period “i” as determined in §63.2853(a)(5).

n = Number of normal operating periods in a calendar month.

c) The actual solvent loss is the total solvent losses during normal operating periods for the previous 12 operating months. The permittee shall determine the actual solvent loss by summing the monthly actual solvent losses for the previous 12 operating months. The permittee shall record the actual solvent loss by the end of each calendar month following an operating month. Use the actual solvent loss in Equation 2 of §63.2840 to determine the compliance ratio. Actual solvent loss does not include losses that occur during operating status periods listed in §63.2853(c)(1) through (4). If any one of these four operating status periods span an entire month, then the month is treated as nonoperating and there is no compliance ratio determination. [§63.2853(c)]

i) Nonoperating periods as described in §63.2853(a)(2)(ii). [§63.2853(c)(1)]

ii) Malfunction periods as described in §63.2850(e)(2). [§63.2853(c)(3)]

iii) Exempt operation periods as described in §63.2853(a)(2)(v). [§63.2853(c)(4)]

**Determining the Weighted Average Volume Fraction of HAP in the Actual Solvent Loss:**

1. §63.2854 describes the information and procedures the permittee shall use to determine the weighted average volume fraction of HAP in extraction solvent received for use in the vegetable oil production process. By the end of each calendar month following an operating month, determine the weighted average volume fraction of HAP in extraction solvent received since the end of the previous operating month. If the permittee has determined the monthly weighted average volume fraction of HAP in solvent received for 12 or more operating months, then also determine an overall weighted average volume fraction of HAP in solvent received for the previous 12 operating months. Use the volume fraction of HAP determined as a 12 operating months weighted average in Equation 2 of §63.2840 to determine the compliance ratio. [§63.2854(a)]

2. To determine the volume fraction of HAP in the extraction solvent determined as a 12 operating months weighted average, the permittee shall comply with §63.2854(b)(1) through (3): [§63.2854(b)]

a) Record the volume fraction of each HAP comprising more than one percent by volume of the solvent in each delivery of solvent, including solvent recovered from off-site oil. To determine the HAP content of the material in each delivery of solvent, the reference method is EPA Method 311 of MACT Appendix A. The permittee may use EPA Method 311, an approved alternative method, or any other reasonable means for determining the HAP content. Other reasonable means of determining HAP content include, but are not limited to, a material safety data sheet or a manufacturer's certificate of analysis. A certificate of analysis is a legal and binding document provided by a solvent manufacturer. The purpose of a certificate of analysis is to list the test methods and analytical results that determine chemical properties of the solvent and the volume percentage of all HAP components present in the solvent at quantities greater than one percent by volume. The permittee is not required to test the materials that the permittee uses, but the Director may require a test using EPA Method 311 (or an approved alternative method) to confirm the reported HAP content. However, if the results of an analysis by EPA Method 311 are different from the HAP content determined by another means, the EPA Method 311 results will govern compliance determinations. [§63.2854(b)(1)]

b) Determine the weighted average volume fraction of HAP in the extraction solvent each operating month. The weighted average volume fraction of HAP for an operating month includes all solvent received since the end of the last operating month, regardless of the operating status at
the time of the delivery. Determine the monthly weighted average volume fraction of HAP by summing the products of the HAP volume fraction of each delivery and the volume of each delivery and dividing the sum by the total volume of all deliveries as expressed in Equation 1 of §63.2854. Record the result by the end of each calendar month following an operating month. Equation 1 of §63.2854 follows: \[ \text{Monthly Weighted Average HAP Content of Extraction Solvent (volume fraction)} = \frac{\sum_{i=1}^{n} (\text{Received}_i \times \text{Content}_i)}{\text{Total Received}} \] Where: 
\( \text{Received}_i \) = Gallons of extraction solvent received in delivery “i.” 
\( \text{Content}_i \) = The volume fraction of HAP in extraction solvent delivery “i.” 
Total Received = Total gallons of extraction solvent received since the end of the previous operating month. 
n = Number of extraction solvent deliveries since the end of the previous operating month.
c) Determine the volume fraction of HAP in the extraction solvent as a 12 operating months weighted average. When the source has processed oilseed for 12 operating months, sum the products of the monthly weighted average HAP volume fraction and corresponding volume of solvent received, and divide the sum by the total volume of solvent received for the 12 operating months, as expressed by Equation 2 of §63.2854. Record the result by the end of each calendar month following an operating month and use it in Equation 2 of §63.2840 to determine the compliance ratio. Equation 2 of §63.2854 follows: \[ \text{12 Month Weighted Average of HAP Content in Solvent Received (volume fraction)} = \frac{\sum_{i=1}^{12} (\text{Received}_i \times \text{Content}_i)}{\text{Total Received}} \] Where: 
\( \text{Received}_i \) = Gallons of extraction solvent received in operating month “i” as determined in accordance with §63.2853(a)(4). 
\( \text{Content}_i \) = Average volume fraction of HAP in extraction solvent received in operating month “i” as determined in accordance with §63.2854(b)(1). 
Total Received = Total gallons of extraction solvent received during the previous 12 operating months.

**Determining the Quantity of Oilseed Processed:**
1. All oilseed measurements shall be determined using the method described in Attachment J. By the end of each calendar month following an operating month, the permittee shall determine the tons of each listed oilseed processed for the operating month. The total oilseed processed for an operating month includes the total of each oilseed processed during all normal operating periods that occur within the operating month. If the permittee has determined the tons of oilseed processed for 12 or more operating months, then the permittee shall also determine the 12 operating months rolling sum of each type oilseed processed by summing the tons of each type of oilseed processed for the previous 12 operating months. The 12 operating months rolling sum of each type of oilseed processed is used to calculate the compliance ratio as described in §63.2840.
a) To determine the tons of each type of oilseed processed at the source, follow the procedures in Attachment J to determine the following items:
   i) The dates that define each operating status period. The dates that define each operating status period include the beginning date of each calendar month and the date of any change in the source operating status. The dates on each oilseed inventory log shall be consistent with the dates recorded for the solvent inventory.
ii) Source operating status. The permittee shall categorize the source operation for each recorded time interval. The source operating status for each time interval recorded on the oilseed inventory for each type of oilseed shall be consistent with the operating status recorded on the solvent inventory logs as described in §63.2853(a)(2).

iii) Measuring the beginning and ending inventory for each oilseed. The permittee is required to measure and record the oilseed inventory on the beginning and ending dates of each normal operating period that occurs during an operating month. An operating month is any calendar month with at least one normal operating period. The permittee shall consistently follow the procedures described in Attachment J to determine the oilseed inventory and maintain readily available records of the oilseed inventory as described by §63.2862(c)(3).

iv) Tons of each oilseed received. Record the type of oilseed and tons of each shipment of oilseed received and added to the on-site storage.

b) Use the equation in Section 4.3 of Attachment J to determine the quantity of each oilseed type processed at the affected source during normal operating periods recorded within a calendar month.

c) The quantity of each oilseed processed is the total tons of each type of listed oilseed processed during normal operating periods in the previous 12 operating months. The permittee shall determine the tons of each oilseed processed by summing the monthly quantity of each oilseed processed for the previous 12 operating months. The permittee shall record the 12 operating months quantity of each type of oilseed processed by the end of each calendar month following an operating month. Use the 12 operating months quantity of each type of oilseed processed to determine the compliance ratio as described in §63.2840. The quantity of oilseed processed does not include oilseed processed during the following operating status periods:
   i) Nonoperating periods as described in §63.2853(a)(2)(ii).
   ii) Malfunction periods as described in §63.2850(e)(2).
   iii) Exempt operation periods as described in §63.2853(a)(2)(v).
   iv) If any one of these four operating status periods span an entire calendar month, then the calendar month is treated as a nonoperating month and there is no compliance ratio determination.

General Provisions:
The permittee shall comply with the General Provisions in §§63.1 through 63.15 as specified by Table 1 of §63.2870

Recordkeeping:
1. The permittee shall satisfy the recordkeeping requirements of §63.2862 by the compliance date for the source specified in Table 1 of §63.2834. [§63.2862(a)]
2. Prepare a compliance plan (as described in §63.2851) and a SSM plan (as described in §63.2852). In these two plans, describe the procedures the permittee will follow in obtaining and recording data, and determining compliance under normal operations or a SSM subject to the §63.2850(e)(2) malfunction period. Complete both plans before the compliance date for the source and keep them on-site and readily available as long as the source is operational. [§63.2862(b)]
3. If the source processes any listed oilseed, record the items in §63.2862(c)(1) through (5): [§63.2862(c)]
   a) For the solvent inventory, record the information in §63.2862(c)(1)(i) through (vii) in accordance with the compliance plan: [§63.2862(c)(1)]
   i) Dates that define each operating status period during a calendar month. [§63.2862(c)(1)(i)]
ii) The operating status of the source such as normal operation, nonoperating, malfunction period, or exempt operation for each recorded time interval. \[\text{§63.2862(c)(1)(ii)}\]

iii) Record the gallons of extraction solvent in the inventory on the beginning and ending dates of each normal operating period. \[\text{§63.2862(c)(1)(iii)}\]

iv) The gallons of all extraction solvent received, purchased, and recovered during each calendar month. \[\text{§63.2862(c)(1)(iv)}\]

v) All extraction solvent inventory adjustments, additions or subtractions. The permittee shall document the reason for the adjustment and justify the quantity of the adjustment. \[\text{§63.2862(c)(1)(v)}\]

vi) The total solvent loss for each calendar month, regardless of the source operating status. \[\text{§63.2862(c)(1)(vi)}\]

vii) The actual solvent loss in gallons for each operating month. \[\text{§63.2862(c)(1)(vii)}\]

b) For the weighted average volume fraction of HAP in the extraction solvent, the permittee shall record the items in §63.2862(c)(2)(i) through (iii): \[\text{§63.2862(c)(2)}\]

i) The gallons of extraction solvent received in each delivery. \[\text{§63.2862(c)(2)(i)}\]

ii) The volume fraction of each HAP exceeding one percent by volume in each delivery of extraction solvent. \[\text{§63.2862(c)(2)(ii)}\]

iii) The weighted average volume fraction of HAP in extraction solvent received since the end of the last operating month as determined in accordance with §63.2854(b)(2). \[\text{§63.2862(c)(2)(iii)}\]

c) For each type of listed oilseed processed, record the items in §63.2862(c)(3)(i) through (vi), in accordance with the compliance plan: \[\text{§63.2862(c)(3)}\]

i) The dates that define each operating status period. These dates must be the same as the dates entered for the extraction solvent inventory. \[\text{§63.2862(c)(3)(i)}\]

ii) The operating status of the source such as normal operation, nonoperating, malfunction period, or exempt operation for each recorded time interval. On the log for each type of listed oilseed that is not being processed during a normal operating period, the permittee shall record which type of listed oilseed is being processed in addition to the source operating status. \[\text{§63.2862(c)(3)(ii)}\]

iii) The oilseed inventory for the type of listed oilseed being processed on the beginning and ending dates of each normal operating period. \[\text{§63.2862(c)(3)(iii)}\]

iv) The tons of each type of listed oilseed received at the affected source each normal operating period. \[\text{§63.2862(c)(3)(iv)}\]

v) All listed oilseed inventory adjustments, additions or subtractions for normal operating periods. The permittee shall document the reason for the adjustment and justify the quantity of the adjustment. \[\text{§63.2862(c)(3)(v)}\]

vi) The tons of each type of listed oilseed processed during each operating month. \[\text{§63.2862(c)(3)(vi)}\]

4. After the source has processed listed oilseed for 12 operating months, and the permittee is not operating during a malfunction period as described in §63.2850(e)(2), record the items in §63.2862(d)(1) through (5) by the end of the calendar month following each operating month: \[\text{§63.2862(d)}\]

a) The 12 operating months rolling sum of the actual solvent loss in gallons as described in §63.2853(c). \[\text{§63.2862(d)(1)}\]

b) The weighted average volume fraction of HAP in extraction solvent received for the previous 12 operating months as described in §63.2854(b)(3). \[\text{§63.2862(d)(2)}\]
c) The 12 operating months rolling sum of each type of listed oilseed processed at the affected source in tons as described in Attachment J. [§63.2862(d)(3)]

d) A determination of the compliance ratio. Using the values from §§63.2853, 63.2854, Table 1 of §63.2840, and the quantity of oilseed processed, calculate the compliance ratio using Equation 2 of §63.2840. [§63.2862(d)(4)]

e) A statement of whether the source is in compliance with all of the requirements of MACT GGGG. This includes a determination of whether the permittee has met all of the applicable requirements in §63.2850. [§63.2862(d)(5)]

5. For each SSM event subject to a malfunction period as described in §63.2850(e)(2), record the items in §63.2862(e)(1) through (3) by the end of the calendar month following each month in which the malfunction period occurred: [§63.2862(e)]

a) A description and date of the SSM event, its duration, and reason it qualifies as a malfunction. [§63.2862(e)(1)]

b) An estimate of the solvent loss in gallons for the duration of the malfunction period with supporting documentation. [§63.2862(e)(2)]

c) A checklist or other mechanism to indicate whether the SSM plan was followed during the malfunction period. [§63.2862(e)(3)]

6. Records shall be in a form suitable and readily available for review in accordance with §63.10(b)(1). [§63.2863(a)]

7. As specified in §63.10(b)(1), the permittee shall keep each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [§63.2863(b)]

8. The permittee shall keep each record on-site for at least two years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, in accordance with §3.10(b)(1). The permittee may keep the records off-site for the remaining three years. [§63.2863(c)]

**Reporting:**

1. After the initial notifications, the permittee shall submit the reports in §63.2861(a) through (d) to the Director at the appropriate time intervals: [§63.2861]

a) Annual compliance certifications. The first annual compliance certification is due 12 calendar months after the permittee submits the notification of compliance status. Each subsequent annual compliance certification is due 12 calendar months after the previous annual compliance certification. The annual compliance certification provides the compliance status for each operating month during the 12 calendar months period ending 60 days prior to the date on which the report is due. Include the information in §63.2861(a)(1) through (6) in the annual certification: [§63.2861(a)]

i) The name and address of the owner or operator. [§63.2861(a)(1)]

ii) The physical address of the vegetable oil production process. [§63.2861(a)(2)]

iii) Each listed oilseed type processed during the 12 calendar months period covered by the report. [§63.2861(a)(3)]

iv) Each HAP identified under §63.2854(a) as being present in concentrations greater than one percent by volume in each delivery of solvent received during the 12 calendar months period covered by the report. [§63.2861(a)(4)]

v) A statement designating the source as a major source of HAP or a demonstration that the source qualifies as an area source. An area source is a source that is not a major source and is not collocated within a plant site with other sources that are individually or collectively a major source. [§63.2861(a)(5)]
vi) A compliance certification to indicate whether the source was in compliance for each compliance determination made during the 12 calendar months period covered by the report. For each such compliance determination, the permittee shall include a certification of the items in §63.2861(a)(6)(i) through (ii): [§63.2861(a)(6)]
   (1) The permittee is following the procedures described in the compliance plan. [§63.2861(a)(6)(i)]
   (2) The compliance ratio is less than or equal to 1.00. [§63.2861(a)(6)(ii)]

b) Deviation notification report. Submit a deviation report for each compliance determination the permittee makes in which the compliance ratio exceeds 1.00 as determined under §63.2840(c). Submit the deviation report by the end of the month following the calendar month in which the permittee determined the deviation. The deviation notification report shall include the items in §63.2861(b)(1) through (4): [§63.2861(b)]
   i) The name and address of the owner or operator. [§63.2861(b)(1)]
   ii) The physical address of the vegetable oil production process. [§63.2861(b)(2)]
   iii) Each listed oilseed type processed during the 12 operating months period for which the permittee determined the deviation. [§63.2861(b)(3)]
   iv) The compliance ratio comprising the deviation. The permittee may reduce the frequency of submittal of the deviation notification report if the Director does not object as provided in §63.10(e)(3)(iii). [§63.2861(b)(4)]

c) Periodic startup, shutdown, and malfunction report. If the permittee chooses to operate the source under a malfunction period subject to §63.2850(e)(2), the permittee shall submit a periodic SSM report by the end of the calendar month following each month in which the initial startup period or malfunction period occurred. The periodic SSM report shall include the items in §63.2861(c)(1) through (3): [§63.2861(c)]
   i) The name, title, and signature of a source's responsible official who is certifying that the report accurately states that all actions taken during the initial startup or malfunction period were consistent with the SSM plan. [§63.2861(c)(1)]
   ii) A description of events occurring during the time period, the date and duration of the events, and reason the time interval qualifies as a malfunction period. [§63.2861(c)(2)]
   iii) An estimate of the solvent loss during the malfunction period with supporting documentation. [§63.2861(c)(3)]

d) Immediate SSM reports. If the permittee handles a SSM during a malfunction period subject to §63.2850(e)(2) differently from procedures in the SSM plan and the relevant emission requirements in §63.2840 are exceeded, then the permittee shall submit an immediate SSM report. Immediate SSM reports consist of a telephone call or facsimile transmission to the Director within two working days after starting actions inconsistent with the SSM plan, followed by a letter within seven working days after the end of the event. The letter shall include the items in §63.2861(d)(1) through (3): [§63.2861(d)]
   i) The name, title, and signature of a source's responsible official who is certifying the accuracy of the report, an explanation of the event, and the reasons for not following the SSM plan. [§63.2861(d)(1)]
   ii) A description and date of the SSM event, its duration, and reason it qualifies as a SSM. [§63.2861(d)(2)]
   iii) An estimate of the solvent loss for the duration of the SSM event with supporting documentation. [§63.2861(d)(3)]
III. Emission Unit Specific Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the CFR and 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.

### Emission Point and Control Device

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Emission Source</th>
<th>Description</th>
<th>Control Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP105</td>
<td>EU0590</td>
<td>Flaker Rollers</td>
<td>7005 CY Flaker Aspiration Cyclone #1</td>
</tr>
<tr>
<td>EP106</td>
<td>EU0600</td>
<td>Flaker Rollers</td>
<td>7006 CY Flaker Aspiration Cyclone #2</td>
</tr>
<tr>
<td>EP101</td>
<td>EU0510</td>
<td>Vertical Seed Conditioner</td>
<td>7001 CY VSC #1 Cyclone</td>
</tr>
<tr>
<td>EP102</td>
<td></td>
<td></td>
<td>7002 CY VSC #2 Cyclone</td>
</tr>
</tbody>
</table>

#### Emission Limitations:
1. Construction Permit 092012-007 Special Condition 2.A: The permittee shall not emit more than 1.56 lb/hr of PM, 0.78 lb/hr of filterable PM₁₀, and 0.78 lb/hr of filterable PM₂₅ from the stacks of the flaker aspiration cyclones (EP105 and EP106).
2. Construction Permit 1140A Special Conditions 9.A and 10.A: The permittee shall not emit PM and PM₁₀ in excess of the following limits:

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Control Device</th>
<th>PM₁₀ Emission Limit</th>
<th>PM Emission Limit</th>
<th>Maximum Exhaust Flow Rate (dscfm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP101</td>
<td>7001 CY VSC Cyclone #1</td>
<td>0.0075 gr/dscf</td>
<td>0.0075 gr/dscf</td>
<td>23,783</td>
</tr>
<tr>
<td>EP102</td>
<td>7002 CY VSC Cyclone #2</td>
<td>0.0075 gr/dscf</td>
<td>0.0075 gr/dscf</td>
<td>20,246</td>
</tr>
</tbody>
</table>

#### Operational Limitations:
2. Construction Permit 092012-007A Special Condition 1.B: The cyclones shall be operated and maintained in accordance with the manufacturer’s specifications.
4. Construction Permit 1140B Special Condition 3.B: The cyclones shall be operated and maintained in accordance with the manufacturer’s specifications.

#### Performance Testing:
Performance testing was conducted to demonstrate that the emission sources are in compliance while the cyclones are properly maintained and operated. As the flaker rollers and their associated cyclones are identical, testing conducted on EP105 was determined to demonstrate compliance for both emission sources.

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Control Device</th>
<th>PM Stack Test Results</th>
<th>Stack Test Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP105</td>
<td>Flaker Aspiration Cyclone #1</td>
<td>0.275 lb/hr</td>
<td>November 2012</td>
</tr>
<tr>
<td>Emission Point</td>
<td>Control Device</td>
<td>PM Stack Test Results (gr/dscf)</td>
<td>PM$_{10}$ Stack Test Results (gr/dscf)</td>
</tr>
<tr>
<td>----------------</td>
<td>-------------------------</td>
<td>--------------------------------</td>
<td>---------------------------------------</td>
</tr>
<tr>
<td>EP101</td>
<td>7001 CY VSC Cyclone #1</td>
<td>0.00071</td>
<td>&lt;PM</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EP102</td>
<td>7002 CY VSC Cyclone #2</td>
<td>0.00138</td>
<td>&lt;PM</td>
</tr>
</tbody>
</table>

**Monitoring/Recordkeeping:**

1. Construction Permit 1140B Special Condition 3.C: In order to ensure proper operation of the cyclones, the permittee shall perform the following:
   a) Conduct visible emissions monitoring of the cyclone at least once every day while the equipment is in operation. Visible emissions monitoring shall be performed using EPA Method 22 or Method 22-Like procedures. The presence of visible emissions shall be an indicator that the cyclone is not operating properly.
   b) Inspect the solids discharge valve for proper operations once a week.
   c) Inspect the structural components, including all ductwork and hoods, for leaks or component failure once a quarter.
   d) Inspect the barrel and collection tube for deposits or excess wear annually.

2. Construction Permit 1140B Special Condition 3.D: If any inspections indicates that the cyclones are not operating properly, corrective actions shall be taken within eight hours.

3. Construction Permit 1140B Special Condition 3.E: The permittee shall maintain an operating and maintenance log for each cyclone using Attachment G or an equivalent form which shall include the following:
   a) Incidents of malfunction, including the dates and duration of the event, probable cause, any corrective actions taken and the impact on emissions due to the malfunction;
   b) Any maintenance activities conducted on the unit, such as parts replacement, etc.; and
   c) A written record of regular inspection schedule, the date and results of all inspections, including any actions or maintenance activities resulting from the inspections. This includes inspections required by Construction Permit 1140B Special Condition 3.C.

4. Construction Permit 092012-007 Special Condition 3.A: The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to Missouri Department of Natural Resources’ personnel upon request.

5. Construction Permit 1140A Special Condition 17.A: The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to Missouri Department of Natural Resources’ personnel upon request.

**Recordkeeping & Reporting:**

The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.
PERMIT CONDITION 002
10 CSR 10-6.060 Construction Permits Required
Construction Permit 1140A, Issued December 1, 2015

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Control Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP03</td>
<td>2001 DC Elevator Dust Collector</td>
</tr>
<tr>
<td>EP101</td>
<td>7001 CY VSC Cyclone #1</td>
</tr>
<tr>
<td>EP102</td>
<td>7002 CY VSC Cyclone #2</td>
</tr>
<tr>
<td>EP103a</td>
<td>7002 DC Jet Dryer Dust Collector #1</td>
</tr>
<tr>
<td>EP103b</td>
<td>7003 DC Jet Dryer Dust Collector #2</td>
</tr>
</tbody>
</table>

**Emission Limitation:**
Special Condition 4.B: These emission points shall not exceed an opacity of 0%.

**Monitoring:**
Special Condition 4.C: The permittee shall conduct daily opacity readings on these emission points using U.S. EPA Test Method 22-like procedures. Readings are only required when the emission points are operating and when the weather conditions allow.

**Recordkeeping:**
1. The permittee shall maintain records of all observation results (see Attachment E or an equivalent form approved by the Air Pollution Control Program), noting:
   a) Whether any air emissions (except for water vapor) were visible from the emission points and
   b) All emission points from which visible emissions occurred.
2. The permittee shall maintain records of any equipment malfunctions using Attachment G or an equivalent form approved by the Air Pollution Control Program.
3. Special Condition 17.A: The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to Missouri Department of Natural Resources’ personnel upon request.

**Reporting:**
1. The permittee shall report to the Air Pollution Control Program’s Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 and the Kansas City Health Department’s Air Quality Program, 2400 Troost Avenue, Kansas City, MO 64108, no later than ten days after an exceedance of the opacity limitation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.
### PERMIT CONDITION 003

**10 CSR 10-6.060 Construction Permits Required**  
Construction Permit 1140B, Issued October 25, 2016

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Emission Source</th>
<th>Description</th>
<th>Control Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP03</td>
<td>EU0030</td>
<td>Elevator Conveyor Transfer of Soybeans to/from Steel Soybean Storage Silo</td>
<td>2001 DC Elevator Dust Collector</td>
</tr>
<tr>
<td></td>
<td>EU0040</td>
<td>Elevator Conveyor Transfer of Soybeans to/from Concrete Soybean Storage Silo</td>
<td>7003 DC Jet Dryer Dust Collector</td>
</tr>
<tr>
<td></td>
<td>EU0500(a)</td>
<td>Whole Bean Leg 1</td>
<td>7001 DC Meal Storage Dust Collector</td>
</tr>
<tr>
<td></td>
<td>EU0500(b)</td>
<td>Whole Bean Scale</td>
<td>7007 DC Meal Storage Dust Collector</td>
</tr>
<tr>
<td></td>
<td>EU0400</td>
<td>Elevator</td>
<td>7016 DC Pod Grinder Filter</td>
</tr>
</tbody>
</table>

#### Operational Limitations:
1. Special Condition 2.A: The permittee shall control particulate emissions from these emission sources using fabric filters.
2. Special Condition 2.B: The fabric filters shall be operated and maintained in accordance with the manufacturer’s specifications. The filters shall be equipped with gauges or meters that indicate the pressure drop across the control devices. These gauges or meters shall be located such that Department of Natural Resources’ employees may easily observe them.
3. Special Condition 2.C: Appropriate replacement fabric filters shall be kept on hand at all times. These replacement filters shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).

#### Monitoring/Recordkeeping:
1. Special Condition 2.B: The permittee shall monitor and record the operating pressure drop across each fabric filter at least once a day when the emission sources are in operation. The pressure drops shall be maintained within the design conditions specified by the manufacturer’s performance specifications.
2. The permittee shall maintain a copy of each fabric filter’s manufacturer’s specifications onsite.
3. Special Condition 2.D: The permittee shall maintain an operating and maintenance log for each fabric filter using Attachment G or an equivalent form which shall include the following:

---

1 Emissions from the Jet Dryers (EU0520 & EU0530) are not emitted through EP103a and EP103b during normal operations. Instead, emissions are controlled by a fabric filter before being recycled back into the Jet Dryers. EP103a and EP103b are only used during periods of high relative humidity when extra air is needed, which would increase the dryer pressure and cause a need for the air to be released through EP103a and EP103b. Whenever the air is being released through EP103a and EP103b, it must be controlled by a fabric filter.
a) Incidents of malfunction, including the dates and duration of the event, probable cause, any corrective actions taken and the impact on emissions due to the malfunction.
b) Any maintenance activities conducted on the unit, such as parts replacement, etc.; and
c) A written record of regular inspection schedule, the date and results of all inspections, including any actions or maintenance activities resulting from the inspections.

4. The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to Missouri Department of Natural Resources’ personnel upon request.

**Reporting:**
The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

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### PERMIT CONDITION 004

10 CSR 10-6.060 Construction Permits Required  
Construction Permit 1140A, Issued December 1, 2015  
Construction Permit 1140B, Issued October 25, 2016

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Emission Source</th>
<th>Description</th>
<th>Control Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP109</td>
<td>EU0640</td>
<td>Meal Dryer/Cooler #3</td>
<td>7007 CY Meal Dryer/Cooler Cyclone</td>
</tr>
<tr>
<td>EP110</td>
<td>EU0650</td>
<td>Meal Dryer/Cooler #4</td>
<td>7008 CY Meal Dryer/Cooler Cyclone</td>
</tr>
<tr>
<td>EP111</td>
<td>EU0660</td>
<td>Meal Dryer/Cooler #5</td>
<td>7009 CY Meal Dryer/Cooler Cyclone</td>
</tr>
<tr>
<td>EP121</td>
<td>EU0770</td>
<td>Pellet Mill Cooler</td>
<td>7010 CY Pellet Mill Cooler Cyclone</td>
</tr>
</tbody>
</table>

### Emission Limitation:
Construction Permit 1140A Special Conditions 9.A and 10.A: The permittee shall not emit PM and PM$_{10}$ in excess of the following limits:

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Control Device</th>
<th>PM$_{10}$ Emission Limit</th>
<th>PM Emission Limit</th>
<th>Maximum Exhaust Flow Rate (dscfm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP109</td>
<td>7007 CY Meal Dryer/Cooler Cyclone</td>
<td>0.0075 gr/dscf</td>
<td>0.03 gr/dscf</td>
<td>16,033</td>
</tr>
<tr>
<td>EP110</td>
<td>7008 CY Meal Dryer/Cooler Cyclone</td>
<td>0.007 gr/dscf</td>
<td>0.014 gr/dscf</td>
<td>16,903</td>
</tr>
<tr>
<td>EP111</td>
<td>7009 CY Meal Dryer/Cooler Cyclone</td>
<td>0.007 gr/dscf</td>
<td>0.014 gr/dscf</td>
<td>20,529</td>
</tr>
<tr>
<td>EP121</td>
<td>7010 CY Pellet Mill Cooler Cyclone</td>
<td>0.008 gr/dscf</td>
<td>0.016 gr/dscf</td>
<td>9,133</td>
</tr>
</tbody>
</table>

### Operational Limitations:
1. Construction Permit 1140B Special Condition 3.A: The permittee shall control particulate emissions from the following emission sources using cyclones:

<table>
<thead>
<tr>
<th>Emission Source</th>
<th>Description</th>
<th>Emission Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU0640</td>
<td>Meal Dryer/Cooler #3</td>
<td>EP109</td>
</tr>
<tr>
<td>EU0650</td>
<td>Meal Dryer/Cooler #4</td>
<td>EP110</td>
</tr>
<tr>
<td>EU0660</td>
<td>Meal Dryer/Cooler #5</td>
<td>EP111</td>
</tr>
<tr>
<td>EU0770</td>
<td>Pellet Mill Cooler</td>
<td>EP121</td>
</tr>
</tbody>
</table>

2. Special Condition 3.B: The cyclones shall be operated and maintained in accordance with the manufacturer’s specifications.
**Performance Testing:**

1. Performance testing was conducted to demonstrate that the emission sources are in compliance while the cyclones are properly maintained and operated.

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Control Device</th>
<th>PM Stack Test Results (gr/dscf)</th>
<th>PM10 Stack Test Results (gr/dscf)</th>
<th>Air Flow Rate (dscfm)</th>
<th>Stack Test Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP109</td>
<td>7007 CY Meal Dryer/Cooler Cyclone</td>
<td>N/D</td>
<td>0.0072</td>
<td>14,082</td>
<td>January &amp; February 2009</td>
</tr>
<tr>
<td>EP110</td>
<td>7008 CY Meal Dryer/Cooler Cyclone</td>
<td>N/D</td>
<td>0.00239</td>
<td>13,155</td>
<td></td>
</tr>
<tr>
<td>EP111</td>
<td>7009 CY Meal Dryer/Cooler Cyclone</td>
<td>N/D</td>
<td>0.00288</td>
<td>15,442</td>
<td></td>
</tr>
<tr>
<td>EP121</td>
<td>7010 CY Pellet Mill Cooler Cyclone</td>
<td>N/D</td>
<td>0.00253</td>
<td>6,313</td>
<td></td>
</tr>
</tbody>
</table>

2. The permittee shall conduct performance testing on EP109, EP110, EP111, and EP121 no later than 180 days after the issuance date of this operating permit to demonstrate compliance with the PM emission limitations.

3. A completed Proposed Test Plan Form shall be submitted to the Air Pollution Control Program 30 days prior to the proposed test date so that the Air Pollution Control Program may arrange a pretest meeting, if necessary, and assure that the test date is acceptable for an observer to be present. The Proposed Test Plan may serve the purpose of notification and must be approved by the Director prior to conducting the required emission testing.

4. Two copies of a written report of the performance test results shall be submitted to the Director within 30 days of completion of any required testing. The report must include legible copies of the raw data sheets, analytical instrument laboratory data, and complete sample calculations from the required U.S. EPA Method for at least one sample run.

5. The test report is to fully account for all operational and emission parameters addressed both in the permit conditions as well as in any other applicable state or federal rules or regulations, including but not limited to:
   a) The pressure drop across the control devices.

**Monitoring/Recordkeeping:**

1. Construction Permit 1140B Special Condition 3.C: In order to ensure proper operation of the cyclones, the permittee shall perform the following:
   a) Conduct visible emissions monitoring of the cyclone at least once every day while the equipment is in operation. Visible emissions monitoring shall be performed using EPA Method 22 or Method 22-Like procedures. The presence of visible emissions shall be an indicator that the cyclone is not operating properly.
   b) Inspect the solids discharge valve for proper operations once a week.
   c) Inspect the structural components, including all ductwork and hoods, for leaks or component failure once a quarter.
   d) Inspect the barrel and collection tube for deposits or excess wear annually.

2. Construction Permit 1140B Special Condition 3.D: If any inspections indicates that the cyclones are not operating properly, corrective actions shall be taken within eight hours.

3. Construction Permit 1140B Special Condition 3.E: The permittee shall maintain an operating and maintenance log for each cyclone using Attachment G or an equivalent form which shall include the following:
   a) Incidents of malfunction, including the dates and duration of the event, probable cause, any corrective actions taken and the impact on emissions due to the malfunction;
   b) Any maintenance activities conducted on the unit, such as parts replacement, etc.; and
c) A written record of regular inspection schedule, the date and results of all inspections, including any actions or maintenance activities resulting from the inspections. This includes inspections required by Construction Permit 1140B Special Condition 3.C.

4. Construction Permit 1140A Special Condition 17.A: The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to Missouri Department of Natural Resources’ personnel upon request.

**Recordkeeping & Reporting:**
The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

### PERMIT CONDITION 005
10 CSR 10-6.060 Construction Permits Required
Construction Permit 1140A, Issued December 1, 2015

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Emission Source</th>
<th>Description</th>
<th>Control Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP116</td>
<td>EU0760</td>
<td>Prep Hull Storage Tank</td>
<td>7015 DC Prep Hull Storage Tank Bin Vent Filter</td>
</tr>
<tr>
<td>EP117</td>
<td>EU0700</td>
<td>Hull Storage Tank</td>
<td>7009 DC Hull Storage Tank Bin Vent Filter</td>
</tr>
<tr>
<td></td>
<td>EU0730</td>
<td>Hull Conveyance</td>
<td></td>
</tr>
<tr>
<td>EP118</td>
<td>EU0710</td>
<td>Meal Additive Tank</td>
<td>7010 DC Meal Flow Additive Tank Bin Vent Filter</td>
</tr>
<tr>
<td>EP122</td>
<td>EU0780</td>
<td>Pellet Storage Tank</td>
<td>7013 DC Pellet Storage Tank Bin Vent Filter</td>
</tr>
</tbody>
</table>

**Operational Limitations:**
1. Special Condition 7.A: The permittee shall control particulate emissions from these emission sources using bin vent filters.
2. Special Condition 7.B: The bin vent filters shall be operated and maintained in accordance with the manufacturer’s specifications.
3. Special Condition 7.C: Appropriate replacement filters shall be kept on hand at all times. These replacement filters shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).

**Monitoring/Recordkeeping:**
1. Special Condition 7.D: In order to ensure proper operation of the bin vent filters, the permittee shall conduct visible emissions monitoring of the filters at least once a day while the emission units are in operation. Visible emissions monitoring shall be conducted using EPA Method 22 or Method 22-like procedures. During proper operations, no visible emissions are expected from the filters. Results from the observation shall be noted in a maintenance log.
2. The permittee shall maintain a copy of each bin vent filter’s manufacturer’s specifications onsite.
3. Special Condition 7.E: If the visible emissions observations indicate that the bin vent filters are not operating properly, corrective actions shall be taken within eight hours to bring the bin vent filters back into a no visible emissions status.
4. Special Condition 7.F: The permittee shall maintain an operating and maintenance log for each bin vent filter using Attachment G or an equivalent form which shall include the following:
   a) Incidents of malfunction, including the dates and duration of the event, probable cause, any corrective actions taken and the impact on emissions due to the malfunction.
b) Any maintenance activities conducted on the unit, such as parts replacement, etc.; and

c) A written record of regular inspection schedule, the date and results of all inspections, including any actions or maintenance activities resulting from the inspections.

5. Special Condition 17.A: The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to Missouri Department of Natural Resources’ personnel upon request.

**Reporting:**
The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

---

### PERMIT CONDITION 006

10 CSR 10-6.060 Construction Permits Required
Construction Permit 1140A, Issued December 1, 2015

40 CFR Part 64 Compliance Assurance Monitoring

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Emission Source</th>
<th>Description</th>
<th>Control Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP108</td>
<td>EU0620</td>
<td>Meal Dryer/Cooler #1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EU0630</td>
<td>Meal Dryer/Cooler #2</td>
<td>7001 FGD Meal Dryer/Cooler Scrubber</td>
</tr>
</tbody>
</table>

**Emission Limitation:**

Special Conditions 9.A and 10.A: The permittee shall not emit PM and PM$_{10}$ in excess of the following limits:

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Control Device</th>
<th>PM$_{10}$ Emission Limit</th>
<th>PM Emission Limit</th>
<th>Maximum Exhaust Flow Rate (dscfm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP108</td>
<td>7001 FGD Meal Dryer/Cooler Scrubber</td>
<td>0.0025 gr/dscf</td>
<td>0.005 gr/dscf</td>
<td>16,693</td>
</tr>
</tbody>
</table>

**Operational Limitations:**

1. Special Condition 8.A: The permittee shall control particulate emissions from EU0620 Meal Dryer/Cooler #1 and EU0630 Meal Dryer Cooler #2 using a scrubber.

2. Special Condition 8.B: The scrubber shall be operated and maintained in accordance with the manufacturer’s specifications. The scrubber shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. The scrubber shall be equipped with a flow meter that indicates the liquid flow rate through the scrubber. The gauges or meters shall be located such that Department of Natural Resources’ employees may easily observe them.
# PM Compliance Indicator

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measurement Approach</th>
<th>Indicator Range</th>
<th>Quality Improvement Plant (QIP) Threshold</th>
<th>Performance Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>Scrubber Differential Pressure</td>
<td>Differential pressure gauge</td>
<td>An excursion is defined as a differential pressure below 0.1 in w.c.. Excursions trigger an inspection, corrective action, and a reporting requirement.</td>
<td>A QIP is required if more than nine excursions occur during a reporting period.</td>
</tr>
<tr>
<td></td>
<td>Scrubber Liquid Flow Rate</td>
<td>Liquid flow meter</td>
<td>An excursion is defined as a scrubber liquid flow rate of less than 50 gpm. Excursions trigger an inspection, corrective action, and a reporting requirement.</td>
<td>The differential pressure gauge monitors the static pressures upstream and downstream of the scrubber venturi throat.</td>
</tr>
</tbody>
</table>

## Quality Assurance/Quality Control (QA/QC) Practices and Criteria

- Monthly comparison to a U-tube manometer. Acceptance criteria is 0.5 in. w.c.
- Calibrated on initial installation.

## Monitoring Frequency

- Once every 24 hours.
- The pressure drop shall be manually recorded once every 24 hours.
- The scrubber liquid flow rate shall be manually recorded once every 24 hours.

## Performance Testing:

Performance testing was conducted to demonstrate that the emission sources are in compliance while the scrubber is properly maintained and operated.

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Control Device</th>
<th>PM Stack Test Results (gr/dscf)</th>
<th>PM\textsubscript{10} Stack Test Results (gr/dscf)</th>
<th>Air Flow Rate (dscfm)</th>
<th>Stack Test Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP108</td>
<td>7001 FGD Meal Dryer/Cooler Scrubber</td>
<td>0.00132</td>
<td>&lt;PM</td>
<td>27,770\textsuperscript{2}</td>
<td>January &amp; February 2009</td>
</tr>
</tbody>
</table>

\textsuperscript{2} This value does exceed the maximum exhaust flow rate limitation; however, this is not considered a permit violation. The grain loading PM and PM\textsubscript{10} emission limits (gr/dscf) in conjunction with the maximum exhaust flow rate were intended to limit annual PM and PM\textsubscript{10} emission rates to the values used in Cargill’s PM and PM\textsubscript{10} netting analyses. The limits correspond to annual PM and PM\textsubscript{10} emission rates of 3.13 tons per year and 1.57 tons per year, respectively. The 2009 stack testing results correspond to an annual PM emission rate of 1.38 tons per year. As the stack tested emission rates are below the annual emission rates used in Cargill’s netting analyses, no further permitting action is required.
**Monitoring:**

1. Proper maintenance. At all times, the permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. [§64.7(b)]

2. Response to excursions or exceedances. [§64.7(d)]
   a) Upon detecting an excursion or exceedance, the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable. [§64.7(d)(1)]
   b) Determination of whether the permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process. [§64.7(d)(2)]

3. Documentation of need for improved monitoring. After approval of monitoring under 40 CFR 64, if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the Part 70 permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. [§64.7(e)]

**QIP Requirements:**

1. Based on the results of a determination made under §64.7(d)(2), the Director may require the permittee to develop and implement a QIP if exceedances or excursions exceed five percent of a pollutant-specific emissions unit's operating time for a reporting period. [§64.8(a)]

2. The QIP shall include all of the elements identified in §64.8(b).

3. If a QIP is required, the permittee shall develop and implement a QIP as expeditiously as practicable and shall notify the permitting authority if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined. [§64.8(c)]

4. Following implementation of a QIP, upon any subsequent determination pursuant to §64.7(d)(2) the Director may require the permittee make reasonable changes to the QIP if the QIP is found to have: [§64.8(d)]
   a) Failed to address the cause of the control device performance problems; or [§64.8(d)(1)]
   b) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. [§64.8(d)(2)]
5. Implementation of a QIP shall not excuse the permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act. [§64.8(e)]

**Recordkeeping & Reporting:**

1. General reporting requirements. [§64.9(a)]
   a) The permittee shall submit monitoring reports to the permitting authority in accordance with §70.6(a)(3)(ii). [§64.9(a)(1)]
   b) A report for monitoring under 40 CFR 64 shall include, at a minimum, the information required under §70.6(a)(3)(iii) and the following information, as applicable: [§64.9(a)(2)]
      i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken; [§64.9(a)(2)(i)]
      ii) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and [§64.9(a)(2)(ii)]
      iii) A description of the actions taken to implement a QIP during the reporting period as specified in §64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring. [§64.9(a)(2)(iii)]

2. General recordkeeping requirements. [§64.9(b)]
   a) The permittee shall comply with the recordkeeping requirements specified in §70.6(a)(3)(ii). The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). [§64.9(b)(1)]
   b) Instead of paper records, the permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. [§64.9(b)(2)]

3. Special Condition 17.A: The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to Missouri Department of Natural Resources’ personnel upon request.

4. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

---

**PERMIT CONDITION 007**
10 CSR 10-6.060 Construction Permits Required
Construction Permit 1140A, Issued December 1, 2015

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Control Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP03</td>
<td>2001 DC Elevator Dust Collector</td>
</tr>
<tr>
<td>EP113</td>
<td>7007 DC Meal Storage Dust Collector</td>
</tr>
<tr>
<td>EP116</td>
<td>7015 DC Prep Hull Storage Tank Bin Vent Filter</td>
</tr>
<tr>
<td>EP117</td>
<td>7009 DC Hull Storage Tank Bin Vent Filter</td>
</tr>
</tbody>
</table>
### Emission Limitation:
Special Conditions 9.A and 10.A: The permittee shall not emit PM and PM$_{10}$ in excess of the following limits:

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Control Device</th>
<th>PM$_{10}$ Emission Limit</th>
<th>PM Emission Limit</th>
<th>Maximum Exhaust Flow Rate (dscfm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP03</td>
<td>2001 DC Elevator Dust Collector</td>
<td>0.003 gr/dscf</td>
<td>0.003 gr/dscf</td>
<td>28,721</td>
</tr>
<tr>
<td>EP113</td>
<td>7007 DC Meal Storage Dust Collector</td>
<td>0.005 gr/dscf</td>
<td>0.005 gr/dscf</td>
<td>8,238</td>
</tr>
<tr>
<td>EP116</td>
<td>7015 DC Prep Hull Storage Tank Bin Vent Filter</td>
<td>0.0926 lb/hr</td>
<td>0.0926 lb/hr</td>
<td>N/A</td>
</tr>
<tr>
<td>EP117</td>
<td>7009 DC Hull Storage Tank Bin Vent Filter</td>
<td>0.0926 lb/hr</td>
<td>0.0926 lb/hr</td>
<td>N/A</td>
</tr>
<tr>
<td>EP118</td>
<td>7010 DC Meal Flow Additive Tank Bin Vent Filter</td>
<td>0.0463 lb/hr</td>
<td>0.0463 lb/hr</td>
<td>N/A</td>
</tr>
<tr>
<td>EP122</td>
<td>7013 DC Pellet Storage Tank Bin Vent Filter</td>
<td>0.005 gr/dscf</td>
<td>0.005 gr/dscf</td>
<td>3,595</td>
</tr>
</tbody>
</table>

### Compliance Demonstration:
Performance testing was conducted to demonstrate compliance with the emission limitations for the dust collectors.

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Control Device</th>
<th>PM Stack Test Results (gr/dscf)</th>
<th>PM$_{10}$ Stack Test Results (gr/dscf)</th>
<th>Air Flow Rate (dscfm)</th>
<th>Stack Test Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP03</td>
<td>2001 DC Elevator Dust Collector</td>
<td>0.0009</td>
<td>&lt;PM</td>
<td>17,598</td>
<td>January &amp; February 2009</td>
</tr>
<tr>
<td>EP113</td>
<td>7007 DC Meal Storage Dust Collector</td>
<td>N/D</td>
<td>0.0003</td>
<td>6,687</td>
<td>December 2007</td>
</tr>
<tr>
<td>EP123</td>
<td>7016 DC Pods Grinder Filter</td>
<td>0.00042</td>
<td>&lt;PM</td>
<td>2,063</td>
<td>January &amp; February 2009</td>
</tr>
</tbody>
</table>

### Performance Testing:
1. The permittee shall conduct performance testing on EP113 no later than 180 days after the issuance date of this operating permit to demonstrate compliance with the PM emission limitation.
2. A completed Proposed Test Plan Form shall be submitted to the Air Pollution Control Program 30 days prior to the proposed test date so that the Air Pollution Control Program may arrange a pretest meeting, if necessary, and assure that the test date is acceptable for an observer to be present. The Proposed Test Plan may serve the purpose of notification and must be approved by the Director prior to conducting the required emission testing.
3. Two copies of a written report of the performance test results shall be submitted to the Director within 30 days of completion of any required testing. The report must include legible copies of the raw data sheets, analytical instrument laboratory data, and complete sample calculations from the required U.S. EPA Method for at least one sample run.
4. The test report is to fully account for all operational and emission parameters addressed both in the permit conditions as well as in any other applicable state or federal rules or regulations, including but not limited to:
   a) The pressure drop across the control devices.
   b) The MERV rating of the fabric filters.

**Reporting:**
The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

<table>
<thead>
<tr>
<th>Emission Source</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU0820</td>
<td>Paved Haul Roads</td>
</tr>
</tbody>
</table>

**PERMIT CONDITION 008**
10 CSR 10-6.060 Construction Permits Required
Construction Permit 1140A, Issued December 1, 2015

**Operational Limitations:**
1. Special Condition 14.A: The permittee shall pave all haul roads with material such as asphalt, concrete, and other material approved by the Air Pollution Control Program. Maintenance and/or repair of the road surface shall be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is in operation.
2. Special Condition 14.B: The permittee shall periodically water, wash, and/or otherwise clean all of the paved portions of the haul roads as necessary to achieve control of fugitive emissions from these roads.

**Monitoring:**
1. 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.
2. The permittee shall maintain the following monitoring schedule:
   a) The permittee shall conduct weekly observations for a minimum of eight consecutive weeks after permit issuance.
   b) Should no violation of this regulation be observed during this period then-
      i) The permittee may observe once every two weeks for a period of eight weeks.
      ii) If a violation is noted, monitoring reverts to weekly.
      iii) Should no violation of this regulation be observed during this period then-
           (1) The permittee may observe once per month.
           (2) If a violation is noted, monitoring reverts to weekly.
   c) If the permittee reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner to the initial monitoring frequency.

**Recordkeeping:**
1. The permittee shall document all readings on Attachment H, or an equivalent form approved by the Air Pollution Control Program, noting the following:
   a) Whether air emissions (except water vapor) remain visible in the ambient air beyond the property line of origin.
b) Whether equipment malfunctions contributed to an exceedance.
c) Any violations and any corrective actions undertaken to correct the violation.

**Reporting:**
The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

### PERMIT CONDITION 009
10 CSR 10-6.060 Construction Permits Required
Construction Permit 1140A, Issued December 1, 2015

<table>
<thead>
<tr>
<th>Emission Source</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU0900</td>
<td>Cooling Towers</td>
</tr>
</tbody>
</table>

**Operational Limitations:**
1. Special Condition 15.A: The cooling towers shall be operated and maintained in accordance with the manufacturer’s specifications, a copy of which shall be kept onsite and be made readily available to Department of Natural Resources’ personnel.
2. Special Condition 15.B: The water circulation rate for each cooling tower shall not exceed 3,000 gallons per minute. Verification of the circulation rate shall be by the manufacturer’s maximum design rate and shall be kept onsite and be made readily available to Department of Natural Resources’ personnel upon request.
3. Special Condition 15.C: The drift loss from the cooling towers shall not exceed 0.005% of the water circulation rate. Verification of drift loss shall be by the manufacturer’s guarantee, a copy of which shall be kept onsite and be made readily available to Department of Natural Resources’ personnel upon request.
4. Special Condition 15.D: The total dissolved solid (TDS) concentration in the circulated cooling water shall not exceed 2,500 ppm. A TDS sample shall be collected for the towers each month and the TDS content tested using EPA method 160.1 or other methods approved by the Director.
5. Special Condition 15.E: The requirements for monthly TDS sample collection and testing may be eliminated or the frequency reduced upon written approval by the Air Pollution Control Program if TDS sampling results demonstrate compliance for 12 consecutive months.
6. Special Condition 15.F: If the TDS concentration for any of the testing required in Special Condition 15.D shows a concentration greater than 2,500 ppm, the permittee shall either switch the source of water to a concentration less than 2,500 ppm or submit a request to increase the TDS concentration limit. If a request to increase the TDS concentration limit is submitted, the permittee shall also submit one of the following:
   a) A new netting analysis for PM$_{10}$ and PM, showing that the net emissions increases (NEI) are less than the significance levels (15.0 tpy for PM$_{10}$ and 25.0 tpy for PM); or
   b) A new permit request that includes BACT analyses for PM$_{10}$ and PM, if the NEI are equal to or greater than the significance levels.

**Recordkeeping:**
Special Condition 17.A: The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to Missouri Department of Natural Resources’ personnel upon request.

**Reporting:**
The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

**PERMIT CONDITION 010**
10 CSR 10-6.060 Construction Permits Required
Construction Permit 1140A, Issued December 1, 2015

<table>
<thead>
<tr>
<th>Emission Source</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU0830</td>
<td>Mineral Oil Absorber</td>
</tr>
</tbody>
</table>

**Operational Limitations:**
1. Special Condition 16.A: Solvent loss from the extraction process shall be collected and condensed. The solvent vapor leaving the final condenser shall be recovered in a mineral oil absorber (EU0830).
2. Special Condition 16.B: The condensers and the mineral oil absorber shall be operated in accordance with the manufacturer’s specifications.

**Monitoring/Recordkeeping:**
1. Special Condition 16.C: The permittee shall maintain an operating and maintenance log for each filter using Attachment G or an equivalent form approved by the Air Pollution Control Program which shall include the following:
   a) Incidents of malfunction, including the dates and duration of the event, probable cause, any corrective actions taken and the impact on emissions due to the malfunction.
   b) Any maintenance activities conducted on the unit, such as parts replacement, etc.; and
   c) A written record of regular inspection schedule, the date and results of all inspections, including any actions or maintenance activities resulting from the inspections.
2. A copy of the manufacturer’s specifications for the condensers and mineral oil absorber shall be kept onsite and be made readily available to Department of Natural Resources’ personnel.
3. Special Condition 17.A: The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to Missouri Department of Natural Resources’ personnel upon request.

**Reporting:**
The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

**PERMIT CONDITION 011**
10 CSR 10-6.070 New Source Performance Regulations
40 CFR Part 60, Subpart DD – Standards of Performance for Grain Elevators

<table>
<thead>
<tr>
<th>Emission Source</th>
<th>Description</th>
<th>Source Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU0520</td>
<td>Jet Dryer #1</td>
<td>Rack/grain dryer</td>
</tr>
<tr>
<td>EU0530</td>
<td>Jet Dryer #2</td>
<td></td>
</tr>
<tr>
<td>EU0030</td>
<td>Elevator Conveyor Transfer of Soybeans to/from Steel Soybean Storage Silo</td>
<td>Grain handling operation</td>
</tr>
<tr>
<td>EU0040</td>
<td>Elevator Conveyor Transfer of Soybeans to/from Concrete Soybean Storage Silo</td>
<td></td>
</tr>
<tr>
<td>EU0500(a)</td>
<td>Whole Bean Leg 1</td>
<td></td>
</tr>
<tr>
<td>EU0500(b)</td>
<td>Whole Bean Scale</td>
<td></td>
</tr>
</tbody>
</table>
**Standard for Particulate Matter:**

1. The permittee shall not cause to be discharged into the atmosphere any gases which exhibit greater than 0 percent opacity from any: [§60.302(a)]
   a) Rack dryer in which exhaust gases pass through a screen filter coarser than 50 mesh. [§60.302(a)(2)]

2. The permittee shall not cause to be discharged into the atmosphere any fugitive emission from: [§60.302(c)]
   a) Any individual truck unloading station or railcar unloading station, which exhibits greater than 5 percent opacity. [§60.302(c)(1)]
   b) Any grain handling operation which exhibits greater than 0 percent opacity. [§60.302(c)(2)]

**Test Methods and Procedures:**

1. In conducting the performance tests required in §60.8, the permittee shall use as reference methods and procedures the test methods in NSPS Appendix A or other methods and procedures as specified in §60.303, except as provided in §60.8(b). [§60.303(a)]

2. The permittee shall determine compliance with the particulate matter standards in §60.302 as follows: [§60.303(b)]
   a) Method 9 and the procedures in §60.11 shall be used to determine opacity. [§60.303(b)(3)]

3. Method 22-line procedures shall be used to determine if visible emissions are present. If visible emissions are observed using Method 22-like procedures, then a Method 9 opacity observation shall be conducted. The following monitoring schedule shall be maintained:
   a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then
   b) Observations shall be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then
   c) Observations shall be made once per month. If a violation is noted, monitoring reverts to weekly.

4. If at the time of permit issuance the permittee has already progressed to conducting observations once every two weeks or once per month, the permittee may continue from that point in the schedule after permit issuance.

5. If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.
**Recordkeeping:**

1. The permittee shall maintain records of all observation results (see Attachment F or an equivalent form approved by the Air Pollution Control Program), noting:
   a) Whether any air emissions (except for water vapor) were visible from the emission units and
   b) All emission units from which visible emissions occurred.
2. These records shall be made available immediately for inspection to the Department of Natural Resources’ personnel upon request.
3. All records shall be maintained for five years.

**Reporting:**

1. The permittee shall report to the Air Pollution Control Program’s Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 and the Kansas City Health Department’s Air Quality Program, 2400 Troost Avenue, Kansas City, MO 64108, no later than ten days after an exceedance of the opacity limitation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.

**PERMIT CONDITION 012**

<table>
<thead>
<tr>
<th>Emission Source</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU0901</td>
<td>Parts Washer</td>
</tr>
</tbody>
</table>

**Equipment Specifications:**

1. The permittee shall not use, sell, or offer for sale for use within Clay, Jackson and Platte Counties a cold cleaning solvent with a vapor pressure greater than 1.0 mmHg (0.019 psi) at 20°C (68°F) unless used for carburetor cleaning. [10 CSR 10-2.210(3)(A)1.A]
2. The permittee shall not use, sell, or offer for sale for use within Clay, Jackson and Platte Counties a cold cleaning solvent for the purpose of carburetor cleaning with a vapor pressure greater than 5.0 mmHg (0.097 psi) at 20°C (68°F). [10 CSR 10-2.210(3)(A)1.B]
3. The permittee may use an alternate method for reducing cold cleaning emissions if the permittee shows the level of emission control is equivalent to or greater than the requirements of 10 CSR 10-2.210(3)(A)1.A and (3)(A)1.B. This alternate method shall be approved by the Director and EPA. [10 CSR 10-2.210(3)(A)1.C]
4. Each cold cleaner shall have a cover which prevents the escape of solvent vapors from the solvent bath while in the closed position or an enclosed reservoir which limits the escape of solvent vapors from the solvent bath whenever parts are not being processed in the cleaner. [10 CSR 10-2.210(3)(A)1.D]
5. When one or more of the following conditions exist, the cover shall be designed to operate easily such that minimal disturbing of the solvent vapors in the tank occurs. (For covers larger than 10 square feet, this shall be accomplished by either mechanical assistance such as spring loading or counter weighing or by power systems): [10 CSR 10-2.210(3)(A)1.E]
   a) The solvent vapor pressure is greater than 0.3 psi measured at 37.8°C (100°F); [10 CSR 10-2.210(3)(A)1.E(I)]
   b) The solvent is agitated; or [10 CSR 10-2.210(3)(A)1.E(II)]
   c) The solvent is heated. [10 CSR 10-2.210(3)(A)1.E(III)]
6. Each cold cleaner shall have an internal drainage facility so that parts are enclosed under the cover while draining. [10 CSR 10-2.210(3)(A)1.F]
7. If an internal drainage facility cannot fit into the cleaning system and the solvent vapor pressure is less than 0.6 psi measured at 37.8°C (100°F), then the cold cleaner shall have an external drainage facility which provides for the solvent to drain back into the solvent bath. [10 CSR 10-2.210(3)(A)1.G]

8. Solvent sprays, if used, shall be a solid fluid stream (not a fine, atomized or shower-type spray) and at a pressure which does not cause splashing above or beyond the freeboard. [10 CSR 10-2.210(3)(A)1.H]

9. A permanent conspicuous label summarizing the operating procedures shall be affixed to the equipment or in a location readily visible during operation of the equipment. [10 CSR 10-2.210(3)(A)1.I]

10. Any cold cleaner which uses a solvent that has a solvent vapor pressure greater than 0.6 psi measured at 37.8°C (100°F) or heated above 48.9°C (120°F) shall use one of the following control devices: [10 CSR 10-2.210(3)(A)1.J]
   a) A freeboard ratio of at least 0.75; [10 CSR 10-2.210(3)(A)1.J(I)]
   b) Water cover (solvent must be insoluble in and heavier than water); or [10 CSR 10-2.210(3)(A)1.J(II)]
   c) Other control systems with a mass balance demonstrated overall VOC emissions reduction efficiency greater than or equal to 65%. These control systems must receive approval from the Director and EPA prior to their use. [10 CSR 10-2.210(3)(A)1.J(III)]

**Operating Procedure Requirements:**

1. Cold cleaner covers shall be closed whenever parts are not being handled in the cleaners or the solvent must drain into an enclosed reservoir except when performing maintenance or collecting solvent samples. [10 CSR 10-2.210(3)(B)1.A]

2. Cleaned parts shall be drained in the freeboard area for at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining. During the draining, tipping, or rotating, the parts shall be positioned so that the solvent drains directly back into the cold cleaner. [10 CSR 10-2.210(3)(B)1.B]

3. Whenever a cold cleaner fails to perform within the operating requirements, the unit shall be shut down immediately and shall remain shut down until operation is restored to meet operating requirements. [10 CSR 10-2.210(3)(B)1.C]

4. Solvent leaks shall be repaired immediately or the cold cleaner shall be shut down until the leaks are repaired. [10 CSR 10-2.210(3)(B)1.D]

5. Any waste material removed from a cold cleaner shall be disposed of by one of the following methods or an equivalent method approved by the Director and EPA: [10 CSR 10-2.210(3)(B)1.E]
   a) Reduction of the waste material to less than 20% VOC solvent by distillation and proper disposal of the still bottom waste; or [10 CSR 10-2.210(3)(B)1.E(I)]
   b) Stored in closed containers for transfer to— [10 CSR 10-2.210(3)(B)1.E(II)]
      i) A contract reclamation service; or [10 CSR 10-2.210(3)(B)1.E(II)(a)]
      ii) A disposal facility approved by the Director and EPA. [10 CSR 10-2.210(3)(B)1.E(II)(b)]

6. Waste solvent shall be stored in closed containers only [10 CSR 10-2.210(3)(B)1.F]

**Operator and Supervisor Training:**

1. Only persons trained in at least the operational and equipment requirements specified for their particular solvent metal cleaning process shall be permitted to operate the equipment. [10 CSR 10-2.210(3)(C)1]
2. The person who supervises any person who operates solvent cleaning equipment shall receive equal or greater operational training than the operator. [10 CSR 10-2.210(3)(C)2]

3. A procedural review shall be given to all solvent metal cleaning equipment operators at least once each 12 months. [10 CSR 10-2.210(3)(C)3]

4. Training records shall be maintained per 10 CSR 10-2.210(4)(D) and (4)(E). [10 CSR 10-2.210(3)(C)4]

**Recordkeeping and Reporting:**

1. The permittee shall keep records of all types and amounts of solvent containing waste material from cleaning or degreasing operations transferred to either a contract reclamation service or to a disposal facility and all amounts distilled on the premises. The records also shall include maintenance and repair logs for both the degreaser and any associated control equipment. These records shall be kept current and made available for review on a monthly basis. The Director may require additional recordkeeping if necessary to adequately demonstrate compliance. [10 CSR 10-2.210(4)(A)]

2. The permittee shall maintain records which include for each purchase of cold cleaning solvent: [10 CSR 10-2.210(4)(B)]
   a) The name and address of the solvent supplier; [10 CSR 10-2.210(4)(B)1]
   b) The date of purchase; [10 CSR 10-2.210(4)(B)2]
   c) The type of solvent; and [10 CSR 10-2.210(4)(B)3]
   d) The vapor pressure of the solvent in mmHg at 20°C (68°F). [10 CSR 10-2.210(4)(B)4]

3. The permittee shall maintain records which include for each sale of cold cleaning solvent: [10 CSR 10-2.210(4)(C)]
   a) The name and address of the solvent purchaser; [10 CSR 10-2.210(4)(C)1]
   b) The date of sale; [10 CSR 10-2.210(4)(C)2]
   c) The type of solvent; [10 CSR 10-2.210(4)(C)3]
   d) The unit volume of solvent; [10 CSR 10-2.210(4)(C)4]
   e) The total volume of solvent; and [10 CSR 10-2.210(4)(C)5]
   f) The vapor pressure of the solvent measured in mmHg at 20°C (68°F). [10 CSR 10-2.210(4)(C)6]


5. All records required under 10 CSR 10-2.210(4)(A), (4)(B), (4)(C) and (4)(D) shall be retained for five years and shall be made available to the Director upon request. [10 CSR 10-2.210(4)(E)]

6. The permittee shall report any deviations from the requirements of this permit condition in the semiannual monitoring report and annual compliance certification required by Section V of this permit.
**PERMIT CONDITION 013**

10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Control Device</th>
<th>Emission Source</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP108</td>
<td>7001 FGD Meal Dryer/Cooler Scrubber</td>
<td>EU0620</td>
<td>Meal Dryer/Cooler #1</td>
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<td></td>
<td></td>
<td>EU0630</td>
<td>Meal Dryer/Cooler #2</td>
</tr>
<tr>
<td>EP113</td>
<td>7007 DC Meal Storage Dust Collector</td>
<td>EU0680</td>
<td>Meal Storage</td>
</tr>
<tr>
<td>EP123</td>
<td>7016 DC Pod Grinder Filter</td>
<td>EU0800</td>
<td>Pod Grinding</td>
</tr>
<tr>
<td>EP105</td>
<td>7005 CY Flaker Aspiration Cyclone #1</td>
<td>EU0590</td>
<td>Flaker Rollers</td>
</tr>
<tr>
<td>EP106</td>
<td>7006 CY Flaker Aspiration Cyclone #2</td>
<td>EU0600</td>
<td>Flaker Rollers</td>
</tr>
<tr>
<td>EP109</td>
<td>7007 CY Meal Dryer/Cooler Cyclone</td>
<td>EU0640</td>
<td>Meal Dryer/Cooler #3</td>
</tr>
<tr>
<td>EP110</td>
<td>7008 CY Meal Dryer/Cooler Cyclone</td>
<td>EU0650</td>
<td>Meal Dryer/Cooler #4</td>
</tr>
<tr>
<td>EP111</td>
<td>7009 CY Meal Dryer/Cooler Cyclone</td>
<td>EU0660</td>
<td>Meal Dryer/Cooler #5</td>
</tr>
<tr>
<td>EP121</td>
<td>7010 CY Pellet Mill Cooler Cyclone</td>
<td>EU0770</td>
<td>Pellet Mill Cooler</td>
</tr>
</tbody>
</table>

**Emission Limitation:**
1. The permittee shall not cause or permit to be discharged into the atmosphere from these emission sources any visible emissions with an opacity greater than 20 percent. [10 CSR 10-6.220(3)(A)1]
2. Exception: The permittee may discharge into the atmosphere from any source of emissions for a period aggregating not more than six minutes in any 60 minutes air contaminants with an opacity up to 60 percent. [10 CSR 10-6.220(3)(A)2]

**Monitoring:**
1. The permittee shall conduct opacity readings on these emission units using EPA Method 22 or Method 22-like procedures. Readings are only required when the emission units are operating and when the weather conditions allow. If no visible emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions, the source representative would then conduct a Method 9 observation.
2. The following monitoring schedule shall be maintained:
   a) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then
   b) Observations shall be made once every two weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then
   c) Observations shall be made once per month. If a violation is noted, monitoring reverts to weekly.
3. If at the time of permit issuance the permittee has already progressed to conducting observations once every two weeks or once per month, the permittee may continue from that point in the schedule after permit issuance.
4. If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

**Recordkeeping:**
1. The permittee shall maintain records of all observation results (using Attachments E & F or equivalent forms) noting:
   a) Whether any air emissions (except for water vapor) were visible from the emission units and
   b) All emission units from which visible emissions occurred.
2. The permittee shall maintain records of any equipment malfunctions.
3. These records shall be made available immediately for inspection to the Department of Natural Resources’ personnel upon request.
4. All records shall be maintained for five years.

**Reporting:**
1. The permittee shall report to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102 and the Kansas City Health Department’s Air Quality Program, 2400 Troost Avenue, Kansas City, MO 64108, no later than ten days after an exceedance of the opacity limitation.
2. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit. [§70.6(a)(3)(iii)]

## PERMIT CONDITION 014
10 CSR 10-6.060 Construction Permits Required
Construction Permit 1140A, Issued December 1, 2015
Construction Permit 1140B, Issued October 25, 2016
40 CFR Part 64 Compliance Assurance Monitoring

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Control Device</th>
<th>Emission Source</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP100</td>
<td>7001 DC Pre-Cleaning Dust Collector</td>
<td>EU0500(c)</td>
<td>Whole Bean Cleaner</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EU0500(d)</td>
<td>Whole Bean Leg 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EU0500(e)</td>
<td>Whole Bean Bin</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EU0500(f)</td>
<td>Whole Bean Aspirator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EU0500(g)</td>
<td>VSC Feed Leg</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EU0500(h)</td>
<td>Jet Dryer Feed Leg</td>
</tr>
<tr>
<td>EP107</td>
<td>7005 DC Hull Grinding Bag Filter</td>
<td>EU0610</td>
<td>Hull Grinder</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EU0720</td>
<td>Hull Receiver</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EU0580</td>
<td>Hull Screener and Secondary Aspirator</td>
</tr>
<tr>
<td>EP112</td>
<td>7006 DC Meal Grinding Dust Collector</td>
<td>EU0670</td>
<td>Meal Grinding</td>
</tr>
<tr>
<td>EP114</td>
<td>7008 DC Meal Rail Loadout Dust Collector</td>
<td>EU0690</td>
<td>Meal Rail Loadout</td>
</tr>
<tr>
<td>EP115</td>
<td>7014 DC Meal Truck Loadout Dust Collector</td>
<td>EU0790</td>
<td>Meal Truck Loadout</td>
</tr>
<tr>
<td>EP119A</td>
<td>7011 DC Truck Receiving Dust Collector</td>
<td>EU0740</td>
<td>New Truck Receiving Bay</td>
</tr>
<tr>
<td>EP120A</td>
<td>7012 DC Rail Receiving Dust Collector</td>
<td>EU0750</td>
<td>New Rail Receiving Bay</td>
</tr>
<tr>
<td>EP126</td>
<td>7003 CY &amp; 7004 DC Cascade Dryer/Cooler Dust Collector and Air Regulator Box</td>
<td>EU0540</td>
<td>Cascade Dryer #1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EU0550</td>
<td>Cascade Dryer #2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EU0560</td>
<td>Cascade Cooler #1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EU0570</td>
<td>Cascade Cooler #2</td>
</tr>
</tbody>
</table>
**Emission Limitations:**

Construction Permit 1140A Special Conditions 9.A and 10.A: The permittee shall not emit PM and PM$_{10}$ in excess of the following limits:

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Control Device</th>
<th>PM$_{10}$ Emission Limit</th>
<th>PM Emission Limit</th>
<th>Maximum Exhaust Flow Rate (dscfm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP100</td>
<td>7001 DC Pre-Cleaning Dust Collector</td>
<td>0.003 gr/dscf</td>
<td>0.003 gr/dscf</td>
<td>5,078</td>
</tr>
<tr>
<td>EP107</td>
<td>7005 DC Hull Grinding Bag Filter</td>
<td>0.005 gr/dscf</td>
<td>0.005 gr/dscf</td>
<td>8,365</td>
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<tr>
<td>EP112</td>
<td>7006 DC Meal Grinding Dust Collector</td>
<td>0.003 gr/dscf</td>
<td>0.003 gr/dscf</td>
<td>26,030</td>
</tr>
<tr>
<td>EP114</td>
<td>7008 DC Meal Rail Loadout Dust Collector</td>
<td>0.002 gr/dscf</td>
<td>0.002 gr/dscf</td>
<td>2,881</td>
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<tr>
<td>EP115</td>
<td>7014 DC Meal Truck Loadout Dust Collector</td>
<td>0.003 gr/dscf</td>
<td>0.003 gr/dscf</td>
<td>30,138</td>
</tr>
<tr>
<td>EP119A</td>
<td>7011 DC Truck Receiving Dust Collector</td>
<td>0.003 gr/dscf</td>
<td>0.003 gr/dscf</td>
<td>48,906</td>
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<tr>
<td>EP120A</td>
<td>7012 DC Rail Receiving Dust Collector</td>
<td>0.003 gr/dscf</td>
<td>0.003 gr/dscf</td>
<td>26,148</td>
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<tr>
<td>EP126</td>
<td>7003 CY &amp; 7004 DC Cascade Dryer/Cooler Dust Collector and Air Regulator Box</td>
<td>0.005 gr/dscf</td>
<td>0.005 gr/dscf</td>
<td>16,500</td>
</tr>
</tbody>
</table>

**Operational Limitations:**

1. Construction Permit 1140B Special Condition 2.A: The permittee shall control particulate emissions from the following emission sources using dust collectors/fabric filters:

<table>
<thead>
<tr>
<th>Emission Source</th>
<th>Description</th>
<th>Emission Point</th>
<th>Control Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU0500(c)</td>
<td>Whole Bean Cleaner</td>
<td>EP100</td>
<td>7001 DC Pre-Cleaning Dust Collector</td>
</tr>
<tr>
<td>EU0500(d)</td>
<td>Whole Bean Leg 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EU0500(e)</td>
<td>Whole Bean Bin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EU0500(f)</td>
<td>Whole Bean Aspirator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EU0500(g)</td>
<td>VSC Feed Leg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EU0500(h)</td>
<td>Jet Dryer Feed Leg</td>
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<td></td>
</tr>
<tr>
<td>EU0610</td>
<td>Hull Grinder</td>
<td>EP107</td>
<td>7005 DC Hull Grinding Bag Filter</td>
</tr>
<tr>
<td>EU0720</td>
<td>Hull Receiver</td>
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</tr>
<tr>
<td>EU0670</td>
<td>Meal Grinding</td>
<td>EP112</td>
<td>7006 DC Meal Grinding Dust Collector</td>
</tr>
<tr>
<td>EU0690</td>
<td>Meal Rail Loadout</td>
<td>EP114</td>
<td>7008 DC Meal Rail Loadout Dust Collector</td>
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<tr>
<td>EU0790</td>
<td>Meal Truck Loadout</td>
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<td>New Truck Loading Bay</td>
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<td>7011 DC Truck Receiving Dust Collector</td>
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<tr>
<td>EU0540</td>
<td>Cascade Dryer #1</td>
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<tr>
<td>EU0550</td>
<td>Cascade Dryer #2</td>
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<tr>
<td>EU0560</td>
<td>Cascade Cooler #1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EU0570</td>
<td>Cascade Cooler #2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2. Construction Permit 1140B Special Condition 2.B: The fabric filters shall be operated and maintained in accordance with the manufacturer’s specifications. The filters shall be equipped with gauges or meters that indicate the pressure drop across the control devices. These gauges or meters shall be located such that Department of Natural Resources’ employees may easily observe them.

3. Construction Permit 1140B Special Condition 2.C: Appropriate replacement fabric filters shall be kept on hand at all times. These replacement filters shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).

| Cargill, Inc. - CAM Monitoring Approach for EU0500(c), EU0500(d), EU0500(e), EU0500(f), EU0500(g), EU0500(h), EU0610, EU0720, EU0580, EU0670, EU0690, EU0790, EU0740, EU0750, EU0540, EU0550, EU0560, & EU0570 |
|-----------------------------------------------|-----------------------------------------------|
| **PM Compliance Indicator**                  | **Indicator**                                 |
| #1                                            | Differential Pressure                         |
| #2                                            | Visible Emissions                             |
| **Measurement Approach**                      | **Method 22**                                 |
| Differential pressure gauge                   |                                              |
| **Indicator Range**                           | **An excursion is defined as a differential pressure below 0.1 in w.c.. Excursions trigger an inspection, corrective action, and a reporting requirement.** |
| **QIP Threshold**                             | **An excursion is defined as the presence of visible emissions. Excursions trigger an inspection, corrective action, and a reporting requirement.** |
| **A QIP is required if more than nine excursions occur during a reporting period.** | **A QIP is required if more than nine excursions occur during a reporting period.** |

**Performance Criteria**

<table>
<thead>
<tr>
<th>Data Representativeness</th>
<th>The differential pressure gauge monitors the static pressures at the inlet and the outlet of the dust collectors/fabric filters.</th>
<th>Observations shall be made at the outlet of the dust collector/fabric filter for a duration of one minute.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verification of Operational Status</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>QA/QC Practices and Criteria</td>
<td>Monthly comparison to a U-tube manometer. Acceptance criteria is 0.5 in. w.c.</td>
<td>The observer shall be familiar with Method 22.</td>
</tr>
<tr>
<td>Monitoring Frequency</td>
<td>Once every 24 hours.</td>
<td>Observations shall be made once every 24 hours.</td>
</tr>
<tr>
<td>Data Collection Procedure</td>
<td>The pressure drop shall be recorded once every 24 hours.</td>
<td>Observations shall be manually recorded once every 24 hours.</td>
</tr>
</tbody>
</table>

**Performance Testing:**

1. Performance testing was conducted to demonstrate that the emission sources are in compliance while the dust collectors/fabric filters are properly maintained and operated.
2. The permittee shall conduct performance testing on EP115 no later than 180 days after the issuance date of this operating permit to demonstrate compliance with the PM emission limitations.

3. The permittee shall conduct performance testing on EP126 no later than 180 days after the issuance date of this operating permit to demonstrate compliance with the PM and PM$_{10}$ emission limitations.

4. A completed Proposed Test Plan Form shall be submitted to the Air Pollution Control Program 30 days prior to the proposed test date so that the Air Pollution Control Program may arrange a pretest meeting, if necessary, and assure that the test date is acceptable for an observer to be present. The

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<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Control Device</th>
<th>PM Stack Test Results (gr/dscf)</th>
<th>PM$_{10}$ Stack Test Results (gr/dscf)</th>
<th>Air Flow Rate (dscfm)</th>
<th>Stack Test Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP100</td>
<td>7001 DC Pre-Cleaning Dust Collector</td>
<td>0.00046</td>
<td>&lt;PM</td>
<td>5,257$^2$</td>
<td>January &amp; February 2009</td>
</tr>
<tr>
<td>EP107</td>
<td>7005 DC Hull Grinding Bag Filter</td>
<td>0.00033</td>
<td>&lt;PM</td>
<td>3,644</td>
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<tr>
<td>EP112</td>
<td>7006 DC Meal Grinding Dust Collector</td>
<td>0.00046</td>
<td>&lt;PM</td>
<td>17,776</td>
<td></td>
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<tr>
<td>EP114</td>
<td>7008 DC Meal Rail Loadout Dust Collector</td>
<td>0.0003</td>
<td>&lt;PM</td>
<td>2,477</td>
<td>January &amp; February 2009</td>
</tr>
<tr>
<td>EP115</td>
<td>7014 DC Meal Truck Loadout Dust Collector</td>
<td>N/D</td>
<td>0.00086</td>
<td>33,076$^4$</td>
<td>December 2007</td>
</tr>
<tr>
<td>EP119A</td>
<td>7011 DC Truck Receiving Dust Collector</td>
<td>0.0002</td>
<td>&lt;PM</td>
<td>28,983</td>
<td>January &amp; February 2009</td>
</tr>
<tr>
<td>EP120A</td>
<td>7012 DC Rail Receiving Dust Collector</td>
<td>0.00005</td>
<td>&lt;PM</td>
<td>27,942$^5$</td>
<td></td>
</tr>
</tbody>
</table>

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$^3$ This value does exceed the maximum exhaust flow rate limitation; however, this is not considered a permit violation. The grain loading PM and PM$_{10}$ emission limits (gr/dscf) in conjunction with the maximum exhaust flow rate were intended to limit annual PM and PM$_{10}$ emission rates to the values used in Cargill’s PM and PM$_{10}$ netting analyses. The limits correspond to an annual PM and PM$_{10}$ emission rate of 0.57 tons per year. The 2009 stack testing results correspond to an annual PM emission rate of 0.09 tons per year. As the stack tested emission rates are below the annual emission rates used in Cargill’s netting analyses, no further permitting action is required.

$^4$ This value does exceed the maximum exhaust flow rate limitation; however, this is not considered a permit violation. The grain loading PM and PM$_{10}$ emission limits (gr/dscf) in conjunction with the maximum exhaust flow rate were intended to limit annual PM and PM$_{10}$ emission rates to the values used in Cargill’s PM and PM$_{10}$ netting analyses. The limits correspond to an annual PM and PM$_{10}$ emission rates of 3.39 tons per year. The 2009 stack testing results correspond to an annual PM$_{10}$ emission rate of 1.07 tons per year. As the stack tested PM$_{10}$ emission rate is below the annual PM$_{10}$ emission rates used in Cargill’s netting analyses, no further permitting action is required for PM$_{10}$. The permittee is required to conduct PM stack testing to demonstrate compliance with the PM emission limit.

$^5$ This value does exceed the maximum exhaust flow rate limitation; however, this is not considered a permit violation. The grain loading PM and PM$_{10}$ emission limits (gr/dscf) in conjunction with the maximum exhaust flow rate were intended to limit annual PM and PM$_{10}$ emission rates to the values used in Cargill’s PM and PM$_{10}$ netting analyses. The limits correspond to an annual PM and PM$_{10}$ emission rate of 2.95 tons per year. The 2009 stack testing results correspond to an annual PM emission rate of 0.05 tons per year. As the stack tested emission rates are below the annual emission rates used in Cargill’s netting analyses, no further permitting action is required.
Proposed Test Plan may serve the purpose of notification and must be approved by the Director prior to conducting the required emission testing.

5. Two copies of a written report of the performance test results shall be submitted to the Director within 30 days of completion of any required testing. The report must include legible copies of the raw data sheets, analytical instrument laboratory data, and complete sample calculations from the required U.S. EPA Method for at least one sample run.

6. The test report is to fully account for all operational and emission parameters addressed both in the permit conditions as well as in any other applicable state or federal rules or regulations, including but not limited to:
   a) The pressure drop across the control devices.
   b) The MERV rating of the fabric filters.

**Monitoring/Recordkeeping:**

1. Proper maintenance. At all times, the permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. [§64.7(b)]
   a) Upon detecting an excursion or exceedance, the permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable. [§64.7(d)(1)]
   b) Determination of whether the permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process. [§64.7(d)(2)]

2. Documentation of need for improved monitoring. After approval of monitoring under 40 CFR 64, if the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the Part 70 permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. [§64.7(e)]

**QIP Requirements:**

1. Based on the results of a determination made under §64.7(d)(2), the Director may require the permittee to develop and implement a QIP if exceedances or excursions exceed five percent of a pollutant-specific emissions unit's operating time for a reporting period. [§64.8(a)]

2. The QIP shall include all of the elements identified in §64.8(b)

3. If a QIP is required, the permittee shall develop and implement a QIP as expeditiously as practicable
and shall notify the permitting authority if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.  

§64.8(c)

4. Following implementation of a QIP, upon any subsequent determination pursuant to §64.7(d)(2) the Director may require the permittee make reasonable changes to the QIP if the QIP is found to have:

§64.8(d)

a) Failed to address the cause of the control device performance problems; or §64.8(d)(1)
b) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. §64.8(d)(2)

5. Implementation of a QIP shall not excuse the permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act. §64.8(e)

Recordkeeping & Reporting:

1. General reporting requirements. §64.9(a)

a) The permittee shall submit monitoring reports to the permitting authority in accordance with §70.6(a)(3)(iii). §64.9(a)(1)
b) A report for monitoring under 40 CFR 64 shall include, at a minimum, the information required under §70.6(a)(3)(iii) and the following information, as applicable: §64.9(a)(2)

i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken; §64.9(a)(2)(i)

ii) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and §64.9(a)(2)(ii)

iii) A description of the actions taken to implement a QIP during the reporting period as specified in §64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring. §64.9(a)(2)(iii)

2. General recordkeeping requirements. §64.9(b)

a) The permittee shall comply with the recordkeeping requirements specified in §70.6(a)(3)(ii). The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). §64.9(b)(1)
b) Instead of paper records, the permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements. §64.9(b)(2)

3. Construction Permit 1140A Special Condition 17.A: The permittee shall maintain all records required by this permit for not less than five years and shall make them available immediately to Missouri Department of Natural Resources’ personnel upon request.
4. The permittee shall report any deviations from the requirements of this permit condition in the semi-annual monitoring report and annual compliance certification required by Section V of this permit.
IV. Core Permit Requirements

The installation shall comply with each of the following regulations or codes. Consult the appropriate sections in the CFR, the 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 is only an excerpt from the regulation or code, and is 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 Conditions

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) Best 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 list to the Director in writing at least ten days prior to any maintenance, start-up or shutdown, 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, it shall be given as soon as practicable prior to the release. If an unplanned excess release of emissions exceeding one hour occurs during maintenance, start-up or shutdown, the Director shall be notified verbally as soon as practical during normal working hours and no later than the close of business of the following working day. A written notice shall follow within ten working days.

3. Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under §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 §§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 §§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 18 months. [10 CSR 10-6.065(6)(B)1.A(V)] The permittee shall retain the most current operating permit issued to this installation on-site. [10 CSR 10-6.065(6)(C)1.C(II)] The permittee shall immediately make such permit available to any Missouri Department of Natural Resources’ personnel upon request. [10 CSR 10-6.065(6)(C)3.B]


1. 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.

2. The permittee shall conduct monitoring to demonstrate compliance with registration, certification, notification, and Abatement Procedures and Practices standards as specified in 40 CFR Part 61, Subpart M.

### 10 CSR 10-6.110 Submission of Emission Data, Emission Fees and Process Information

1. The permittee shall submit full emissions report either electronically via MoEIS, which requires Form 1.0 signed by an authorized company representative, or on 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. The permittee may be required by the Director to file additional reports.

3. 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.

4. 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.

5. The fees shall be payable to the Department of Natural Resources and shall be accompanied by the emissions report.

6. The permittee shall complete required reports on state supplied EIQ forms or electronically via MoEIS. Alternate methods of reporting the emissions can be submitted for approval by the Director.
The reports shall be submitted to the Director by April 1 after the end of each reporting year. If the full emissions report is filed electronically via MoEIS, this due date is extended to May 1.

7. The reporting period shall end on December 31 of each calendar year. Each report shall contain the required information for each emission unit for the 12-month period immediately preceding the end of the reporting period.

8. The permittee shall collect, record, and maintain the information necessary to complete the required forms during each year of operation of the installation.

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 not federally enforceable.
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 PM emissions to go beyond the premises of origin in quantities that the PM may be found on surfaces beyond the property line of origin. The nature or origin of the PM 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:**
1. 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.
2. The permittee shall maintain the following monitoring schedule:
   a) The permittee shall conduct weekly observations for a minimum of eight consecutive weeks after permit issuance.
   b) Should no violation of this regulation be observed during this period then-
      i) The permittee may observe once every two weeks for a period of eight weeks.
      ii) If a violation is noted, monitoring reverts to weekly.
      iii) Should no violation of this regulation be observed during this period then-
          (1) The permittee may observe once per month.
          (2) If a violation is noted, monitoring reverts to weekly.
   c) If the permittee reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner to the initial monitoring frequency.

**Recordkeeping:**
1. The permittee shall document all readings on Attachment H, or an equivalent form approved by the Air Pollution Control Program, noting the following:
   a) Whether air emissions (except water vapor) remain visible in the ambient air beyond the property line of origin.
   b) Whether equipment malfunctions contributed to an exceedance.
   c) 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**
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 Air Pollution Control Program. This rule requires training providers who offer training for asbestos abatement occupations to be accredited by the 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. Each individual who works
in asbestos abatement projects must first obtain certification for the appropriate occupation from the department. Each person who offers training for asbestos abatement occupations must first obtain accreditation from the department. Certain business entities that meet the requirements for state-approved exemption status must allow the department to monitor training classes provided to employees who perform asbestos abatement.

### 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 by a permittee:
   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.

### Title VI – 40 CFR Part 82 Protection of Stratospheric Ozone

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 §82.106.
   b) The placement of the required warning statement must comply with the requirements pursuant to §82.108.
   c) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
   d) No person may modify, remove, or interfere with the required warning statement except as described in §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 40 CFR Part 82, Subpart B:
a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.

b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.

c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.

d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. ("MVAC-like" appliance as defined at §82.152).

e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §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 §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 as specified in 40 CFR Part 82, Subpart B - Servicing of MVACs. The term "motor vehicle" as used in 40 CFR Part 82, Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in 40 CFR Part 82, 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 CFR and 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,

<table>
<thead>
<tr>
<th>10 CSR 10-6.065(6)(C)1.B Permit Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10 CSR 10-6.065(6)(C)1.C General Record Keeping and Reporting Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Record Keeping</td>
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<td>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.</td>
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<td>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 immediately available to any Missouri Department of Natural Resources’ personnel upon request.</td>
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</table>

2. Reporting |
| a) All reports shall be submitted to the Air Pollution Control Program’s Compliance/Enforcement Section, P. O. Box 176, Jefferson City, MO 65102. |
| 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. |
| iii) Exception. Monitoring requirements which require reporting more frequently than semi-annually shall report no later than 30 days after the end of the calendar quarter in which the measurements were taken. |
| 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 40 CFR 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 10 CSR 10-6.065(6)(C)7.A (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, and no later than ten days after any exceedance of any applicable rule, regulation, or other restriction.

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.

10 CSR 10-6.065(6)(C)1.D Risk Management Plan Under §112(r)

1. The permittee shall comply with the requirements of 40 CFR Part 68, Accidental Release Prevention Requirements. If the permittee has more than a threshold quantity of a regulated substance in process, as determined by §68.115, the permittee shall submit a Risk Management Plan in accordance with 40 CFR Part 68 no later than the latest of the following dates:

   a) June 21, 1999;
   b) Three years after the date on which a regulated substance is first listed under §68.130; or
   c) The date on which a regulated substance is first present above a threshold quantity in a process.

10 CSR 10-6.065(6)(C)1.F Severability Clause

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.

10 CSR 10-6.065(6)(C)1.G General Requirements

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(6)(C)1.
10 CSR 10-6.065(6)(C)1.H Incentive Programs Not Requiring Permit Revisions
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.

10 CSR 10-6.065(6)(C)1.I Reasonably Anticipated Operating Scenarios
None.

10 CSR 10-6.065(6)(C)3 Compliance Requirements
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’s Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. All deviations and 40 CFR 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
Such other facts as the Air Pollution Control Program will require in order to determine the compliance status of this installation.

**10 CSR 10-6.065(6)(C)6 Permit Shield**

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 §303 of the Act or §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 EPA and the Air Pollution Control Program to obtain information, or
   e) Any other permit or extra-permit provisions, terms or conditions expressly excluded from the permit shield provisions.

**10 CSR 10-6.065(6)(C)7 Emergency Provisions**

1. An emergency or upset as defined in 10 CSR 10-6.065(6)(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.

**10 CSR 10-6.065(6)(C)8 Operational Flexibility**

1. 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’s Compliance/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.

2. §502(b)(10) changes. Changes that, under §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’s Compliance/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 Air Pollution Control Program shall place a copy with the permit in the public file. Written notice shall be provided to EPA and the Air Pollution Control Program 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 EPA and the Air Pollution Control Program as soon as possible after learning of the need to make the change.

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

10 CSR 10-6.065(6)(C)9 Off-Permit Changes

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 application, 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’s Compliance/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(6)(B)3. 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.

10 CSR 10-6.020(2)(R)34 Responsible Official

The application utilized in the preparation of this permit was signed by James Alfieri, Plant Manager. On November 10, 2015, the Air Pollution Control Program was informed that Jeff Ording is now the responsible official. 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 permittee 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 permittee 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.

10 CSR 10-6.065(6)(E)6 Reopening-Permit for Cause

1. This permit may be reopened for cause if:
   a) The Missouri Department of Natural Resources receives notice from EPA that a petition for disapproval of a permit pursuant to §70.8(d) has been granted, provided that the reopening may be stayed pending judicial review of that determination,
   b) The Missouri Department of Natural Resources 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,
   c) Additional applicable requirements under the Act become applicable to the installation; however, reopening on this ground is not required if—:
      i) The permit has a remaining term of less than three years;
      ii) The effective date of the requirement is later than the date on which the permit is due to expire; or
      iii) 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,
   d) 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
   e) The Missouri Department of Natural Resources or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

10 CSR 10-6.065(6)(E)1.C Statement of Basis

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 I contains a list of abbreviations and acronyms used throughout this permit.
## Attachment A

Construction Permit 1140A Soybean Receiving Tracking

<table>
<thead>
<tr>
<th>Date (Month/Year)</th>
<th>Soybeans Received by Truck during the Month (tons)</th>
<th>Soybeans Received By Rail during the Month (tons)</th>
<th>12-Month Rolling Total Soybeans Received by Truck(^6) (tons)</th>
<th>12-Month Rolling Total Soybeans Received by Rail(^7) (tons)</th>
</tr>
</thead>
<tbody>
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\(^6\) 12-Month Rolling Total Soybeans Received by Truck (tons) = the sum of the 12 most recent Soybeans Received by Truck during the Month (tons). **12-Month Rolling Total Soybeans Received by Truck of less than or equal to 4,588,050 tons demonstrate compliance with Permit Condition PW001.**

\(^7\) 12-Month Rolling Total Soybeans Received by Rail (tons) = the sum of the 12 most recent Soybeans Received by Rail during the Month (tons). **12-Month Rolling Total Soybeans Received by Rail of less than or equal to 4,588,050 tons demonstrate compliance with Permit Condition PW001.**
### Attachment B
Construction Permit 1140A Soybean Processing Tracking

<table>
<thead>
<tr>
<th>Date (Month/Year)</th>
<th>Soybeans Processed during the Month (tons)</th>
<th>12-Month Rolling Total Soybeans Processed(^8) (tons)</th>
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\(^8\) 12-Month Rolling Total Soybeans Processed (tons) = the sum of the 12 most recent Soybeans Processed during the Month (tons). **12-Month Rolling Total Soybeans Processed of less than or equal to 2,212,995 tons demonstrate compliance with Permit Condition PW001.**
## Attachment C
Construction Permit 1140A Meal and Hull Loadout Tracking

<table>
<thead>
<tr>
<th>Date (Month/Year)</th>
<th>Meal and Hull Loaded out by Truck during the Month (tons)</th>
<th>Meal and Hull Loaded out by Rail during the Month (tons)</th>
<th>12-Month Rolling Total Meal and Hull Loaded out by Truck ($^9$) (tons)</th>
<th>12-Month Rolling Total Meal and Hull Loaded out by Rail ($^{10}$) (tons)</th>
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$^9$ 12-Month Rolling Total Meal and Hull Loaded out by Truck (tons) = the sum of the 12 most recent Meal and Hull Loaded out by Truck during the Month (tons). **12-Month Rolling Total Meal and Hull Loaded out by Truck of less than or equal to 2,628,000 tons demonstrate compliance with Permit Condition PW001.**

$^{10}$ 12-Month Rolling Total Meal and Hull Loaded out by Rail (tons) = the sum of the 12 most recent Meal and Hull Loaded out by Rail during the Month (tons). **12-Month Rolling Total Meal and Hull Loaded out by Rail of less than or equal to 2,628,000 tons demonstrate compliance with Permit Condition PW001.**
## Attachment D

### Construction Permit 1140A Solvent Loss Tracking

<table>
<thead>
<tr>
<th>Date (Month/Year)</th>
<th>Solvent Lost during the Month (tons)</th>
<th>12-Month Rolling Total Solvent Loss(^{11}) (tons)</th>
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\(^{11}\) 12-Month Rolling Total Solvent Loss (tons) = the sum of the 12 most recent Solvent Lost during the Month (tons). **12-Month Rolling Total Solvent Loss of less than or equal to 1,006 tons demonstrate compliance with Permit Condition PW001.**
## Attachment E
Method 22 Opacity Observations

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Emission Point/Source</th>
<th>Visible Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td>No</td>
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<td>Yes&lt;sup&gt;12&lt;/sup&gt;</td>
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</tbody>
</table>

<sup>12</sup> If visible emissions are observed from an emission point/source, the source representative shall conduct a Method 9 opacity observation using Attachment F to quantify the percent opacity.
## Attachment F

### Method 9 Opacity Emissions Observations

<table>
<thead>
<tr>
<th>Company</th>
<th>Observer</th>
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<table>
<thead>
<tr>
<th>Location</th>
<th>Observer Certification Date</th>
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<table>
<thead>
<tr>
<th>Date</th>
<th>Emission Unit</th>
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<tr>
<th>Time</th>
<th>Control Device</th>
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<thead>
<tr>
<th>Hour</th>
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<th>Steam Plume (check if applicable)</th>
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### SUMMARY OF AVERAGE OPACITY

<table>
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<th>Set Number</th>
<th>Time</th>
<th>Opacity</th>
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Readings ranged from _________ to _________ % opacity.

Was the emission unit in compliance at the time of evaluation?  
[ ] YES  [ ] NO  
Signature of Observer
### Attachment G

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

Emission Unit # _________________________________

<table>
<thead>
<tr>
<th>Date/Time</th>
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## Attachment H

10 CSR 10-6.170 Fugitive Emission Observations

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\(^{13}\) If there are visible emissions, the permittee shall complete the excess emissions columns.
Attachment I
Abbreviations and Acronyms

°C .............. degrees Celsius
°F .............. degrees Fahrenheit
AAQIA ......... ambient air quality impact analysis
acfm ............ actual cubic feet per minute
BACT .......... Best Available Control Technology
BMPs .......... Best Management Practices
Btu ............. British thermal unit
CAM .......... Compliance Assurance Monitoring
CAS ............ Chemical Abstracts Service
CEMS .......... Continuous Emission Monitor System
CFR .......... Code of Federal Regulations
CO .......... carbon monoxide
CO₂ .......... carbon dioxide
CO₂e .......... carbon dioxide equivalent
COMS .......... Continuous Opacity Monitoring System
CSR .......... Code of State Regulations
dscf .......... dry standard cubic feet
dscm .......... dry standard cubic meter
EIQ .......... Emission Inventory Questionnaire
EP .......... Emission Point
EPA .......... Environmental Protection Agency
EU .......... Emission Unit
FGD .......... flue gas desulfurization
FIRE .......... EPA’s Factor Information Retrieval System
fps .......... feet per second
ft ............ feet
GACT .......... Generally Available Control Technology
GHG .......... Greenhouse Gas
gpm .......... gallons per minute
gr ............ grains
GWP .......... Global Warming Potential
HAP .......... Hazardous Air Pollutant
hr .......... hour
HP .......... horsepower
lb .......... pound
lb/hr .......... pounds per hour
MACT .......... Maximum Achievable Control Technology
µg/m³ .......... micrograms per cubic meter
m/s .......... meters per second
mg .......... milligrams
Mgal .......... 1,000 gallons
MW .......... megawatt
MHDR .......... maximum hourly design rate
MMBtu .......... Million British thermal units
mmHg .......... millimeters mercury
MMscf .......... Million standard cubic feet
MSDS .......... Material Safety Data Sheet
NAAQS ....... National Ambient Air Quality Standards
NESHAPs .......... National Emissions Standards for Hazardous Air Pollutants
NOₓ .......... nitrogen oxides
NSPS .......... New Source Performance Standards
NSR .......... New Source Review
PM .......... particulate matter
PM₂.₅ .......... particulate matter less than 2.5 microns in aerodynamic diameter
PM₁₀ .......... particulate matter less than 10 microns in aerodynamic diameter
ppm .......... parts per million
PSD .......... Prevention of Significant Deterioration
psi .......... pounds per square inch
PTE .......... potential to emit
RACT .......... Reasonable Available Control Technology
RAL .......... Risk Assessment Level
SCC .......... Source Classification Code
scfm .......... standard cubic feet per minute
SCR .......... selective catalytic reduction
SIC .......... Standard Industrial Classification
SIP .......... State Implementation Plan
SMAL .......... Screening Model Action Levels
SOₓ .......... sulfur oxides
SO₂ .......... sulfur dioxide
tph .......... tons per hour
tpy .......... tons per year
VMT .......... vehicle miles traveled
VOC .......... Volatile Organic Compound
Attachment J
MACT GGGG Compliance Plan

VEGETABLE OIL MACT COMPLIANCE PLAN
CARGILL INCORPORATED • KANSAS CITY PLANT

40 CFR 63 SUBPART A
40 CFR 63 SUBPART GGGG
SOYBEAN OIL EXTRACTION PLANT

Prepared by:
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Suite 380
Lenexa, Kansas 66219
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September 2009
Project 091701.0056
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1. INTRODUCTION

1.1 BACKGROUND

Cargill Incorporated (Cargill) operates a soybean oil extraction process at their Kansas City, Missouri plant, “Kansas City facility”. Due to potential emissions of n-hexane being over 10 tons per year, the Cargill Kansas City facility is considered a major source of hazardous air pollutants (HAP). Further, as a major source of HAP, Cargill is subject the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Solvent Extraction for Vegetable Oil Production, which is detailed in Title 40, Part 63, Subpart GGGG of the Code of Federal Regulations (40 CFR 63 Subpart GGGG). Typically, NESHAP regulations are also referred to as Maximum Achievable Control Technology (MACT) standards.

1.2 PURPOSE

In accordance with 40 CFR 63.2831, Cargill has developed a written plan for demonstrating compliance (Vegetable Oil MACT Compliance Plan or “compliance plan”) that outlines the detailed procedures Cargill will follow to monitor and record data necessary for demonstrating compliance with Subpart GGGG. The compliance plan includes the following items:

- The name and address of the owner or operator.
- The physical address of the vegetable oil production process
- A detailed description of all methods of measurement the source will use to determine solvent losses, HAP content of solvent, and the tons of each type of oilseed processed.
- Examples of each calculation used to determine the facility’s compliance status, including examples of how measured data is converted.
- A plan to ensure that data continues to meet compliance demonstration needs.

1.3 SCOPE

Subpart GGGG limits HAP emissions from specified vegetable oil production processes. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission standards. Cargill has prepared this compliance plan to ensure that at all times, the Kansas City facility maintains adequate records and submits all of the required reports and notifications to remain in continuous compliance with the requirements of Subpart GGGG. The requirements of Subpart GGGG, which this compliance plan addresses, can be summarized as follows:

1. Submission of the following required reports:
   - Initial notification as a new source.
o Initial notification if the Kansas City facility is ever reconstructed.
o Initial notification if the Kansas City facility is ever significantly modified.
o Notification of initial startup.
o Initial Notification of Compliance Status (NCS).
o Annual compliance certifications.
o Compliance deviation reports.
o Periodic SSM reports.
o Immediate SSM reports.

2. Development of a written Compliance Plan


4. Determination and maintenance of the following records:
   Operating periods and status
   o Dates that define each operating status period during each calendar month.
o Operating status (normal, non-operating, initial startup period, malfunction period, or exempt operation) for each operating status period.

Solvent inventory
   o Gallons of solvent in the inventory on the beginning and ending dates of each operating period.
o Gallons of solvent received, purchased, and recovered during each calendar month.
o Solvent inventory adjustments (additions or subtractions) with a reason for the adjustment and justification for the quantity of the adjustment.
o Gallons of actual solvent lost on a monthly and rolling 12-month basis.
o Gallons of solvent received in each delivery

HAP in extraction solvent
   o Volume fraction of each HAP exceeding one percent by volume in each delivery of extraction solvent
   o Weighted average volume fraction of HAP in extraction solvent received since the end of the last operating month
   o Weighted average volume fraction of HAP in extraction solvent received on a rolling 12-month basis.

Soybean inventory (see below for alternate approach used by Cargill)
o Soybean inventory on the beginning and ending dates of each operating period.
Tons of soybeans received during each operating period.
Soybean inventory adjustments with a reason for the adjustment and justification of
the quantity of the adjustment.
Tons of soybeans processed on a monthly and rolling 12-month basis.

Alternate soybean inventory

An alternate method for conducting the soybean inventory to determine the amount of soybean
processed has been approved by EPA for another Cargill facility (Gainesville, Georgia), and
Cargill applies the alternate method at the Kansas City facility. Soybean processed on an as
received basis is tracked by weighing the amount of soybean processed in each operating period
and adjusting the amount lost due to material handling prior to the scale. The scale is located
between the wet bean storage silos and the whole bean cleaner.

Compliance ratio and statement
Rolling 12-month compliance ratio
Statement of whether the source is in compliance with all Subpart GGGG
requirements.

1.4 Vegetable Oil Manufacturing Process Unit Details

At the Kansas City facility, Cargill manufactures soybean oil through the extraction of oil from
processed soybean flakes with a hexane isomer based solvent. Raw flakes leaving the processing
building are conveyed to the extraction process, which is made up of an extractor and a solvent/oil
separation system. Solvent storage tanks and a solvent water separator tank (SWS tank) are used to
supply solvent to the extractor. Downstream of the extraction process, the meal that has had the oil
removed is processed to remove residual solvent and prepare the meal for sale.

Apart from n-hexane, there are no other hazardous air pollutants (HAPs) currently used to make
soybean oil at the Kansas City facility. Therefore, “n-hexane emissions” and “HAP emissions” will
be used interchangeably throughout this compliance plan. Simplified process flow diagrams (PFDs)
of the equipment located at the facility that comes in contact with n-hexane are shown in Appendix B.
The equipment shown in these PFDs is potentially subject to the SSMP requirements detailed in this
compliance plan (equipment that does not exceed the emission limitation in Subpart GGGG is not
subject to SSMP requirements). A brief description of the equipment that is shown in the PFDs will
now follow.

Raw hexane isomer solvent is brought into the Kansas City facility via tanker trucks, which are
unloaded into solvent storage tanks. Hexane solvent is transferred from the storage tanks into the
extractor, where the soybean flakes and solvent are mixed in countercurrent chambers. Unrefined oil
with a high residual hexane content (or miscella) exits from the bottom of the extractor and goes into
either the distillation system. The distillation system uses direct heat to separate the hexane solvent
vapors from the crude oil. Condensers convert the solvent vapors along with some water vapor to
liquid solvent and liquid water, and the solvent water separator returns the recovered solvent back to
the extraction process. The flakes that exit the extractor are sent to a desolventizer toaster, where steam is used to remove residual hexane from the flakes. The steam and hexane solvent vapors are condensed and the hexane recovered and recycled. The uncondensed solvent vapors from the solvent/oil separation and the meal processing are sent through a mineral oil absorber in order to recover as much hexane solvent as possible.

1.5 COMPLIANCE PLAN ORGANIZATION

To ease future updates and recordkeeping requirements, this compliance plan is organized as follows:

Section 2: Definitions – This section summarizes terms utilized throughout the document.

Section 3: Subpart GGGG Applicability Determination Summary – This section provides an overview of the applicability analysis used to determine that the Kansas City facility is subject to Subpart GGGG requirements.

Section 4: Monitoring and Recordkeeping Procedures – This section provides an overview of the monitoring and recordkeeping procedures used to track solvent loss, soybean throughput, and overall compliance ratio.

Section 5: Reporting Requirements – This section is a summary of what reports the Kansas City facility is required to submit in accordance with Subpart GGGG.

Section 6: Example Calculations – This section shows sample calculations in support of Section 4.

The background documents supporting the SSM Plan are organized in the following appendices:

Appendix A: Historical Reports – Copies of periodic compliance reports and notifications are maintained in this appendix.

Appendix B: Process Flow Diagrams – A visual layout of the equipment in n-hexane service at the Kansas City facility is shown in the diagrams of this appendix.
2. DEFINITIONS

The following terms are used throughout this document. These definitions are based on the definitions contained in 40 CFR Part 63, Subpart A and Subpart GGGG.

AS RECEIVED

This term describes the basis upon which all soybean measurements must be determined, which refers to the chemical and physical characteristics of soybeans as they are initially received and prior to any handling or processing.

COMPLIANCE RATIO

Ratio of the actual HAP loss in gallons from the previous 12 operating months to an allowable HAP loss in gallons, which is determined by using oilseed solvent loss factors, the weighted average volume fraction of HAP in solvent received for the previous 12 operating months, and the tons of each type of listed oilseed processed in the previous 12 operating months. Months during which no listed oilseed is processed, or months during which the initial startup period or the malfunction period applies, are excluded from this calculation. If the value is less than or equal to 1.00, the source is in compliance. If the value is greater than 1.00, the source is deviating from compliance.

CONVENTIONAL DESOLVENTIZER

Desolventizer toaster operates with indirect and direct-contact steam to remove solvent from the extracted meal. Soybeans processed in a conventional desolventizer produce crude meal products, such as animal feed.

EXEMPT PERIOD

Period of time during which a source processes agricultural products not defined as listed oilseed.

INITIAL STARTUP PERIOD

Period of time from the initial startup date of a new reconstructed or significantly modified source, for which you choose to operate the source under an initial startup period. During an initial startup period, a source is in compliance with the standards by following the operating and maintenance procedures listed for minimizing HAP emissions in the source's SSM plan rather than being subject to a HAP emission limit. The initial startup period following initial startup of a new or reconstructed source may not exceed 6 calendar months. The initial startup period following a significant modification may not exceed 3 calendar months. Solvent and soybean inventory information recorded during the initial startup period is excluded from use in any compliance ratio determinations.
MALFUNCTION PERIOD

Period of time between the beginning and end of a process malfunction including the time reasonably necessary for a source to correct the malfunction for which you choose to operate the source under a malfunction period. This period may include the duration of an unscheduled process shutdown, continued operation during a malfunction, or the subsequent process startup after a shutdown resulting from a malfunction. During a malfunction period, a source complies with the standards by following the operating and maintenance procedures described for minimizing HAP emissions in the source’s SSM plan rather than being subject to a HAP emission limit. Therefore, solvent and soybean inventory information recorded during a malfunction period is excluded from use in any compliance ratio determinations.

NORMAL OPERATING PERIOD

Any period of time when a source processes soybeans that is not categorized as an initial startup period or a malfunction period. At the beginning and ending dates of a normal operating period, solvent and soybean inventory information is recorded and included in the compliance ratio determination.

OILSEED OR LISTED OILSEED

The following agricultural products: corn germ, cottonseed, flax, peanut, rapeseed (for example, canola), safflower, soybean, and sunflower.

RECONSTRUCTION

An affected source is reconstructed if components are replaced so that the criteria in §63.2 are satisfied. In general, a vegetable oil production process is reconstructed if the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost for constructing a new vegetable oil production process, and it is technically and economically feasible for the reconstructed source to meet the relevant new source requirements of Subpart GGGG. After reconstruction of an existing source, the affected source is recategorized as a new source and becomes subject to the new source requirements of this subpart.

SIGNIFICANT MODIFICATION

The addition of new equipment or the modification of existing equipment that:

1. Significantly affects solvent losses from your vegetable oil production process;
2. The fixed capital cost of the new components represents a significant percentage of the fixed capital cost of building a comparable new vegetable oil production process;
3. The fixed capital cost of the new equipment does not constitute reconstruction as defined in §63.2; and

4. Examples of significant modifications include replacement of or major changes to solvent recovery equipment such as extractors, desolventizer-toasters/dryer-coolers, distillation system, mineral oil system, and equipment affecting desolventizing efficiency and state operation of your vegetable oil production process such as flaking mills, oilseed heating and conditioning equipment, and cracking mills.

**SOLVENT WORKING CAPACITY**

The working capacity is equal to the volume of extraction solvent normally retained in solvent containing equipment. Examples of subject equipment include the solvent extractor, desolventizer toaster, solvent storage and working tanks, mineral oil absorption system, condensers, and oil/solvent distillation system.

**VEGETABLE OIL PRODUCTION PROCESS**

The equipment comprising a continuous process for producing crude vegetable oil and meal products, including specialty soybean products, in which oil is removed from listed oilseeds through direct contact with an organic solvent. Process equipment typically includes the following components: oilseed preparation operations (including conditioning, drying, dehulling, cracking, and flaking), solvent extractors, desolventizer-toasters, meal dryers, meal coolers, meal conveyor systems, oil distillation units, solvent evaporators and condensers, solvent recovery system (also referred to as a mineral oil absorption system), vessels storing solvent-laden materials, and crude meal packaging and storage vessels. A vegetable oil production process does not include vegetable oil refining operations (including operations such as bleaching, hydrogenation, and deodorizing) and operations that engage in additional chemical treatment of crude soybean meals produced in specialty desolventizer units (including operations such as soybean isolate production).
3. SUBPART GGGG APPLICABILITY DETERMINATION SUMMARY

40 CFR 63.2832 provides information on which sources are subject to the Vegetable Oil MACT or Subpart GGGG requirements. Specifically, 40 CFR 63.2832(a) states that a facility is considered an affected source if the two criteria listed below is met:

1) You own or operate a vegetable oil production process that is a major source of HAP emissions or is collocated within a facility with other sources that are individually or collectively a major source of HAP emissions.
   i) A vegetable oil production process is the collection of continuous process equipment and activities that produce crude vegetable oil and meal products by removing oil from oilseeds through direct contact with an organic solvent, such as a hexane isomer blend.
   ii) A major source of HAP emissions is a facility that emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more per year.

2) You process any combination of the eight types of oilseeds listed below:
   i) Corn germ;
   ii) Cottonseed;
   iii) Flax;
   iv) Peanut;
   v) Rapeseed (for example, canola);
   vi) Safflower;
   vii) Soybean; and
   viii) Sunflower.

The Kansas City facility is considered a vegetable oil production process by definition, and the facility processes a regulated type of oilseed – soybeans. In addition, because the current solvent used is a hexane isomer blend, which is greater than 1% n-hexane, potential emissions of n-hexane are over 10 tons per year, making the Kansas City facility a major source of HAP by definition.

There are four different ways a vegetable oil production process could avoid applicability of Subpart GGGG as listed below:

1. It uses only mechanical extraction techniques that use no organic solvent to remove oil.
2. It uses only batch solvent extraction and batch desolventizing equipment.
3. It processes only agricultural products that are not listed oilseeds.
4. It functions only as a research and development facility and is not a major source.
The Kansas City facility uses a solvent extraction process, not mechanical extraction techniques; the process is continuous, not batch; soybeans are a regulated oilseed, and the facility is not considered research and development only. Therefore, the Kansas City facility is subject to the requirements of the Vegetable Oil MACT standard and must comply with applicable requirements for their solvent extraction process equipment.

The requirements of the Vegetable Oil MACT are applied differently depending on whether the subject facility is considered existing or new. Section 63.2833 states that if the plant was constructed, or began construction on or after May 26, 2000, it is considered a new source. The Kansas City facility was constructed following May 26, 2000 and is, therefore, considered a new source by definition.
4. MONITORING AND RECORDKEEPING PROCEDURES

When applied to the Cargill Kansas City facility, the Vegetable Oil MACT limits the number of gallons of HAP lost per ton of soybeans processed. For each operating month, Cargill must calculate a compliance ratio, which compares actual HAP loss to the allowable HAP loss for the most recent calendar months, according to the equation shown below. Cargill must calculate a compliance ratio each month unless the entire month is made up of either an initial startup period or a malfunction period.

\[
\text{Compliance Ratio} = \frac{f \times \text{Actual Solvent Loss}}{0.64 \times \text{Soybeans} \times \text{SLF}}
\]

Where:
- \( f \) = Weighted average volume fraction of HAP in solvent received during the previous 12 operating months, dimensionless.
- 0.64 = Average volume fraction of HAP from baseline solvent data, dimensionless.
- Actual Solvent Loss = Gallons of actual solvent loss during previous 12 operating months.
- Soybeans = Tons of soybeans processed during the previous 12 operating months.
- SLF = Solvent loss factor (gal/ton) for soybeans, which is equal to 0.20

 Twelve (12) operating months following the compliance date of August 19, 2008 (the date of initial startup), the Kansas City facility must calculate their compliance ratio. After the initial 12-month compliance ratio is calculated, Cargill must continue to calculate a rolling 12-month compliance ratio by the end of each calendar month. When calculating the compliance ratio, the following conditions need to be considered:

- If the source processes any soybeans in a calendar month and is not operating under an initial startup period or malfunction period, then the month is considered an operating month.
- The 12-month compliance ratio may include operating months occurring prior to a source shutdown and operating months that follow after the source resumes operation.
- If the source shuts down and processes no soybeans for an entire calendar month, then the month is considered a non-operating month, which can be excluded from the compliance ratio determination.
- If the source is subject to an initial startup period or malfunction period, Cargill may exclude from the compliance ratio determination any solvent and soybean throughput information recorded during these periods.

If the compliance ratio is less than or equal to 1.00, the Kansas City facility was in compliance with the HAP emission requirements for the previous operating month. A majority of the monitoring and recordkeeping requirements of the Vegetable Oil MACT are related to data needed for calculating the rolling 12-month compliance ratio, as discussed in the following sections.
4.1 Actual Solvent Loss

By the end of each calendar month, Cargill must determine the total solvent loss in gallons for the previous operating month. The total solvent loss for an operating month includes all solvent losses that occur during normal operating periods within the operating month. After 12 or more operating months have occurred following the initial startup date, Cargill shall determine the rolling 12-month actual solvent loss in gallons by summing the monthly actual solvent loss for the first 12 operating months. The 12 operating months rolling sum of solvent loss is the "actual solvent loss," which is used to calculate the compliance ratio. Cargill will continue to update the 12-month rolling solvent loss following each month the extraction plant operates.

The Kansas City facility determines their actual solvent loss by monitoring and recording the amount of solvent lost every day. The requirement of recording the daily solvent loss comes from Cargill's PSD construction permit. The permit requires the Kansas City facility to maintain daily records of the amount of solvent lost. The equation used to record the daily solvent is:

\[
\text{Daily Solvent Loss (gal) = } (SOLV_B - SOLV_E + SOLV_R + SOLV_A)
\]

Where:

- \(SOLV_B\) = Gallons of solvent in the inventory at the beginning of the day
- \(SOLV_E\) = Gallons of solvent in the inventory at the end of the day
- \(SOLV_R\) = Gallons of solvent received each day
- \(SOLV_A\) = Gallons of solvent added or removed from the extraction solvent inventory each day

In order to get the monthly actual solvent loss, Cargill adds the daily solvent loss from every day in a particular month. This value is then used to calculate the compliance ratio and also to track the 12-month rolling solvent loss.

Cargill does not include losses that occur during the four operating status periods listed below when calculating actual solvent loss. If any one of these four operating status periods spans an entire month, then the month is treated as a non-operating period and no compliance ratio is determined.

1. Non-operating periods.
2. Initial startup periods.
4. Exempt operation periods.

4.2 Weighted Average Volume Fraction of HAP in Solvent

This section describes the information and procedures that Cargill uses to determine the weighted average volume fraction of HAP in extraction solvent received for use in the extraction area. The
weighted average volume fraction of HAP in extraction solvent is determined at the end of each calendar month. After 12 or more months following the initial startup date, Cargill will determine an overall weighted average volume fraction of HAP in solvent received for the previous 12 operating months, which will be used to determine the compliance ratio.

Cargill records the volume fraction of each HAP comprising more than 1 percent by volume of the solvent in each delivery of solvent by maintaining a manufacturer’s certificate of analysis (COA) for each shipment received. A certificate of analysis is a legal and binding document provided by the solvent manufacturer. The purpose of a certificate of analysis is to list the test methods and analytical results that determine chemical properties of the solvent and the volume percentage of all HAP components present in the solvent at quantities greater than 1 percent by volume.

Cargill determines and records the weighted average volume fraction of HAP in the extraction solvent for each operating month and on a rolling 12-month basis, regardless of the operating status during the month, using the equation shown below.

\[
\text{Weighted Average HAP Content} = \frac{\sum_{i=1}^{n} (\text{Received}_i \times \text{Content}_i)}{\text{Total received}}
\]

Where:

\(\text{Received}_i\) = Gallons of extraction solvent received in delivery "i".

\(\text{Content}_i\) = Volume fraction of HAP in extraction solvent delivery "i" according to the COA.

\(\text{Total Received}\) = Total gallons of extraction solvent received since the end of the previous operating month.

\(n\) = Number of extraction solvent deliveries in a particular calendar month or rolling twelve calendar month period.

4.3 QUANTITY OF SOYBEANS PROCESSED

Subpart GGGG requires that all oilseed measurements be determined on an as received basis. The ‘as received’ basis refers to the oilseed’s chemical and physical characteristics as initially received by the source and prior to any oilseed handling and processing. In order to calculate the compliance ratio, facilities should determine the tons as received of oilseed processed for each operating month. This can be achieved by measuring the beginning and ending inventory of the oilseed, recording the amount of oilseed received in that month and finally making adjustments to account for removal of oilseed from the inventory for non-processing purposes.

---

\(^1\) Cargill understands that the Administrator may require a test using EPA Method 311 to confirm the reported HAP content on the certificates of analysis. If the results of any required analysis are different from the reported content, the EPA Method 311 results will govern compliance determinations.
Cargill Kansas City utilizes a different approach than the one listed in Subpart GGGG to track the tons of as received soybean processed in order to calculate the compliance ratio. The approach detailed below has been approved by the EPA for Cargill’s Gainesville, Georgia facility. The Kansas City plant weighs the amount of soybean at the Whole Bean Scale (EU0500(b)) before it is sent to the Whole Bean Cleaner (EU0500(c)) on a daily basis. Prior to making it to the scale, minor material losses occur due to aspiration in the elevator and the whole bean leg. To account for the losses prior to the bean reaching the scale (and to determine an as-received value on which to base the amount processed), Cargill estimates the amount lost and adds it to the amount measured at the scale. The formula used to determine the quantity of soybeans processed on an as received basis is shown below. Section 6, Sample Calculations, shows how this method is used.

\[
\text{Monthly Soybean Processed} = \sum_{i=1}^{n} \left( \frac{\text{Soybean Weighed}}{(1 - X\%)} \right)
\]

Where:

- Soybean Weighed = amount weighed at the process scale
- X = amount estimated to be lost during soybean handling in the elevator
- n = number of days in a month

The quantity of soybeans processed at the Kansas City facility does not include losses that occur during the four operating status periods listed below. If any one of these four operating status periods spans an entire month, then the month is treated as a non-operating period and there is no compliance ratio determination.

1. Non-operating periods
2. Initial startup periods
3. Malfunction periods
4. Exempt operation periods

---

2 Similar to the requirement of monitoring solvent loss daily, Cargill Kansas City has to monitor the daily amount of soybean processed due to a requirement in a PSD construction permit.
5. REPORTING PROCEDURES

5.1 NOTIFICATIONS

This section discusses the one-time notifications that Cargill was or will be required to submit in the future. A description of the required notifications may be seen below:

1. Notification of intention to construct a new major-emitting affected source, reconstruct a major-emitting affected source, or reconstruct a major source such that the source becomes a major-emitting affected source with the application for approval of construction. The application for approval of construction would include a brief description of the source including the types of listed oilseeds processed, nominal operating capacity, and type of desolventizer(s) used.

2. Notification of the actual date of startup of the source delivered or postmarked within 15 calendar days after that date. Notification of actual startup date must also include whether the facility has elected to operate under an initial startup period and provide an estimate and justification for the anticipated duration of the initial startup period.

On January 27, 2006, Cargill submitted a notification of intention to construct as part of the application for a Prevention of Significant Deterioration permit application for the Kansas City facility. On September 4, 2008 Cargill submitted a notification of the actual date of startup of the source. Note that the notification of startup did not include a discussion of the initial startup period, as Cargill is not planning to operate under an initial startup period. Appendix A contains a copy of the notifications.

If in the future, Cargill plans to modify the Kansas City facility to the point that the modification would be considered a reconstruction project, the same notifications would be required again.

If in the future, Cargill plans to modify the Kansas City facility to the point that the modification would be considered a significant modification (but not a reconstruction project), two additional notifications would be required during the course of the project. These are discussed below.

1. Cargill would be required to submit an initial notification to the Kansas City Health Department (KCHD), 30 days prior to initial startup of the significantly modified source. The initial notification must demonstrate that the proposed changes qualify as a significant modification and not reconstruction and must include the following items:
   ▲ The expected startup date of the modified source.
   ▲ A description of the significant modification including a list of the equipment that will be replaced or modified.
   ▲ If the significant modification involves changes other than adding or replacing extractors, desolventizer toasters, and meal dryer-coolers, then Cargill must also include the fixed capital
cost of the new components, expressed as a percentage of the fixed capital cost to build a comparable new vegetable oil production process; supporting documentation for the cost estimate; and documentation that the proposed changes will significantly affect solvent losses.

2. Cargill would also be required to submit a notification of actual startup to the KCHD within 15 days after initial startup of the modified source. This notification of actual startup must include the following items:
   ▲ The initial startup date of the modified source.
   ▲ An indication whether you have elected to operate under an initial startup period in accordance with an updated SSMP.
   ▲ The anticipated duration of any initial startup period.
   ▲ A justification for the anticipated duration of any initial startup period.

Finally, as a new major source that is subject to the Vegetable Oil MACT, Cargill is required to submit a notification of compliance status report to the KCHD no later than 60 days after determining the initial 12 operating months’ compliance ratio for the Kansas City facility. The notification of compliance status report must contain the following items:

1. The name and address of the owner or operator.
2. The physical address of the vegetable oil production process.
3. Each listed oilseed type processed during the previous 12 operating months.
4. Each HAP identified under §63.2854(a) as being present in concentrations greater than 1% by volume in each delivery of solvent received during the 12 operating months period used for the initial compliance determination.
5. A statement designating the source as a major source of HAP or a demonstration that the source qualifies as an area source.
6. A compliance certification indicating whether the source complied with all of the requirements of this subpart throughout the 12 operating months used for the initial source compliance determination. This certification must include a certification of the following items:
   i. Plan for demonstrating compliance and SSM plan are complete and available on-site for inspection.
   ii. Facility is following the procedures described in the plan for demonstrating compliance.
   iii. Compliance ratio is less than or equal to 1.00.

5.2 PERIODIC REPORTS

After submitting the notifications discussed in the previous section, Cargill must submit the periodic reports discussed in this section to the KCHD at the appropriate time intervals. First and foremost are the annual compliance certifications. The first annual compliance certification is due 12 calendar months after the initial notification of compliance status is submitted. Each subsequent annual
compliance certification is due 12 calendar months after the previous annual compliance certification. The annual compliance certification provides the compliance status for each operating month during the 12 calendar month period ending 60 days prior to the date on which the report is due and should include the same seven items required in the NCS (discussed in Section 5.1).

At any time, if a 12 calendar month period reveals that the compliance ratio exceeds 1.0, a deviation notification report must be submitted by the end of the month following the calendar month in which the deviation was determined. The deviation notification report must include the following items at a minimum:

1. The name and address of the owner or operator.
2. The physical address of the Kansas City facility.
3. Each listed oilseed type processed during the 12 operating month period for which Cargill determined the deviation.
4. The compliance ratio comprising the deviation. The frequency of submittal of the deviation notification reports may be reduced after the first, if the KCHD does not object.
6. EXAMPLE CALCULATIONS

A sample calculation is included for a normal operating period defined as the entire calendar month, beginning on the first day of the month and ending on the final day of the month. The beginning solvent inventory is 75,000 gallons, and the ending solvent inventory for the period is 100,000 gallons of solvent. The gallons of solvent received during the calendar month are 50,000 gallons. There are no adjustments made by the facility for this operating period. The monthly actual solvent, measured in gallons, is calculated as follows:

\[
\text{Monthly Actual Solvent Loss (gal)} = \sum_{i=1}^{n} (\text{SOLV}_B - \text{SOLV}_E + \text{SOLV}_R - \text{SOLV}_A)
\]

\[
= (75,000 - 100,000 + 50,000)
\]

\[
= 25,000
\]

Where:

- \(\text{SOLV}_B\) = Gallons of solvent in the inventory at the beginning of the month
- \(\text{SOLV}_E\) = Gallons of solvent in the inventory at the end of the month
- \(\text{SOLV}_R\) = Gallons of solvent received in solvent delivery \(i\)
- \(i\) = Number of extraction solvent deliveries in a particular calendar month
- \(\text{SOLV}_A\) = Gallons of solvent added or removed from the extraction solvent inventory each day

The actual solvent loss for the 12-month rolling period is calculated by summing the monthly losses for the previous 12 months. The 12-month rolling solvent loss for the period ending on the final day of this sample month is 200,000 gallons.

One extraction solvent delivery (containing 50,000 gallons) occurred during the last calendar month. According to the certificate of analysis (COA) from the manufacturer, the extraction solvent delivered contained 0.04 volume fraction of HAP. The monthly weighted average HAP content is calculated as follows:

\[
\text{Weighted Average HAP Content} = \frac{\sum_{i=1}^{n} (\text{Received}_i \times \text{Content}_i)}{\text{Total Received}}
\]

\[
= \frac{50,000 \times 0.04}{50,000}
\]

\[
= 0.04
\]

The weighted average HAP content for the 12-month rolling period is calculated by taking an average of the HAP contents in the past 12 months. The 12-month weighted average HAP content for the period ending on the final day of this sample month is 0.06.

The normal operating period for the facility is defined as the entire calendar month, beginning on the first day of the month and ending on the final day of the month. The total amount of soybean weighed at the process scale for this full month is 100,000 tons. Material losses due to soybean
Handling in the elevator are estimated to be 0.1%. The monthly quantity of soybean processed on an as received basis is calculated as follows:

\[
\text{Monthly Soybean Processed} = \sum_{i=1}^{n} \frac{\text{Soybean Weighted}_i}{(1-0.1\%)}
\]

\[
= (100,000 / (1-0.1\%))
\]

\[
= 100,100.1
\]

The quantity of oilseed processed for the 12-month rolling period is calculated by summing the monthly oilseed processed from the past 12 months. The 12-month quantity of oilseed processed for the period ending on the final day of this sample month is 1,250,000 tons.

The compliance ratio for this 12-month period ending at the end of this sample month can be calculated since an initial startup period or malfunction period did not occur during the entire month. The compliance ratio is calculated using the following equation:

\[
\text{Compliance Ratio} = \frac{f \times \text{Actual Solvent Loss}}{0.64 \times \text{Soybeans} \times \text{SLF}}
\]

\[
= 0.06 \times 200,000 / (0.64 \times 1,250,000 \times 0.20)
\]

\[
= 0.075
\]

The compliance ratio is less than 1.00, which means the facility was in compliance with the HAP emission requirement for the previous operating month.
APPENDIX A – INITIAL NOTIFICATIONS
January 27, 2006

Mr. Mike Manning
Kansas City Health Department
Air Quality Program
2400 Troost Avenue
Kansas City, Missouri 64108

Re: Cargill, Incorporated Kansas City Plant
Prevention of Significant Deterioration Permit Application

Dear Mr. Manning:

Enclosed are three (3) copies of the Prevention of Significant Deterioration (PSD) application prepared by Trinity Consultants for the construction of a new soybean preparation and extraction plant at Cargill's Kansas City location. Two (2) copies of this application have also been forwarded to Mr. Kendall Hale at the Missouri Department of Natural Resources. Cargill is providing an extra copy of the application, so that a copy can be forwarded from your agency to the Environmental Protection Agency Region VII. Cargill is proposing to construct a new soybean plant at the location of our existing soybean plant. Following construction and operation of the new soybean plant, Cargill will shut down the existing soybean plant. The operation of the two soybean plants will not overlap (i.e. the two plants will never operate at the same time).

Cargill is proposing to initiate construction of the new plant in July 2006. Cargill recognizes that the regulations allow the agency a 184 day review period, that includes the required 30 day public comment period. Cargill respectfully requests that the enclosed permit application be given high priority based on the pending construction schedule. In order to expedite the initial review of the application, Cargill is proposing to meet with the agencies that will be involved with the review of the enclosed application within one (1) week of the submittal of this application for an application review kickoff meeting.

Please feel free to call me at (816) 245-0531 or Kasi Dubbs of Trinity at (913) 390-9700 if you have any questions or comments.

Sincerely,

CARGILL, INCORPORATED

James Alfieri
Plant Manager

Enclosures
cc: Tom Flynn, Cargill, Incorporated

Cargill Kansas City
Trinity Consultants
Kendall Hale, Missouri Department of Natural Resources
September 4, 2008

Mike Manning
Kansas City Health Department
Air Quality Program
2400 Troost Avenue, Suite 3000
Kansas City, Missouri 64108

RE: Cargill, Incorporated Plant #2001
MACT GGGG Notification of Startup

Dear Mr. Manning:

Pursuant to NSPS 40 CFR §63 Subpart GGGG, which applies to solvent extraction for vegetal oil production, Cargill is required to submit notification of the date of initial startup. Initial startup occurred on August 19, 2008.

If you have any questions or comments about the information presented in this letter, please do not hesitate to contact Cargill.

Sincerely,

CARGILL INCORPORATED

James Alfieri
Plant Manager

cc: Ms. Angela Catalano
EPA Region VII
901 North 5a Street
Kansas City, KS 66101
STATEMENT OF BASIS

INSTALLATION DESCRIPTION

Cargill, Inc. owns and operates a soybean processing and extraction plant in Kansas City, Missouri. The installation is a major source of VOC and Hexane (110-54-3).

Oilseed Receiving/Handling/Elevator:

The installation received soybeans by truck (EU0740) or by rail (EU0750). Soybeans received at the facility are sampled and analyzed for moisture content, foreign matter, and damaged seeds. Then the beans are conveyed to steel storage silo (EU0030) or concrete storage silo (EU0040) for storage prior to processing. When the facility is ready to process the soybeans, the beans are removed from the silos (EU0500(a) & EU0500(d)), weighed (EU0500(b)), and cleaned of foreign materials and loose hulls (EU0500(c)). Screens are used to remove foreign materials such as sticks, stems, pods, tramp metal, sand, and dirt. An aspiration system is used to remove loose hulls from the soybeans (EU0500(f)); these hulls are stored (EU0760). The beans are passed through dryers (EU0520 & EU0530) to reduce their moisture content to approximately 10 to 11 percent by weight and then are conveyed to process bins (EU0500(e)) for temporary storage and tempering for one to five days in order to facilitate dehulling.

Soybean Preparation:

Soybeans are conveyed from the process bins to the mill by means of belts or mass flow conveyors (EU0500(g)) and bucket elevators (EU0400). In the mill, the beans are aspirated again, weighed, cleaned of tramp metal by magnets, and fed into corrugated cracking rolls. The cracking rolls "crack" each bean into four to six particles, which are passed through aspirators (EU0580) to remove the hulls (processed separately after the removal of residual bean chips). These hulls are stored (EU0700).

Next, the cracked beans and bean chips are conveyed to the conditioning area (EU0510), where they are heated to "condition" them (i.e., make them pliable and keep them hydrated). Conditioning is necessary to permit the flaking of the chips and to prevent their being broken into smaller particles. Finally, the heated, cracked beans are conveyed and fed to smooth, cylindrical rolls (EU0590 & EU0600) that press the particles into smooth "flakes", which vary in thickness from approximately 0.25 to 0.51 millimeters (0.010 to 0.020 inches). Flaking allows the soybean oil cells to be exposed and the oil to be more easily extracted.

Solvent Extraction and Oil Desolventizing:

The extraction process consists of "washing" the oil from the soybean flakes with hexane solvent in a countercurrent extractor. Then the solvent is evaporated (i.e., desolventized) from both the solvent/oil mixture (micella) and the solvent-laden, defatted flakes (see Figure 9.11.1-3). The oil is desolventized by exposing the solvent/oil mixture to steam (contact and noncontact). Then the solvent is condensed, separated from the steam condensate, and reused (EU0830). Residual hexane not condensed is removed with mineral oil scrubbers. The desolventized oil, called "crude" soybean oil, is stored for further processing or loadout.
Desolventizing Flakes:
The flakes leaving the extractor contain up to 35 to 40 percent solvent and must be desolventized before use. Flakes are desolventized in a desolventizer-toaster (DT), where both contact and noncontact steam are used to evaporate the hexane. In addition, the contact steam "toasts" the flakes, making them more usable for animal feeds. The desolventized and toasted flakes then pass to a dryer (EU0540 & EU0550), where excess moisture is removed by heat, and then to a cooler (EU0560 & EU0570), where ambient air is used to reduce the temperature of the dried flakes. The desolventized, defatted flakes are then ground for use as soybean meal (EU0670).

Meal:
The ground meal is stored (EU0680) prior to being loaded out by track (EU0790) or rail (EU0690).

The installation is not a named installation; therefore, fugitive emissions are not counted towards major source applicability.

### Installation Potential Air Pollutant Emissions, tons per year

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Potential to Emit(^{14})</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM(_{10})</td>
<td>75.13</td>
</tr>
<tr>
<td>PM(_{2.5})</td>
<td>75.13</td>
</tr>
<tr>
<td>SO(_x)</td>
<td>-</td>
</tr>
<tr>
<td>NO(_x)</td>
<td>-</td>
</tr>
<tr>
<td>VOC</td>
<td>1,006.33</td>
</tr>
<tr>
<td>CO</td>
<td>-</td>
</tr>
<tr>
<td>Combined HAP</td>
<td>653.90</td>
</tr>
<tr>
<td>Hexane (110-54-3)</td>
<td>653.90</td>
</tr>
</tbody>
</table>

\(^{14}\) Each emission unit was evaluated at 8,760 hours of uncontrolled annual operation unless otherwise noted:

- Particulate emissions from EU0590 and EU0600 are controlled by cyclones as required by Permit Condition 001.
- Particulate emissions from EU0030, EU0040, EU0500(a), EU0500(b), EU0400, EU0500(c), EU0500(d), EU0500(e), EU0500(f), EU0500(g), EU0500(h), EU0520, EU0530, EU0580, EU0610, EU0720, EU0670, EU0680, EU0690, EU0790, EU0740, EU0750, EU0800, EU0540, EU0550, EU0560, and EU0570 are controlled by fabric filters as required by Permit Condition 004.
- Particulate emissions from EU0510, EU0580, EU0640, EU0650, EU0660, and EU0770 are controlled by cyclones as required by Permit Condition 004.
- Particulate emissions from EU0760, EU0700, EU0730, EU0710, and EU0780 are controlled by bin vent filters as required by Permit Condition 005.
- Particulate emissions from EU0620 and EU0630 are controlled by a scrubber as required by Permit Condition 006.
- VOC and Hexane emissions from the extraction process are controlled by a mineral oil absorber as required by Permit Condition 010.
Installation Reported Actual Air Pollutant Emissions, tons per year

<table>
<thead>
<tr>
<th>Pollutants</th>
<th>2014</th>
<th>2013</th>
<th>2012</th>
<th>2011</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM\textsubscript{10}</td>
<td>16.55</td>
<td>13.81</td>
<td>14.55</td>
<td>13.57</td>
<td>14.45</td>
</tr>
<tr>
<td>PM\textsubscript{2.5}</td>
<td>14.67</td>
<td>12.28</td>
<td>12.96</td>
<td>12.04</td>
<td>12.66</td>
</tr>
<tr>
<td>SO\textsubscript{x}</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>NO\textsubscript{x}</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>VOC</td>
<td>256.59</td>
<td>253.92</td>
<td>206.19</td>
<td>177.71</td>
<td>227.57</td>
</tr>
<tr>
<td>CO</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Combined HAP</td>
<td>162.77</td>
<td>160.13</td>
<td>109.58</td>
<td>109.58</td>
<td>12.01\textsuperscript{15}</td>
</tr>
<tr>
<td>Hexane (110-54-3)</td>
<td>162.77</td>
<td>160.13</td>
<td>109.58</td>
<td>109.58</td>
<td>12.01\textsuperscript{15}</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 Applications 2007-07-035 received July 2, 2007 and 2007-10-033 received October 7, 2009
4. Construction Permits 092012-007 and 1140A.

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 10-6.100 *Alternate Emission Limits* is not applicable because the installation is in an ozone attainment area.

10 CSR 10-2.215 *Control of Emissions from Solvent Cleanup Operations* is not applicable to EU0901 Parts Washer as 10 CSR 10-2.215(1)(C) exempts cold cleaners.

10 CSR 10-2.260 *Control of Petroleum Liquid Storage, Loading, and Transfer* is not applicable to the 550 gallon gasoline tank or 550 gallon diesel tank as they have a capacity of less than 40,000 gallons and do not meet the applicability requirements of 10 CSR 10-2.260(3)(A)1.

Construction Permit History
Construction Permit 092012-007, Issued October 31, 2012:
- This Section (5) NSR permit was for the installation of two flakers and the replacement of two cyclones.
- Special Condition 1 was superseded by Construction Permit 092012-007A.
- Special Conditions 2.A and 3 have been included in Permit Condition 001.

\textsuperscript{15}In 2010 the installation used a solvent oil extraction blend with a low Hexane content (3 wt%). In subsequent years, the installation used a solvent oil extraction blend with a Hexane content of less than 65 wt%. 
Special Conditions 2.B through 2.H contain stack testing procedures and notifications. As the required stack testing has already been conducted, these special conditions were not included in this permit. Subsequent testing is deemed unnecessary as initial testing indicated an emission rate of less than half of the emission limitation.

Construction Permit 092012-007A, Issued October 25, 2016:
- This amendment clarifies the operating requirements for the cyclones.
- Special Condition 1 states that this permit supersedes Special Condition 1 of Construction Permit 092012-007.

Construction Permit 1140A, Issued December 1, 2015:
- This permit is an amendment to PSD Permit 1140 which authorized the construction and operation of a new soybean processing and oil extraction plant at the site of Cargill’s existing soybean processing and oil extraction plant.
- Special Condition 1 states that the conditions of PSD Permit 1140A supersedes all special conditions found in Construction Permits 1140 and 1296.
- Special Condition 2 requires the shutdown of the following equipment:

<table>
<thead>
<tr>
<th>Emission Unit ID</th>
<th>Emission Point ID</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU0010</td>
<td>EP02A</td>
<td>Truck Receiving Bay</td>
</tr>
<tr>
<td>EU0020</td>
<td>EP05A</td>
<td>Rail Receiving Bay</td>
</tr>
<tr>
<td>EU0050</td>
<td>EP06</td>
<td>Whole Bean Aspirator and Rotexes</td>
</tr>
<tr>
<td>EU0060</td>
<td>EP26</td>
<td>Pod Grinding</td>
</tr>
<tr>
<td>EU0070</td>
<td>EP18A</td>
<td>Grain Dryer with Internal Cyclone</td>
</tr>
<tr>
<td>EU0080(a)</td>
<td>EP23</td>
<td>Whole Bean Scale</td>
</tr>
<tr>
<td>EU0080(b)</td>
<td>EP23</td>
<td>Whole Bean Bin</td>
</tr>
<tr>
<td>EU0080(c)</td>
<td>EP23</td>
<td>Cracked Bean Leg</td>
</tr>
<tr>
<td>EU0080(d)</td>
<td>EP23</td>
<td>Cracked Bean Bin</td>
</tr>
<tr>
<td>EU0080(e)</td>
<td>EP07</td>
<td>Hulls Receiver</td>
</tr>
<tr>
<td>EU0080(f)</td>
<td>EP07</td>
<td>Whole Bean Leg</td>
</tr>
<tr>
<td>EU0085</td>
<td>EP07</td>
<td>Hull Storage Silo</td>
</tr>
<tr>
<td>EU0090</td>
<td>EP07</td>
<td>Bean Cracking Mills</td>
</tr>
<tr>
<td>EU0100</td>
<td>EP07</td>
<td>Hull Grinding</td>
</tr>
<tr>
<td>EU0110</td>
<td>EP08</td>
<td>Primary Dehulling Aspirators</td>
</tr>
<tr>
<td>EU0120</td>
<td>EP16</td>
<td>Secondary Dehulling Rotexes, Cyclone and Aspirators</td>
</tr>
<tr>
<td>EU0140</td>
<td>EP09A, 09B</td>
<td>North and South Flaker Rollers</td>
</tr>
<tr>
<td>EU0150</td>
<td>EP14</td>
<td>Extraction Plant</td>
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<tr>
<td>EU0160</td>
<td>EP10</td>
<td>Meal Dryer 1</td>
</tr>
<tr>
<td>EP0170</td>
<td>EP11</td>
<td>Meal Dryer 2</td>
</tr>
<tr>
<td>EP0180</td>
<td>EP12</td>
<td>Meal Dryer 3</td>
</tr>
<tr>
<td>EP0190</td>
<td>EP13</td>
<td>Meal Dryer 4</td>
</tr>
<tr>
<td>EP0200</td>
<td>EP20</td>
<td>Meal Coolers 1 and 2</td>
</tr>
<tr>
<td>EP0220</td>
<td>EP24</td>
<td>Meal Storage</td>
</tr>
<tr>
<td>EP0230</td>
<td>EP15</td>
<td>Meal Grinding</td>
</tr>
<tr>
<td>EP0240</td>
<td>EP15</td>
<td>Meal and Hull Truck Loadout</td>
</tr>
<tr>
<td>EU0250</td>
<td>EP15</td>
<td>Meal and Hull Rail Loadout</td>
</tr>
<tr>
<td>EU0260</td>
<td>EP17</td>
<td>Boiler</td>
</tr>
<tr>
<td>EU0270</td>
<td>EP25</td>
<td>Pods Receiver</td>
</tr>
</tbody>
</table>
As the equipment has been dismantled as required, this condition has not been included in this permit.

- Special Conditions 3, 4, 7 through 11, and 14 through 17 have been included in this permit (see Permit Conditions PW001, PW002, 004, 005, 006, 007, 008, 009, 010, and 014).
- Special Condition 4.A has not been included in this permit as it is less stringent than §60.302(c)(2).
- Special Conditions 5, 6, and 12 were superseded by Construction Permit 1140B.
- Special Condition 13 requires the installation to comply with NSPS DD and MACT GGGG. These regulations are applied in Permit Conditions 011 and PW004.

Construction Permit 1140B, Issued October 25, 2016:
- This amendment clarifies the operating requirements for the fabric filters and cyclones and modifies the BACT LDAR program.
- Special Condition 1 states that the conditions of this permit supersede Special Conditions 5, 6, and 12 of PSD Permit 1140A.
- Special Condition 2 has been applied in Permit Conditions 003 and 014.
- Special Condition 3 has been applied in Permit Condition 004.
- Special Condition 4 has been applied in Permit Condition PW003.

Construction Permit 032012-012, Issued March 30, 2012:
- This temporary construction permit was for the installation and use of a 219 MMBtu/hr natural gas fired boiler.
- This permit expired March 15, 2014.

NSPS Applicability

40 CFR Part 60, Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984 is not applicable to the installation and has not been applied in this permit. The 248,088 gallon, 500,774 gallon, 551,557 gallon, and 413,046 gallon crude soybean oil tanks are not subject to this regulation at this time as they contain crude soybean oil which has a maximum true vapor pressure of less than 3.5 kPa. The two 35,000 gallon underground storage tanks contain solvent which has a maximum true vapor pressure of less than 15.0 kPa. These tanks may become subject to this regulation in the future if the contents of the tanks change.

40 CFR Part 60, Subpart DD – Standards of Performance for Grain Elevators is applicable to the installation and has been applied in Permit Condition 011.

- The opacity limits in §60.302(b)(2) and Special Condition 4.B of PSD Permit 1140A for EP03, EP101, EP102 are equivalent, as the PSD Permit contains more stringent monitoring requirements only the PSD Permit opacity requirements have been included in this permit.
- The PM emission standard for affected facilities (except a grain dryer) of 0.01 gr/dscf in §60.302(b)(1) was not included in this permit as it is less stringent than the PM emission standards established by PSD Permit 1140A for EP03 (Permit Condition 007), EP100 (Permit Condition 014), EP101 (Permit Condition 004), EP102 (Permit Condition 004), EP119A (Permit Condition 014), and EP120A (Permit Condition 014).
- The opacity limits in §60.302(b)(2) and the installation’s CAM monitoring plan for EP100, EP119A, and EP120A (Permit Condition 014) are equivalent, as the CAM monitoring plan
contains more stringent monitoring requirements only the CAM monitoring opacity requirements have been included in this permit.

- The opacity limits in §60.302(a) and Special Condition 4.B of PSD Permit 1140A for EP103a and EP103b are equivalent, as the PSD Permit contains more stringent monitoring requirements only the PSD Permit opacity requirements have been included in this permit.

**Maximum Achievable Control Technology (MACT) Applicability**

40 CFR Part 63, Subpart T – *National Emission Standards for Halogenate Solvent Cleaning* is not applicable to the installation and has not been applied in this permit. The parts washer does not use any solvent containing methylene chloride (CAS No. 75-09-2), perchloroethylene (CAS No. 127-18-4), trichloroethylene (CAS No. 79-01-6), 1,1,1-trichloroethane (CAS No. 71-55-6), carbon tetrachloride (CAS No. 56-23-5) or chloroform (CAS No. 67-66-3), or any combination of these halogenated HAP solvents.

40 CFR Part 63, Subpart Q – *National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers* is not applicable to the installation and has not been applied in this permit. The cooling tower is not operated with chromium-based water treatment chemicals.

40 CFR Part 63, Subpart GGGG – *National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production* is applicable to the installation and has been applied in Permit Condition PW004.

**National Emission Standards for Hazardous Air Pollutants (NESHAP) Applicability**

40 CFR Part 61, Subpart M – *National Emission Standards for Asbestos* is applicable to the installation and has been applied within this permit (see Section IV. Core Permit Requirements).

**Compliance Assurance Monitoring (CAM) Applicability**

40 CFR Part 64, *Compliance Assurance Monitoring (CAM)*

The CAM rule applies to each pollutant specific emission unit that:

- Is subject to an emission limitation or standard, and
- Uses a control device to achieve compliance, and
- Has pre-control emissions that exceed or are equivalent to the major source threshold.

40 CFR Part 64 Compliance Assurance Monitoring is applicable to the installation and has been applied in Permit Conditions 004, 006, and 014.

EP105 and EP106 are subject to an emission limitation and use cyclones; however, the cyclones are considered inherent process equipment and do not meet the definition of control device in §64.1. The cyclones are considered inherent process equipment for the following reasons:

- The primary purpose of the cyclones is to capture soybean flakes. The captured soybean flakes are returned to the process.
- Recovery of the captured soybean flakes paid for the capital investment associated with the installment of the cyclones in less than one year.
• The cyclones would be installed and used even if no air quality regulation were in place. The oil has not yet been extracted from the soybean flakes at this point in the process; therefore, capture of the soybean flakes increases product yield.

EP101 and EP102 are subject to an emission limitation and use cyclones; however, the cyclones are considered inherent process equipment and do not meet the definition of control device in §64.1. The cyclones are considered inherent process equipment for the following reasons:

• The primary purpose of the cyclones is to capture conditioned cracked soybeans and soybean chips. The captured conditioned cracked soybeans and soybean chips are returned to the process.
• Recovery of the captured conditioned cracked soybeans and soybean chips paid for the capital investment associated with the installment of the cyclones in less than one year.
• The cyclones would be installed and used even if no air quality regulation were in place. The oil has not yet been extracted from the conditioned cracked soybeans and soybean chips at this point in the process; therefore, capture of the conditioned cracked soybeans and soybean chips increases product yield.

EP109, EP110, EP111, and EP121 are subject to an emission limitation and use cyclones; however, the cyclones are considered inherent process equipment and do not meet the definition of control device in §64.1. The cyclones are considered inherent process equipment for the following reasons:

• The primary purpose of the cyclones is to capture meal. The captured meal is returned to the process.
• Recovery of the captured meal paid for the capital investment associated with the installment of the cyclones in less than one year.
• The cyclones would be installed and used even if no air quality regulation were in place. The recovered meal, while not the primary product of the installation, is a byproduct of the process which is sold for profit.

**Greenhouse Gas Emissions**

The permitted installation does not contain any greenhouse gas emission sources.

**Other Regulatory Determinations**


10 CSR 10-6.400 *Restriction of Emission of Particulate Matter From Industrial Processes* is applicable to the installation, but has not been applied in this permit. Any PM emission source that is subject to a federally enforceable requirement to install, operate, and maintain a PM control device that controls at least 90% of PM emissions is exempt per 10 CSR 10-6.400(1)(B)15. Fugitive emissions are exempt per 10 CSR 10-6.400(1)(B)7. This regulation is applicable to EP105 and EP106; however, as the PM emission limitations in Permit Condition 001 are more stringent – only the most stringent emission limitation was applied in the permit. This regulation is applicable to EP101, EP102, EP109, EP110,
EP111, and EP121; however the PM emission limitations (and maximum exhaust flow rates) in Permit Condition 004 are more stringent – only the most stringent emission limitation was applied in the permit.

Due to the number of emission sources and the various opacity limits throughout the permit, the permittee has requested the following table be included in the permit to aid in their inspections:

<table>
<thead>
<tr>
<th>Emission Point</th>
<th>Emission Source</th>
<th>Emission Point Opacity Limit</th>
<th>Fugitive Emissions Opacity Limit</th>
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<tr>
<td>EP03</td>
<td>EU0030</td>
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<td>EU0040</td>
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<tr>
<td></td>
<td>EU0500(a)</td>
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<tr>
<td></td>
<td>EU0500(b)</td>
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<td></td>
<td>EU0400</td>
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<td></td>
</tr>
<tr>
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<td>EU0500(c)</td>
<td>0% (Permit Condition 014’s CAM Plan)</td>
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<tr>
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<td>EU0500(d)</td>
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<td>EU0500(e)</td>
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<td>EU0500(f)</td>
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<td></td>
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<td></td>
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<tr>
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</tr>
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<td>Emission Source</td>
<td>Emission Point Opacity Limit</td>
<td>Fugitive Emissions Opacity Limit</td>
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<td>-------------------------------</td>
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</tr>
<tr>
<td></td>
<td>EU0570</td>
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</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 Air Pollution Control Program'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 Air Pollution Control Program a schedule for achieving compliance for that regulation(s).
Response to Public Comments

The draft Part 70 Operating Permit, Project 2007-07-035, for Cargill, Incorporated (095-2001) was placed on public notice as of January 13, 2017, 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://www.dnr.mo.gov/env/apcp/PermitPublicNotices.htm on Friday, January 13, 2017.

On January 31, 2017, the Air Pollution Control Program received comments from Mark A. Smith, Air Permitting and Compliance Branch Chief for EPA Region VII.

**EPA Comment #1:**

First, Operational Limitation 3., in Plant Wide Permit Condition PW001, requires the permittee to calculate the amount of soybeans processed in accordance with §63.2855. §63.2855 comes from the National Emission Standards for Hazardous Air Pollutants for Solvent Extraction for Vegetable Oil Production; 40 CFR part 63, Subpart GGGG (MACT GGGG). MACT GGGG also includes a requirement for the permittee to develop and implement a written plan for demonstrating compliance that provides detailed procedures the permittee shall follow and to incorporate this written plan in the Title V operating permit. Attachment J, in this Cargill-Kansas City Part 70 (Title V) operating permit is their MACT GGGG Compliance Plan. Section 4.3, of this plan, discusses the process used by Cargill-Kansas City to determine quantity of soybeans processed. Section 4.3 states: “Cargill-Kansas City utilizes a different approach than the one listed in Subpart GGGG (§63.2855) to track the tons of received soybean processed.” Section 4.3 goes on to say: “The approach detailed below (in Section 4.3) has been approved by EPA for Cargill’s Gainesville, Georgia facility.” Therefore, there appears to be a discrepancy between Operation Limitation 3., in Permit Condition PW001 and the Compliance Plan presented in Attachment J. Additionally, the Compliance Plan, in Attachment J, describes the process for determining the amount of solvent lost, as required by Operational Limitation 6, in Permit Condition PW001. EPA believes it is more practical for MDNR to refer to Attachment J for the determination of tons of soybeans and tons of solvent lost in Operational Limitations 3 and 6 in Permit Condition PW001. These same references are strongly recommended for use in the Monitoring / Record keeping requirements c) and f), in Permit Condition PW001.

**Missouri Air Pollution Control Program Response:**

The permit has been revised to clarify that the monitoring methods in Attachment J shall be used with the exception that for compliance with the PSD the installation is not allowed to exclude any soybeans processed or solvent lost during non-operating periods, initial startup periods, malfunction periods, or exempt operation periods.

**EPA Comment #2:**

Second, MDNR’s customary practice is to include examples of the record keeping methodology used by permittee to verify compliance with emission limitations and operational limitations. However, Permit Condition PW002, Permit Condition PW003, Permit Condition 001, Permit Condition 003, Permit Condition 004 and Permit Condition 005 all require the permittee to maintain compliance verification records. However, none of these six (6) permit conditions include an example(s) of the record keeping as attachments for public review and comment. EPA strongly recommends MDNR include copies of Cargill-Kansas City record keeping, as
attachments, for Permit Condition PW002, Permit Condition PW003, Permit Condition 001, Permit Condition 003, Permit Condition 004 and Permit Condition 005.

**Missouri Air Pollution Control Program Response:**

**Permit Condition PW002:**
The installation maintains an electronic tracking sheet for demonstrating compliance with Permit Condition PW002. It is not possible to include digital files in a printed permit; therefore, the Missouri Air Pollution Control Program has instead specified in detail what the installation needs to be tracking in their electronic tracking sheet. The detailed specifications are sufficient to demonstrate compliance with the operational limitation and as they are already in the permit were available for public review/comment.

**Permit Condition PW003:**
The permit already requires the installation to maintain records of the equipment determined to be leaking, the leak repair action, and the date of repair action. The required recordkeeping is not complex is nature; therefore, the Missouri Air Pollution Control Program does not believe an example recordkeeping form is necessary.

**Permit Conditions 001, 003, 004, and 005:**
The permit already specifies the required elements of the operating and maintenance log; however, to alleviate EPA’s concerns the Air Pollution Control Program has clarified that Attachment G or an equivalent form shall be used.

**EPA Comment #3:**
Third, Plant Wide Permit Condition PW004 includes a section “Determining the Quantity of Oilseed Processed” which extracts the applicable requirements of the National Emission Standards for Hazardous Air Pollutants for Solvent Extraction for Vegetable Oil Production; 40 CFR part 63, Subpart GGGG (MACT GGGG) §63.2855. As discussed in Comment 1 above, Cargill-Kansas City has developed and implemented a compliance demonstration plan and has incorporated that plan as Attachment J in this Part 70 (Title V) operating permit. Attachment J includes an EPA approved alternate method of calculating quantity of oilseed processed and there appears to be a discrepancy between the requirements in Permit Condition PW004 and Attachment J which EPA recommends MDNR resolve.

**Missouri Air Pollution Control Program Response:**
The permit has been revised to clarify that the EPA approved alternate soybean processing measurement methodology in Attachment J should be used to demonstrate compliance with MACT GGGG.

**EPA Comment #4:**
Fourth, Permit Condition 004, Permit Condition 007 and Permit Condition 014 all require the permittee to conduct performance testing no later than 180 days after the issuance date of this permit, to demonstrate compliance with the PM emission limitation. Permit Condition 004, Permit Condition 007 and Permit Condition 014 all incorporate applicable requirements from Construction Permit 1140A issued December 1, 2015. It is unclear whether these performance tests are based on the issue date of the construction permit or the issue date of this draft operating permit.
permit. If the test dates are based on the construction permit, it would appear the tests should have been already completed and compliance certification results submitted to the agency. EPA strongly recommends MDNR clarify the performance testing requirements in Permit Condition 004, Permit Condition 007 and Permit Condition 014.

**Missouri Air Pollution Control Program Response:**
The permit has been modified to clarify that the performance testing must be conducted no later than 180 days after the issuance date of this operating permit.

**EPA Comment #5:**
Fifth, Permit Condition 008 includes two (2) Operational Limitations, incorporated form Construction Permit 1140A, to achieve control of fugitive emissions. However, Permit Condition 008 has no requirements for the permittee to collect and maintain records to verify compliance. EPA strongly recommends MDNR use the authority granted in 10 CSR 10-6.065(6)(C)1.C.(I)(b) and include appropriate record keeping for Cargill-Kansas City to verify compliance with their fugitive emission controls.

**Missouri Air Pollution Control Program Response:**
Permit Condition 008 has been modified to include monitoring and recordkeeping requirements.

**EPA Comment #6:**
Finally, Standards for Particulate Matter, in Permit Condition 011, require that “on or after the 60th day of achieving the maximum production rate at which the affected facility will be operated, but no later than 180 days after start-up,” the permittee is required to meet opacity and fugitive emission limits. It is indicated that these requirements are included in the operating permit as applicable New Source Performance Standards: Standards of Performance for Grain Elevators (40 CFR part 60, Subpart DD). It appears that these requirements, taken from §60.302, were published in 1978 and therefore the 60 day and 180 day periods would seem to have long since passed. EPA strongly recommends MDNR reword the Standards for Particulate Matter in Permit Condition 011.

**Missouri Air Pollution Control Program Response:**
Permit Condition 011 has been modified as requested.
MAR 22 2017

Mr. Jeff Ording
Cargill, Incorporated
2306 Rochester
Kansas City, MO 64120

Re: Part 70 Operating Permit Renewal
Installation ID: 095-2001, Permit Number: OP2017-017

Dear Mr. Ording:

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 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you 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:ahl

Enclosures

c: PAMS File: 2007-07-035