

## 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:** OP2012-009B  
**Expiration Date:** March 12, 2017  
**Installation ID:** 007-0002  
**Project Number:** 2013-09-054

**Installation Name and Address**

Archer Daniels Midland (ADM) Mexico  
400 East Holt Street  
Mexico, MO 65265  
Audrain County

**Parent Company's Name and Address**

Archer Daniels Midland Company  
P.O. Box 1470  
Decatur, IL 62525

**Installation Description:**


This is a minor modification of Permit No. OP2012-009A to correct minor errors in the operating permit.

Archer Daniels Midland (ADM) Mexico is a soybean processing facility which consists of an oil extraction plant and a biodiesel plant. Processes at the extraction plant include receiving, conveying and storing soybeans, preparation of soybeans for extraction, extraction of oil, meal processing, and load out of finished products. The biodiesel plant uses the soybean oil to manufacture biodiesel.

The installation is an existing major source of particulate matter less than ten microns (PM<sub>10</sub>), sulfur oxides (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>), volatile organic compounds (VOC), and hazardous air pollutants (HAP).

NOV 21 2013

Effective Date

  
Director or Designee  
Department of Natural Resources

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## I. Installation Description and Equipment Listing

### INSTALLATION DESCRIPTION

Archer Daniels Midland (ADM) Mexico is a soybean processing facility which consists of an oil extraction plant and a biodiesel plant. Processes at the extraction plant include receiving, conveying and storing soybeans, preparation of soybeans for extraction, extraction of oil, meal processing, and load out of finished products. The biodiesel plant uses the soybean oil to manufacture biodiesel.

The installation is an existing major source of particulate matter less than ten microns (PM<sub>10</sub>), sulfur oxides (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>), volatile organic compounds (VOC), and hazardous air pollutants (HAP).

Reported Air Pollutant Emissions, tons per year								
Year	Particulate Matter ≤ Ten Microns (PM-10)	Particulate Matter ≤ 2.5 Microns (PM-2.5)	Sulfur Oxides (SO <sub>x</sub> )	Nitrogen Oxides (NO <sub>x</sub> )	Volatile Organic Compounds (VOC)	Carbon Monoxide (CO)	Lead (Pb)	Hazardous Air Pollutants (HAPs)*
2010	49.23	21.82	0.11	18.50	113.00	15.54	---	84.31
2009	50.63	21.71	0.12	19.69	116.10	16.54	---	84.31
2008	52.93	22.12	0.14	23.56	164.64	19.79	---	84.41
2007	45.78	23.01	0.15	24.47	190.34	20.56	---	84.31
2006	47.65	23.06	0.11	18.53	141.02	15.56	---	77.76
2005	48.35	21.90	0.13	20.08	201.00	16.86	---	132.14
2004	45.50	14.26	0.12	20.39	161.62	17.13	---	104.92
2003	43.28	18.49	0.17	19.88	146.67	16.60	---	95.49

\* HAP emissions from the extraction process are also reported as VOC emissions.

### EMISSION UNITS WITH LIMITATIONS

The following list provides a description of the equipment at this installation which emits air pollutants and which is identified as having unit-specific emission limitations.

Emission Unit #	Description of Emission Unit
EU0010	Northwest Truck Unloading
EU0020	North Truck Unloading
EU0025	West Truck Unloading
EU0030	North Rail Unloading
EU0035	South Rail Unloading
EU0040	Small Grain Dryer
EU0050	Large Grain Dryer
EU0060	Northwest Silos
EU0070	North Silos
EU0080	Annex and West Silos
EU0085	Flat Storage Buildings
EU0090	Elevator Conveying
EU0100	Cracking and Dehulling
EU0110	Hull Grinding
EU0120	Bean Cleaning

EU0130	Soybean Flaking
EU0135	Extraction Process
EU0140	Meal Dryer and Cooler
EU0150	Meal Grinding
EU0160	Meal Storage Silos
EU0170	Meal Truck Loadout
EU0180	Meal Rail Loadout
EU0190	Boiler #1
EU0200	Boiler #2
EU0210	Boiler #3
EU0220	Boiler #4
EU0225	Bean Heating
EU0230	Fire Pump Engine
EU0235	Emergency Fire Pump
EU0240	Biodiesel Boiler
EU0250	Biodiesel Process Vent/Fugitive Leaks
EU0260	Fugitive Leaks from Biodiesel Production
EU0270	Biodiesel Loadout
EU0280	Cooling Towers
EU0290	Methanol Storage Tanks
EU0300	Na Methylate Tank
EU0310	HCL Tanks
EU0320	Biodiesel Filter Purge
EU0330	Filter Aid

### **EMISSION UNITS WITHOUT LIMITATIONS**

The following list provides a description of the equipment which does not have unit specific limitations at the time of permit issuance.

#### Description of Emission Source

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Thirteen furnaces (natural gas) for comfort heating and hot water heaters (total heat capacity 1.62 MMBtu/hr)

Three 20,500 gallon fuel oil storage tanks

Filter Aid – Refinery

Five Biodiesel storage tanks

Crude Glycerine Tank #1 and #2

Fatty Acid Tank

## II. Plant Wide Emission Limitations

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

### **PERMIT CONDITION PW001**

10 CSR 10-6.060 Construction Permits Required  
Construction Permit #102010-003, Issued November 5, 2010

#### **Monitoring:**

Leak Detection and Repair (LDAR) Program – Best Achievable Control Technology (BACT) Requirement

- 1) ADM shall prepare and implement a leak detection and repair (LDAR) program to control fugitive VOC emissions. The written LDAR program shall be made available immediately to any Missouri Department of Natural Resources' personnel upon request. This requirement is part of the BACT determination for this permit. [Special Condition 6A]
- 2) The following are minimum requirements for the detection portion of the LDAR program: [Special Condition 6B (1)-(2)]
  - a) Plant personnel shall check equipment that contains hexane on a daily basis for any signs of a leak, based on sight, sound or smell. Equipment to be checked on the daily inspection includes storage tanks, pumps, piping, duct work, enclosed conveyors, valves, flanges, seals, sight glasses and process equipment (including the extractor, desolventizer-toaster, dryer-cooler, distillation equipment, condensers and heat exchangers).
  - b) ADM shall install four fixed-location flammable gas monitors in the solvent extraction area. The fixed-location monitors shall be placed in low lying areas in close proximity to likely fugitive emission sources. ADM shall maintain an inventory of spare parts for the monitors in order to ensure consistent operation. The flammable gas monitors will be set to audible and visual alarm at 500 parts per million (ppm) hexane.

#### **Recordkeeping:**

The following are minimum requirements for LDAR recordkeeping: [Special Condition 6C (1)-(3)]

- 1) Daily inspection observations and representative fixed-location flammable gas monitor readings shall be recorded in writing and shall be signed and dated by the person that conducted the inspection/reading.
- 2) If leaks are observed, the nature and extent of the observed leak shall be recorded along with documentation regarding corrective actions. LDAR program records shall be maintained for not less than five years and shall be made available immediately to any Missouri Department of Natural Resources' personnel upon request. Written records may be converted to scanned computer files for the purpose of recordkeeping.



**PERMIT CONDITION PW002**

10 CSR 10-6.060 Construction Permits Required  
Construction Permit #102010-003, Issued November 5, 2010

**Recordkeeping:**

ADM shall maintain all records as outlined in 40 CFR 52.21 supporting the findings of the actual-to-projected actual applicability test used in ADM's analysis. ADM shall maintain records of the baseline, projection and annual emissions information for five years after the modification in Construction Permit #102010-003. [Special Condition 12]

### III. Emission Unit Specific Emission Limitations

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

Emission Unit	Description	Manufacturer/ Model #
EU0010	Northwest Truck Unloading: soybean unloading from hopper trucks; MHDR 600 ton/hr; dump has a two sided enclosure; equipped with a baghouse (CD-01) with 99.35% control efficiency	NA
EU0020	North Truck Unloading: soybean unloading from hopper trucks; MHDR 300 ton/hr; dump is totally enclosed; equipped with a baghouse (CD-02) with 99.35% control efficiency	NA
EU0025	West Truck Unloading: soybean unloading from hopper trucks; MHDR 300 ton/hr; dump has a two sided enclosure	NA
EU0030	North Rail Unloading: railcar soybean unloading; MHDR 450 ton/hr	NA
EU0035	South Rail Unloading: railcar soybean unloading; MHDR 450 ton/hr	NA

**PERMIT CONDITION (EU0010 through EU0035)-001**  
 10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

**Emission Limitation:**

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any new source any visible emissions with an opacity greater than 20 percent.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with opacity up to 60 percent.

**Monitoring:**

- 1) The permittee shall conduct opacity readings on these emission units (EU0010 through EU0035) using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) The following monitoring schedule must 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 must 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 must be made semi-annually. If a violation is noted, monitoring reverts to weekly.
- d) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency. If the source has already performed the weekly and biweekly monitoring and is doing monitoring in compliance with a previous permit, the weekly and biweekly monitoring do not need to be repeated.

**Recordkeeping:**

- 1) The permittee shall maintain records of all observation results (see Attachment A-1 or A-2), noting:
  - a) Whether any air emissions (except for water vapor) were visible from the emission units,
  - b) All emission units from which visible emissions occurred, and
  - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment B)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment C)
- 4) Attachments A-1, A-2, B and C contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available to the Missouri Department of Natural Resources' personnel upon request.
- 6) 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, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

**PERMIT CONDITION (EU0010 through EU0035)-002**

10 CSR 10-6.060 Construction Permits Required

Construction Permit #102010-003 Issued October 5, 2010

**Operational Limitation:**

- 1) ADM shall control emissions from Emission Unit EU0010 using a baghouse as specified in the permit application for Construction Permit 102010-002. [Special Condition 10.C]
- 2) The baghouse shall be operated and maintained in accordance with the manufacturer's specifications. The baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that Department of Natural Resources' employees may easily observe them. [Special Condition 10.D]
- 3) Replacement filters for the baghouses shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance). [Special Condition 10.E]

**Performance Testing:**

**(Note: this testing is required for the replacement baghouse which was authorized for construction according to Construction Permit 102010-003, not the existing baghouse)**

- 1) ADM shall conduct initial performance testing for Emission Unit EU0010 to develop emission factors in units of pounds of PM<sub>10</sub> per ton of grain processed by the emission unit for use in tracking their projected actual emissions. [Special Condition 11.A]
- 2) The tests shall be performed according to 10 CSR 10-6.030 Sampling Methods for Air Pollution Sources, or any method approved by the Air Pollution Control Program. [Special Condition 11.C]
- 3) ADM shall conduct testing sufficient to demonstrate compliance with any and all applicable new source performance standards(s). [Special Condition 11.D]
- 4) The initial performance tests shall be performed within 60 days of achieving the maximum production rate, but no later than 180 days after initial startup. [Special Condition 11.E]
- 5) The initial performance test date(s) shall be pre-arranged with the Air Pollution Control Program a minimum of 30 days prior to the proposed test date so that a pre-test meeting may be arranged if necessary, and to assure that the test date is acceptable for an observer from the Air Pollution Control Program to be present. A proposed test plan shall be submitted to the Air Pollution Control Program a minimum of 30 days prior to the proposed test date. The test plan must be approved by the Air Pollution Control Program prior to the test date. [Special Condition 11.F]

**Monitoring/Recordkeeping:**

- 1) ADM shall monitor and record the operating pressure drop across the baghouse at least once per day. The operating pressure drop shall be maintained in accordance with the manufacturer's specification. [Special Condition 10.F]
- 2) The permittee shall use Attachment E-2 or an equivalent recordkeeping log to record the baghouse pressure drop.
- 3) ADM shall maintain an operating and maintenance log for the baghouse which shall include the following:
  - a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
  - b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc. [Special Condition 10.I-1 & 2]
- 4) The permittee shall use Attachment B or an equivalent recordkeeping log to record the information required by Condition 3 above.

**Reporting:**

Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual excess emissions and continuous monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III) and Section V of this permit

Emission Unit	Description	Manufacturer/Model #
EU0040	Small Grain Dryer: MHDR 36 ton/hr; 14.8 MMBtu/hr; installed 1974	Carter Day/HC-46
EU0050	Large Grain Dryer: MHDR 75 ton/hr; 23.1 MMBtu/hr; installed 1974	Carter Day/HC-76

**PERMIT CONDITION (EU0040 through EU0050)-001**  
10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

**Emission Limitation:**

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any new source any visible emissions with an opacity greater than 20 percent.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with opacity up to 60 percent.

**Monitoring:**

- 1) The permittee shall conduct opacity readings on this emission unit (EU0040 through EU0050) using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) The following monitoring schedule must 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 must 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 must be made semi-annually. If a violation is noted, monitoring reverts to weekly.
  - d) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency. If the source has already performed the weekly and biweekly monitoring and is doing monitoring in compliance with a previous permit, the weekly and biweekly monitoring do not need to be repeated.

**Recordkeeping:**

- 1) The permittee shall maintain records of all observation results (see Attachment A-1 or A-2), noting:
  - a) Whether any air emissions (except for water vapor) were visible from the emission units,
  - b) All emission units from which visible emissions occurred, and
  - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment B)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment C)

- 4) Attachments A-1, A-2, B and C contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available to the Missouri Department of Natural Resources' personnel upon request.
- 6) 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, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

**PERMIT CONDITION (EU0040 and EU0050)-002**

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

**Emission Limitation:**

- 1) Particulate matter shall not be emitted from EU0040 and EU0050 in excess of the emission rates listed in the following table:

Emission Unit	Emission Unit Description	Allowable Emission Rate (lb/hr)
EU0040	Small Grain Dryer	41.57
EU0050	Large Grain Dryer	48.43

- 2) These emission rates were calculated using the following equation:
  - a) For process weights rates of greater than 60,000 lb/hr  
 $E = 55.0(P)^{0.11} - 40$   
Where:  
E = rate of emission in lb/hr  
P = process weight rate in ton/hr
- 3) The concentration of particulate matter in the exhaust gases shall not exceed 0.30 grains per standard cubic feet of exhaust gases.

**Monitoring/Recordkeeping/Reporting:**

The permittee is assumed always to be in compliance with this regulation. Calculations demonstrating compliance are in Attachment D. The permittee shall keep this attachment with this permit. No monitoring or reporting is required for this permit condition.

Emission Unit	Description	Manufacturer/ Model #
EU0060	Northwest Silos: group of soybean storage silos north and west of rail lines; MHDR 600 ton/hr; equipped with baghouse (CD-01)	Younglove Construction
EU0070	North Silos: group of soybean storage silos north and east of rail lines; MHDR 300 ton/hr; these soybean silos have no control device	NA
EU0080	Annex and West Silos: West silos - group of small soybean storage silos that run parallel to the railroad tracks; Annex silos - soybean storage silos that are farthest east of this storage area; MHDR 300 ton/hr; these silos have no control device	NA
EU0085	Flat Storage Buildings: Group of flat storage buildings that are connected to the North Silos via an enclosed conveyor; MHDR 150 ton/hr; these soybean storage silos have no control device	NA
EU0090	Elevator Conveying: Plantwide Elevator Conveying, controlled by three separate baghouses with 99.4% overall control efficiency. MHDR = 600 tons/hr.	NA

**PERMIT CONDITION (EU0060 through EU0090)-001**

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

**Emission Limitation:**

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any new source any visible emissions with an opacity greater than 20 percent.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with opacity up to 60 percent.

**Monitoring:**

- 1) The permittee shall conduct opacity readings on this emission unit (EU0060 through EU0090) using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) The following monitoring schedule must 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 must 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 must be made semi-annually. If a violation is noted, monitoring reverts to weekly.
  - d) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency. If the source has already performed the

weekly and biweekly monitoring and is doing monitoring in compliance with a previous permit, the weekly and biweekly monitoring do not need to be repeated.

**Recordkeeping:**

- 1) The permittee shall maintain records of all observation results (see Attachment A-1 or A-2), noting:
  - a) Whether any air emissions (except for water vapor) were visible from the emission units,
  - b) All emission units from which visible emissions occurred, and
  - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment B)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment C)
- 4) Attachments A-1, A-2, B and C contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available to the Missouri Department of Natural Resources' personnel upon request.
- 6) 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, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

**PERMIT CONDITION EU0090-002**

10 CSR 10-6.060 Construction Permits Required  
Construction Permit #102010-003 Issued October 5, 2010

**Operational Limitation:**

- 1) ADM shall control emissions from Emission Unit EU0090 using a baghouse as specified in the permit application for Construction Permit 102010-002. [Special Condition 10.C]
- 2) The baghouse shall be operated and maintained in accordance with the manufacturer's specifications. The baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that Department of Natural Resources' employees may easily observe them. [Special Condition 10.D]
- 3) Replacement filters for the baghouses shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance). [Special Condition 10.E]

**Performance Testing:**

- 1) ADM shall conduct initial performance testing for Emission Unit EU0090 to develop emission factors in units of pounds of PM<sub>10</sub> per ton of grain processed by the emission unit for use in tracking their projected actual emissions. [Special Condition 11.A]
- 2) The tests shall be performed according to 10 CSR 10-6.030 Sampling Methods for Air Pollution Sources, or any method approved by the Air Pollution Control Program. [Special Condition 11.C]



- 3) The initial performance tests shall be performed within 60 days of achieving the maximum production rate, but no later than 180 days after initial startup. [Special Condition 11.E]
- 4) The initial performance test date(s) shall be pre-arranged with the Air Pollution Control Program a minimum of 30 days prior to the proposed test date so that a pre-test meeting may be arranged if necessary, and to assure that the test date is acceptable for an observer from the Air Pollution Control Program to be present. A proposed test plan shall be submitted to the Air Pollution Control Program a minimum of 30 days prior to the proposed test date. The test plan must be approved by the Air Pollution Control Program prior to the test date. [Special Condition 11.F]

**Monitoring/Recordkeeping:**

- 1) ADM shall monitor and record the operating pressure drop across the baghouse at least once per day. The operating pressure drop shall be maintained in accordance with the manufacturer’s specification. [Special Condition 10.F]
- 2) The permittee shall use Attachment B or an equivalent recordkeeping log to record the baghouse pressure drop.
- 3) ADM shall maintain an operating and maintenance log for the baghouse which shall include the following:
  - a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
  - b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc. [Special Condition 10.I-1 & 2]
- 4) The permittee shall use Attachment B or an equivalent recordkeeping log to record the information required by Condition 2 above.

**Reporting:**

Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual excess emissions and continuous monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III) and Section V of this permit

Emission Unit	Description	Manufacturer/ Model #
EU0100	Cracking and Dehulling: drying, cracking, dehulling and conditioning of soybeans; MHDR 96 ton/hr; equipped with high efficiency cyclone (CD-04)	MAC/H73

**PERMIT CONDITION EU0100-001**  
 10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

**Emission Limitation:**

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any new source any visible emissions with an opacity greater than 20 percent.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with opacity up to 60 percent.

**Monitoring:**

- 1) The permittee shall conduct opacity readings on this emission unit (EU0100) using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) The following monitoring schedule must 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 must 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 must be made semi-annually. If a violation is noted, monitoring reverts to weekly.
  - d) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency. If the source has already performed the weekly and biweekly monitoring and is doing monitoring in compliance with a previous permit, the weekly and biweekly monitoring do not need to be repeated.

**Recordkeeping:**

- 1) The permittee shall maintain records of all observation results (see Attachment A-1 or A-2), noting:
  - a) Whether any air emissions (except for water vapor) were visible from the emission units,
  - b) All emission units from which visible emissions occurred, and
  - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions when such malfunctions impact emissions. (see Attachment B)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment C)
- 4) Attachments A-1, A-2, B and C contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available to the Missouri Department of Natural Resources' personnel upon request.
- 6) 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, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

**PERMIT CONDITION EU0100-002**

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

10 CSR 10-6.060 Construction Permits Required

Construction Permit #102010-003 Issued October 5, 2010

40 CFR Part 64, Compliance Assurance Monitoring (CAM)

**Emission Limitation:**

- 1) Particulate matter shall not be emitted from EU0100 in excess of 50.89 lb/hour.
- 2) This emission rate was calculated using the following equation:
  - a) For process weights rates of greater than 60,000 lb/hr  
$$E = 55.0(P)^{0.11} - 40$$

Where:  
E = rate of emission in lb/hr  
P = process weight rate in ton/hr
- 3) The concentration of particulate matter in the exhaust gases shall not exceed 0.30 grains per standard cubic feet of exhaust gases.
- 4) ADM shall control emissions from Emission Unit EU0100 using cyclones as specified in the permit application for Construction Permit 102010-003. [Special Condition 10.B]

**Performance Testing:**

- 1) ADM shall conduct initial performance testing for Emission Unit EU0100 to develop emission factors in units of pounds of PM10 per ton of grain processed by the emission unit for use in tracking their projected actual emissions. [Special Condition 11.A]
- 2) The tests shall be performed according to 10 CSR 10-6.030 Sampling Methods for Air Pollution Sources, or any method approved by the Air Pollution Control Program. [Special Condition 11.C]
- 3) The initial performance tests shall be performed within 60 days of achieving the maximum production rate, but no later than 180 days after initial startup. [Special Condition 11.E]
- 4) The initial performance test date(s) shall be pre-arranged with the Air Pollution Control Program a minimum of 30 days prior to the proposed test date so that a pre-test meeting may be arranged if necessary, and to assure that the test date is acceptable for an observer from the Air Pollution Control Program to be present. A proposed test plan shall be submitted to the Air Pollution Control Program a minimum of 30 days prior to the proposed test date. The test plan must be approved by the Air Pollution Control Program prior to the test date. [Special Condition 11.F]

**Monitoring/Recordkeeping/Reporting:**

**Note: Monitoring and recordkeeping required by Construction Permit 102010-003 is less stringent than what is required by the conditions of the approved CAM plan submitted by the permittee, therefore only the requirements of the CAM plan are included in this permit condition.**

- 1) The high efficiency cyclone associated with the cracking and dehulling process shall be operated as described in the CAM Plan (Table 1) below.
- 2) The permittee shall respond to excursions as specified in the CAM Plan (Table 1) below.
- 3) The permittee shall maintain records of any malfunctions of the cyclone. These records shall include the duration of the event, estimated emissions, the probable cause and the corrective action.
- 4) All records shall be maintained for a minimum of five years.
- 5) All records shall be made available immediately for inspection to Missouri Department of Natural Resources' personnel upon request.

**Table 1:**

Archer Daniels Midland (APCP Id. No. 007-0002) CAM Monitoring Approach for Particulate Matter Emissions Controlled by a Cyclone From Emission Point EU0100		
	Indicator #1	Indicator #2
<b>Indicator</b>	Visible Emissions	Pressure Drop
<b>Measurement Approach</b>	Visible emissions from the cyclone exhaust shall be monitored using EPA Reference Method 22-like procedures.	Pressure drop across the cyclone shall be measured with a differential pressure gauge.
<b>Indicator Range</b>	The indicator range is defined as normal visible emissions. An excursion is defined as the presence of abnormal visible emissions.	The indicator range is defined as a pressure drop between 2 and 8 inches of water column (in H <sub>2</sub> O). An excursion is defined as a pressure drop that is less than 2 in H <sub>2</sub> O and/or greater than 8 in H <sub>2</sub> O.
	An excursion of either indicator constitutes an excursion. If abnormal visible emissions are present when the pressure drop is within its specified indicator range, the pressure drop indicator range shall be re-evaluated by Archer Daniels Midland (ADM). Excursions trigger an inspection, corrective action, and need to be reported in the next Semi-annual Monitoring Report. Excursions shall be corrected immediately upon detection; if an excursion results in excess emissions exceeding 1 hour, ADM may elect to file a startup, shutdown, and malfunction assertion under 10 CSR 10-6.050 if appropriate to the situation.	
<b>QIP Threshold</b>	The QIP threshold for any individual emission unit is 9 excursions in a 6-month reporting period. If an emission unit reaches the QIP threshold, ADM shall submit a QIP for that unit along with the Semi-annual Monitoring Report for that reporting period.	
Performance Criteria		
<b>Data Representativeness</b>	Measurements shall be made at the emission point (i.e., cyclone exhaust).	Pressure drop taps are located at the inlet and outlet of the cyclone. The differential pressure gauge has a minimum accuracy of 0.25 in H <sub>2</sub> O.
<b>Verification of Operational Status</b>	NA	Pressure drop taps are checked for plugging daily.
<b>QA/QC Practices and Criteria</b>	The visible emissions observer shall be familiar with EPA Reference Method 22 and follow Method 22-like procedures.	The differential pressure gauge shall be calibrated no less frequently than semi-annually in accordance with the manufacturer's specifications.
<b>Monitoring Frequency</b>	A 6-minute Method 22-like observation shall be performed daily.	Continuously.

<b>Data Collection Procedure</b>	The VE observation is manually recorded (i.e., documented) daily by the observer (use Attachment A-1)	An instantaneous measurement shall be manually recorded daily.
<b>Averaging Period</b>	NA	None
<b>Reporting</b>	Summary information on the number, duration, and cause for any excursions and differential pressure gauge downtime shall be reported semi-annually as part of ADM's Part 70 Semi-annual Monitoring Report.	

**Reporting Requirements:**

- 1) The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determines that any exceedance of the permit conditions has occurred.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual excess emissions and continuous monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III) and Section V of this permit

**PERMIT CONDITION EU0100-003**  
 10 CSR 10-6.060 Construction Permits Required  
 Construction Permit #0795-002 Issued June 20, 1995

**Emission Limitation:**

- 1) The permittee shall emit no more than 16.62 tons of particulate matter less than ten microns (PM<sub>10</sub>) from the soybean dehulling equipment (EU0100). [Special Condition 3]
- 2) The permittee shall emit no more than 27.32 tons of total suspended particulate (TSP) from the soybean dehulling equipment (EU0100). [Special Condition 4]

**Recordkeeping:**

The permittee shall calculate the monthly and consecutive 12-month total of PM<sub>10</sub> and TSP emissions from the dehulling equipment (EU0100) based on the amount of soybeans processed. These records shall be kept on the attached worksheets (see Attachments F and G) or on a similar worksheet of the permittee's design. These records shall be made available immediately upon request to the Department of Natural Resources' personnel. [Special Condition 7]

**Reporting:**

- 1) The permittee shall report promptly any deviations from permit requirements, including those attributable to upsets, and the report shall include the cause of such deviations and any corrective actions or preventative measures taken. Corrective actions may include a requirement for additional stack testing, or more frequent monitoring, or could trigger implementation of a corrective action plan. [Special Condition 6]
- 2) The permittee shall report to the Air Pollution Control Program's Enforcement Section, P. O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of each month, if the 12-month cumulative total (Condition 7) records show that the source exceeded the limitation of Conditions 3 or 4 (16.62 ton of PM<sub>10</sub> or 27.32 tons of TSP). [Special Condition 8]

Emission Unit	Description	Manufacturer/ Model #
EU0110	Hull Grinding; grinding soybean hulls; MHDR 75 ton/hr; equipped with high efficiency cyclone (CD-06) and fabric filter (CD-12)	Pneumafil/RAF III

**PERMIT CONDITION EU0110-001**  
 10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

**Emission Limitation:**

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any new source any visible emissions with an opacity greater than 20 percent.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60 percent.

**Monitoring:**

- 1) The permittee shall conduct opacity readings on this emission unit (EU0110) using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) The following monitoring schedule must 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 must 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 must be made semi-annually. If a violation is noted, monitoring reverts to weekly.
  - d) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency. If the source has already performed the weekly and biweekly monitoring and is doing monitoring in compliance with a previous permit, the weekly and biweekly monitoring do not need to be repeated.

**Recordkeeping:**

- 1) The permittee shall maintain records of all observation results (see Attachment A-1 or A-2), noting:
  - a) Whether any air emissions (except for water vapor) were visible from the emission units,
  - b) All emission units from which visible emissions occurred, and
  - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment B)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment C)

- 4) Attachments A-1, A-2, B and C contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available to the Missouri Department of Natural Resources' personnel upon request.
- 6) 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, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

**PERMIT CONDITION EU0110-002**

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

10 CSR 10-6.060 Construction Permits Required

Construction Permit #102010-003 Issued October 5, 2010

**Emission Limitation:**

- 1) Particulate matter shall not be emitted from EU0110 in excess of 48.43 lb/hour.
- 2) This emission rate was calculated using the following equation:
  - a) For process weights rates of greater than 60,000 lb/hr  
$$E = 55.0(P)^{0.11} - 40$$

Where:  
E = rate of emission in lb/hr  
P = process weight rate in ton/hr
- 3) The concentration of particulate matter in the exhaust gases shall not exceed 0.30 grains per standard cubic feet of exhaust gases.

**Monitoring:**

- 1) ADM shall control emissions from Emission Unit EU0110 using cyclones and then a baghouse (for the cyclone exhaust streams) as specified in the construction permit application for Construction Permit 102010-003. [Special Condition 10.A]
- 2) ADM shall control emissions from Emission Unit EU0010 using a baghouse as specified in the permit application for Construction Permit 102010-002. [Special Condition 10.A]
- 3) The baghouse shall be operated and maintained in accordance with the manufacturer's specifications. The baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that Department of Natural Resources' employees may easily observe them. [Special Condition 10.D]
- 4) Replacement filters for the baghouses shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance). [Special Condition 10.E]
- 5) Baghouse maintenance monitoring:

- a) ADM shall monitor and record the operating pressure drop across the baghouse at least once per day. The operating pressure drop shall be maintained in accordance with the manufacturer's specification. [Special Condition 10.F]
- 6) Cyclone maintenance monitoring:
  - a) ADM shall inspect the cyclone solids discharge valves at least once per week to ensure proper operation. [Special Condition 10.G]
  - b) ADM shall monitor air flow rate, pressure drop or fan operation at least once per day to ensure proper operation of the cyclone. [Special Condition 10.H]
  - c) Inspect the structural components, including the cyclone ductwork and hoods for leaks and component failures quarterly.
  - d) Verify that the inlet and outlet ductwork is in proper operating condition annually.
  - e) Check the barrel and collecting tube for deposits and/or excess wear annually. Clean and repair as needed.
- 7) Maintain a written record of all observations, deficiencies and any action resulting from inspections.
- 8) All instruments and control equipment shall be calibrated, maintained and operated according to the manufacturer's instructions.

**Recordkeeping:**

- 1) ADM shall maintain an operating and maintenance log for the cyclones and baghouses which shall include the following:
  - a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
  - b) Maintenance activities, with inspection schedule, repair actions, and replacements.
  - c) All inspections, corrective actions, and instrument calibration shall be recorded. [Special Condition 10.I]
- 2) Attachments B-2 and E contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 3) These records shall be made available to the Missouri 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, no later than ten days after the permittee determined that the emission unit(s) exceeded the emission limitation(s) and/or pressure drop range listed above.
- 2) Reports of any deviations from monitoring other than the pressure drop range, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.



Emission Unit	Description	Manufacturer/ Model #
EU0120	Bean Cleaning: MHDR 96.25 ton/hr; equipped with high efficiency cyclone (CD-05) and fabric filter (CD-12)	Kice - cyclone Pneumafil - baghouse

**PERMIT CONDITION EU0120-001**

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

**Emission Limitation:**

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any new source any visible emissions with opacity greater than 20 percent.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60 percent.

**Monitoring:**

- 1) The permittee shall conduct opacity readings on this emission unit (EU0120) using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) The following monitoring schedule must 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 must 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 must be made semi-annually. If a violation is noted, monitoring reverts to weekly.
  - d) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency. If the source has already performed the weekly and biweekly monitoring and is doing monitoring in compliance with a previous permit, the weekly and biweekly monitoring do not need to be repeated.

**Recordkeeping:**

- 1) The permittee shall maintain records of all observation results (see Attachment A-1 or A-2), noting:
  - a) Whether any air emissions (except for water vapor) were visible from the emission units,
  - b) All emission units from which visible emissions occurred, and
  - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment B)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment C)

- 4) Attachments A-1, A-2, B and C contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available to the Missouri Department of Natural Resources' personnel upon request.
- 6) 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, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

**PERMIT CONDITION EU0120-002**

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

10 CSR 10-6.060 Construction Permits Required

Construction Permit #102010-003 Issued October 5, 2010

40 CFR Part 64, Compliance Assurance Monitoring (CAM)

**Emission Limitation:**

- 1) Particulate matter shall not be emitted from EU0110 in excess of 50.89 lb/hour.
- 2) This emission rate was calculated using the following equation:
  - a) For process weights rates of greater than 60,000 lb/hr
$$E = 55.0(P)^{0.11} - 40$$
Where:  
E = rate of emission in lb/hr  
P = process weight rate in ton/hr
- 3) The concentration of particulate matter in the exhaust gases shall not exceed 0.30 grains per standard cubic feet of exhaust gases.
- 4) ADM shall control emissions from Emission Unit EU0120 using cyclones and then a baghouse (for the cyclone exhaust streams) as specified in the permit application for Construction Permit 102010-003. [Special Condition 10.A]

**Monitoring/Recordkeeping/Reporting:**

***Note: Monitoring and recordkeeping required by Construction Permit 102010-003 is less stringent than what is required by the conditions of the approved CAM plan submitted by the permittee, therefore only the requirements of the CAM plan are included in this permit condition.***

- 1) The baghouse associated with the bean cleaning process shall be operated as described in the CAM Plan (Table 1) below.
- 2) The permittee shall respond to excursions as specified in the CAM Plan (Table 1) below.
- 3) The permittee shall maintain records of any malfunctions of the baghouse. These records shall include the duration of the event, estimated emissions, the probable cause and the corrective action.
- 4) All records shall be maintained for a minimum of five years.
- 5) All records shall be made available immediately for inspection to Missouri Department of Natural Resources' personnel upon request.

**Table 1:**

Archer Daniels Midland (APCP Id. No. 007-0002) CAM Monitoring Approach for Particulate Matter Emissions Controlled by a Baghouse From Emission Point EU0120		
	Indicator #1	Indicator #2
<b>Indicator</b>	Visible Emissions	Pressure Drop
<b>Measurement Approach</b>	Visible emissions from the baghouse exhaust shall be monitored using EPA Reference Method 22-like procedures.	Pressure drop across the baghouse shall be measured with a differential pressure gauge.
<b>Indicator Range</b>	The indicator range is defined as normal visible emissions. An excursion is defined as the presence of abnormal visible emissions.	The indicator range is defined as a pressure drop between 1 and 8 inches of water column (in H <sub>2</sub> O). An excursion is defined as a pressure drop that is less than 1 in H <sub>2</sub> O and/or greater than 8 in H <sub>2</sub> O.
	An excursion of either indicator constitutes an excursion. If abnormal visible emissions are present when the pressure drop is within its specified indicator range, the pressure drop indicator range shall be re-evaluated by Archer Daniels Midland (ADM). Excursions trigger an inspection, corrective action, and need to be reported in the next Semi-annual Monitoring Report. Excursions shall be corrected immediately upon detection; if an excursion results in excess emissions exceeding 1 hour, ADM may elect to file a startup, shutdown, and malfunction assertion under 10 CSR 10-6.050 if appropriate to the situation.	
<b>QIP Threshold</b>	The QIP threshold for any individual emission unit is 9 excursions in a 6-month reporting period. If an emission unit reaches the QIP threshold, ADM shall submit a QIP for that unit along with the Semi-annual Monitoring Report for that reporting period.	
Performance Criteria		
<b>Data Representativeness</b>	Measurements shall be made at the emission point (i.e., baghouse exhaust).	Pressure drop taps are located at the inlet and outlet of the baghouse. The differential pressure gauge has a minimum accuracy of 0.25 in H <sub>2</sub> O.
<b>Verification of Operational Status</b>	NA	Pressure drop taps are checked for plugging daily.
<b>QA/QC Practices and Criteria</b>	The visible emissions observer shall be familiar with EPA Reference Method 22 and follow Method 22-like procedures.	The differential pressure gauge shall be calibrated no less frequently than semi-annually in accordance with the manufacturer's specifications.
<b>Monitoring Frequency</b>	A 6-minute Method 22-like observation shall be performed daily.	Continuously.

<b>Data Collection Procedure</b>	The VE observation is manually recorded (i.e., documented) daily by the observer (Use Attachment A-1).	An instantaneous measurement shall be manually recorded daily.
<b>Averaging Period</b>	NA	None
<b>Reporting</b>	Summary information on the number, duration, and cause for any excursions and differential pressure gauge downtime shall be reported semi-annually as part of ADM's Part 70 Semi-annual Monitoring Report.	

**Reporting Requirements:**

- 1) The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determines that any exceedance of the permit conditions has occurred.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual excess emissions and continuous monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III) and Section V of this permit

Emission Unit	Description	Manufacturer/ Model #
EU0130	Soybean Flaking: Soybeans are flattened into flakes for preparation of extraction; MHDR 96 tons/hr; equipped with high efficiency cyclone (CD08)	Unknown
EU0140	Meal Dryer and Cooler: MHDR 96 ton/hr; equipped with high efficiency cyclone (CD-10)	Crown Iron (Steelcraft)/#62HE-2

<p><b>PERMIT CONDITION (EU0130 and EU0140)-001</b>          10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants</p>
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**Emission Limitation:**

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any new source any visible emissions with an opacity greater than 20 percent.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60 percent.

**Monitoring:**

- 1) The permittee shall conduct opacity readings on these emission units (EU0130 and EU0140) using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.

- 2) The following monitoring schedule must 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 must 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 must be made semi-annually. If a violation is noted, monitoring reverts to weekly.
  - d) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency. If the source has already performed the weekly and biweekly monitoring and is doing monitoring in compliance with a previous permit, the weekly and biweekly monitoring do not need to be repeated.

**Recordkeeping:**

- 1) The permittee shall maintain records of all observation results (see Attachment A-1 or A-2), noting:
  - a) Whether any air emissions (except for water vapor) were visible from the emission units,
  - b) All emission units from which visible emissions occurred, and
  - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment B)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment C)
- 4) Attachments A-1, A-2, B and C contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available to the Missouri Department of Natural Resources' personnel upon request.
- 6) 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, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

**PERMIT CONDITION (EU0130 and EU0140)-002**

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

10 CSR 10-6.060 Construction Permits Required

Construction Permit #102010-003 Issued October 5, 2010

**Emission Limitation:**

- 1) Particulate matter shall not be emitted from EU0130 or EU0140 in excess of 50.89 lb/hour.
- 2) This emission rate was calculated using the following equation:
  - a) For process weights rates of greater than 60,000 lb/hr
$$E = 55.0(P)^{0.11} - 40$$
Where:  
E = rate of emission in lb/hr

P = process weight rate in ton/hr

- 3) The concentration of particulate matter in the exhaust gases shall not exceed 0.30 grains per standard cubic feet of exhaust gases.

**Performance Testing:**

- 1) ADM shall conduct initial performance testing for Emission Units EU0130 and EU0140 to develop emission factors in units of pounds of PM<sub>10</sub> per ton of grain processed by the emission unit for use in tracking their projected actual emissions. [Special Condition 11.A]
- 2) The tests shall be performed according to 10 CSR 10-6.030 Sampling Methods for Air Pollution Sources, or any method approved by the Air Pollution Control Program. [Special Condition 11.C]
- 3) The initial performance tests shall be performed within 60 days of achieving the maximum production rate, but no later than 180 days after initial startup. [Special Condition 11.E]
- 4) The initial performance test date(s) shall be pre-arranged with the Air Pollution Control Program a minimum of 30 days prior to the proposed test date so that a pre-test meeting may be arranged if necessary, and to assure that the test date is acceptable for an observer from the Air Pollution Control Program to be present. A proposed test plan shall be submitted to the Air Pollution Control Program a minimum of 30 days prior to the proposed test date. The test plan must be approved by the Air Pollution Control Program prior to the test date. [Special Condition 11.F]

**Monitoring:**

- 1) ADM shall control emissions from emissions units EU0130 and EU0140 using cyclones as specified in the permit application for Construction Permit 102010-003. [Special Condition 10.B]
- 2) Cyclone maintenance monitoring:
  - a) ADM shall inspect the cyclone solids discharge valves at least once per week to ensure proper operation. [Special Condition 10.G]
  - b) ADM shall monitor air flow rate, pressure drop or fan operation at least once per day to ensure proper operation of the cyclone. [Special Condition 10.H]
  - c) Inspect the structural components, including the cyclone ductwork and hoods for leaks and component failures quarterly.
  - d) Verify that the inlet and outlet ductwork is in proper operating condition annually.
  - e) Check the barrel and collecting tube for deposits and/or excess wear annually. Clean and repair as needed.
- 3) Maintain a written record of all observations, deficiencies and any action resulting from inspections.
- 4) All instruments and control equipment shall be calibrated, maintained and operated according to the manufacturer's instructions.

**Recordkeeping:**

- 1) ADM shall maintain an operating and maintenance log for the cyclones which shall include the following:
  - a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
  - b) Maintenance activities, with inspection schedule, repair actions, and replacements.
  - c) All inspections, corrective actions, and instrument calibration shall be recorded. [Special Condition 10.I]
- 2) Attachments B-2 and E contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.

- 3) These records shall be made available to the Missouri 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, no later than ten days after the permittee determined that the emission unit(s) exceeded the emission limitation(s) and/or pressure drop range listed above.
- 2) Reports of any deviations from monitoring other than the pressure drop range, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

<b>EU0135 – SOYBEAN OIL EXTRACTOR</b>		
Emission Unit	Description	Manufacturer/Model #
EU0135	Soybean Oil Extractor: extraction process; MHDR 96.25 ton/hr; equipped with mineral oil scrubber (CD-09); installed 1977	Crown Iron Works

<p><b>PERMIT CONDITION EU0135-001</b>          10 CSR 10-6.075 Maximum Achievable Control Technology Regulations          40 CFR Part 63, Subpart A General Provisions and Subpart GGGG Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production</p>
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**Emission Limitation:**

- 1) The emission requirements limit the number of gallons of HAP lost per ton of oilseed processed. For each operating month, you must calculate a compliance ratio which compares your actual HAP loss to your allowable HAP loss for the previous 12 operating months as shown in Equation 1. An operating month, as defined in §63.2872, is any calendar month in which a source processes oilseed, excluding any entire calendar month in which the source operated under a malfunction period subject to §63.2850(e)(2). Equation 1 follows: [§63.2840(a)(1)]

$$Compliance\ Ratio = \frac{Actual\ HAP\ Loss}{Allowable\ HAP\ Loss} \quad (\S 63.2840, Eq. 1)$$

- 2) Equation 1 can also be expressed as a function of total solvent loss as shown in Equation 2. Equation 2 follows: [§63.2840(a)(2)]

$$Compliance\ Ratio = \frac{f * Actual\ Solvent\ Loss}{0.64 * \sum_{i=1}^n ((Oilseed)_i * (SLF)_i)} \quad (\S 63.2840, Eq. 2)$$

Where:

f = weighted average volume fraction of HAP in solvent received during the previous 12 operating months, as determined in §63.2854, dimensionless.

0.64 = 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, as shown in §63.2855.

SLF = the corresponding solvent loss factor (gal/ton) for oilseed “i” listed in Table 1 of §63.2480. SLF for conventional soybean = 0.2.

- 3) When your source has processed oilseeds 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 your compliance ratio, consider the conditions and exclusions in §63.2840(b)(1) through (6): [\[§63.2840\(b\)\]](#)
  - a) If your source processes any quantity of oilseeds in a calendar month and the source is not operating under a malfunction period subject to §63.2850, then you must categorize the month as an operating month, as defined in §63.2872. [\[§63.2840\(b\)\(1\)\]](#)
  - b) 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\(b\)\(2\)\]](#)
  - c) If your source shuts down and processes no oilseeds for an entire calendar month, then you must categorize the month as a nonoperating month, as defined in §63.2872. Exclude any nonoperating months from the compliance ratio determination. [\[§63.2840\(b\)\(3\)\]](#)
  - d) If your 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\(b\)\(4\)\]](#)
  - e) If your 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\(b\)\(5\)\]](#)
  - f) The solvent loss factor you use to determine the compliance ratio may change each operating month depending on the tons of oilseed processed during all normal operating periods in a 12 operating month period. [\[§63.2840\(b\)\(6\)\]](#)
- 4) If the compliance ratio is less than or equal to 1.00, your source was in compliance with the HAP emission requirements for the previous operating month. [\[§63.2840\(c\)\]](#)

**General Compliance Requirements:**

- 1) General Requirements. The requirements of §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 existing sources. [\[§63.2850\(a\)\(1\)\(i\)\]](#)
    - ii) Initial notifications for new and reconstructed sources. [\[§63.2850\(a\)\(1\)\(ii\)\]](#)
    - iii) Initial notifications for significant modifications to existing or new sources. [\[§63.2850\(a\)\(1\)\(iii\)\]](#)
    - iv) 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 you have used to demonstrate compliance with Subpart GGGG in accordance with §63.2862. [\[§63.2850\(a\)\(4\)\]](#)
  - e) Submit the reports §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 you add a control device that destroys solvent. [§63.2850(a)(6)]
- 2) For periods of normal operation, you must meet all of the requirements listed in Table 1 of §63.2850 for sources under normal operation. [§63.2850(b)]
  - a) Determine and record the extraction solvent loss in gallons from your source as described in §63.2853. [§63.2850, Table 1(b)]
  - b) Record the volume fraction of HAP present at greater than one percent by volume and gallons of extraction solvent in shipment received. [§63.2850, Table 1(c)]
  - c) Determine and record the tons of each oilseed type processed by your source as described in §63.2855. [§63.2850, Table 1(d)]
  - d) 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. [§63.2850, Table 1(e)]
  - e) Determine and record the actual solvent 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. [§63.2850, Table 1(f)]
  - f) Submit a Notification of Compliance Status or Annual Compliance Certification as appropriate, as described in §§63.2860(d) and 63.2861(a). [§63.2850, Table 1(g)]
  - g) Submit a Deviation Notification Report by the end of the calendar month following the month in which you determined that the compliance ratio exceeds 1.00 as described in §63.2861(b). [§63.2850, Table 1(h)]
- 3) For periods your source experiences a malfunction, within 15 days of the beginning date of the malfunction, you must choose to comply with one of the options listed in §63.2850(e)(1) through (2): [§63.2850(e)]
  - a) *Normal operation.* Your source must meet all of the requirements for normal operations listed in §63.2850(a). [§63.2850(e)(1)]
  - b) *Malfunction period.* Throughout the malfunction period, you must meet all of the requirements listed in §63.2850(a) and Table 1 for sources during a malfunction period. At the end of the malfunction period, your source must then meet all of the requirements listed in Table 1 for sources under normal operation. Table 1 for sources during a malfunction period follows: [§63.2850(e)(2)]
    - i) Operate and maintain your source in accordance with your SSM plan as described in §63.2852 throughout the entire malfunction period. [§63.2850, Table 1(a)]
    - ii) Determine and record the extraction solvent loss in gallons from your source as described in §63.2862(e). [§63.2850, Table 1(b)]
    - iii) Record the volume fraction of HAP present at greater than 1 percent by volume and gallons of extraction solvent in shipment received. [§63.2850, Table 1(c)]
    - iv) Submit a Periodic SSM Report as described in §63.2861(c). [§63.2850, Table 1(i)]
    - v) Submit an Immediate SSM Report as described in §63.2861(d) if your source does not follow the SSM plan. [§63.2850, Table 1(j)]

**Compliance Demonstration:**

- 1) By the end of each calendar month following an operating month, you 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. If you have determined solvent losses for 12 or more operating months, then you must 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 your compliance ratio as described in §63.2840. [\[§63.2853\]](#)

- a) To determine the actual solvent loss from your source, follow the procedures in your plan for demonstrating compliance to determine the items in §63.2853(a)(1) through (5): [\[§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 this rule, your source determines the solvent loss on an *accounting month*, as defined in §63.2872, rather than a calendar month basis, and you have 12 complete accounting months of approximately equal duration in a calendar year, you may substitute the accounting month time interval for the calendar month time interval. If you chose to use an accounting month rather than a calendar month, you must document this measurement frequency selection in your plan for demonstrating compliance, and you must remain on this schedule unless you request and receive written approval from the Missouri Department of Natural Resources. [\[§63.2853\(a\)\(1\)\]](#)
- ii) *Source operating status.* You must categorize the operating status of your source for each recorded time interval in accordance with criteria in Table 1 of §63.2853, as follows: [\[§63.2853\(a\)\(2\)\]](#)
1. If during a recorded time interval your source processes any amount of listed oilseed and your source is not operating under a malfunction period subject to §63.2850(e)(2), then your source operating status is a normal operating period. [\[§63.2853, Table 1\(i\)\]](#)
  2. If during a recorded time interval your source processes no agricultural product and your source is not operating under a malfunction period subject to §63.2850(e)(2), then your source operating status is a nonoperating period. [\[§63.2853, Table 1\(ii\)\]](#)
  3. If during a recorded time interval you choose to operate your source under an initial startup period subject to §63.2850(c)(2) or (d)(2), then your source operating status is an initial startup period. [\[§63.2853, Table 1\(iii\)\]](#)
  4. If during a recorded time interval you choose to operate your source under a malfunction period subject to §63.2850(e)(2), then your source operating status is a malfunction period. [\[§63.2853, Table 1\(iv\)\]](#)
  5. If during a recorded time interval your source processes agricultural products not defined as listed oilseed, then your source operating status is an exempt period. [\[§63.2853, Table 1\(v\)\]](#)
- iii) *Measuring the beginning and ending solvent inventory.* You are required to 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. You must consistently follow the procedures described in your plan for demonstrating compliance, 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, you must 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 your 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 you must 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, you may adjust the total solvent loss for each normal operating period as long as you provide 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. You 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 you use 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. Identify and describe, in your plan for demonstrating compliance, each type of reasonable and sound measurement method that you use to quantify the gallons of solvent entering and exiting the control device and to determine the destruction efficiency of the control device. You 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 you use 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, you 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\(a\)\(5\)\(1\)\]](#)
  2. Changes in solvent working capacity. In records you keep on-site, document any process modifications resulting in changes to the solvent working capacity in your vegetable oil production process. If the change occurs during a normal operating period, you must determine the difference in working solvent volume and make a one-time documented adjustment to the solvent inventory. [\[§63.2853\(a\)\(5\)\(2\)\]](#)
- b) Use Equation 1 of §63.2853 to determine the actual solvent loss occurring from your affected source for all normal operating periods recorded within a calendar month. Equation 1 follows: [\[§63.2853\(b\)\]](#)

$$\text{Monthly Average Solvent (gal)} = \sum_{i=1}^n (\text{SOLV}_B - \text{SOLV}_E + \text{SOLV}_R \pm \text{SOLV}_A)_i \quad (\text{\S}63.2853, \text{Eq. 1})$$

Where:

SOLV<sub>B</sub> = Gallons of solvent in the inventory at the beginning of normal operating period “i” as determined in §63.2853(a)(3).

SOLV<sub>E</sub> = Gallons of solvent in the inventory at the end of normal operating period “i” as determined in §63.2853(a)(3).

SOLV<sub>R</sub> = Gallons of solvent received between the beginning and ending inventory dates of normal operating period “i” as determined in §63.2853(a)(4).

SOLV<sub>A</sub> = 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. You determine your actual solvent loss by summing the monthly actual solvent losses for the previous 12 operating months. You must 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 spans 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) Initial startup periods as described in §63.2850(c)(2) or (d)(2). [\[§63.2853\(c\)\(2\)\]](#)
  - iii) Malfunction periods as described in §63.2850(e)(2). [\[§63.2853\(c\)\(3\)\]](#)
  - iv) Exempt operation periods as described in §63.2853(a)(2)(v). [\[§63.2853\(c\)\(4\)\]](#)
- 2) *Determine the weighted average volume fraction of HAP in extraction solvent received.* 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 you have 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\(a\)\]](#)
- 3) *Determine the volume fraction of HAP in extraction solvent as a 12 operating months weighted average.* To determine the volume fraction of HAP in the extraction solvent determined as a 12 operating months weighted average, you must 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 Appendix A of Part 63. You 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 1 percent by volume. You are not required to test the materials that you use, but the Administrator 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 follows: [§63.2854(b)(2)]

Monthly Weighted Average HAP Content of Extraction Solvent (volume fraction) =

$$\frac{\sum_{i=1}^n (\text{Received}_i * \text{Content}_i)}{\text{Total Received}} \quad (\text{§63.2854, Eq. 1})$$

Where:

Received<sub>i</sub> = Gallons of extraction solvent received in delivery “i.”

Content<sub>i</sub> = 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 your extraction solvent as a 12 operating months weighted average. When your 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 follows: [§63.2854(b)(3)]

12-Month Weighted Average of HAP Content in Solvent Received (volume fraction) =

$$\frac{\sum_{i=1}^{12} (\text{Received}_i * \text{Content}_i)}{\text{Total Received}} \quad (\text{§63.2854, Eq. 2})$$

Where:

Received<sub>i</sub> = Gallons of extraction solvent received in operating month “i” as determined in accordance with §63.2853(a)(4).

Content<sub>i</sub> = 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.

- 4) All oilseed measurements must be determined on an *as received* basis, as defined in §63.2872. The *as received* basis refers to the oilseed chemical and physical characteristics as initially received by the source and prior to any oilseed handling and processing. By the end of each calendar month following an operating month, you must determine the tons as received 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 you have determined the tons of oilseed processed for 12 or more operating months, then you must 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. [§63.2855]

- a) To determine the tons as received of each type of oilseed processed at your source, follow the procedures in your plan for demonstrating compliance to determine the items in §63.2855(a)(1) through (5): [§63.2855(a)]
- 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. If, prior to the effective date of this rule, your source determines the oilseed inventory on an accounting month rather than a calendar month basis, and you have 12 complete accounting months of approximately equal duration in a calendar year, you may substitute the accounting month time interval for the calendar month time interval. If you choose to use an accounting month rather than a calendar month, you must document this measurement frequency selection in your plan for demonstrating compliance, and you must remain on this schedule unless you request and receive written approval from the Missouri Department of Natural Resources. The dates on each oilseed inventory log must be consistent with the dates recorded for the solvent inventory. [§63.2855(a)(1)]
  - ii) *Source operating status.* You must 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 must be consistent with the operating status recorded on the solvent inventory logs as described in §63.2853(a)(2). [§63.2855(a)(2)]
  - iii) *Measuring the beginning and ending inventory for each oilseed.* You are 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. You must consistently follow the procedures described in your plan for demonstrating compliance, as specified in §63.2851, to determine the oilseed inventory on an as received basis and maintain readily available records of the oilseed inventory as described by §63.2862(c)(3). [§63.2855(a)(3)]
  - iv) *Tons of each oilseed received.* Record the type of oilseed and tons of each shipment of oilseed received and added to your on-site storage. [§63.2855(a)(4)]
  - v) *Oilseed inventory adjustments.* In some situations, determining the quantity of oilseed processed directly from the measured oilseed inventory and quantity of oilseed received is not an accurate estimate of the tons of oilseed processed for use in determining compliance ratios. For example, spoiled and molded oilseed removed from storage but not processed by your source will result in an overestimate of the quantity of oilseed processed. In such cases, you must adjust the oilseed inventory and provide a justification for the adjustment. Situations that may require oilseed inventory adjustments include, but are not limited to, the situations listed in §63.2855(a)(5)(i) through (v): [§63.2855(a)(5)]
    1. Oilseed that mold or otherwise become unsuitable for processing. [§63.2855(a)(5)(i)]
    2. Oilseed you sell before it enters the processing operation. [§63.2855(a)(5)(ii)]
    3. Oilseed destroyed by an event such as a process malfunction, fire, or natural disaster. [§63.2855(a)(5)(iii)]
    4. Oilseed processed through operations prior to solvent extraction such as screening, dehulling, cracking, drying, and conditioning; but that are not routed to the solvent extractor for further processing. [§63.2855(a)(5)(iv)]

5. Periodic physical measurements of inventory. For example, some sources periodically empty oilseed storage silos to physically measure the current oilseed inventory. This periodic measurement procedure typically results in a small inventory correction. The correction factor, usually less than one percent, may be used to make an adjustment to the source's oilseed inventory that was estimated previously with indirect measurement techniques. To make this adjustment, your plan for demonstrating compliance must provide for such an adjustment. [§63.2855(a)(5)(v)]
- b) Use Equation 1 of §63.2855 to determine the quantity of each oilseed type processed at your affected source during normal operating periods recorded within a calendar month. Equation 1 follows: [§63.2855(b)]

Monthly Quantity of Each Oilseed Processed (tons) =

$$\sum_{n=1}^n (SEED_B - SEED_E + SEED_R \pm SEED_A) \quad (\text{§63.2855, Eq. 1})$$

Where:

$SEED_B$  = Tons of oilseed in the inventory at the beginning of normal operating period "i" as determined in accordance with §63.2855(a)(3).

$SEED_E$  = Tons of oilseed in the inventory at the end of normal operating period "i" as determined in accordance with §63.2855(a)(3).

$SEED_R$  = Tons of oilseed received during normal operating period "i" as determined in accordance with §63.2855(a)(4).

$SEED_A$  = Tons of oilseed added or removed from the oilseed inventory during normal operating period "i" as determined in accordance with §63.2855(a)(5).

n = Number of normal operating periods in the calendar month during which this type oilseed was processed.

- 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. You determine the tons of each oilseed processed by summing the monthly quantity of each oilseed processed for the previous 12 operating months. You must 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 operating status periods in §63.2855(c)(1) through (4): [§63.2855(c)]
- i) Nonoperating periods as described in §63.2853 (a)(2)(ii). [§63.2855(c)(1)]
  - ii) Initial startup periods as described in §63.2850(c)(2) or (d)(2). [§63.2855(c)(2)]
  - iii) Malfunction periods as described in §63.2850(e)(2). [§63.2855(c)(3)]
  - iv) Exempt operation periods as described in §63.2853 (a)(2)(v). [§63.2855(c)(4)]
  - v) If any one of these four operating status periods spans an entire calendar month, then the calendar month is treated as a nonoperating month and there is no compliance ratio determination. [§63.2855(c)(5)]

**Recordkeeping:**

- 1) You must satisfy the recordkeeping requirements of §63.2862 by April 12, 2004. [§63.2862(a)]
- 2) A plan for demonstrating compliance (as described in §63.2851) and a SSM plan (as described in §63.2852) shall be kept on-site and readily available as long as the source is operational. In these two plans, the procedures that you will follow in obtaining and recording data, and determining compliance under normal operations or the §63.2850(e)(2) malfunction period shall be recorded. [§63.2862(b)]

- 3) If your source processes any listed oilseed, record the items in §63.2862(c)(1) through (3):
- [\[§63.2862\(c\)\]](#)
- a) For the solvent inventory, record the information in §63.2862(c)(1)(i) through (vii) in accordance with your plan for demonstrating compliance: [\[§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 your source such as normal operation, nonoperating, initial startup period, malfunction period, or exempt operation for each recorded time interval. [\[§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. [\[§63.2862\(c\)\(1\)\(iii\)\]](#)
    - iv) The gallons of all extraction solvent received, purchased, and recovered during each calendar month. [\[§63.2862\(c\)\(1\)\(iv\)\]](#)
    - v) All extraction solvent inventory adjustments, additions or subtractions. You must document the reason for the adjustment and justify the quantity of the adjustment. [\[§63.2862\(c\)\(1\)\(v\)\]](#)
    - vi) The total solvent loss for each calendar month, regardless of the source operating status. [\[§63.2862\(c\)\(1\)\(vi\)\]](#)
    - vii) The actual solvent loss in gallons for each operating month. [\[§63.2862\(c\)\(1\)\(vii\)\]](#)
  - b) For the weighted average volume fraction of HAP in the extraction solvent, you must record the items in §63.2862(c)(2)(i) through (iii): [\[§63.2862\(c\)\(2\)\]](#)
    - i) The gallons of extraction solvent received in each delivery. [\[§63.2862\(c\)\(2\)\(i\)\]](#)
    - ii) The volume fraction of each HAP exceeding one percent by volume in each delivery of extraction solvent. [\[§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). [\[§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 your plan for demonstrating compliance: [\[§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. [\[§63.2862\(c\)\(3\)\(i\)\]](#)
    - ii) The operating status of your source such as normal operation, nonoperating, initial startup period, 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, you must record which type of listed oilseed is being processed in addition to the source operating status. [\[§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. [\[§63.2862\(c\)\(3\)\(iii\)\]](#)
    - iv) The tons of each type of listed oilseed received at the affected source each normal operating period. [\[§63.2862\(c\)\(3\)\(iv\)\]](#)
    - v) All listed oilseed inventory adjustments, additions or subtractions for normal operating periods. You must document the reason for the adjustment and justify the quantity of the adjustment. [\[§63.2862\(c\)\(3\)\(v\)\]](#)
    - vi) The tons of each type of listed oilseed processed during each operating month. [\[§63.2862\(c\)\(3\)\(vi\)\]](#)
- 4) After your source has processed listed oilseed for 12 operating months, and you are 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: [\[§63.2862\(d\)\]](#)



- a) The 12 operating months rolling sum of the actual solvent loss in gallons as described in §63.2853(c). [[§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). [[§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 §63.2855(c). [[§63.2862\(d\)\(3\)](#)]
- d) A determination of the compliance ratio. Using the values from §§63.2853, 63.2854, 63.2855, and Table 1 of §63.2840, 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 Subpart GGGG. This includes a determination of whether you have 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 a 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) Your records must 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), you must keep each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [[§63.2863\(b\)](#)]
- 8) You must 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 §63.10(b)(1). You can keep the records off-site for the remaining three years. [[§63.2863\(c\)](#)]
- 9) All records shall be made available to the Missouri Department of Natural Resources' personnel upon request.

**Reporting:**

- 1) You must submit the reports in §63.2861(a) through (d) to the Missouri Department of Natural Resources at the appropriate time intervals: [[§63.2861](#)]
  - a) *Annual compliance certifications.* The first annual compliance certification is due 12 calendar months after you submit 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, you must include a certification of the items in §63.2861(a)(6)(i) through (ii): [§63.2861(a)(6)]
  - 1. You are following the procedures described in the plan for demonstrating compliance. [§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 you make 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 you determined the deviation. The deviation notification report must 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 you determined the deviation. [§63.2861(b)(3)]
  - iv) The compliance ratio comprising the deviation. You may reduce the frequency of submittal of the deviation notification report if the Missouri Department of Natural Resources does not object as provided in §63.10(e)(3)(iii). [§63.2861(b)(4)]
- c) *Periodic startup, shutdown, and malfunction report.* If you choose to operate your source under a malfunction period subject to §63.2850(e)(2), you must submit a periodic SSM report by the end of the calendar month following each month in which the malfunction period occurred. The periodic SSM report must 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 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 you handle a SSM during a malfunction period subject to §63.2850(e)(2) differently from procedures in the SSM plan, then you must submit an immediate SSM report. Immediate SSM reports consist of a telephone call or facsimile transmission to the responsible agency 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 must 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)**]

**PERMIT CONDITION EU0135-002**

10 CSR 10-6.060 Construction Permits Required

Construction Permit #102010-003, Issued November 5, 2010

**Emission Limitation:**

Volatile Organic Compound (VOC) Best Available Control Technology (BACT) Emission Limitation for the entire installation.

- 1) The solvent loss ratio shall not exceed 0.150 gallons of solvent per ton of oilseed processed, based on a 12-month rolling average. Solvent loss and quantity of oilseed processed shall be determined in accordance with 40 CFR Part 63, Subpart GGGG. ***The limit does not apply to malfunction periods as defined in 40 CFR 63.2850(e), if ADM complies with the requirements of 40 CFR 63.2850(e)(2) and Special Condition 4.A.(3).*** [Special Condition 4.A]
  - a) When accounting for emissions ADM shall equate “actual solvent loss” to VOC emissions and shall calculate “actual solvent loss” in accordance with 40 CFR 63.2853. [Special Condition 4.A.(1)]
  - b) This emission limitation first comes into effect at the end of the fifteenth month of operation and utilizes data from the fourth month of operation through the fifteenth month of operation for the initial compliance demonstration. [Special Condition 4.A.(2)]
- 2) The solvent loss ratio shall not exceed 0.171 gallons of solvent per ton of oilseed processed, based on a 12-month rolling average solvent loss and quantity of oilseed processed shall be determined in accordance with 40 CFR 63, Subpart GGGG. ***This limit applies during all operation including startups, shutdowns and malfunctions after the initial startup period.*** [Special Condition 4.B]
  - a) When accounting for emissions ADM shall equate “actual solvent loss” to VOC emissions and shall calculate “actual solvent loss” in accordance with 40 CFR 63.2853. [Special Condition 4.B.(1)]
  - b) This emission limitation first comes into effect at the end of the twelfth month of operation and utilizes data from the fourth month of operation through the fifteenth month of operation for the initial compliance demonstration. [Special Condition 4.B.(2)]
- 3) ADM shall limit actual solvent loss to less than 42,000 gallons during the first three months of operation (initial start-up period). [Special Condition 4.C]

**Recordkeeping:**

ADM shall maintain an accurate record of solvent loss and oilseed throughput. These recordkeeping requirements apply under all operating scenarios including startup, shutdown and malfunctions. Such records shall be maintained for not less than five years and shall be made available immediately to any Missouri Department of Natural Resources’ personnel upon request. [Special Condition 4.D]

**Reporting:**

- 1) When choosing to operate under a malfunction period, ADM shall submit a notification of the malfunction period to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City MO 65102, within ten days of the malfunction. ADM shall submit a notification of the malfunction containing the following information: [Special Conditions 4.A.(3)(a)(1)-(7)]
  - a) The name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered;
  - b) The equipment causing the excess emissions;
  - c) Time and duration of the period of excess emissions;
  - d) Cause of the excess emissions;
  - e) Estimate of the magnitude of the excess emission in pounds of VOC and the operating data and calculations used in estimating the magnitude;
  - f) Measures taken to mitigate the extent and duration of the excess emissions;
  - g) Measures taken to remedy the situation which caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.
- 2) The malfunction period must be approved by the Compliance/Enforcement Section and based on the following factors: [Special Conditions 4.A.(3)(b)(1)-(6)]
  - a) Whether the excess emissions occurred as a result of safety, technological or operating constraints of the control equipment, process equipment or process;
  - b) Whether repairs were made as expeditiously as practicable when the operator knew or should have known when excess emission were occurring;
  - c) Whether the amount and duration of the excess emissions were limited to the maximum extent practical during periods of this emission;
  - d) Whether all practical steps were taken to limit the impact of the excess emission on the ambient air quality;
  - e) Whether all emission monitoring systems were kept in operation;
  - f) Whether the excess emissions are part of a recurring pattern indicative of inadequate design, operation or maintenance.
- 3) ADM shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which records indicate that the source exceeds the emission limitations. [Special Condition 4.E]

**PERMIT CONDITION EU0135-003**

10 CSR 10-6.060 Construction Permits Required

Construction Permit #102010-003, Issued November 5, 2010

**Emission Limitation:**

BACT Control Equipment Requirements for the extraction and solvent recovery processes:

- 1) ADM shall control emission from the extraction process and the desolventizing-toasting (DT) process using evaporators, condensers and a mineral oil absorption system as specified in the permit application. [Special Conditions 7.A.(1) and (2)]
- 2) The evaporators, condensers and mineral oil absorption system shall be operated and maintained in accordance with the manufacturer's specifications. [Special Condition 7.B]
- 3) ADM shall install and effectively operate a chiller for the mineral oil absorption system. The mineral oil chiller shall be used during the months of April through October. Operation of the mineral oil chiller is optional November through March. [Special Condition 7.F]

- 4) ADM shall route breathing and working losses from the solvent storage tanks to the solvent recovery system. [Special Condition 7.H]

**Monitoring/Recordkeeping:**

- 1) ADM shall maintain an operating and maintenance log for the evaporators, condensers and the mineral oil absorption system which shall include the following: [Special Conditions 7.C.(1) and (2)]
  - a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
  - b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
- 2) ADM shall continuously monitor and record the temperature of the uncondensed vapors at the exit of the cold water condenser. [Special Condition 7.D]
- 3) ADM shall monitor and record the temperature of the uncondensed vapors at the exit of the extractor condenser, the DT condenser and the vent condenser once daily. [Special Condition 7.E]
- 4) ADM shall continuously monitor and record the temperature of the mineral oil that enters the top of the absorption column. [Special Condition 7.G]

**Reporting:**

Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

**PERMIT CONDITION EU0135-004**

March 14, 2003 US EPA Consent Agreement  
VOC Control Technology Plan for ADM's Oilseed Plants

**Emission Limitation:**

- 1) The permittee shall comply with emission limits established under the Consent Decree and shall incorporate all final VOC Solvent Loss Ratio (SLR) limits in its federally enforceable operating permit. [Control Technology Plan, Section 5.0]
- 2) By no later than 90 days following lodging of the Consent Decree, ADM shall begin to account for solvent loss and quantity of oilseeds processed to comply with a 0.18 gal/ton VOC solvent loss ratio ("SLR") limits at the Mexico facility. This first compliance determination will be based on the first 12 operating months of data collected after the date on which ADM begins to account for solvent loss under this paragraph. "Operating month" is defined according to the definition provided in 40 CFR Part 63, Subpart GGGG. [Control Technology Plan, Section 5.1(a)]
- 3) The capacity-weighted average of the final VOC SLR limit shall not exceed 0.175 gal/ton for a conventional soybean plant. The capacity weighted average of the final VOC SLR limits is to be calculated using the following equation: [Control Technology Plan, Section 5.2(b)]

$$\text{Conventional Soybean} = \frac{\sum(\text{Seed}_i * \text{SLR}_i)}{\sum(\text{Seed}_i)} = 0.175 \text{ gal/ton}$$

Where:

Seed<sub>i</sub> = Crush capacity of oilseed plant i; and

SLR<sub>i</sub> = Final SLR Limit for oilseed plant i.

- 4) The capacity-weighted averages under Subsection 5.2(b) shall be based on the design capacity at the plant that has been approved by the EPA and the Missouri Department of Natural Resources under Paragraph 68 of the Consent Decree. For purposes of this Consent Decree, design capacity is the "maximum permitted crush capacity" that a plant is allowed to process in a given time period under

its operating permit; or, if no limit is included in the operating permit, the plant's maximum physical capacity. This number is expressed as "tons of crush per day". [Control Technology Plan, Section 5.2(e)]

- 5) The permittee must also simultaneously comply with any applicable limits found in the state or federal operating permits. [Control Technology Plan, Section 5.2(f)]

**Equipment Specifications:**

- 1) The solvent recovery systems at the Archer Daniels Midland (ADM) Mexico facility shall include at a minimum: [Control Technology Plan, Section 3.0]
  - a) A dedicated "extractor condenser" located between the extractor and the vent condenser. Its function is to reduce the vapor loading to the vent condenser.
  - b) A once-through cold water condenser located between the vent condenser and the mineral oil absorber. The purpose of this condenser is to condense hexane vapors and reduce the vapor loading to the mineral oil absorber.
- 2) The permittee shall conduct a design and engineering review of each affected unit to size the process improvement equipment (i.e., condenser upgrade) as required by the Consent Decree. The criteria listed below will be the basis for sizing the required condenser upgrades. [Control Technology Plan, Section 4.0]
  - a) The extractor condenser shall have a minimum of 0.65 ft<sup>2</sup> per ton crush capacity.
  - b) The once-through cold-water condenser shall have a minimum of 94 ft<sup>2</sup> surface area.
- 3) By no later than April 1, 2006, ADM shall upgrade the Mexico facility so that it has a condenser systems that include at a minimum, a dedicated "extractor condenser" for the extractor and a once-through cold-water condenser following the vent condenser. [Control Technology Plan, Section 6.0]

**Monitoring/Recordkeeping:**

- 1) To demonstrate compliance with the final VOC SLR limits at the facility, the permittee shall: [Control Technology Plan, Section 7.0]
  - a) Maintain the records required by 40 CFR Part 63, Subpart GGGG on solvent loss and quantity of oilseed processed; and
  - b) Maintain the records required by 40 CFR Part 63, Subpart GGGG, for any malfunction period as defined in Section 8.0 of the Consent Decree.
- 2) Records shall be kept in the form of Attachment I that show total solvent losses, solvent losses during malfunction periods, adjusted solvent losses (i.e., total solvent losses minus malfunction losses) monthly and on a twelve-month rolling basis. [Control Technology Plan, Section 8.0]
- 3) Solvent Loss Ratio (SLR) Limits: Compliance with the interim and final VOC SLR limits in this Consent Decree shall be determined in accordance with 40 CFR Part 63, Subpart GGGG, with the following exceptions: (1) provisions pertaining to HAP content shall not apply; (2) monitoring and recordkeeping of solvent losses at each plant shall be conducted daily; (3) solvent losses and quantities of oilseed processed during startup and shutdown periods shall not be excluded in determining solvent losses. [Control Technology Plan, Section 8.0]
- 4) Malfunctions: The permittee may apply the provisions of 40 CFR Part 63, Subpart GGGG pertaining to malfunction periods only when the conditions in both Subparagraph (1) and (2) are met: [Control Technology Plan, Section 8.0]
  - a) The malfunction results in a total plant shutdown. For purposes of the Consent Decree, a "total plant shutdown" means a shutdown of the solvent extraction system.
  - b) Cumulative solvent losses during malfunction periods at the plant do not exceed 4,000 gallons in a 12-month rolling period.

- 5) At all other times, the permittee must include all solvent losses when determining compliance with its interim or final VOC SLR limits at each plant. [[Control Technology Plan, Section 8.0](#)]
- 6) During a malfunction period, ADM shall comply with the startup, shutdown and malfunction (SSM) plan as required under Subpart GGGG for the plant. The solvent loss corresponding to a malfunction period will be calculated as the difference in the total solvent inventories for the day before the malfunction period began and the day the plant resumes normal operation.
- 7) The permittee shall preserve and retain all records and documents that reflect ADM's compliance with the requirements of the March 14, 2003 Consent Decree for a project required under this Consent Decree for a period of five (5) years following the demonstration of compliance for that project, unless other regulations require the records to be maintained longer, or unless otherwise agreed between ADM and the EPA or the Missouri Department of Natural Resources.

**Reporting:**

- 1) Semi-annual Reports. The permittee shall submit semi-annual written reports to EPA and the Missouri Department of Natural Resources. Each report shall be due within thirty days after the end of each semi-annual reporting period (January 1 through June 30, or July 1 through December 31, as applicable, except for the first report where the reporting period is from the date of lodging through December 31). The reports shall contain the following information for the most recent reporting period: [[Paragraph 44, Consent Decree](#)] **(Note: This reporting requirement is in effect for as long as the Consent Decree is in effect and that once the Consent Decree is terminated, the semi-annual report submittal will no longer be required.)**
  - a) The current schedule for compliance with the CTP requirements, including annual CTP schedule updates to be submitted with the semi-annual reports required on January 30 of each year, which shall itemize all such requirements with the applicable deadline or milestone, the tasks that have been completed with date, and the future tasks (including permanent shutdown of any emission units) that have yet to be completed with expected date;
  - b) For each unit for which an emission limit under this Consent Decree is in effect, information to support ADM's compliance status with such limit, including data for emissions or operational parameters, as required to be monitored, during the reporting period. For this purpose, monitored emissions data may be submitted to the EPA and the Missouri Department of Natural Resources in electronic format as provided for by 40 CFR Part 75; and
  - c) Other information specifically required to be included in the semi-annual reports pursuant the CTPs or this Consent Decree.
- 2) Certification. The permittee's semi-annual reports shall contain the following certification and shall be signed by a plant manager, a corporate official responsible for plant management or a corporate official responsible for environmental management and compliance at the plant(s) covered by the report: [[Paragraph 46, Consent Decree](#)]
  - a) "I certify under penalty of law that I have personally examined the information submitted herein and that I have made a diligent inquiry of those individuals immediately responsible for obtaining the information and that to the best of my knowledge and belief, the information submitted herewith is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."
- 3) Each such report and certification shall be reviewed and initialed by a corporate official at the vice presidential level or higher. If the signatory is such an official, the report and certification may be peer-reviewed and initialed.

Emission Unit	Description	Manufacturer/ Model #
EU0150	Meal Grinding: MHDR 100 ton/hr; equipped with high efficiency cyclone (CD-05) and fabric filter (CD-12)	Kice - cyclone Pneumafil - baghouse

**PERMIT CONDITION EU0150-001**

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

**Emission Limitation:**

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any new source any visible emissions with opacity greater than 20 percent.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60 percent.

**Monitoring:**

- 1) The permittee shall conduct opacity readings on this emission unit (EU0150) using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) The following monitoring schedule must 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 must 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 must be made semi-annually. If a violation is noted, monitoring reverts to weekly.
  - d) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency. If the source has already performed the weekly and biweekly monitoring and is doing monitoring in compliance with a previous permit, the weekly and biweekly monitoring do not need to be repeated.

**Recordkeeping:**

- 1) The permittee shall maintain records of all observation results (see Attachment A-1 or A-2), noting:
  - a) Whether any air emissions (except for water vapor) were visible from the emission units,
  - b) All emission units from which visible emissions occurred, and
  - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment B)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment C)



- 4) Attachments A-1, A-2, B and C contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available to the Missouri Department of Natural Resources' personnel upon request.
- 6) 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, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

**PERMIT CONDITION EU0150-002**

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

10 CSR 10-6.060 Construction Permits Required

Construction Permit #102010-003 Issued October 5, 2010

40 CFR Part 64, Compliance Assurance Monitoring (CAM)

**Emission Limitation:**

- 1) Particulate matter shall not be emitted from EU0150 in excess of 51.28 lb/hour.
- 2) This emission rate was calculated using the following equation:
  - a) For process weights rates of greater than 60,000 lb/hr
$$E = 55.0(P)^{0.11} - 40$$
Where:  
E = rate of emission in lb/hr  
P = process weight rate in ton/hr
- 3) The concentration of particulate matter in the exhaust gases shall not exceed 0.30 grains per standard cubic feet of exhaust gases.
- 4) ADM shall control emissions from Emission Unit EU0150 using cyclones and then a baghouse (for the cyclone exhaust streams) as specified in the permit application for Construction Permit 102010-003. [Special Condition 10.A]

**Monitoring/Recordkeeping/Reporting:**

***Note: Monitoring and recordkeeping required by Construction Permit 102010-003 is less stringent than what is required by the conditions of the approved CAM plan submitted by the permittee, therefore only the requirements of the CAM plan are included in this permit condition.***

- 1) The baghouse associated with the Meal Grinding process shall be operated as described in the CAM Plan (Table 1) below.
- 2) The permittee shall respond to excursions as specified in the CAM Plan (Table 1) below.
- 3) The permittee shall maintain records of any malfunctions of the baghouse and/or cyclone. These records shall include the duration of the event, estimated emissions, the probable cause and the corrective action.
- 4) All records shall be maintained for a minimum of five years.

- 5) All records shall be made available immediately for inspection to Missouri Department of Natural Resources' personnel upon request.

**Table 1:**

Archer Daniels Midland (APCP Id. No. 007-0002) CAM Monitoring Approach for Particulate Matter Emissions Controlled by a Baghouse From Emission Point EU0150		
	Indicator #1	Indicator #2
<b>Indicator</b>	Visible Emissions	Pressure Drop
<b>Measurement Approach</b>	Visible emissions from the baghouse exhaust shall be monitored using EPA Reference Method 22-like procedures.	Pressure drop across the baghouse shall be measured with a differential pressure gauge.
<b>Indicator Range</b>	The indicator range is defined as no visible emissions. An excursion is defined as the presence of visible emissions.	The indicator range is defined as a pressure drop between 1 and 8 inches of water column (in H <sub>2</sub> O). An excursion is defined as a pressure drop that is less than 1 in H <sub>2</sub> O and/or greater than 8 in H <sub>2</sub> O.
	An excursion of either indicator constitutes an excursion. If visible emissions are present when the pressure drop is within its specified indicator range, the pressure drop indicator range shall be re-evaluated by Archer Daniels Midland (ADM). Excursions trigger an inspection, corrective action, and need to be reported in the next Semi-annual Monitoring Report. Excursions shall be corrected immediately upon detection; if an excursion results in excess emissions exceeding 1 hour, ADM may elect to file a startup, shutdown, and malfunction assertion under 10 CSR 10-6.050 if appropriate to the situation.	
<b>QIP Threshold</b>	The QIP threshold for any individual emission unit is 9 excursions in a 6-month reporting period. If an emission unit reaches the QIP threshold, ADM shall submit a QIP for that unit along with the Semi-annual Monitoring Report for that reporting period.	
Performance Criteria		
<b>Data Representativeness</b>	Measurements shall be made at the emission point (i.e., baghouse exhaust).	Pressure drop taps are located at the inlet and outlet of each baghouse. The differential pressure gauge has a minimum accuracy of 0.25 in H <sub>2</sub> O.
<b>Verification of Operational Status</b>	NA	Pressure drop taps are checked for plugging daily.
<b>QA/QC Practices and Criteria</b>	The visible emissions observer shall be familiar with EPA Reference Method 22 and follow Method 22-like procedures.	The differential pressure gauge shall be calibrated no less frequently than semi-annually in accordance with the manufacturer's specifications.

<b>Monitoring Frequency</b>	A 6-minute Method 22-like observation shall be performed daily.	Continuously.
<b>Data Collection Procedure</b>	The VE observation is manually recorded (i.e., documented) daily by the observer (use Attachment A-1).	An instantaneous measurement shall be manually recorded daily.
<b>Averaging Period</b>	NA	None
<b>Reporting</b>	Summary information on the number, duration, and cause for any excursions and differential pressure gauge downtime shall be reported semi-annually as part of ADM's Part 70 Semi-annual Monitoring Report.	

**Reporting Requirements:**

- 1) The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determines that any exceedance of the permit conditions has occurred.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual excess emissions and continuous monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III) and Section V of this permit

Emission Unit	Description	Manufacturer/ Model #
EU0160	Meal Storage Silos: The conveying and storage of meal; MHDR 140 tons/hr; equipped with high efficiency cyclone (CD13) and fabric filter (CD14)	Unknown

**PERMIT CONDITION EU0160-001**

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

**Emission Limitation:**

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any new source any visible emissions with an opacity greater than 20 percent.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60 percent.

**Monitoring:**

- 1) The permittee shall conduct opacity readings on this emission unit (EU0160) using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or

believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.

- 2) The following monitoring schedule must 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 must 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 must be made semi-annually. If a violation is noted, monitoring reverts to weekly.
  - d) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency. If the source has already performed the weekly and biweekly monitoring and is doing monitoring in compliance with a previous permit, the weekly and biweekly monitoring do not need to be repeated.

**Recordkeeping:**

- 1) The permittee shall maintain records of all observation results (see Attachment A-1 or A-2), noting:
  - a) Whether any air emissions (except for water vapor) were visible from the emission units,
  - b) All emission units from which visible emissions occurred, and
  - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment B)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment C)
- 4) Attachments A-1, A-2, B and C contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available to the Missouri Department of Natural Resources' personnel upon request.
- 6) 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, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

**PERMIT CONDITION EU0160-002**

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

10 CSR 10-6.060 Construction Permits Required

Construction Permit #102010-003 Issued October 5, 2010

**Emission Limitation:**

- 1) Particulate matter shall not be emitted from EU0160 in excess of 54.70 lb/hour.
- 2) This emission rate was calculated using the following equation:
  - a) For process weights rates of greater than 60,000 lb/hr  
$$E = 55.0(P)^{0.11} - 40$$

Where:

E = rate of emission in lb/hr

P = process weight rate in ton/hr

- 3) The concentration of particulate matter in the exhaust gases shall not exceed 0.30 grains per standard cubic feet of exhaust gases.
- 4) ADM shall control emissions from Emission Unit EU0160 using cyclones and then a baghouse (for cyclone exhaust streams) as specified in the permit application for Construction Permit 102010-003. [Special Condition 10.A]

**Monitoring/Recordkeeping:**

- 1) The baghouse shall be operated and maintained in accordance with the manufacturer's specifications. The baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that Department of Natural Resources' employees may easily observe them. [Special Condition 10.D]
- 2) Replacement filters for the baghouses shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur, i.e. temperature limits, acidic and alkali resistance, and abrasion resistance). [Special Condition 10.E]
- 3) ADM shall monitor and record the operating pressure drop across the baghouses at least once per day. The operating pressure drop shall be maintained in accordance with the manufacturer's specification. [Special Condition 10.F]
- 4) ADM shall inspect all cyclone solids discharge valves at least once per week to ensure proper operation. [Special Condition 10.G]
- 5) ADM shall monitor air flow rate, pressure drop or fan operation at least once per day to ensure proper operation of all cyclone. [Special Condition 10.H]
- 6) ADM shall maintain an operating and maintenance log for the cyclones and the baghouses which shall include the following:
  - a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
  - b) Maintenance activities, with inspection schedule, repair actions, and replacements. [Special Condition 10.I]

**Reporting Requirements:**

- 1) The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determines that any exceedance of the permit conditions has occurred.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual excess emissions and continuous monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III) and Section V of this permit

Emission Unit	Description	Manufacturer/ Model #
EU0170	Meal Truck Loadout: meal is loaded into trucks; MHDR 200 ton/hr; equipped with high efficiency cyclone (CD-13) and fabric filter (CD-14)	Pneumafil
EU0180	Meal Rail Loadout: meal is loaded into railcars; MHDR 200 ton/hr; rail loadout has two sided enclosure and fabric filter (CD-12)	Pneumafil

**PERMIT CONDITION (EU0170 and EU0180)-001**  
 10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

**Emission Limitation:**

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any new source any visible emissions with an opacity greater than 20 percent.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 60 percent.

**Performance Testing:**

- 1) ADM shall conduct initial performance testing for Emission Units EU0170 and EU0180 to develop emission factors in units of pounds of PM<sub>10</sub> per ton of grain processed by the emission units for use in tracking their projected actual emissions. [Special Condition 11.A]
- 2) The tests shall be performed according to 10 CSR 10-6.030 Sampling Methods for Air Pollution Sources, or any method approved by the Air Pollution Control Program. [Special Condition 11.C]

**Monitoring:**

- 1) The permittee shall conduct opacity readings on these emission units (EU0170 and EU0180) using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) The following monitoring schedule must 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 must 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 must be made semi-annually. If a violation is noted, monitoring reverts to weekly.
  - d) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency. If the source has already performed the weekly and biweekly monitoring and is doing monitoring in compliance with a previous permit, the weekly and biweekly monitoring do not need to be repeated.

**Recordkeeping:**

- 1) The permittee shall maintain records of all observation results (see Attachment A-1 or A-2), noting:
  - a) Whether any air emissions (except for water vapor) were visible from the emission units,
  - b) All emission units from which visible emissions occurred, and
  - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment B)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment C)
- 4) Attachments A-1, A-2, B and C contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available to the Missouri Department of Natural Resources' personnel upon request.
- 6) 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, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

**PERMIT CONDITION (EU0170 and EU0180)-002**

10 CSR 10-6.400 Restriction of Emission of Particulate Matter From Industrial Processes  
10 CSR 10-6.060 Construction Permits Required  
Construction Permit #102010-003 Issued October 5, 2010  
40 CFR Part 64, Compliance Assurance Monitoring (CAM)

**Emission Limitation:**

- 1) Particulate matter shall not be emitted from EU0170 and EU0180 in excess of 58.51 lb/hour.  
This emission rate was calculated using the following equation:
  - a) For process weights rates of greater than 60,000 lb/hr  
$$E = 55.0(P)^{0.11} - 40$$

Where:  
E = rate of emission in lb/hr  
P = process weight rate in ton/hr
- 2) The concentration of particulate matter in the exhaust gases shall not exceed 0.30 grains per standard cubic feet of exhaust gases.
- 3) ADM shall control emissions from Emission Unit EU0170 using cyclones and then a baghouse (for the cyclone exhaust streams) and emissions from Emission Unit EU0180 using a baghouse as specified in the permit application for Construction Permit 102010-003.

**Performance Testing:**

- 1) ADM shall conduct initial performance testing for Emission Unit EU0170 and EU0180 to develop emission factors in units of pounds of PM<sub>10</sub> per ton of grain processed by the emission unit for use in tracking their projected actual emissions. [Special Condition 11.A]
- 2) The tests shall be performed according to 10 CSR 10-6.030 Sampling Methods for Air Pollution Sources, or any method approved by the Air Pollution Control Program. [Special Condition 11.C]
- 3) The initial performance tests shall be performed within 60 days of achieving the maximum production rate, but no later than 180 days after initial startup. [Special Condition 11.E]
- 4) The initial performance test date(s) shall be pre-arranged with the Air Pollution Control Program a minimum of 30 days prior to the proposed test date so that a pre-test meeting may be arranged if necessary, and to assure that the test date is acceptable for an observer from the Air Pollution Control Program to be present. A proposed test plan shall be submitted to the Air Pollution Control Program a minimum of 30 days prior to the proposed test date. The test plan must be approved by the Air Pollution Control Program prior to the test date. [Special Condition 11.F]

**Monitoring/Recordkeeping/Reporting:**

***Note: Monitoring and recordkeeping required by Construction Permit 102010-003 is less stringent than what is required by the conditions of the approved CAM plan submitted by the permittee, therefore only the requirements of the CAM plan are included in this permit condition.***

- 1) The baghouses associated with the Meal Truck Loadout and Meal Rail Loadout processes shall be operated as described in the CAM Plan (Table 1) below.
- 2) The permittee shall respond to excursions as specified in the CAM Plan (Table 1) below.
- 3) The permittee shall maintain records of any malfunctions of the baghouse and/or cyclone. These records shall include the duration of the event, estimated emissions, the probable cause and the corrective action.
- 4) All records shall be maintained for a minimum of five years.
- 5) All records shall be made available immediately for inspection to Missouri Department of Natural Resources' personnel upon request.

**Table 1:**

Archer Daniels Midland (APCP Id. No. 007-0002) CAM Monitoring Approach for Particulate Matter Emissions Controlled by a Baghouse From Emission Point EU0170 and Emission Point EU0180		
	Indicator #1	Indicator #2
Indicator	Visible Emissions	Pressure Drop
Measurement Approach	Visible emissions from the baghouse exhaust shall be monitored using EPA Reference Method 22-like procedures.	Pressure drop across the baghouse shall be measured with a differential pressure gauge.



<b>Indicator Range</b>	The indicator range is defined as no visible emissions. An excursion is defined as the presence of visible emissions.	The indicator range is defined as a pressure drop between 1 and 8 inches of water column (in H <sub>2</sub> O). An excursion is defined as a pressure drop that is less than 1 in H <sub>2</sub> O and/or greater than 8 in H <sub>2</sub> O.
	An excursion of either indicator constitutes an excursion. If visible emissions are present when the pressure drop is within its specified indicator range, the pressure drop indicator range shall be re-evaluated by Archer Daniels Midland (ADM). Excursions trigger an inspection, corrective action, and need to be reported in the next Semi-annual Monitoring Report. Excursions shall be corrected immediately upon detection; if an excursion results in excess emissions exceeding 1 hour, ADM may elect to file a startup, shutdown, and malfunction assertion under 10 CSR 10-6.050 if appropriate to the situation.	
<b>QIP Threshold</b>	The QIP threshold for any individual emission unit is 9 excursions in a 6-month reporting period. If an emission unit reaches the QIP threshold, ADM shall submit a QIP for that unit along with the Semi-annual Monitoring Report for that reporting period.	
Performance Criteria		
<b>Data Representativeness</b>	Measurements shall be made at the emission point (i.e., baghouse exhaust).	Pressure drop taps are located at the inlet and outlet of each baghouse. The differential pressure gauge has a minimum accuracy of 0.25 in H <sub>2</sub> O.
<b>Verification of Operational Status</b>	NA	Pressure drop taps are checked for plugging daily.
<b>QA/QC Practices and Criteria</b>	The visible emissions observer shall be familiar with EPA Reference Method 22 and follow Method 22-like procedures.	The differential pressure gauge shall be calibrated no less frequently than semi-annually in accordance with the manufacturer's specifications.
<b>Monitoring Frequency</b>	A 6-minute Method 22-like observation shall be performed daily.	Continuously.
<b>Data Collection Procedure</b>	The VE observation is manually recorded (i.e., documented) daily by the observer (use Attachment A-1).	An instantaneous measurement shall be manually recorded daily.
<b>Averaging Period</b>	NA	None
<b>Reporting</b>	Summary information on the number, duration, and cause for any excursions and differential pressure gauge downtime shall be reported semi-annually as part of ADM's Part 70 Semi-annual Monitoring Report.	

**Reporting Requirements:**

- 1) The permittee shall report to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determines that any exceedance of the permit conditions has occurred.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual excess emissions and continuous monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III) and Section V of this permit

Emission Unit	Description	Manufacturer/Model #
EU0190	Boiler #1: primary fuel - natural gas; secondary fuels - fuel oil #2 and vegetable oil; MHDR 33.476 MMBtu/hr; installed 1980	Cleaver Brooks
EU0200	Boiler #2: primary fuel - natural gas; secondary fuels - fuel oil #2 and vegetable oil; MHDR 33.476 MMBtu/hr; installed 1980	Cleaver Brooks
EU0210	Boiler #3; primary fuel - natural gas; secondary fuels - fuel oil #2, fuel oil #6 and vegetable oil; MHDR 59 MMBtu/hr; installed 1968; modified 1983	Cleaver Brooks

**PERMIT CONDITION (EU0190 and EU0210)-001**  
 10 CSR 10-6.405 Restriction of Particulate Matter Emissions From Fuel Burning Equipment Used for Indirect Heating

**Emission Limitation:**

Particulate matter shall not be emitted from EU0190 through EU0210 in excess of 0.21 lb/MMBtu.

**Monitoring/Recordkeeping/Reporting:**

The permittee is assumed always to be in compliance with this regulation. Calculations demonstrating compliance are in Attachment H. The permittee shall keep this attachment with this permit. No monitoring or reporting is required for this permit condition.

**PERMIT CONDITION (EU0190 through EU0210)-002**  
 10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

**Emission Limitation:**

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any source any visible emissions with opacity greater than 20 percent.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with opacity up to 60 percent.

**Monitoring:**

- 1) The permittee shall conduct opacity readings on these emission units (EU0190 through EU0210) using the procedures contained in U.S. EPA Test Method 22. **Opacity readings are only required when the unit is burning any fuel other than natural gas.** At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of

uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.

- 2) The following monitoring schedule must 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 must 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 must be made semi-annually. If a violation is noted, monitoring reverts to weekly.
  - d) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency. If the source has already performed the weekly and biweekly monitoring and is doing monitoring in compliance with a previous permit, the weekly and biweekly monitoring do not need to be repeated.

**Recordkeeping:**

- 1) The permittee shall maintain records of all observation results (see Attachment A-1 or A-2), noting:
  - a) Whether any air emissions (except for water vapor) were visible from the emission units,
  - b) All emission units from which visible emissions occurred, and
  - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment B)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment C)
- 4) Attachments A-1, A-2, B and C contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available to the Missouri Department of Natural Resources' personnel upon request.
- 6) 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, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

**PERMIT CONDITION (EU0190 through EU0200)-003**

10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds

**Emission Limitation:**

- 1) No person shall cause or permit emissions of sulfur dioxide into the atmosphere from any indirect heating source in excess of eight pounds of sulfur dioxide per million British thermal Units (Btus) actual heat input averaged on any consecutive three-hour time period.

- 2) No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010 Ambient Air Quality Standards.

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO <sub>2</sub> )	0.03 parts per million (ppm) (80 micrograms per cubic meter (μg/m <sup>3</sup> ))	Annual arithmetic mean
	0.14 ppm (365 μg/m <sup>3</sup> )	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 μg/m <sup>3</sup> )	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H <sub>2</sub> S)	0.05 ppm (70 μg/m <sup>3</sup> )	½-hour average not to be exceeded over 2 times per year
	0.03 ppm (42 μg/m <sup>3</sup> )	½-hour average not to be exceeded over 2 times in any 5 consecutive days
Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	10 μg/m <sup>3</sup>	24-hour average not to be exceeded more than once in any 90 consecutive days
	30 μg/m <sup>3</sup>	1-hour average not to be exceeded more than once in any 2 consecutive days

**Operational Limitation/Equipment Specifications:**

Emission Units EU0190 and EU0200 shall be limited to burning pipeline grade natural gas, fuel oil #2 and vegetable oil.

**Monitoring/Recordkeeping:**

- 1) The permittee shall maintain an accurate record of the sulfur content of fuel used **for all fuels other than natural gas**. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
- 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:**

Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

**PERMIT CONDITION EU0210-003**  
 10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds  
 10 CSR 10-6.060 Construction Permits Required  
 Construction Permit #0284-007 Issued February 17, 1984

**Emission Limitation:**

- 1) When combusting fuel oil #6, the sulfur dioxide emission rate shall not exceed 1.063 pounds of sulfur dioxide per million British thermal Units heat input (1.063 lb/MMBtu). [Special Condition B.1]
- 2) When combusting natural gas, fuel oil #2, or vegetable oil, the permittee shall not cause or permit emissions of sulfur dioxide into the atmosphere in excess of eight pounds of sulfur dioxide per million Btus actual heat input averaged on any consecutive three-hour time period.
- 3) No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010 Ambient Air Quality Standards.

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO <sub>2</sub> )	0.03 parts per million (ppm) (80 micrograms per cubic meter (µg/m <sup>3</sup> ))	Annual arithmetic mean
	0.14 ppm (365 µg/m <sup>3</sup> )	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 µg/m <sup>3</sup> )	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H <sub>2</sub> S)	0.05 ppm (70 µg/m <sup>3</sup> )	½-hour average not to be exceeded over 2 times per year
	0.03 ppm (42 µg/m <sup>3</sup> )	½-hour average not to be exceeded over 2 times in any 5 consecutive days
Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	10 µg/m <sup>3</sup>	24-hour average not to be exceeded more than once in any 90 consecutive days
	30 µg/m <sup>3</sup>	1-hour average not to be exceeded more than once in any 2 consecutive days

**Operational Limitation/Equipment Specifications:**

- 1) Emission Unit EU0210 shall be limited to burning pipeline grade natural gas, fuel oil #2, fuel oil #6, and vegetable oil.
- 2) When combusting fuel oil #6, in no event shall a fuel with a sulfur content greater than one percent by weight be utilized. [Special Condition B.1]

**Monitoring/Recordkeeping:**

- 1) The permittee shall maintain an accurate record of the sulfur content of fuel used. The installation shall maintain records of the amount of fuel burned (natural gas, fuel oil or vegetable oil) and verify the sulfur content. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
- 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) When combusting fuel oil #6, a quarterly report shall be submitted, within 60 days after the end of each quarter, detailing the amount of oil fired during that quarter, the average higher heating value of the oil, and the average heat content of the oil. [Special Condition B.1]

- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

Emission Unit	Description	Manufacturer/Model #
EU0220	Boiler #4; 85.6 MMBtu/hr Natural gas/fuel oil	

**PERMIT CONDITION EU0220-001**  
10 CSR 10-6.060 Construction Permits Required  
Construction Permit #102010-003 Issued October 5, 2010

**Emission Limitation:**

- 1) ADM shall emit less than 6.68 tons of PM<sub>10</sub> (filterable and condensable) in any consecutive 12-month period from Boiler #4. [Special Condition 2.A]
- 2) ADM shall emit less than 40.0 tons of NO<sub>x</sub> in any consecutive 12-month period from Boiler #4. [Special Condition 3.A]
- 3) When burning natural gas, VOC emissions from Boiler #4 shall be limited to 0.0055 lbs/MMBtu, test method average. [Special Condition 5.A(1)]
- 4) When burning other fuels, VOC emissions shall be limited to 0.001 lbs/MMBtu, test method average. [Special Condition 5.A(2)]

**Testing Requirements:**

- 1) ADM shall conduct initial performance testing for Emission Unit E0220 to demonstrate compliance with the PM<sub>10</sub> limit. [Special Condition 11.B]
- 2) The tests shall be performed according to 10 CSR 10-6.030 Sampling Methods for Air Pollution Sources, or any method approved by the Air Pollution Control Program. [Special Condition 11.C]
- 3) ADM shall conduct testing sufficient to demonstrate compliance with any and all applicable new source performance standard(s). [Special Condition 11.D]
- 4) ADM shall demonstrate compliance with the VOC limits by testing in accordance with the requirements below. [Special Condition 5.B]
- 5) The initial performance tests shall be performed within 60 days of achieving the maximum production rate, but no later than 180 days after initial startup. [Special Condition 11.E]
- 6) The initial performance test date(s) shall be pre-arranged with the Air Pollution Control Program a minimum of 30 days prior to the proposed test date so that a pre-test meeting may be arranged if necessary, and to assure that the test date is acceptable for an observer from the Air Pollution Control Program to be present. A proposed test plan shall be submitted to the Air Pollution Control Program a minimum of 30 days prior to the proposed test date. The test plan must be approved by the Air Pollution Control Program prior to the test date. [Special Condition 11.F]

**Monitoring/Recordkeeping:**

- 1) ADM shall maintain an accurate record of PM<sub>10</sub> and NO<sub>x</sub> emitted into the atmosphere from Boiler #4. The records shall include at a minimum the following information: [Special Condition 2.B(1) and 3.B(1)]
  - a) The type and volume of fuel combusted monthly;
  - b) The emission factor and its units used to calculate PM<sub>10</sub> and NO<sub>x</sub> emissions;
  - c) The monthly PM<sub>10</sub> and NO<sub>x</sub> emissions from the boiler in tons;

- d) The 12-month rolling total PM<sub>10</sub> and NO<sub>x</sub> emissions in tons.
- 2) ADM shall maintain all records for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. [Special Condition 2.B(2) and 3.B(2)]

**Reporting:**

ADM shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which the records indicate that the source exceeded the PM<sub>10</sub> and/or NO<sub>x</sub> limitation. [Special Condition 2.C and 3.C]

**PERMIT CONDITION EU0220-002**

10 CSR 10-6.405 Restriction of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating

**Emission Limitation:**

Particulate matter shall not be emitted from EU0220 in excess of 0.21 lb/MMBtu.

**Monitoring/Recordkeeping/Reporting:**

The permittee is assumed always to be in compliance with this regulation. Calculations demonstrating compliance are in Attachment H. The permittee shall keep this attachment with this permit. No monitoring or reporting is required for this permit condition.

**PERMIT CONDITION EU0220-003**

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

**Emission Limitation:**

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any source any visible emissions with opacity greater than 20 percent.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with opacity up to 60 percent.

**Monitoring:**

- 1) The permittee shall conduct opacity readings on this emission unit (EU0220) using the procedures contained in U.S. EPA Test Method 22. **Opacity readings are only required when the unit is burning any fuel other than natural gas.** At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) The following monitoring schedule must 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 must 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 must be made semi-annually. If a violation is noted, monitoring reverts to weekly.
- d) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency. If the source has already performed the weekly and biweekly monitoring and is doing monitoring in compliance with a previous permit, the weekly and biweekly monitoring do not need to be repeated.

**Recordkeeping:**

- 1) The permittee shall maintain records of all observation results (see Attachment A-1 or A-2), noting:
  - a) Whether any air emissions (except for water vapor) were visible from the emission units,
  - b) All emission units from which visible emissions occurred, and
  - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment B)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment C)
- 4) Attachments A-1, A-2, B and C contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available to the Missouri Department of Natural Resources' personnel upon request.
- 6) 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, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

**PERMIT CONDITION EU0220-004**

10 CSR 10-6.070 New Source Performance Regulations

40 CFR Part 60 Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

**Emission Limitations:**

On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of 215 ng/J (0.50 lb/MMbtu heat input); or as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur [§60.42c(d)]



**Performance Testing:**

For affected facilities where the owner or operator seeks to demonstrate compliance with the SO<sub>2</sub> standards based on fuel supplier certification, the performance test shall consist of the certification from the fuel supplier as described in §60.48c(f) [§60.44c(g)].

**Monitoring:**

- 1) For distillate oil-fired affected facilities with heat input capacities between ten and 100 MMBtu/hr, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier [§60.42c(h)]
- 2) The SO<sub>2</sub> emission limits, fuel oil sulfur limits and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction [§60.42c(i)]

**Reporting and Recordkeeping:**

- 1) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction and actual startup, as provided by §60.7 of this part. This notification shall include:
  - a) The design heat input capacity of the affected facility and identification of fuels to be combusted;
  - b) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §60.42c or §60.43c;
  - c) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired [§60.48c(a)(1)-(3)]
- 2) The owner or operator of each affected facility subject to the SO<sub>2</sub> emission limits of §60.42c shall submit to the Administrator the performance test data from the initial and any subsequent performance tests [§60.48c(b)]
- 3) The owner or operator of each affected facility subject to the SO<sub>2</sub> emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall keep records and submit reports to the Administrator, including the following information:
  - a) Calendar dates covered in the reporting period [§60.48c(d) and (e)(1)]
  - b) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification: [§60.48c(e)(11)]
  - c) For distillate oil:
    - i) The name of the oil supplier;
    - ii) A statement from the oil supplier that the oil complies with the specification under the definition of distillate oil in §60.41c; and
    - iii) The sulfur content or maximum sulfur content of the oil; and [§60.48c(f)(1)]
  - d) For other fuels:
    - i) The name of the supplier of the fuel;
    - ii) The potential sulfur emissions rate or maximum potential sulfur emissions rate of the fuel in ng/J heat input; and
    - iii) The method used to determine the potential sulfur emissions rate of the fuel [§60.48c(f)(4)].
- 4) The owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day; or [§60.48c(g)(1)]
- 5) As an alternative, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification to demonstrate compliance with the SO<sub>2</sub> standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted each calendar month; or [§60.48c(g)(2)]
- 6) As another alternative, the owner or operator of an affected facility where the only fuels combusted in any steam generating unit, including steam generating units not subject to this subpart) at the

property are natural gas, wood, distillate oil meeting the most current requirements in §60.42c to use fuel certification to demonstrate compliance with the SO<sub>2</sub> standard, and/or fuels excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month[§60.48c(g)(3)].

- 7) All records shall be maintained by the owner or operator of the affected facility for a period of two years [§60.48c(i)].
- 8) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30<sup>th</sup> day following the end of the reporting period [§60.48c(j)].

<b>EU0225 – Bean Heating</b>			
Emission Unit	Description	Manufacturer/Model #	2004 EIQ Reference #
EU0225	Bean Heater; MHDR = 200 tph; control device efficiency = 80%	NA	NA

**PERMIT CONDITION EU0225-001**  
 10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

**Emission Limitation:**

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any source any visible emissions with an opacity greater than 20 percent.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with opacity up to 60 percent.

**Monitoring:**

- 1) The permittee shall conduct opacity readings on these emission units (EU0240) using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) The following monitoring schedule must 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 must 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 must be made semi-annually. If a violation is noted, monitoring reverts to weekly.
  - d) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency. If the source has already performed the

weekly and biweekly monitoring and is doing monitoring in compliance with a previous permit, the weekly and biweekly monitoring do not need to be repeated.

**Recordkeeping:**

- 1) The permittee shall maintain records of all observation results (see Attachment A-1 or A-2), noting:
  - a) Whether any air emissions (except for water vapor) were visible from the emission units,
  - b) All emission units from which visible emissions occurred, and
  - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment B)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment C)
- 4) Attachments A-1, A-2, B and C contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available to the Missouri Department of Natural Resources' personnel upon request.
- 6) 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, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

**PERMIT CONDITION EU0225-002**

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

10 CSR 10-6.060 Construction Permits Required

Construction Permit #102010-003 Issued October 5, 2010

**Operational Limitation:**

ADM shall control emissions from Emission Unit EU0225 using a cyclone as specified in the permit application for Construction Permit 102010-002. [Special Condition 10.B]

**Emission Limitation:**

- 1) Particulate matter shall not be emitted from EU0225 in excess of 58.51 lb/hour.
- 2) This emission rate was calculated using the following equation:
  - a) For process weights rates of greater than 60,000 lb/hr
$$E = 55.0(P)^{0.11} - 40$$
Where:  
E = rate of emission in lb/hr  
P = process weight rate in ton/hr
  - 3) The concentration of particulate matter in the exhaust gases shall not exceed 0.30 grains per standard cubic feet of exhaust gases.

**Performance Testing:**

- 1) ADM shall conduct initial performance testing for Emission Unit EU0225 to develop emission factors in units of pounds of PM<sub>10</sub> per ton of grain processed by the emission units for use in tracking their projected actual emissions. [Special Condition 11.A]
- 2) The tests shall be performed according to 10 CSR 10-6.030 Sampling Methods for Air Pollution Sources, or any method approved by the Air Pollution Control Program. [Special Condition 11.C]
- 3) The initial performance tests shall be performed within 60 days of achieving the maximum production rate, but no later than 180 days after initial startup. [Special Condition 11.E]
- 4) The initial performance test date(s) shall be pre-arranged with the Air Pollution Control Program a minimum of 30 days prior to the proposed test date so that a pre-test meeting may be arranged if necessary, and to assure that the test date is acceptable for an observer from the Air Pollution Control Program to be present. A proposed test plan shall be submitted to the Air Pollution Control Program a minimum of 30 days prior to the proposed test date. The test plan must be approved by the Air Pollution Control Program prior to the test date. [Special Condition 11.F]

**Monitoring/Recordkeeping:**

- 1) ADM shall inspect all cyclone solids discharge valves at least once per week to ensure proper operation. [Special Condition 10.G]
- 2) ADM shall monitor air flow rate, pressure drop or fan operation at least once per day to ensure proper operation of all cyclones. [Special Condition 10.H]
- 3) ADM shall maintain an operating and maintenance log for the cyclone which shall include the following:
  - a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
  - b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc. [Special Condition 10.I-1 & 2]
- 4) The permittee shall use Attachment B or an equivalent recordkeeping log to record the information required by Condition 2 above.

**Reporting:**

Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual excess emissions and continuous monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III) and Section V of this permit.

<b>EU0230 and EU0235 – FIRE PUMP ENGINES</b>			
Emission Unit	Description	Manufacturer/Model #	2004 EIQ Reference #
EEU0230	Fire Pump Engine for Biodiesel Plant: reciprocating combustion engine; MHDR 235 HP; manufactured 1990	NA	NA
EU0235	Emergency Fire Pump Engine for Crush Plant; 422 hp; installed 2009		

<p><b>PERMIT CONDITION (EU0230 and EU0235)-001</b>                  10 CSR 10- 6.260 Restriction of Emission of Sulfur Compounds</p>
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**Emission Limitations:**

- 1) Emissions from EU0230 and EU0235 shall not contain more than five hundred parts per million by volume (500 ppmv) of sulfur dioxide.
- 2) Stack gasses shall not contain more than thirty-five milligrams (35 mg) per cubic meter of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three hour time period.
- 3) No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010 Ambient Air Quality Standards.

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO <sub>2</sub> )	0.03 parts per million (ppm) (80 micrograms per cubic meter (µg/m <sup>3</sup> ))	Annual arithmetic mean
	0.14 ppm (365 µg/ m <sup>3</sup> )	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 µg/ m <sup>3</sup> )	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H <sub>2</sub> S)	0.05 ppm (70 µg/ m <sup>3</sup> )	½-hour average not to be exceeded over 2 times per year
	0.03 ppm (42 µg/ m <sup>3</sup> )	½-hour average not to be exceeded over 2 times in any 5 consecutive days
Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )	10 µg/ m <sup>3</sup>	24-hour average not to be exceeded more than once in any 90 consecutive days
	30 µg/ m <sup>3</sup>	1-hour average not to be exceeded more than once in any 2 consecutive days

**Monitoring/Recordkeeping/Reporting:**

The permittee will always be in compliance with this regulation. Calculations demonstrating compliance are in Attachment J. The permittee shall keep this attachment with this permit. No monitoring or reporting is required for this permit condition.

<p><b>PERMIT CONDITION (EU0230 and EU0235)-002</b>          10 CSR 10-6.075 Maximum Achievable Control Technology Regulations          40 CFR Part 63, Subpart ZZZZ – National Emission Standard for Hazardous Air Pollutants for          Stationary Reciprocating Internal Combustion Engines</p>
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**Emission / Operational Limitations:**

- 1) The permittee must meet the following operating/inspection requirements (except during periods of engine startup): [[§63.6602](#)]
  - a) Change the engine oil and oil filter every 500 hours of operation or annually, whichever comes first;
    - i) Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement of this subpart.
  - b) Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first;

- c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- d) Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply
  - i) If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

**TABLE 2c TO SUBPART ZZZZ OF PART 63—REQUIREMENTS FOR EXISTING COMPRESSION IGNITION STATIONARY RICE LOCATED AT A MAJOR SOURCE OF HAP EMISSIONS AND EXISTING SPARK IGNITION STATIONARY RICE ≤ 500 HP LOCATED AT A MAJOR SOURCE OF HAP EMISSIONS**

For each . . .	You must meet the following requirement, except during periods of startup. . .	During periods of startup you must . . .
1. Emergency stationary CI RICE and black start stationary CI RICE. <sup>1</sup>	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; <sup>2</sup> b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. <sup>3</sup>	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. <sup>3</sup>
2. Non-Emergency, non-black start stationary CI RICE < 100 HP.	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first; <sup>2</sup> b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. <sup>3</sup>	
3. Non-Emergency, non-black	Limit concentration of CO in the	

<p>start CI stationary RICE 100 ≤HP≤ 300 HP.</p>	<p>stationary RICE exhaust to 230 ppmvd or less at 15 percent O<sub>2</sub>.</p>	
<p>4. Non-Emergency, non-black start CI stationary RICE 300 &lt;HP≤ 500.</p>	<p>a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O<sub>2</sub>; or          b. Reduce CO emissions by 70 percent or more.</p>	
<p>5. Non-Emergency, non-black start stationary CI RICE &gt;500 HP.</p>	<p>a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd or less at 15 percent O<sub>2</sub>; or          b. Reduce CO emissions by 70 percent or more.</p>	
<p>6. Emergency stationary SI RICE and black start stationary SI RICE.<sup>1</sup></p>	<p>a. Change oil and filter every 500 hours of operation or annually, whichever comes first;<sup>2</sup>          b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first;          c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.<sup>3</sup></p>	
<p>7. Non-Emergency, non-black start stationary SI RICE &lt; 100 HP that are not 2SLB stationary RICE.</p>	<p>a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;<sup>2</sup>          b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first;          c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.<sup>3</sup></p>	
<p>8. Non-Emergency, non-black start 2SLB stationary SI RICE &lt; 100 HP.</p>	<p>a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first;<sup>2</sup>          b. Inspect spark plugs every 4,320 hours of operation or</p>	

	<p>annually, whichever comes first;</p> <p>c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.<sup>3</sup></p>	
<p>9. Non-emergency, non-black start 2SLB stationary RICE  <math>100 \leq HP \leq 500</math>.</p>	<p>Limit concentration of CO in the stationary RICE exhaust to 225 ppmvd or less at 15 percent O<sub>2</sub>.</p>	
<p>10. Non-emergency, non-black start 4SLB stationary RICE  <math>100 \leq HP \leq 500</math>.</p>	<p>Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd or less at 15 percent O<sub>2</sub>.</p>	
<p>11. Non-emergency, non-black start 4SRB stationary RICE  <math>100 \leq HP \leq 500</math>.</p>	<p>Limit concentration of formaldehyde in the stationary RICE exhaust to 10.3 ppmvd or less at 15 percent O<sub>2</sub>.</p>	
<p>12. Non-emergency, non-black start landfill or digester gas-fired stationary RICE  <math>100 \leq HP \leq 500</math>.</p>	<p>Limit concentration of CO in the stationary RICE exhaust to 177 ppmvd or less at 15 percent O<sub>2</sub>.</p>	

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

2 Sources have the option to utilize an oil analysis program as described in § 63.6625(i) in order to extend the specified oil change requirement in Table 2c of this subpart.

3 Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

- ii) Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.
- 2) The permittee must operate according to the following requirements: [[§63.6640\(f\)\(1\)](#), [§63.6640\(f\)\(1\)\(i\) through \(iii\)](#)]
  - a) There is no time limit on the use of emergency stationary RICE in emergency situations.
  - b) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.
  - c) You may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for



maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this condition, as long as the power provided by the financial arrangement is limited to emergency power.

- d) Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year is prohibited. If you do not operate the engine according to the previous requirements, the engine will not be considered an emergency engine under 40 CFR 63 Subpart ZZZZ and will need to meet all requirements for non-emergency engines.

**Recordkeeping:**

- 1) The permittee must keep the following records for this engine: [\[§63.6655\(a\)\]](#)
  - a) Records of the occurrence and duration of each malfunction of process equipment or any air pollution control and monitoring equipment and actions taken during periods of malfunction to minimize emissions including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [\[§63.6655\(a\)\(2\) and §63.6655\(a\)\(5\)\]](#)
  - b) Records of all required maintenance performed on the air pollution control and monitoring equipment. [\[§63.6655\(a\)\(4\)\]](#)
  - c) Records that the engine was operated and maintained according to the manufacturer's emission-related operation and maintenance instructions or that a maintenance plan has been developed to provide for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [\[§63.6655\(e\)\]](#)
  - d) Records of the hours of operation for the engine as measured by the non-resettable hour meter. The installation shall also maintain a recordkeeping form indicating out of the total hours measured by the meter: [\[§63.6655\(f\)\]](#)
    - i) How many hours were spent in emergency use and a brief description of the emergency situation.
    - ii) How many hours were spent in non-emergency operation.
  - e) These records must be made available for inspection upon request by Missouri Department of Natural Resources' personnel. [\[§63.6660\(a\)\]](#)
  - f) All records shall be maintained for five (5) years. [\[§63.6660\(b\)\]](#)
  - g) Records shall be kept readily accessible in hard copy or electronic form. [\[§63.6660\(c\)\]](#)

**Reporting:**

- 1) The permittee shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after any exceedance of any of the terms imposed by this regulation, or any malfunction which could possibly cause an exceedance of this regulation.
- 2) The permittee shall report any deviations from the operational limitations, recordkeeping and reporting requirements of this permit condition in the semi-annual monitoring report and compliance certification required by Section V of this permit. These reports shall also include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions, including actions taken to correct a malfunction. If there are no deviations from any operating limitations that apply, a statement that there were no deviations from the operating limitations during the reporting period must be included.

**PERMIT CONDITION EU0235-003**

10 CSR 10-6.070 New Source Performance Regulations

40 CFR Part 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)

**Emission Limitations:**

Owners and operator of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards as shown in Table 4 to Subpart IIII of 40 CFR 60 – Emission Standards for Stationary Fire Pump Engines. Table 4 emission limitations for maximum engine power of  $300 \leq \text{HP} < 600$ , installed in 2009 or later: [§60.4205(c)]

- 1) NMHC + NO<sub>x</sub>: 4.0 g/kW-hr (3.0 g/HP-hr)
- 2) PM: 0.20 g/kW-hr (0.15 g/HP-hr)

**Operational Limitations:**

Owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must purchase diesel fuel that meets the requirements of 40 CFR 80.510(b) for non-road diesel fuel. [§60.4207(b)]

**Monitoring Requirements:**

- 1) The owner or operator shall maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions, change only those emission-related settings that are permitted by the manufacturer, and meet the requirements of 40 CFR Parts 89, 94 and/or 1068, as they apply to you. [§60.4211(a)(1)-(3)]
- 2) Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance

and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, is prohibited. [§60.4211(f)]

- 3) If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within one year of startup, or within one year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within one year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or three years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards [§60.4211(g)(2)].

<b>EU0240 -Biodiesel Boiler</b>		
Emission Unit	Description	Manufacturer/Model #
EU0240	Biodiesel Boiler; 16.33 MMBtu/hr Natural Gas fired, Secondary Fuels: #2 Fuel Oil, Biodiesel and Vegetable Oil; installed 12/1/2006	Cleaver-Brooks

**PERMIT CONDITION EU0240-001**  
 10 CSR 10-6.070 New Source Performance Regulations  
 40 CFR Part 60 Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

**Emission Limitations:**

On and after the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, no owner or operator of affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of 215 ng/J (0.50 lb/MMbtu heat input); or as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur [§60.42c(d)]

**Performance Testing:**

For affected facilities where the owner or operator seeks to demonstrate compliance with the SO<sub>2</sub> standards based on fuel supplier certification, the performance test shall consist of the certification from the fuel supplier as described in §60.48c(f) [§60.44c(g)].

**Monitoring:**

For distillate oil-fired affected facilities with heat input capacities between ten and 100 MMBtu/hr, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier [§60.42c(h)]

The SO<sub>2</sub> emission limits, fuel oil sulfur limits and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction [§60.42c(i)]

**Reporting and Recordkeeping:**

- 1) The owner or operator of each affected facility subject to the SO<sub>2</sub> emission limits of §60.42c shall submit to the Administrator the performance test data from the initial and any subsequent performance tests [§60.48c(b)]
- 2) The owner or operator of each affected facility subject to the SO<sub>2</sub> emission limits, fuel oil sulfur limits, or percent reduction requirements under §60.42c shall keep records and submit reports to the Administrator, including the following information:
  - a) Calendar dates covered in the reporting period [§60.48c(d) and (e)(1)]
  - b) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification: [§60.48c(e)(11)]
  - c) For distillate oil:
    - i) The name of the oil supplier;
    - ii) A statement from the oil supplier that the oil complies with the specification under the definition of distillate oil in §60.41c; and
    - iii) The sulfur content or maximum sulfur content of the oil; and[§60.48c(f)(1)]
  - d) For other fuels:
    - i) The name of the supplier of the fuel;
    - ii) The potential sulfur emissions rate or maximum potential sulfur emissions rate of the fuel in ng/J heat input; and
    - iii) The method used to determine the potential sulfur emissions rate of the fuel [§60.48c(f)(4)].
- 3) The owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day; or [§60.48c(g)(1)]
- 4) As an alternative, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification to demonstrate compliance with the SO<sub>2</sub> standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted each calendar month; or [§60.48c(g)(2)]
- 5) As another alternative, the owner or operator of an affected facility where the only fuels combusted in any steam generating unit, including steam generating units not subject to this subpart) at the property are natural gas, wood, distillate oil meeting the most current requirements in §60.42c to use fuel certification to demonstrate compliance with the SO<sub>2</sub> standard, and/or fuels excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month[§60.48c(g)(3)].
- 6) All records shall be maintained by the owner or operator of the affected facility for a period of two years [§60.48c(i)].
- 7) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30<sup>th</sup> day following the end of the reporting period [§60.48c(j)].

**PERMIT CONDITION EU0240-002**

10 CSR 10-6.060 Construction Permits Required  
Construction Permit #102006-015, Issued October 30, 2006

**Emission Limitation:**

**Fuel Oil Sulfur Content Restriction:**

The sulfur content of the fuel to be used in the Boiler shall not exceed 0.05 percent by weight. Mid-America Biofuels, LLC shall obtain the sulfur content of the fuel oil for each fuel oil delivery from the fuel vendors or conduct their own fuel analysis to evaluate the typical sulfur content weight percent of the fuel oil. The fuel consumption records and statement shall be kept on-site for five (5) years and shall be made immediately available to the Missouri Department of Natural Resources' personnel upon request. [Special Condition No. 7]

**Performance Testing:**

- 1) ADM shall conduct performance tests to verify that the emission rates from the Boiler while combusting vegetable oil and biodiesel do not exceed those stated in the application as listed below: [Special Condition 3A]

Pollutant	Emission Rate (pound per MMBTU)
PM <sub>10</sub>	0.05
NO <sub>x</sub>	0.1776
CO	0.0064

- 2) These tests shall be performed within sixty (60) days after achieving the maximum production rate of the installation, but not later than 180 days after initial start-up of operating and shall be conducted in accordance with the Stack Test Procedures outlined below. [Special Condition 3C]
- 3) A completed Proposed Test Plan Form must be submitted to the Air Pollution Control Program thirty (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. [Special Condition 4A]
- 4) Two (2) copies of a written report of the performance test results shall be submitted to the Director within thirty (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 (1) sample run. [Special Condition 4B]
- 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. [Special Condition 4C]
- 6) If the performance testing required indicates that any of the emission rates specified in the application are being exceeded, ADM must propose a plan to the Air Pollution Control Program within thirty (30) days of submitting the performance test results. This plan must demonstrate how total emissions from the ADM Biodiesel plant will remain below the minimum levels as outlined in the table above. Alternatively, ADM may undergo a Section (8) review of this project (related to CP 102006-015). ADM shall implement any such plan immediately upon its approval by the Director. [Special Condition 4D]

**PERMIT CONDITION EU0240-003**

10 CSR 10-6.405 Restriction of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating

**Emission Limitation:**

Particulate matter shall not be emitted from EU0240 in excess of 0.21 lb/MMBtu.

**Monitoring/Recordkeeping/Reporting:**

The permittee is assumed always to be in compliance with this regulation. Calculations demonstrating compliance are in Attachment H. The permittee shall keep this attachment with this permit. No monitoring or reporting is required for this permit condition.

**PERMIT CONDITION EU0240-004**

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

**Emission Limitation:**

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any source any visible emissions with opacity greater than 20 percent.
- 2) Exception: A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with opacity up to 60 percent.

**Monitoring:**

- 1) The permittee shall conduct opacity readings on this emission unit (EU0240) using the procedures contained in U.S. EPA Test Method 22. **Opacity reading are only required when a fuel other than natural gas is being burned.** At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.
- 2) The following monitoring schedule must 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 must 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 must be made semi-annually. If a violation is noted, monitoring reverts to weekly.
  - d) If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency. If the source has already performed the weekly and biweekly monitoring and is doing monitoring in compliance with a previous permit, the weekly and biweekly monitoring do not need to be repeated.

**Recordkeeping:**

- 1) The permittee shall maintain records of all observation results (see Attachment A-1 or A-2), noting:
  - a) Whether any air emissions (except for water vapor) were visible from the emission units,
  - b) All emission units from which visible emissions occurred, and
  - c) Whether the visible emissions were normal for the process.
- 2) The permittee shall maintain records of any equipment malfunctions. (see Attachment B)

- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment C)
- 4) Attachments A-1, A-2, B and C contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available to the Missouri Department of Natural Resources' personnel upon request.
- 6) 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, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.
- 2) Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual monitoring report and annual compliance certification, as required by Section IV of this permit.

<b>Biodiesel Plant</b>		
Emission Unit	Description	Manufacturer/Model #
EU0250	Biodiesel Process Vent	
EU0260	Fugitive Leaks from Biodiesel Production	
EU0270	Biodiesel Loadout	
EU0280	Biodiesel Cooling Towers	
EU0290	Methanol Storage Tanks	
EU0300	Na Methylate Tank	
EU0310	HCL Storage Tank	
EU0320	Biodiesel Filter Purge	
EU0330	Filter Aid	

**PERMIT CONDITION (EU0250 through EU0330)-001**  
 10 CSR 10-6.075 Maximum Achievable Control Technology Regulations  
 40 CFR Part 63 Subpart FFFF  
 National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical  
 Manufacturing

**Note: Tables 1 through 7 of 40 CFR Part 63 Subpart FFFF that are referenced in this permit condition are included in the permit as Attachment L.**

**General Requirements:**

- 1) ADM must be in compliance with the emission limits and work practice standards in Tables 1 through 7 in Attachment L, except during periods of startup, shutdown, and malfunction (SSM0, and must meet the requirements specified in §§63.2455 through 63.2490 (or the alternative means of compliance in §63.2495, §63.2500, or §63.2505), except as specified below. ADM must meet the notification, reporting, and recordkeeping requirements specified in §§63.2515, 63.2520, and 63.2525. [§63.2450(a)]

- a) *Determine halogenated vent streams.* ADM must determine if an emission stream is a halogenated vent stream, as defined in §63.2550, by calculating the mass emission rate of halogen atoms in accordance with §63.115(d)(2)(v). Alternatively, ADM may elect to designate the emission stream as halogenated. [§63.2450(b)]
- b) *Requirements for combined emission streams.* When organic HAP emissions from different emission types are combined, ADM must comply with one of the two following requirements: [§63.2450(c)]
  - i) Comply with the applicable requirements for each kind of organic HAP emissions in the stream, or
  - ii) Determine the applicable requirements based on the following hierarchy:
    - 1. The requirements of Table 2 in Attachment L and §63.2460 for Group 1 batch process vents, including applicable monitoring, recordkeeping, and reporting.
    - 2. The requirements of Table 1 in Attachment L and §63.2455 for continuous process vents that are routed to a control device, as defined in §63.981, including applicable monitoring, recordkeeping, and reporting.
    - 3. The requirements of Table 5 in Attachment L and §63.2475 for transfer operations, including applicable monitoring, recordkeeping, and reporting.
    - 4. The requirements of Table 7 in Attachment L and §63.2485 for emissions from waste management units that are used to manage and treat Group 1 wastewater streams and residuals from Group 1 wastewater streams, including applicable monitoring, recordkeeping and reporting.
    - 5. The requirements of Table 4 in Attachment L and §63.2470 for control of emissions from storage tanks, including applicable monitoring, recordkeeping and reporting.
    - 6. The requirements of Table 1 in Attachment L and §63.2455 for continuous process vents after a recover device including applicable monitoring, recordkeeping and reporting.
- c) *Requirements for control devices.* [§63.2450(e)]
  - i) Except when complying with §63.2485, if ADM reduces organic HAP emissions by venting emissions through a closed-vent system to any combination of control devices (except a flare) or recovery devices, ADM must meet the requirements of §63.982(c) and the requirements referenced therein. [§63.2450(e)(1)]
  - ii) Except when complying with §63.2485, if ADM reduces organic HAP emissions by venting emissions through a closed-vent system to a flare, ADM must meet the requirements of §63.982(b) and the requirements referenced therein. [§63.2450(e)(2)]
  - iii) If ADM uses a halogen reduction device to reduce hydrogen halide and halogen HAP emissions from halogenated vent streams, ADM must meet the requirements of §63.994 and the requirements referenced therein. If a halogen reduction device is used before a combustion device, ADM must determine the halogen atom emission rate prior to the combustion device according to the procedures in §63.115(d)(2)(v). [§63.2450(e)(3)]
- d) *Requirements for flare compliance assessments:* As part of a flare compliance assessment required in §63.987(b), ADM has the option of demonstrating compliance with the requirements of §63.11(b) by complying with the requirements in either §63.11(b)(6)(i) or §63.987(b)(3)(ii). If ADM elects to meet the requirements in §63.11(b)(6)(i), flare compliance assessments must be kept as required below: [§63.2450(f)]
  - i) Keep records as specified in §63.998(a)(1)(i), except that a record of the heat content determination is not required.
  - ii) Keep records of the flare diameter, hydrogen content, exit velocity, and maximum permitted velocity. Include these records in the flare compliance report required in §63.999(a)(2).



- e) *Requirements for performance tests* [§63.2450(g)]
- i) Conduct gas molecular weight analysis using Method 3, 3A, 3B in Appendix A of 40 CFR Part 60;
  - ii) Measure moisture content of the stack gas using Method 4 in Appendix A of 40 CFR Part 60;
  - iii) If the uncontrolled or inlet gas stream to the control device contains carbon disulfide, ADM must conduct emissions testing according to the following:
    1. If ADM elects to comply with the percent reduction emission limits in Tables 1 through 7 in Attachment L and carbon disulfide is the principal organic HAP component, then Method 18 or Method 15 in Appendix A of 40 CFR Part 60; must be used to measure carbon disulfide at the inlet and outlet of the control device. Use the percent reduction in carbon disulfide as a surrogate for the percent reduction in total organic HAP emissions.
    2. If ADM elects to comply with the outlet total organic compound (TOC) concentration emission limits in Tables 1 through 7 in Attachment L, and the uncontrolled or inlet gas stream to the control device contains greater than 10 percent (volume concentration ) carbon disulfide, Method 18 or Method 15 must be used to separately determine the carbon disulfide concentration. Calculate the total HAP or TOC emissions by totaling the carbon disulfide emissions measured using Method 18 or 15 and the other HAP emissions measured using Method 18 or 25A in Appendix A of 40 CFR Part 60.
  - iv) As an alternative to using Method 18, Method 25/25A, or Method 26/26A of 40 CFR Part 60, Appendix A, to comply with any of the emission limits specified in Tables 1 through 7 in Attachment L, ADM may use Method 320 of 40 CFR Part 60, Appendix A.
  - v) Section 63.997(c)(1) does not apply. For the purposes of this subpart, results of all initial compliance demonstrations must be included in the notification of compliance status report, which is due 150 days after the compliance date as specified in §63.2520(d)(1).
- f) *Design evaluation.* To determine the percent reduction of a small control device that is used to comply with an emission limit specified in Table 1, 2, 3, or 5 in Attachment L, ADM may elect to conduct a design evaluation as specified in §63.1257(a)(1) instead of a performance test. ADM must establish the values(s) and basis for the operating limits as part of the design evaluation. For continuous process vents, the design evaluation must be conducted at maximum representative operating conditions for the process, unless the Administrator specifies or approves alternative operating conditions. For transfer racks, the design evaluation must demonstrate that the control device achieves the required control efficiency during the reasonable expected maximum transfer loading rate. [§63.2450(h)]
- g) *Outlet concentration correction for combustion devices.* When §63.997(e)(2)(iii)(C) requires ADM to correct the measured concentration at the outlet of a combustion device to three percent oxygen supplemental combustion air is added, the requirements of either below apply: [§63.2450(i)]
- i) ADM must correct the concentration in the gas stream at the outlet of the combustion device to three percent oxygen if supplemental gases are added, as defined in §63.2550, to the vent stream, or;
  - ii) ADM must correct the measured concentration for supplemental gases using Equation 1 of §63.2460; ADM may use process knowledge and representative operating data to determine the fraction of the total flow due to supplemental gas.

- h) *Continuous emissions monitoring systems.* Each continuous emissions monitoring system (CEMS) must be installed, operated, and maintained according to the requirements in §63.8 and according to the following requirements: [§63.2450(j)]
- i) Each CEMS must be installed operated and maintained according to the applicable Performance Specification of 40 CFR Part 60, Appendix B. For any CEMS meeting Performance Specification 8, ADM must also comply with Appendix F, procedure 1 of 40 CFR Part 60. If ADM wishes to use a CEMS other than Fourier Transform Infrared Spectroscopy (FTIR) meeting the requirements of Performance Specification 15 to measure hydrogen halide and halogen HAP before a Performance Specification is promulgated for such CEMS, a monitoring plan must be prepared and submitted for approval in accordance with the procedures specified in §63.8.
  - ii) ADM must determine the calibration gases and reporting units for TOC CEMS in accordance with the following:
    - 1. For CEMS meeting Performance Specification 9 or 15 requirements, determine the target analyte(s) for calibration using either process knowledge of the control device inlet stream or the screening procedures of Method 18 on the control device inlet stream.
    - 2. For CEMS meeting Performance Specification 8 used to monitor performance of a combustion device, calibrate the instrument on the predominant organic HAP and report the results as carbon (C1), and use Method 25A or any approved alternative as the reference method for the relative accuracy tests.
    - 3. For CEMS meeting Performance Specification 8 used to monitor performance of a noncombustion device, determine the predominant organic HAP using either process knowledge or the screening procedures of Method 18 on the control device inlet stream, calibrate the monitor on the predominant organic HAP, and report the results as C1. Use Method 18, ASTM D6420–99, or any approved alternative as the reference method for the relative accuracy tests, and report the results as C1.
  - iii) ADM must conduct a performance evaluation of each CEMS according to the requirements in 40 CFR 63.8 and according to the applicable Performance Specification of 40 CFR Part 60, Appendix B, except that the schedule in §63.8(e)(4) does not apply, and the results of the performance evaluation must be included in the notification of compliance status report.
  - iv) The CEMS data must be reduced to operating day or operating block averages computed using valid data consistent with the data availability requirements specified in §63.999(c)(6)(i)(B) through (D), except monitoring data also are sufficient to constitute a valid hour of data if measured values are available for at least two of the 15-minute periods during an hour when calibration, quality assurance, or maintenance activities are being performed. An operating block is a period of time from the beginning to end of batch operations within a process. Operating block averages may be used only for batch process vent data.
  - v) If you add supplemental gases, you must correct the measured concentrations in accordance with Paragraph (i) of this section and §63.2460(c)(6).
- i) *Continuous parameter monitoring.* The provisions in Paragraphs i) through iv) below apply in addition to the requirements for continuous parameter monitoring system (CPMS) in Subpart SS. [§63.2450(k)]
- i) ADM must record the results of each calibration check and all maintenance performed on the CPMS as specified in §63.998(c)(1)(ii)(A).

- ii) When Subpart SS of Part 63 uses the term “a range” or “operating range” of a monitored parameter, it means an “operating limit” for a monitored parameter.
- iii) As an alternative to continuously measuring and recording pH as specified in §§63.994(c)(1)(i) and 63.998(a)(2)(ii)(D), ADM may elect to continuously monitor and record the caustic strength of the effluent. For halogen scrubbers used to control only batch process vents ADM may elect to monitor and record either the pH or the caustic strength of the scrubber effluent at least once per day.
- iv) As an alternative to the inlet and outlet temperature monitoring requirements for catalytic incinerators as specified in §63.988(c)(2) and the related recordkeeping requirements specified in §63.998(a)(2)(ii)(B)( 2 ) and (c)(2)(ii), ADM may elect to comply with the requirements specified in Paragraphs 1 through 4 below.
  - 1. Monitor and record the inlet temperature as specified in Subpart SS of 40 CFR Part 63.
  - 2. Check the activity level of the catalyst at least every 12 months and take any necessary corrective action, such as replacing the catalyst to ensure that the catalyst is performing as designed.
  - 3. Maintain records of the annual checks of catalyst activity levels and the subsequent corrective actions.
  - 4. Recording the downstream temperature and temperature difference across the catalyst bed as specified in §63.998(a)(2)(ii)(B)( 2 ) and (b)(2)(ii) is not required.
- v) For absorbers that control organic compounds and use water as the scrubbing fluid, ADM must conduct monitoring and recordkeeping as specified in 1 through 3 below, instead of the monitoring and recordkeeping requirements specified in §§63.990(c)(1), 63.993(c)(1), and 63.998(a)(2)(ii)(C).
  - 1. ADM must use a flow meter capable of providing a continuous record of the absorber influent liquid flow.
  - 2. ADM must determine gas stream flow using one of the procedures specified in §63.994(c)(1)(ii)(A) through (D).
  - 3. ADM must record the absorber liquid-to-gas ratio averaged over the time period of any performance test.
- vi) For a control device with total inlet HAP emissions less than one tpy, you must establish an operating limit(s) for a parameter(s) that you will measure and record at least once per averaging period (i.e., daily or block) to verify that the control device is operating properly. You may elect to measure the same parameter(s) that is required for control devices that control inlet HAP emissions equal to or greater than one tpy. If the parameter will not be measured continuously, you must request approval of your proposed procedure in the precompliance report. You must identify the operating limit(s) and the measurement frequency, and you must provide rationale to support how these measurements demonstrate the control device is operating properly.
- j) *Startup, shutdown, and malfunction.* Sections 63.152(f)(7)(ii) through (iv) and 63.998(b)(2)(iii) and (b)(6)(i)(A), which apply to the exclusion of monitoring data collected during periods of SSM from daily averages, do not apply to this permit condition. [§63.2450(1)]
- k) Reporting. [§63.2450(m)]
  - i) The term “periodic report,” means “compliance report” for the purposes of this permit condition. The compliance report must include the information specified in §63.2520(e), as well as the information specified in this permit.
  - ii) Due dates of reports required by this permit condition, must be submitted according to the due dates presented in this permit.

- iii) Excused excursions, as defined in Subparts G and SS, are not allowed.
- l) ADM may not use a flare to control halogenated vent streams or hydrogen halide and halogen HAP emissions. [§63.2450(o)]
- m) Opening a safety device, as defined in §63.2550, is allowed at any time conditions require it to avoid unsafe conditions. [§63.2450(p)]
- n) If an emission stream contains energetics or organic peroxides that, for safety reasons, cannot meet an applicable emission limit specified in Tables 1 through 7 in Attachment L, then ADM must submit documentation in the precompliance report explaining why an undue safety hazard would be created if the air emission controls were installed, and you must describe the procedures that you will implement to minimize HAP emissions from these vent streams. [§63.2450(q)]
- o) Surge control vessels and bottoms receivers. For each surge control vessel or bottoms receiver that meets the capacity and vapor pressure thresholds for a Group 1 storage tank, ADM must meet emission limits and work practice standards specified in Table 4 in Attachment L.
- p) For the purposes of determining Group status for continuous process vents, batch process vents, and storage tanks in §§63.2455, 63.2460, and 63.2470, hydrazine is to be considered an organic HAP. [§63.2450(r)]

**Notification and Reporting:**

- 1) ADM must submit all of the notifications in §§63.6(h)(4) and (5), 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified.
  - a) Initial notification. As specified in §63.9(b)(3), if you startup your new affected source on or after November 10, 2003, you must submit an initial notification not later than 120 calendar days after you become subject to this subpart.
  - b) Notification of performance test. If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required in §63.7(b)(1). For any performance test required as part of the initial compliance procedures for batch process vents in Table 2 to this subpart, you must also submit the test plan required by §63.7(c) and the emission profile with the notification of the performance test.
- 2) Unless the Administrator has approved a different schedule for submission of reports under §63.10, ADM must submit each semi-annual compliance reports to cover the semi-annual reporting period from January 1 through June 30 or the semi-annual reporting period from July 1 through December 31. Each compliance report must be postmarked or delivered no later than August 31 or February 28, whichever date is the first date following the end of the reporting period.
- 3) The Compliance reports must contain the following information:
  - a) Company name and address.
  - b) Statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report.
  - c) Date of report and beginning and ending dates of the reporting period.
  - d) For each SSM during which excess emissions occur, the compliance report must include records that the procedures specified in your startup, shutdown, and malfunction plan (SSMP) were followed or documentation of actions taken that are not consistent with the SSMP, and include a brief description of each malfunction.
  - e) The compliance report must contain the following information on deviations:

- i) If there are no deviations from any emission limit, operating limit or work practice standard specified in this subpart, include a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.
- ii) For each deviation from an emission limit, operating limit, and work practice standard that occurs at an affected source where ADM is not using a continuous monitoring system (CMS) to comply with the emission limit or work practice standard in this subpart, ADM must include the following information (This includes periods of SSM):
  1. The total operating time of the affected source during the reporting period.
  2. Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.
  3. Operating logs of processes with batch vents from batch operations for the day(s) during which the deviation occurred, except operating logs are not required for deviations of the work practice standards for equipment leaks.
- iii) For each deviation from an emission limit or operating limit occurring at an affected source where ADM is using a CMS to comply with an emission limit in this subpart, ADM must include the following information (This includes periods of SSM):
  1. The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.
  2. The date, time, and duration that each CEMS was out-of-control, including the information in §63.8(c)(8).
  3. The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.
  4. A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total operating time of the affected source during that reporting period.
  5. A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.
  6. A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the affected source during that reporting period.
  7. An identification of each HAP that is known to be in the emission stream.
  8. A brief description of the process units.
  9. A brief description of the CMS.
  10. The date of the latest CMS certification or audit.
  11. Operating logs of processes with batch vents from batch operations for each day(s) during which the deviation occurred.
  12. The operating day or operating block average values of monitored parameters for each day(s) during which the deviation occurred.
- iv) If ADM documented in the notification of compliance status report that an MCPU has Group 2 batch process vents because the non-reactive HAP is the only HAP and usage is less than 10,000 lb/yr, the total uncontrolled organic HAP emissions from the batch process vents in an MCPU will be less than 1,000 lb/yr for the anticipated number of standard batches, or total uncontrolled hydrogen halide and halogen HAP emissions from all batch process vents and continuous process vents in a process are less than 1,000 lb/yr, include the records associated with each calculation required by §63.2525(e) that exceeds an applicable HAP usage or emissions threshold.

- f) If ADM uses a CEMS, and there were no periods during which it was out-of-control as specified in §63.8(c)(7), include a statement that there were no periods during which the CEMS was out-of-control during the reporting period.
- g) Include each new operating scenario which has been operated since the time period covered by the last compliance report and has not been submitted in the notification of compliance status report or a previous compliance report. For each new operating scenario, ADM must provide verification that the operating conditions for any associated control or treatment device have not been exceeded and that any required calculations and engineering analyses have been performed. For the purposes of this paragraph, a revised operating scenario for an existing process is considered to be a new operating scenario.
- h) Records of process units added to a PUG as specified in §63.2525(i)(4) and records of primary product redeterminations as specified in §63.2525(i)(5).
- i) Applicable records and information for periodic reports as specified in this permit condition and Subpart F of 40 CFR Part 65.
- j) Notification of process change.
  - i) Whenever a process change is made, or changes of any of the information submitted in the notification of compliance status report or a previous compliance report is made, that is not within the scope of an existing operating scenario, ADM must document the change in the compliance report. A process change does not include moving within a range of conditions identified in the standard batch, and a nonstandard batch does not constitute a process change. The notification must include all of the following information:
    - 1. A description of the process change.
    - 2. Revisions to any of the information reported in the original notification of compliance status report.
    - 3. Information required by the notification of compliance status report for changes involving the addition of processes or equipment at the affected source.
  - ii) ADM must submit a report 60 days before the scheduled implementation date of any of the following changes:
    - 1. Any change to the information contained in the precompliance report.
    - 2. A change in the status of a control device from small to large.

**Recordkeeping:**

ADM must keep the records specified in Paragraphs a) through h) below.

- 1) Each applicable record required by this permit condition and in referenced Subpart F of 40 CFR Part 65.
- 2) Records of each operating scenario specified below:
  - a) A description of the process and the type of process equipment used.
  - b) An identification of related process vents, including their associated emissions episodes if not complying with the alternative standard in §63.2505; wastewater point of determination (POD); storage tanks; and transfer racks.
  - c) The applicable control requirements of this subpart, including the level of required control, and for vents, the level of control for each vent.
  - d) The control device or treatment process used, as applicable, including a description of operating and/or testing conditions for any associated control device.
  - e) The process vents, wastewater POD, transfer racks, and storage tanks (including those from other processes) that are simultaneously routed to the control device or treatment process(s).

- f) The applicable monitoring requirements of this subpart and any parametric level that assures compliance for all emissions routed to the control device or treatment process.
  - g) Calculations and engineering analyses required to demonstrate compliance.
  - h) For reporting purposes, a change to any of these elements not previously reported, except for Paragraph (b)(5) of this section, constitutes a new operating scenario.
- 3) A schedule or log of operating scenarios for processes with batch vents from batch operations updated each time a different operating scenario is put into effect.
- 4) The information specified below for Group 1 batch process vents in compliance with a percent reduction emission limit in Table 2 below, if some of the vents are controlled to less the percent reduction requirement.
- a) Records of whether each batch operated was considered a standard batch.
  - b) The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.
- 5) The information specified below, as applicable, for each process with Group 2 batch process vents or uncontrolled hydrogen halide and halogen HAP emissions from the sum of all batch and continuous process vents less than 1,000 lb/yr. No records are required if you documented in your notification of compliance status report that the MCPU does not process, use, or generate HAP, if ADM controls the Group 2 batch process vents using a flare that meets the requirements of §63.987 or ADM controls the Group 2 batch process vents using a control device for which your determination of worst case for initial compliance includes the contribution of all Group 2 batch process vents.
- a) If ADM documented in the notification of compliance status report that an MCPU has Group 2 batch process vents because the non-reactive organic HAP is the only HAP and usage is less than 10,000 lb/yr, as specified in §63.2460(b)(7), ADM must keep records of the amount of HAP material used, and calculate the daily rolling annual sum of the amount used no less frequently than monthly. If a record indicates usage exceeds 10,000 lb/yr, ADM must estimate emissions for the preceding 12 months based on the number of batches operated and the estimated emissions for a standard batch, and ADM must begin recordkeeping as specified in Paragraph (5)(c) below. After one year, ADM may revert to recording only usage if the usage during the year is less than 10,000 lb.
  - b) If ADM documented in the notification of compliance status report that total uncontrolled organic HAP emissions from the batch process vents in an MCPU will be less than 1,000 lb/yr for the anticipated number of standard batches, then ADM must keep records of the number of batches operated and calculate a daily rolling annual sum of batches operated no less frequently than monthly. If the number of batches operated results in organic HAP emissions that exceed 1,000 lb/yr, ADM must estimate emissions for the preceding 12 months based on the number of batches operated and the estimated emissions for a standard batch, and ADM must begin recordkeeping as specified in Paragraph (5)(c) below. After one year, ADM may revert to recording only the number of batches if the number of batches operated during the year results in less than 1,000 lb of organic HAP emissions.
  - c) If ADM meets none of the conditions specified in Paragraphs (5)(a) through (b) above, ADM must keep records of the information specified in below:
    - i) A record of the day each batch was completed and/or the operating hours per day for continuous operations with hydrogen halide and halogen emissions.
    - ii) A record of whether each batch operated was considered a standard batch.
    - iii) The estimated uncontrolled and controlled emissions for each batch that is considered to be a nonstandard batch.

- iv) Records of the daily 365-day rolling summations of emissions, or alternative records that correlate to the emissions (e.g., number of batches), calculated no less frequently than monthly.
- 6) A record of each time a safety device is opened to avoid unsafe conditions in accordance with §63.2450(s).
- 7) Records of the results of each CPMS calibration check and the maintenance performed, as specified in §63.2450(k)(1).
- 8) For each CEMS, you must keep records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.
- 9) For each PUG, you must keep records specified below:
- a) Descriptions of the MCPU and other process units in the initial PUG required by §63.2535(l)(1)(v).
  - b) Rationale for including each MCPU and other process unit in the initial PUG ( i.e., identify the overlapping equipment between process units) required by §63.2535(l)(1)(v).
  - c) Calculations used to determine the primary product for the initial PUG required by §63.2535(l)(2)(iv).
  - d) Descriptions of process units added to the PUG after the creation date and rationale for including the additional process units in the PUG as required by §63.2535(l)(1)(v).
  - e) The calculation of each primary product redetermination required by §63.2535(l)(2)(iv).
- 10) In the SSMP required by §63.6(e)(3), ADM is not required to include Group 2 emission points, unless those emission points are used in an emissions average. For equipment leaks, the SSMP requirement is limited to control devices and is optional for other equipment.
- 11) For each bag leak detector used to monitor PM HAP emissions from a fabric filter, maintain records of any bag leak detection alarm, including the date and time, with a brief explanation of the cause of the alarm and the corrective action taken.

**PERMIT CONDITION (EU0250 through EU0330)-002**

10 CSR 10-6.060 Construction Permits Required

Construction Permit #102006-015, Issued October 30, 2006

**Emission Limitation:**

Archer Daniels Midland shall emit less than 40 tons of Volatile Organic Compounds (VOCs) from the entire biodiesel production plant in any consecutive 12-month period. [Special Condition 2A]

**Monitoring/Recordkeeping:**

Attachment K, or equivalent forms approved by the Air Pollution Control Program shall be used to demonstrate compliance with this emission limitation. Archer Daniels Midland shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. These records shall include Material Safety Data Sheets (MSDA) for all materials used at the biodiesel production plant. [Special Condition 2]

**Reporting:**

Archer Daniels Midland shall report to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after the end of the month during which the records indicate that the source exceeds the emission limitation. [Special Condition 2C]



**PERMIT CONDITION EU0250-003**

10 CSR 10-6.075 Maximum Achievable Control Technology Regulations  
40 CFR Part 63 Subpart FFFF

National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical  
Manufacturing

**Note: Tables 1 through 7 of 40 CFR Part 63 Subpart FFFF that are referenced in this permit condition are included in the permit as Attachment L.**

**Emission Limits:**

Continuous Process Vents: [§63.2455(a) through (c)]

- 1) ADM must meet each emission limit in Table 1 in Attachment L that applies to your continuous process vents.
- 2) For each continuous process vent, ADM must either designate the vent as a Group 1 continuous process vent or determine the total resource effectiveness (TRE) index value as specified in §63.115(d), except as specified in below:
  - a) ADM is not required to determine the Group status or the TRE index value for any continuous process vent that is combined with Group 1 batch process vents before a control device or recovery device because the requirements of §63.2450(c)(2)(i) apply to the combined stream.
  - b) When a TRE index value of 4.0 is referred to in §63.115(d), TRE index values of 8.0 for new and reconstructed affected sources apply for the purposes of this permit condition.
  - c) When §63.115(d) refers to “emission reductions specified in §63.113(a),” the reductions specified in Table 1 in Attachment L apply for the purposes of this subpart.
- 3) If ADM uses a recovery device to maintain the TRE above a specified threshold, ADM must meet the requirements of §63.982(e) and the requirements referenced therein, except as specified below:
  - a) When §63.993 uses the phrase “the TRE index value is between the level specified in a referencing subpart and 4.0,” the phrase “the TRE index value is >5.0 but ≤8.0” applies for a new and reconstructed affected source, for the purposes of this permit condition.

For batch process vents: [§63.2460]

- 1) ADM must meet each emission limit in Table 2 in Attachment L that applies.
- 2) If a process has batch process vents, as defined in §63.2550, ADM must determine the group status of the batch process vents by determining and summing the uncontrolled organic HAP emissions from each of the batch process vents within the process using the procedures specified in §63.1257(d)(2)(i) and (ii), except as specified in the paragraphs below:
  - a) To calculate emissions caused by the heating of a vessel without a process condenser to a temperature lower than the boiling point, ADM must use the procedures in §63.1257(d)(2)(i)(C)( 3 ).
  - b) To calculate emissions from depressurization of a vessel without a process condenser, ADM must use the procedures in §63.1257(d)(2)(i)(D)( 10 ).
  - c) To calculate emissions from vacuum systems for the purposes of this permit condition, the receiving vessel is part of the vacuum system, and terms used in Equation 33 to 40 CFR Part 63, Subpart GGG, are defined as follows:  
Psystem= absolute pressure of the receiving vessel;  
Pi= partial pressure of the HAP determined at the exit temperature and exit pressure conditions of the condenser or at the conditions of the dedicated receiver;

$P_j$  = partial pressure of condensables (including HAP) determined at the exit temperature and exit pressure conditions of the condenser or at the conditions of the dedicated receiver;  
MWHAP = molecular weight of the HAP determined at the exit temperature and exit pressure conditions of the condenser or at the conditions of the dedicated receiver.

- d) To calculate uncontrolled emissions when a vessel is equipped with a process condenser, ADM must use the procedures in §63.1257(d)(3)(i)(B), except as specified in the paragraphs below:
- i) ADM must determine the flowrate of gas (or volume of gas), partial pressures of condensables, temperature (T), and HAP molecular weight (MWHAP) at the exit temperature and exit pressure conditions of the condenser or at the conditions of the dedicated receiver.
  - ii) ADM must assume that all of the components contained in the condenser exit vent stream are in equilibrium with the same components in the exit condensate stream (except for noncondensables).
  - iii) ADM must perform a material balance for each component.
  - iv) For the emissions from gas evolution, the term for time, t, must be used in Equation 12 to 40 CFR Part 63, Subpart GGG.
  - v) Emissions from empty vessel purging shall be calculated using Equation 36 to 40 CFR Part 63, Subpart GGG and the exit temperature and exit pressure conditions of the condenser or the conditions of the dedicated receiver.
  - vi) ADM must conduct an engineering assessment as specified in §63.1257(d)(2)(ii) for each emission episode that is not due to vapor displacement, purging, heating, depressurization, vacuum operations, gas evolution, air drying, or empty vessel purging.
  - vii) ADM may elect to conduct an engineering assessment if ADM can demonstrate to the Administrator that the methods in §63.1257(d)(3)(i)(B) are not appropriate.
- e) ADM may elect to designate the batch process vents within a process as Group 1 and not calculate uncontrolled emissions under either of the situations described below:
- i) If ADM complies with the alternative standard specified in §63.2505.
  - ii) If all Group 1 batch process vents within a process are controlled; ADM conducts the performance test under hypothetical worst case conditions, as defined in §63.1257(b)(8)(i)(B); and the emission profile is based on capture and control system limitations as specified in §63.1257(b)(8)(ii)(C).
  - iii) If ADM complies with an emission limit using a flare that meets the requirements specified in §63.987.
- f) ADM may change from Group 2 to Group 1 in accordance with either paragraph below. ADM must comply with the requirements of this section and submit the test report in the next Compliance report.
- i) ADM may switch at any time after operating as Group 2 for at least one year so that ADM can show compliance with the 10,000 pounds per year (lb/yr) threshold for Group 2 batch process vents for at least 365 days before the switch. ADM may elect to start keeping records of emissions from Group 2 batch process vents before the compliance date. Report a switch based on this provision in the next compliance report in accordance with §63.2520(e)(10)(i).
  - ii) If the above conditions are not applicable, ADM must provide a 60-day advance notice in accordance with §63.2520(e)(10)(ii) before switching.
- g) As an alternative to determining the uncontrolled organic HAP emissions as specified in §63.1257(d)(2)(i) and (ii), ADM may elect to demonstrate that non-reactive organic HAP are the only HAP used in the process and non-reactive HAP usage in the process is less than 10,000

lb/yr. ADM must provide data and supporting rationale in the notification of compliance status report explaining why the non-reactive organic HAP usage will be less than 10,000 lb/yr. ADM must keep records of the non-reactive organic HAP usage as specified in §63.2525(e)(2) and include information in compliance reports as specified in §63.2520(e)(5)(iv).

- 3) Exceptions to the requirements in Subparts SS and WW of 40 CFR Part 63 are specified below:
- a) Process condensers. Process condensers, as defined in §63.2550(i), are not considered to be control devices for batch process vents. ADM must determine whether a condenser is a control device for a batch process vent or a process condenser from which the uncontrolled HAP emissions are evaluated as part of the initial compliance demonstration for each MCPU and report the results with supporting rationale in your notification of compliance status report.
  - b) Initial compliance.
    - i) To demonstrate initial compliance with a percent reduction emission limit in Table 2 to this Subpart FFFF, ADM must compare the sums of the controlled and uncontrolled emissions for the applicable Group 1 batch process vents within the process, and show that the specified reduction is met. This requirement does not apply if you comply with the emission limits of Table 2 to 40 CFR 63 Subpart FFFF by using a flare that meets the requirements of §63.987.
    - ii) When conducting a performance test or design evaluation for a non-flare control device used to control emissions from batch process vents, ADM must establish emission profiles and conduct the test under worst-case conditions according to §63.1257(b)(8) instead of under normal operating conditions as specified in §63.7(e)(1). The requirements in §63.997(e)(1)(i) and (iii) also do not apply for performance tests conducted to determine compliance with the emission limits for batch process vents. For purposes of 40 CFR 63 Subpart FFFF, references in §63.997(b)(1) to “methods specified in 7 63.997(e)” include the methods specified in §63.1257(b)(8).
    - iii) As an alternative to conducting a performance test or design evaluation to demonstrate initial compliance with a percent reduction requirement for a condenser, ADM may determine controlled emissions using the procedures specified in §63.1257(d)(3)(i)(B) and Paragraphs (2)(c) through (d) of this section.
    - iv) When §63.1257(d)(3)(i)(B)( 7 ) specifies that condenser-controlled emissions from an air dryer must be calculated using Equation 11 of 40 CFR Part 63, Subpart GGG, with “V equal to the air flow rate,” it means “V equal to the dryer outlet gas flow rate,” for the purposes of this subpart. Alternatively, ADM may use Equation 12 of 40 CFR Part 63, Subpart GGG, with V equal to the dryer inlet air flow rate. Account for time as appropriate in either equation.
    - v) If a process condenser is used for any boiling operations, ADM must demonstrate that it is properly operated according to the procedures specified in §63.1257(d)(2)(i)(C)( 4 )( ii ) and (d)(3)(iii)(B), and the demonstration must occur only during the boiling operation. The reference in §63.1257(d)(3)(iii)(B) to the alternative standard in §63.1254(c) means §63.2505 for the purposes of this subpart. As an alternative to measuring the exhaust gas temperature, as required by §63.1257(d)(3)(iii)(B), ADM may elect to measure the liquid temperature in the receiver.
    - vi) ADM must conduct a subsequent performance test or compliance demonstration equivalent to an initial compliance demonstration within 180 days of a change in the worst-case conditions.

- c) Averaging periods. As an alternative to the requirement for daily averages in §63.998(b)(3), ADM may determine averages for operating blocks. An operating block is a period of time that is equal to the time from the beginning to end of batch process operations within a process.
- d) Outlet concentration correction for supplemental gases. If ADM uses a control device other than a combustion device to comply with a TOC, organic HAP, or hydrogen halide and halogen HAP outlet concentration emission limit for batch process vents, ADM must correct the actual concentration for supplemental gases using Equation 1; ADM may use process knowledge and representative operating data to determine the fraction of the total flow due to supplemental gas.

$$C_a = C_m \left( \frac{Q_s + Q_a}{Q_a} \right) \quad (\text{Eq. 1})$$

Where:

Ca= corrected outlet TOC, organic HAP, or hydrogen halide and halogen HAP concentration, dry basis, ppmv;

Cm= actual TOC, organic HAP, or hydrogen halide and halogen HAP concentration measured at control device outlet, dry basis, ppmv;

Qa= total volumetric flowrate of all gas streams vented to the control device, except supplemental gases;

Qs= total volumetric flowrate of supplemental gases.

- e) If flow to a control device could be intermittent, ADM must install, calibrate, and operate a flow indicator at the inlet or outlet of the control device to identify periods of no flow. Periods of no flow may not be used in daily or block averages, and it may not be used in fulfilling a minimum data availability requirement.
- f) Terminology. When the term “storage vessel” is used in Subpart WW of 40 CFR Part 63, the term “process tank,” as defined in §63.2550(i), applies for the purposes of this permit condition.
- g) Requirements for a biofilter. If you use a biofilter to meet either the 95 percent reduction requirement or outlet concentration requirement specified in Table 2 in Attachment L, you must meet the requirements specified below:
  - i) Operational requirements. The biofilter must be operated at all times when emissions are vented to it.
  - ii) Performance tests. To demonstrate initial compliance, ADM must conduct a performance test according to the procedures in §63.997 and the paragraphs below. The design evaluation option for small control devices is not applicable if you use a biofilter.
    1. Keep up-to-date, readily accessible continuous records of either the biofilter bed temperature averaged over the full period of the performance test or the outlet total organic HAP or TOC concentration averaged over the full period of the performance test. Include these data in the notification of compliance status report as required by §63.999(b)(3)(ii).
    2. Record either the percent reduction of total organic HAP achieved by the biofilter determined as specified in §63.997(e)(2)(iv) or the concentration of TOC or total organic HAP determined as specified in §63.997(e)(2)(iii) at the outlet of the biofilter, as applicable.
    3. If ADM monitors the biofilter bed temperature, ADM may elect to use multiple thermocouples in representative locations throughout the biofilter bed and calculate the average biofilter bed temperature across these thermocouples prior to reducing the temperature data to 15 minute (or shorter) averages for purposes of establishing operating

- limits for the biofilter. If ADM uses multiple thermocouples, include their rationale for the site selection in the notification of compliance status report.
4. Submit a performance test report as specified in §63.999(a)(2)(i) and (ii). Include the records required in the above Paragraph 2. in the performance test report.
  - iii) Monitoring requirements. Use either a biofilter bed temperature monitoring device (or multiple devices) capable of providing a continuous record or an organic monitoring device capable of providing a continuous record. Keep records of temperature or other parameter monitoring results as specified in §63.998(b) and (c), as applicable. General requirements for monitoring are contained in §63.996. If ADM monitors temperature, the operating temperature range must be based on only the temperatures measured during the performance test; these data may not be supplemented by engineering assessments or manufacturer's recommendations as otherwise allowed in §63.999(b)(3)(ii)(A). If ADM establishes the operating range (minimum and maximum temperatures) using data from previous performance tests in accordance with §63.996(c)(6), replacement of the biofilter media with the same type of media is not considered a process change under §63.997(b)(1). ADM may expand the biofilter bed temperature operating range by conducting a repeat performance test that demonstrates compliance with the 95 percent reduction requirement or outlet concentration limit, as applicable.
  - iv) Repeat performance tests. ADM must conduct a repeat performance test using the applicable methods specified in §63.997 within two years following the previous performance test and within 150 days after each replacement of any portion of the biofilter bed media with a different type of media or each replacement of more than 50 percent (by volume) of the biofilter bed media with the same type of media.

**PERMIT CONDITION EU0260-003**

40 CFR Part 63 Subpart FFFF

National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical  
Manufacturing

**Note: Tables 1 through 7 of 40 CFR Part 63 Subpart FFFF that are referenced in this permit condition are included in the permit as Attachment L.**

**Emission Limitations:**

- 1) ADM must meet each requirement in Table 6 in Attachment L that applies to equipment leaks, except as specified below:
- 2) If ADM complies with either Subpart H or Subpart UU of 40 CFR Part 63, ADM may elect to comply with the provisions below [Paragraphs a) through e)] as an alternative to the referenced provisions in Subpart H or Subpart UU of this part.
  - a) The requirements for pressure testing in §63.179(b) or §63.1036(b) may be applied to all processes, not just batch processes.
  - b) For the purposes of this permit condition, pressure testing for leaks in accordance with §63.179(b) or §63.1036(b) is not required after reconfiguration of an equipment train if flexible hose connections are the only disturbed equipment.
  - c) For an existing source, ADM is not required to develop an initial list of identification numbers for connectors as would otherwise be required under §63.1022(b)(1) or §63.181(b)(1)(i).
  - d) For connectors in gas/vapor and light liquid service at an existing source, ADM may elect to comply with the requirements in §63.169 or §63.1029 for connectors in heavy liquid service,

- including all associated recordkeeping and reporting requirements, rather than the requirements of §63.174 or §63.1027.
- e) For pumps in light liquid service in an MCPU that has no continuous process vents and is part of an existing source, ADM may elect to consider the leak definition that defines a leak to be 10,000 parts per million (ppm) or greater as an alternative to the values specified in §63.1026(b)(2)(i) through (iii) or §63.163(b)(2).
- 3) If ADM complies with 40 CFR Part 65, Subpart F, ADM may elect to comply with the provisions below [Paragraphs a) through i)] as an alternative to the referenced provisions in 40 CFR Part 65, Subpart F.
- a) The requirements for pressure testing in §65.117(b) may be applied to all processes, not just batch processes.
  - b) For the purposes of this subpart, pressure testing for leaks in accordance with §65.117(b) is not required after reconfiguration of an equipment train if flexible hose connections are the only disturbed equipment.
  - c) For an existing source, you are not required to develop an initial list of identification numbers for connectors as would otherwise be required under §65.103(b)(1).
  - d) ADM may elect to comply with the monitoring and repair requirements specified in §65.108(e)(3) as an alternative to the requirements specified in §65.108(a) through (d) for any connectors at your affected source.
  - e) For pumps in light liquid service in an MCPU that has no continuous process vents and is part of an existing source, ADM may elect to consider the leak definition that defines a leak to be 10,000 ppm or greater as an alternative to the values specified in §65.107(b)(2)(i) through (iii).
  - f) When 40 CFR Part 65, Subpart F refers to the implementation date specified in §65.1(f), it means the compliance date specified in §63.2445.
  - g) When §§65.105(f) and 65.117(d)(3) refer to §65.4, it means §63.2525.
  - h) When §65.120(a) refers to §65.5(d), it means §63.2515.
  - i) When §65.120(b) refers to §65.5(e), it means §63.2520.
- 4) The provisions of this section do not apply to bench-scale processes, regardless of whether the processes are located at the same plant site as a process subject to the provisions of this subpart.

**PERMIT CONDITION EU0280-003**

10 CSR 10-6.060 Construction Permits Required

Construction Permit #102006-015, Issued October 30, 2006

**Emission Limitations:**

- 1) The cooling tower(s) shall be operated and maintained in accordance with the manufacturer's specifications. Manufacturer's specifications shall be kept on site and made readily available to Department of Natural Resources' employees. [Special Condition 6A]
- 2) The cooling water circulation rate shall not exceed 360,000 gallons per hour in any 12-month period. [Special Condition 6B]
- 3) The drift loss from the towers shall not exceed 0.002 percent of the water circulation rate. [Special Condition 6D]
- 4) The total dissolved solids (TDS) concentration in the circulated cooling water shall not exceed a TDS concentration of 3,500 parts per million (ppm). [Special Condition 6E]

**Monitoring/Recordkeeping:**

- 1) Archer Daniels Midland shall keep records of the monthly and 12-month rolling averages of the amount of water circulated. [Special Condition 6C]
- 2) Verification of drift loss shall be by manufacturer's guaranteed drift loss and shall be kept on site and made readily available to Department of Natural Resources' employees upon request. [Special Condition 6D]
- 3) A TDS sample shall be collected and the results recorded monthly to verify the TDS concentration is below 3,500 ppm. [Special Condition 6E]
- 4) The requirement for TDS sample collection may be eliminated or the frequency may be reduced upon written approval by the Air Pollution Control Program if TDS sampling results demonstrate compliance for 24 consecutive months. [Special Condition 6F]

**PERMIT CONDITION (EU0290 through EU0310)-002**

40 CFR Part 63 Subpart FFFF

National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical  
Manufacturing

**Note: Tables 1 through 7 of 40 CFR Part 63 Subpart FFFF that are referenced in this permit condition are included in the permit as Attachment L.**

**Emission Limitations:**

- 1) ADM must meet each emission limit in Table 4 that applies to your storage tanks.
- 2) Exceptions to Subparts SS and WW of Part 63:
  - a) If ADM conducts a performance test or design evaluation for a control device used to control emissions only from storage tanks, ADM must establish operating limits, conduct monitoring, and keep records using the same procedures as required in Subpart SS of Part 63 for control devices used to reduce emissions from process vents instead of the procedures specified in §§63.985(c), 63.998(d)(2)(i), and 63.999(b)(2).
  - b) When the term "storage vessel" is used in Subparts SS and WW of Part 63, the term "storage tank", as defined in §63.2550 applies for the purposes of this subpart.
- 3) Planned routine maintenance. The emission limits in Table 4 to this subpart for control devices used to control emissions from storage tanks do not apply during periods of planned routine maintenance. Periods of planned routine maintenance of each control device, during which the control device does not meet the emission limit specified in Table 4 to this subpart, must not exceed 240 hours per year (hr/yr). ADM may submit an application to the Administrator requesting an extension of this time limit to a total of 360 hr/yr. The application must explain why the extension is needed, it must indicate that no material will be added to the storage tank between the time the 240-hr limit is exceeded and the control device is again operational, and it must be submitted at least 60 days before the 240-hr limit will be exceeded.
- 4) Vapor balancing alternative. As an alternative to the emission limits specified in Table 4 to this subpart, ADM may elect to implement vapor balancing in accordance with §63.1253(f), except as specified below [Paragraphs a) through c)]:
  - a) When §63.1253(f)(6)(i) refers to a 90 percent reduction, 95 percent applies for the purposes of this subpart.
  - b) To comply with §63.1253(f)(6)(i), the owner or operator of an offsite cleaning or reloading facility must comply with §§63.2445 through 63.2550 instead of complying with §63.1253(f)(7)(ii), except as specified in Paragraph (e)(2)(i) or (ii) of this section.

- i) The reporting requirements in §63.2520 do not apply to the owner or operator of the offsite cleaning or reloading facility.
- ii) As an alternative to complying with the monitoring, recordkeeping, and reporting provisions in §§63.2445 through 63.2550, the owner or operator of an offsite cleaning or reloading facility may comply as specified in §63.2535(a)(2) with any other subpart of this Part 63 which has monitoring, recordkeeping, and reporting provisions as specified in §63.2535(a)(2).
- c) ADM may elect to set a pressure relief device to a value less than the 2.5 pounds per square inch gage pressure (psig) required in §63.1253(f)(5) if ADM provides rationale in the notification of compliance status report explaining why the alternative value is sufficient to prevent breathing losses at all times.
- d) ADM may comply with the vapor balancing alternative in §63.1253(f) when the storage tank is filled from a barge. All requirements for tank trucks and railcars specified in §63.1253(f) also apply to barges, except as specified in §63.2470(e)(4)(i).
  - i) When §63.1253(f)(2) refers to pressure testing certifications, the requirements in 40 CFR 61.304(f) apply for barges.

**PERMIT CONDITION EU0330-001**

10 CSR 10-6.060 Construction Permits Required

Construction Permit #102006-015, Issued October 30, 2006

**Operational Limitation:**

ADM shall control emissions from the Filter Aid using a baghouse as specified in the permit application. The baghouse shall be operated and maintained in accordance with the manufacturer's specifications. The baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that the Department of Natural Resources' employees may easily observe them. Replacement filters for the baghouse shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance). [Special Condition 5A]

**Monitoring and Recordkeeping:**

- 1) ADM shall monitor and record the operating pressure drop across the baghouse at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty. [Special Condition 5B]
- 2) ADM shall maintain an operating and maintenance log for the baghouses which shall include the following: [Special Condition 5C]
  - a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
  - b) Maintenance activities, with inspection schedule, repair actions and replacements, etc.

**Reporting Requirements:**

Reports of any deviations from monitoring, recordkeeping and reporting requirements of this permit condition shall be submitted semi-annually, in the semi-annual excess emissions and continuous monitoring report and annual compliance certification, as required by 10 CSR 10-6.065(6)(C)1.C.(III) and Section V of this permit



## IV. Core Permit Requirements

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

### **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 Section 643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, start-up or shutdown. The information, at a minimum, should be the Paragraph 1 list and shall be submitted not later than 15 days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other pertinent information available, the Director or the commission shall make a determination whether the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under Section 643.080 or 643.151, RSMo.
- 4) Nothing in this rule shall be construed to limit the authority of the Director or commission to take appropriate action, under Sections 643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule.
- 5) Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.

### **10 CSR 10-6.060 Construction Permits Required**

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

### **10 CSR 10-6.065 Operating Permits**

The permittee shall file a complete application for renewal of this operating permit at least six months before the date of permit expiration. In no event shall this time be greater than eighteen months. [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]

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

- 1) The permittee shall complete and submit an Emission Inventory Questionnaire (EIQ) in accordance with the requirements outlined in this rule.
- 2) 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 to satisfy the requirements of the Federal Clean Air Act, Title V.
- 3) The fees shall be payable to the Department of Natural Resources and shall be accompanied by the Emissions Inventory Questionnaire (EIQ) form or equivalent approved by the Director.

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

- 1) The permittee shall not cause or allow to occur any handling, transporting or storing of any material; construction, repair, cleaning or demolition of a building or its appurtenances; construction or use of a road, driveway or open area; or operation of a commercial or industrial installation without applying reasonable measures as may be required to prevent, or in a manner which allows or may allow, fugitive particulate matter emissions to go beyond the premises of origin in quantities that the particulate matter may be found on surfaces beyond the property line of origin. The nature or origin of the particulate matter shall be determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the Director.
- 2) The permittee shall not cause nor allow to occur any fugitive particulate matter emissions to remain visible in the ambient air beyond the property line of origin.

- 3) Should it be determined that noncompliance has occurred, the Director may require reasonable control measures as may be necessary. These measures may include, but are not limited to, the following:
  - a) Revision of procedures involving construction, repair, cleaning and demolition of buildings and their appurtenances that produce particulate matter emissions;
  - b) Paving or frequent cleaning of roads, driveways and parking lots;
  - c) Application of dust-free surfaces;
  - d) Application of water; and
  - e) Planting and maintenance of vegetative ground cover.

#### **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 10-3.030 Open Burning Restrictions**

- 1) The permittee shall not conduct, cause, permit or allow a salvage operation, the disposal of trade wastes or burning of refuse by open burning.
- 2) Exception - Open burning of trade waste or vegetation may be permitted only when it can be shown that open burning is the only feasible method of disposal or an emergency exists which requires open burning.
- 3) Any person intending to engage in open burning shall file a request to do so with the Director. The request shall include the following:
  - a) The name, address and telephone number of the person submitting the application; The type of business or activity involved; A description of the proposed equipment and operating practices, the type, quantity and composition of trade wastes and expected composition and amount of air contaminants to be released to the atmosphere where known;
  - b) The schedule of burning operations;
  - c) The exact location where open burning will be used to dispose of the trade wastes;
  - d) Reasons why no method other than open burning is feasible; and
  - e) Evidence that the proposed open burning has been approved by the fire control authority which has jurisdiction.
- 4) Upon approval of the open burning permit application by the Director, the person may proceed with the operation under the terms of the open burning permit. Be aware that such approval shall not exempt ADM from the provisions of any other law, ordinance or regulation.
- 5) The permittee shall maintain files with letters from the Director approving the open burning operation and previous Department of Natural Resources inspection reports.

### **10 CSR 10-3.090 Restriction of Emission of Odors**

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 requirement is not federally enforceable.**

### **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 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 recordkeeping 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 Motor Vehicle Air conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.

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*

<b>10 CSR 10-6.280 Compliance Monitoring Usage</b>
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- 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.

## V. General Permit Requirements

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

### **10 CSR 10-6.065(6)(C)1.B Permit Duration**

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.

### **10 CSR 10-6.065(6)(C)1.C General Recordkeeping and Reporting Requirements**

- 1) Recordkeeping
  - a) All required monitoring data and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.
  - b) Copies of all current operating and construction permits issued to this installation shall be kept on-site for as long as the permits are in effect. Copies of these permits shall be made immediately available to any Missouri Department of Natural Resources' personnel upon request.
- 2) Reporting
  - a) All reports shall be submitted to the Air Pollution Control Program's Enforcement Section, P. O. Box 176, Jefferson City, MO 65102.
  - b) The permittee shall submit a report of all required monitoring by:
    - i) April 1st for monitoring which covers the January through June time period, and
    - ii) October 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, recordkeeping, reporting, or any other requirements of the permit, this includes deviations or Part 64 exceedances.
  - d) Submit supplemental reports as required or as needed. Supplemental reports are required no later than ten days after any exceedance of any applicable rule, regulation or other restriction. All reports of deviations shall identify the cause or probable cause of the deviations and any corrective actions or preventative measures taken.
    - i) Notice of any deviation resulting from an emergency (or upset) condition as defined in Paragraph (6)(C)7.A of 10 CSR 10-6.065 (Emergency Provisions) shall be submitted to the permitting authority either verbally or in writing within two working days after the date on which the emission limitation is exceeded due to the emergency, if the permittee wishes to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and the permittee can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or requirements in the permit. The notice must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.

- ii) Any deviation that poses an imminent and substantial danger to public health, safety or the environment shall be reported as soon as practicable.
- iii) Any other deviations identified in the permit as requiring more frequent reporting than the permittee's semi-annual 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 Section 112(r)**

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 40 CFR Section 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:

- 1) June 21, 1999;
- 2) Three years after the date on which a regulated substance is first listed under 40 CFR Section 68.130; or
- 3) 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 semi-annually (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 Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. All deviations and Part 64 exceedances and excursions must be included in the compliance certifications. The compliance certification shall include the following:
  - a) The identification of each term or condition of the permit that is the basis of the certification;
  - b) The current compliance status, as shown by monitoring data and other information reasonably available to the installation;



- c) Whether compliance was continuous or intermittent;
- d) The method(s) used for determining the compliance status of the installation, both currently and over the reporting period; and
- e) Such other facts as the Air Pollution Control Program will require in order to determine the compliance status of this installation.

#### **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 application requirements are included and specifically identified in this permit, or
  - b) The permitting authority, in acting on the permit revision or permit application, determines in writing that other requirements, as specifically identified in the permit, are not applicable to the installation, and this permit expressly includes that determination or a concise summary of it.
- 2) Be aware that there are exceptions to this permit protection. The permit shield does not affect the following:
  - a) The provisions of Section 303 of the Act or Section 643.090, RSMo concerning emergency orders,
  - b) Liability for any violation of an applicable requirement which occurred prior to, or was existing at, the time of permit issuance,
  - c) The applicable requirements of the acid rain program,
  - d) The authority of the Environmental Protection Agency and the Air Pollution Control Program of the Missouri Department of Natural Resources to obtain information, or
  - e) Any other permit or extra-permit provisions, terms or conditions expressly excluded from the permit shield provisions.

#### **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**

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 Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, at least seven days in advance of these changes, except as allowed for emergency or upset conditions. Emissions allowable under the permit means a federally enforceable permit term or condition determined at issuance to be required by an applicable requirement that establishes an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

- 1) Section 502(b)(10) changes. Changes that, under Section 502(b)(10) of the Act, contravene an express permit term may be made without a permit revision, except for changes that would violate applicable requirements of the Act or contravene federally enforceable monitoring (including test methods), recordkeeping, 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 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 the 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 the 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 written notice of the change to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 11201 Renner Blvd., Lenexa, KS 66219, no later than the next annual emissions report. 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)12 Responsible Official**

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

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

This permit may be reopened for cause if:

- 1) The Missouri Department of Natural Resources (MDNR) receives notice from the Environmental Protection Agency (EPA) that a petition for disapproval of a permit pursuant to 40 CFR § 70.8(d) has been granted, provided that the reopening may be stayed pending judicial review of that determination,
- 2) 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,
- 3) Additional applicable requirements under the Act become applicable to the installation; however, reopening on this ground is not required if—:
  - a) The permit has a remaining term of less than three years;
  - b) The effective date of the requirement is later than the date on which the permit is due to expire;or
  - c) The additional applicable requirements are implemented in a general permit that is applicable to the installation and the installation receives authorization for coverage under that general permit,
- 4) The installation is an affected source under the acid rain program and additional requirements (including excess emissions requirements), become applicable to that source, provided that, upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the permit; or
- 5) 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 A-2  
 Method 22 (Outdoor) Observation Log**

This recordkeeping sheet or an equivalent form may be used for the recordkeeping requirements of 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*.

Method 22 (Outdoor) Observation Log		
Emission Unit		
Observer	Date	
Sky Conditions		
Precipitation		
Wind Direction	Wind Speed	
Sketch process unit: Indicate the position relative to the source and sun; mark the potential emission points and/or the observing emission points.		
Observation Clock Time	Observation Period Duration (minute: second)	Accumulative Emission Time (minute: second)
Begin Observation		
End Observation		



**ATTACHMENT C**  
**Method 9 Opacity Emissions Observations**

This recordkeeping sheet or an equivalent form may be used for the recordkeeping requirements of 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*.

Method 9 Opacity Emissions Observations								
Company					Observer			
Location					Observer Certification Date			
Date					Emission Unit			
Time					Control Device			
Hour	Minute	Seconds				Steam Plume (check if applicable)		Comments
		0	15	30	45	Attached	Detached	
	0							
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							
SUMMARY OF AVERAGE OPACITY								
Set Number	Time				Opacity			
	Start	End		Sum	Average			

Readings ranged from \_\_\_\_\_ to \_\_\_\_\_ % opacity.

Was the emission unit in compliance at the time of evaluation?                       
 YES      NO      Signature of Observer

**ATTACHMENT D**  
**10 CSR 10-6.400 Compliance Demonstration**

This attachment may be used to demonstrate that the listed emission units are always in compliance with 10 CSR 10-6.400, *Restriction of Emission of Particulate Matter from Industrial Processes*.

Allowable PM Emission Rate (E)

For process weights rates > 60,000 lb/hr:

$$E = 55.0(P)^{0.11} - 40$$

Where: E = rate of emission in lb/hr and P = process weight rate in ton/hr

PM Emission Rate Compliance

PM emission rate (lb/hr) = MHDR (ton/hr) x Emission Factor (lb/ton)

Emission Unit #	Emission Unit Description	Process Weight Rate (ton/hr)	PM Emission Factor (lb/ton)	Uncontrolled Emission Rate (lb/hr)	Allowable Emission Rate (lb/hr)
EU0040	Small Grain Dryer	36	0.22	7.92	41.57
EU0050	Large Grain Dryer	75	0.22	16.50	48.43

1. EU0040 and EU0050: emission factor from AP-42 Table 9.9.1-1 SCC #3-02-005-27

PM Concentration Compliance

Emission rate (gr/dscf) = Emission Rate (lb/hr) x 7000 (gr/lb)/Stack flow rate (SCFM)/60(min/hr)

Flow rates converted from actual to standard conditions using the ideal gas law.

Emission Unit #	Emission Unit Description	Emission Rate (lb/hr)	Stack Temp. °F	Stack Flow		Emission Rate (gr/scf)	Allowable Emission Limit (gr/scf)
				ACFM	SCFM		
EU0040	Small Grain Dryer	7.92	100	65,000	61,286	0.02	0.3
EU0050	Large Grain Dryer	16.50	100	98,000	92,400	0.02	0.3







**ATTACHMENT F**  
**Monthly PM<sub>10</sub> Emission Tracking Record**

This attachment may be used to demonstrate that EU0100 (Cracking and Dehulling) is in compliance with Permit Condition EU0100-003 and Construction Permit #0795-002.

Date Month/Year	Column 1 Amount of Soybeans Processed (Tons)	Column 2* PM <sub>10</sub> Emission Factor (Lbs/Ton)	Column 3** Monthly PM <sub>10</sub> Emissions (Tons)	Column 4*** Sum of Most Recent 12 Months (Tons)

\* Sum of Emission Factors of All Processes  
\*\* Column 1 x Column 2 x 0.0005  
\*\*\* Sum of Last 12 Months of Column 3

**ATTACHMENT G  
 Monthly TSP Emission Tracking Record**

This attachment may be used to demonstrate that EU0100 (Cracking and Dehulling) is in compliance with Permit Condition EU0010-003 and Construction Permit #0795-002.

Date Month/Year	Column 1 Amount of Soybeans Processed (Tons)	Column 2* TSP Emission Factor (Lbs/Ton)	Column 3** Monthly TSP Emissions (Tons)	Column 4*** Sum of Most Recent 12 Months (Tons)

\* Sum of Emission Factors of All Processes  
 \*\* Column 1 x Column 2 x 0.0005  
 \*\*\* Sum of Last 12 Months of Column 3

**ATTACHMENT H**  
**10 CSR 10-6.405 Compliance Demonstration**

This attachment may be used to demonstrate that the listed emission units are always on compliance with 10 CSR 10-6.405, *Restriction of Particulate Matter from Fuel Burning Equipment Used for Indirect Heat*

The installation's total heat input (Q) in millions of Btu per hour is calculated in the table below:

Emission Unit #	Emission Unit Description	MHDR (MMBtu/hr)
EU0190	Boiler #1	33.476
EU0200	Boiler #2	33.476
EU0210	Boiler #3	59
EU0220	Boiler #4	85.6
EU0240	Biodiesel Boiler	16.33
NA	Miscellaneous heaters	1.38
Total Q		229.2

Allowable PM emission rate for new indirect heating sources having an intermediate capacity between ten MMBtu and 2,000 MMBtu:

$$E = 1.31 (Q)^{-0.338} = 1.31(229.2)^{-0.338} = 0.21 \text{ lb/MMBtu}$$

Where: E = maximum allowable particulate emission rate in lb/MMBtu of heat input

Emission Unit #	Fuel	Emission Factor	Emission Factor Source	Conversion Factor	Emission Rate (lb/MMBtu)	Allowable Emission Limit (lb/MMBtu)
EU0190	natural gas	7.6 lb/10 <sup>6</sup> scf/hr	AP-42 Table 1.4-2	1020 MMBtu/10 <sup>6</sup> scf	0.007	0.21
	fuel oil #2	2.0 lb/10 <sup>3</sup> gal	AP-42 Table 1.3-1	140 MMBtu/10 <sup>3</sup> gal	0.014	0.21
	vegetable oil	0.05 lb/MMBtu	2001 Stack Test	-	0.05	0.21
EU0200	natural gas	7.6 lb/10 <sup>6</sup> scf/hr	AP-42 Table 1.4-2	1020 MMBtu/10 <sup>6</sup> scf	0.007	0.21
	fuel oil #2	2.0 lb/10 <sup>3</sup> gal	AP-42 Table 1.3-1	140 MMBtu/10 <sup>3</sup> gal	0.014	0.21
	vegetable oil	0.05 lb/MMBtu	2001 Stack Test	-	0.05	0.21
EU0210	natural gas	7.6 lb/10 <sup>6</sup> scf/hr	AP-42 Table 1.4-2	1020 MMBtu/10 <sup>6</sup> scf	0.007	0.21
	fuel oil #2	2.0 lb/10 <sup>3</sup> gal	AP-42 Table 1.3-1	140 MMBtu/10 <sup>3</sup> gal	0.014	0.21
	fuel oil #6	10 lb/10 <sup>3</sup> gal	AP-42 Table 1.3-1	150 MMBtu/10 <sup>3</sup> gal	0.067	0.21
	vegetable oil	0.05 lb/MMBtu	2001 Stack Test	-	0.05	0.21
EU0240	Natural gas	7.6 lb/10 <sup>6</sup> scf/hr	AP-42 Table 1.4-2	1020 MMBtu/10 <sup>6</sup> scf	0.007	0.21
	Fuel oil #2	2.0 lb/10 <sup>3</sup> gal	AP-42 Table 1.3-1	140 MMBtu/10 <sup>3</sup> gal	0.014	0.21

**ATTACHMENT I**  
**Solvent Loss Record for ADM Mexico Missouri Plant**

Records shall be kept in the form of the following table that show total solvent losses, solvent losses during malfunction periods, adjusted solvent losses (i.e. total solvent losses minus malfunction losses) month and on a twelve-month tolling basis.

Date	Total Crush (tons)		Total Solvent Loss (gallons)		Malfunction Period Solvent Loss (gallons)		Adjusted Solvent Loss <sup>a</sup> (gallons)		SLR <sup>b</sup> (gal/ton)
	Monthly	12-Month Rolling	Monthly	12-Month Rolling	Monthly	12-Month Rolling	Monthly	12-Month Rolling	12-Month Rolling
Month -Year									

<sup>a</sup> - Adjusted Solvent Loss is equal to Total Solvent Loss minus Malfunction Period Loss.

<sup>b</sup> - Solvent Loss Ratio is equal to 12-month rolling Adjusted Solvent Loss divided by 12-Month Rolling Total Crush.

Compliance determination is based on 12-Month Rolling SLR value compared to Final VOC SLR Limit.

**ATTACHMENT J**  
**10 CSR 10-6.260 Compliance Demonstration**

This attachment may be used to demonstrate that EU0320 and EU0325(Fire Pump Engines) is always in compliance with 10 CSR 10-6.260, *Restriction of Emission of Sulfur Compounds*

General Equation

ppmv SO<sub>2</sub> = SO<sub>2</sub> Emission Factor in lb/MMBtu x F Factor in MMBtu/wscf x Conversion Factor for lb/scf to ppm x Conversion Factor for ppmw to ppmv

- 1) SO<sub>2</sub> emission factor for diesel engines < 600 HP = 0.29 lb/MMBtu (AP-42 Table 3.3-1)
- 2) The F factor is the ratio of gas volume of products of combustion to the heat content of the fuel. For fuel oil the F factor = 1 MMBtu / 10,320 wscf (Part 60 Appendix A Method 19 Table 19-2)
- 3) Conversion factor for lb/scf to ppm = ppm / 1.660E<sup>-7</sup> lb/scf (Part 60 Appendix A Method 19 Table 19-1)
- 4) Conversion factor for ppmw to ppmv = (28.8 / Molecular Weight of SO<sub>2</sub>) ppmv / 1 ppmw = (28.8/64) ppmv / ppmw = 0.45 ppmv / ppmw (AP-42 Appendix A)

Compliance Demonstration

$$ppmv SO_2 = \left(0.29 \frac{lb}{MMBtu}\right) \left(\frac{MMBtu}{10,320 \text{ ft}^3}\right) \left(\frac{ppmw}{1.667E^{-7} \text{ lb / scf}}\right) \left(0.45 \frac{ppmv}{ppmw}\right) = 76 \text{ ppmv}$$

$$76 \text{ ppmv SO}_2 \ll 500 \text{ ppmv SO}_2$$

The calculations show that no further monitoring or recordkeeping is necessary because the emission unit's worst-case emissions are substantially lower than the applicable limit.

**ATTACHMENT K**  
 Monthly VOC Emission Tracking Record

Archer Daniels Midland Company  
 Audrain County, S28, T51N, R9W  
 Installation ID Number: 007-0002

This sheet covers the period from \_\_\_\_\_ to \_\_\_\_\_.  
 (month, year) (month, year)

Copy this sheet as needed

Column A	Column B	Column C	Column D	Column E
Emission Point(s)	Description	Amount Processed	VOC Emission Factor	(a) VOC Emissions (tons)
(b) Total VOC Emissions Calculated for this Month in Tons:				
(c) 12-Month VOC Emissions Total From Previous Month's Attachment A, in Tons:				
(d) Monthly VOC Emissions Total (b) from Previously year's Attachment A, In Tons:				
(e) Current 12-month Total of VOC Emissions in Tons : [(b) + (c) - (d)]				

- (a) [Column E] = [Column C] x [Column D] x 0.0005. Refer to Table 2 for emission factor information.
- (b) Summation of [Column E] in Tons;
- (c) 12-Month VOC emissions total (e) from last month's Attachment A, in Tons;
- (d) Monthly VOC emissions total (b) from previous year's Attachment A, in Tons;
- (e) Calculate the new 12-month VOC emissions total.

**A 12-Month VOC emissions total (e) of less than 100.0 tons indicates compliance.**



**ATTACHMENT L**

Tables 1 through 7 from 40 CFR Part 63 Subpart FFFF

**Table 1 – Emission Limits and Work Practice Standards for Continuous Process Vents**

For each...	For which...	Then you must...
1. Group 1 continuous process vent	a. Not applicable	i. Reduce emissions of total organic HAP by $\geq 98$ percent by weight or to an outlet process concentration $\leq 20$ ppmv as organic HAP or TOC by venting emissions through a closed-vent system to any combination of control devices (except a flare); or
		ii. Reduce emissions of total organic HAP by venting emissions through a closed vent system to a flare; or
		iii. Use a recovery device to maintain the TRE above 1.9 for an existing source or above 5.0 for a new source.
2. Halogenated Group 1 continuous process vent stream	a. You use a combustion control device to control organic HAP emissions	i. Use a halogen reduction device after the combustion device to reduce emissions of hydrogen halide and halogen HAP by $\geq 99$ percent by weight, or to $\leq 0.45$ kg/hr, or to $\leq 20$ ppmv; or ii. Use a halogen reduction device before the combustion device to reduce the halogen atom mass emission rate to $\leq 0.45$ kg/hr or to a concentration $\leq 20$ ppmv.
3. Group 2 continuous process vent at an existing source	You use a recovery device to maintain the TRE level $> 1.9$ but $\leq 5.0$	Comply with the requirements in §63.993 and the requirements referenced therein.
4. Group 2 continuous process vent at a new source	You use a recovery device to maintain the TRE level $> 5.0$ but $\leq 8.0$	Comply with the requirements in §63.993 and the requirements referenced therein.

**Table 2 – Emission Limits and Work Practice Standards for Batch Process Vents**

For each...	Then you must...	And you must...
1. Process with Group 1 batch process vents	a. Reduce collective uncontrolled organic HAP emissions from the sum of all batch process vents within the process by $\geq 98$ percent by weight by venting emissions from a sufficient number of the vents through one or more closed-vent systems to any combination of control devices (except a flare); or	Not applicable
	b. Reduce collective uncontrolled organic HAP emissions from the sum of all batch process vents within the process by $\geq 95$ percent by weight by venting emissions from a sufficient number of the vents through one or more closed-vent systems to any	

	combination of recovery devices or a biofilter, except you may elect to comply with the requirements of Subpart WW of this part for any process tank; or	
	c. Reduce uncontrolled organic HAP emissions from one or more batch process vents within the process by venting through a closed-vent system to a flare or by venting through one or more closed-vent systems to any combination of control devices (excluding a flare) that reduce organic HAP to an outlet concentration $\leq 20$ ppmv as TOC or total organic HAP.	For all other batch process vents within the process, reduce collective organic HAP emissions as specified in item 1.a and/or 1.b of this table.
2. Halogenated Group 1 batch process vent for which you use a combustion device to control organic HAP emissions	a. Use a halogen reduction device after the combustion control device; or	i. Reduce overall emissions of hydrogen halide halogen HAP by $\geq 99$ percent; or ii. Reduce overall emissions of hydrogen halide and halogen HAP to $\leq 0.45$ kg/hr; or iii. Reduce overall emissions of hydrogen halide and halogen HAP to a concentration $\leq 20$ ppmv.
	b. Use a halogen reduction device before the combustion control device.	Reduce the halogen atom mass emission rate to $\leq 0.45$ kg/hr or to a concentration $\leq 20$ ppmv.

**Table 3 – Emission Limits for Hydrogen Halide and Halogen HAP Emissions or HAP Metals Emissions From Process Vents**

For each...	You Must...
1. Process with uncontrolled hydrogen halide and halogen HAP emissions from process vents $\geq 1,000$ lb/yr	a. Reduce collective hydrogen halide and halogen HAP emissions by $\geq 99$ percent by weight or to an outlet concentration $\leq 20$ ppmv by venting through one or more closed-vent systems to any combination of control devices, or
	b. Reduce the halogen atom mass emission rate from the sum of all batch process vents and each individual continuous process vent to $\leq 0.45$ kg/hr by venting through one or more closed-vent systems to a halogen reduction device.
2. Process at a new source with uncontrolled emissions from process vents $\geq 150$ lb/yr of HAP metals	Reduce overall emissions of HAP metals by $\geq 97$ percent by weight.

**Table 4 – Emission Limits for Storage Tanks**

For each...	For which...	Then you must...
1. Group 1 storage tank	a. The maximum true vapor pressure of total HAP at the storage temperature is $\geq 76.6$ kilopascals	i. Reduce total HAP emissions by $\geq 95$ percent by weight or to $\leq 20$ ppmv of TOC or organic HAP and $\leq 20$ ppmv of hydrogen halide and halogen HAP by venting emissions through a closed vent system to any combination of control devices (excluding a flare); or
		ii. Reduce total organic HAP emissions by venting emissions through a closed vent system to a flare; or
		iii. Reduce total HAP emissions by venting emissions to a fuel gas system or process in accordance with §63.982(d) and the requirements referenced therein.
	b. The maximum true vapor pressure of total HAP at the storage temperature is $< 76.6$ kilopascals	i. Comply with the requirements of Subpart WW of this part, except as specified in §63.2470; or
		ii. Reduce total HAP emissions by $\geq 95$ percent by weight or to $\leq 20$ ppmv of TOC or organic HAP and $\leq 20$ ppmv of hydrogen halide and halogen HAP by venting emissions through a closed vent system to any combination of control devices (excluding a flare); or
		iii. Reduce total organic HAP emissions by venting emissions through a closed vent system to a flare; or
iv. Reduce total HAP emissions by venting emissions to a fuel gas system or process in accordance with §63.982(d) and the requirements referenced therein.		
2. Halogenated vent stream from a Group 1 storage tank	You use a combustion control device to control organic HAP emissions.	Meet one of the emission limit options specified in Item 2.a.i or iii. in Table 1 of this subpart.

**Table 5 – Emission Limits and Work Practice Standards for Transfer Racks**

For each...	You must...
1. Group 1 transfer rack	a. Reduce emissions of total organic HAP by $\geq 98$ percent by weight or to an outlet concentration $\leq 20$ ppmv as organic HAP or TOC by venting emission through a closed-vent system to any combination of control devices (except a flare); or
	b. Reduce emissions of total organic HAP by venting emissions through a closed-vent system to a flare; or
	c. Reduce emissions of total organic HAP by venting emissions to a fuel gas system or to process in accordance with §63.982(d) and the requirements referenced therein; or
	d. Use a vapor balancing system designed and operated to collect organic HAP vapors displaced from tank trucks and railcars during loading and route the collected HAP vapor to the storage tank from which the liquid being loaded originated or to another storage tank connected by a common header.
2. Halogenated Group 1 transfer rack vent stream for which you use a combustion device to control organic HAP emissions	a. Use a halogen reduction device after the combustion device to reduce emissions of hydrogen halide and halogen HAP by $\geq 99$ percent by weight, to $\leq 0.45$ kg/hr, or to $\leq 20$ ppmv; or b. Use a halogen reduction device before the combustion device to reduce the halogen atom mass emission rate to $\leq 0.45$ kg/hr or to a concentration $\leq 20$ ppmv.

**Table 6 – Requirements for Equipment Leaks**

For all...	And that is part of...	You must...
1. Equipment that is in organic HAP service	a. Comply with the requirements of Subpart UU of this Part 63 and the requirements referenced therein, except as specified in §63.2480(b) and (d); or	
	b. Comply with the requirements of Subpart H of this Part 63 and the requirements referenced therein, except as specified in §63.2480(b) and (d); or	

	c. Comply with the requirements of 40 CFR Part 65, Subpart F and the requirements referenced therein, except as specified in §63.2480(b) and (d)	
2. Equipment that is in organic HAP service at a new source	a. Any MCPU	i. Comply with the requirements of Subpart UU of this Part 63 and the requirements referenced therein; or ii. Comply with the requirements of 40 CFR Part 65, Subpart F.

**Table 7 – Requirements for Wastewater Streams and Liquid Streams in Open Systems Within an MCPU**

For each...	And that is part of...
1. Process wastewater stream	Comply with the requirements in §§63.132 through 63.148 and the requirements referenced therein, except as specified in §63.2485
2. Maintenance wastewater stream	Comply with the requirements in §63.105 and the requirements referenced therein, except as specified in §63.2485
3. Liquid streams in an open system within an MCPU	Comply with the in §63.149 and the requirements referenced therein, except as specified in §63.2485

# STATEMENT OF BASIS

## Permit Reference Documents

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

- 1) Part 70 Operating Permit Application, received June 16, 2005; revised March 31, 2008
- 2) 2010 Emissions Inventory Questionnaire, received April 30, 2011;
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition.
- 4) Construction Permit #0284-007
- 5) Construction Permit #0795-002
- 6) Construction Permit #102006-015, Issued October 30, 2006
- 7) March 14, 2003 US EPA Consent Agreement
- 8) Construction Permit #102010-003, Issued October 5, 2010

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

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

### March 14, 2003 US EPA Consent Agreement

Archer Daniels Midland (ADM) signed a consent decree that required ADM to implement a volatile organic compound (VOC) emission reduction program at its Mexico facility. The requirements of this consent decree have been included in the operating permit

## 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

This rule is not applicable because the installation is in an ozone attainment area.

### 10 CSR 10-3.060, *Maximum Allowable Emissions of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating*

This rule does not apply to this facility because it has been rescinded and replaced with 10 CSR 10-6.405, *Restriction of Particulate Matter Emissions From Fuel Burning Equipment Used for Indirect Heating*.

## Construction Permit Revisions

The following revisions were made to construction permits for this installation:

- 1) Construction Permit #0284-007
  - a) Condition B.2 is not included in the operating permit because this condition is related to initial performance testing.

- 2) Construction Permit #0795-002
  - a) Special Conditions 1, 2, 5, and 9 are not included in the operating permit because these conditions are related to performance testing and removal of old equipment that was to be completed no later than 180 days after initial startup.
  - b) This permit indicated that 10 CSR 10-3.050 was an applicable requirement. This rule has been rescinded and replaced by 10 CRS 10-6.400.
- 3) Construction Permit 102010-003
  - a) This permit stated that 40 CFR Part 60 Subpart DD, Standards of Performance for Grain Elevators, applies to this facility. However, all grain processing units were installed prior to August 3, 1978 and therefore are not subject to this rule.
- 4) Construction Permit 102006-015
  - a) Special Condition 3B requires performance testing that is not applicable at this time due to the vacatur of the Boiler MACT (40 CFR Part 63 Subpart DDDDD), therefore it were not included in this operating permit.

#### **New Source Performance Standards (NSPS) Applicability**

- 1) 40 CFR Part 60 Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*

This rule applies to a steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989, and that has a maximum design heat input capacity of less than or equal to 100 MMBtu/hr but greater than or equal to ten MMBtu/hr. This rule does not apply to this Emission Units EU0190 and EU0200 (Boiler #1 and Boiler #2) because they were constructed in 1980. Nor does it apply to Emission Unit EU0210 (Boiler #3) because it was constructed in 1968, and modified in 1983. This subpart does apply to Emission Unit EU0220 (Boiler #4) and Emission Unit EU0240 (Biodiesel Boiler).
- 2) 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*

This rule does not apply to this installation because the two 20,000-gallon hexane storage tanks were constructed in 1977, which is prior to the applicability date. This subpart does apply to Emission Unit EU0290 (Methanol Storage Tank). EU0290 is also subject to 40 CFR Part 63 Subpart FFFF and when the unit is in compliance with Subpart FFFF, it is also in compliance with Subpart Kb, therefore Subpart Kb was not included in the permit.
- 3) 40 CFR Part 60 Subpart DD, *Standards of Performance for Grain Elevators*

This rule does not apply to the grain handling equipment at this facility because the grain handling operations were originally installed before August 3, 1978. Some individual conveyors within the affected facility were replaced with like kind units but were not modified according to NSPS because there was no increase in emission rate to the atmosphere. These conveyors that were replaced had the same grain handling capacity and were equipped with the same pollution control equipment and therefore did not impact the emissions to the environment.
- 4) 40 CFR Part 60 Subpart VV, *Equipment Leaks of VOC in the Synthetic Organic Chemical Manufacturing Industry*

This rule applies to affected facilities in the synthetic organic chemicals manufacturing industry that commenced construction or modification after January 5, 1981. This rule applies to operations at the biodiesel plant, specifically Emission Unit EU0270- Fugitive Leaks. However, according to 40 CFR Part 63.2535(k), if equipment at an affected source is subject to both 40 CFR Part 63 Subpart FFFF

and 40 CFR Part 60 Subpart VV, the permittee may elect to apply only Subpart FFFF to all such equipment. Since Subpart FFFF also applies to EU0270, only the provisions of Subpart FFFF are included in this permit.

- 5) 40 CFR Part 60 Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* does not apply to Emission Unit EU0230 Fire Pump Engine for the Biodiesel plant because it was manufactured in 1990. This subpart does apply to Emission Unit EU0235 Fire Pump Engine because it was manufactured in 2009.
- 6) 40 CFR Part 60 Subpart NNN, *Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations* applies to the biodiesel plant. However, according to 40 CFR Part 63.2535(h), compliance with the provisions of 40 CFR Part 63 Subpart FFFF constitute compliance with Subpart NNN, therefore only the requirements of Subpart FFFF were included in this permit.
- 7) 40 CFR Part 60 Subpart RRR, *Standards of Performance for Volatile Organic Compound Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes* applies to the biodiesel plant. However, according to 40 CFR Part 63.2535(h), compliance with the provisions of 40 CFR Part 63 Subpart FFFF constitute compliance with Subpart RRR, therefore only the requirements of Subpart FFFF were included in this permit.

None of the other New Source Performance Standards (NSPS) apply to this installation.

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

- 1) 40 CFR Part 63 Subpart GGGG, *National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production*
  - a) This rule applies to EU0135 (Soybean Oil Extractor). The following deadlines are applicable to the facility:
    - i) The permittee was required to submit Initial Notification 120 days after the effective date (April 12, 2001) of this subpart. [[§63.2860\(a\)](#)]
    - ii) The permittee was required to submit a notification of compliance status report to the Missouri Department of Natural Resources no later than 60 days after determining their initial 12 operating months compliance ratio, generally the permittee must submit this notification no later than 50 calendar months after the effective date (April 12, 2001) of this subpart. [[§63.2860\(d\)](#)]
    - iii) A plan for demonstrating compliance (as described in §63.2851) and a SSM plan (as described in §63.2852) was required to be completed before the compliance date (April 12, 2004) and kept on-site. [[§63.2862\(b\)](#)]
- 2) 40 CFR Part 63 Subpart EEEE, *National Emission Standards for Hazardous Air Pollutant: Organic Liquid Distribution*
  - a) This rule does not apply to this installation because soybean oil does not meet the definition of organic liquid.
- 3) 40 CFR Part 63 Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutant: Reciprocating Internal Combustion Engines*
  - a) This rule applies to Emission Units EU0230 and EU0235 (Fire Pump Engines).
- 4) 40 CFR Part 63 Subpart FFFF, *National Emissions Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing* applies to the Biodiesel Plant at this installation.



5) 40 CFR Part 63 Subpart DDDDD, *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters*

This rule applies to this facility however the current rule is under review and subject to change before the compliance date. Once the rule is finalized, this permit will be reopened and amended to include this subpart.

None of the other Maximum Available Control Technology (MACT) regulations apply to this installation.

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

In the permit application and according to Air Pollution Control Program records, there was no indication that any Missouri Air Conservation Law, Asbestos Abatement, 643.225 through 643.250; 10 CSR 10-6.080, Emission Standards for Hazardous Air Pollutants, Subpart M, National Standards for Asbestos; and 10 CSR 10-6.250, Asbestos Abatement Projects - Certification, Accreditation, and Business Exemption Requirements apply to this installation. The installation is subject to these regulations if they undertake any projects that deal with or involve any asbestos containing materials. None of the installation's operating projects underway at the time of this review deal with or involve asbestos containing material. Therefore, the above regulations were not cited in the operating permit. If the installation should undertake any construction or demolition projects in the future that deal with or involve any asbestos containing materials, the installation must follow all of the applicable requirements of the above rules related to that specific project.

**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.

CAM Plans were submitted and approved for the following emission units:

EU0100 Cracking and Dehulling – Cyclone

EU0120 Grain Cleaning – Baghouse

EU0150 Meal Grinding – Baghouse

EU0170 Meal Loadout (Truck) – Baghouse

EU0180 Meal Loadout (Rail) – Baghouse

The conditions contained in the CAM Plans are included as part of this operating permit under the appropriate permit conditions for each affected emission unit.

**Greenhouse Gas Emissions**

This installation is a major source for greenhouse gases. Major stationary sources are required by the Clean Air Act (CAA) to obtain Part 70 operating permits. While Part 70 permits generally do not establish new emissions limits, they consolidate applicable requirements, as defined in Missouri State Regulations 10 CSR 10-6.020(2)(A)23, into a comprehensive air permit. At the time of permit issuance, there were no applicable GHG requirements for this source.

Note that this source is subject to the Greenhouse Gas Reporting Rule. However, the preamble of the GHG Reporting Rule clarifies that Part 98 requirements do not have to be incorporated in Part 70 permits operating permits at this time. In addition, Missouri regulations do not require the installation to report CO<sub>2</sub> emissions in their Missouri Emissions Inventory Questionnaire; therefore, the installation's CO<sub>2</sub> emissions were not included within this permit. An estimate of CO<sub>2</sub> emissions are included in the table below. The applicant is required to report the data directly to EPA. The public may obtain CO<sub>2</sub> emissions data for this installation by visiting EPA's Clean Air Markets website at: <http://camddataandmaps.epa.gov/gdm/index.cfm>.

**Updated Potential to Emit for the Installation**

Pollutant	Potential to Emit (tons/yr) <sup>1</sup>
CO	57.4
CO <sub>2</sub> e	36232
HAP	>25
NO <sub>x</sub>	94.8
PM <sub>10</sub>	221
PM <sub>2.5</sub>	78.1
SO <sub>x</sub>	13.7
VOC	300.9

<sup>1</sup>Each emission unit was evaluated at 8,760 hours of uncontrolled annual operation unless otherwise noted.

**Other Regulatory Determinations**

- 1) 10 CSR 10-6.405, *Restriction of Particulate Matter Emissions from Fuel Burning Equipment Used for Indirect Heating*  
 This rule does not apply to the Small Grain Dryer (EU0060) and the Large Grain Dryer (EU0070) because these combustion units are direct fired.
- 2) 10 CSR 10-6.260, *Restriction of Emission of Sulfur Compounds*  
 This rule does not apply to the Small Grain Dryer (EU0060) and the Large Grain Dryer (EU0070) for as long as they burn pipeline grade natural gas exclusively, per §(A)(1)2.
- 3) 10 CSR 10-6.400, *Restriction of Emission of Particulate Matter From Industrial Processes*  
 The following emission points are exempt from this rule because according to §(1)(B)3, the receiving and shipping of whole grain from or into a railroad or truck transportation source at a grain elevator is exempt from the provisions of this rule.  
     EU0010 Northwest Truck Unloading  
     EU0020 North Truck Unloading  
     EU0025 West Truck Unloading  
     EU0030 North Rail Unloading  
     EU0035 South Rail Unloading
- 4) 10 CSR 10-6.400, *Restriction of Emission of Particulate Matter From Industrial Processes*  
 Emission Units EU0060, EU0070, EU0080, EU0085, EU0090 are not subject to this rule because they are subject to the particulate matter emission limitation in 40 CFR Part 60 Subpart DD. Emission Units EU0040 and EU0050 are also subject to 40 CFR Part 60 Subpart DD, however they are only subject to an opacity standard and not a particulate matter limitation, therefore 10 CSR 10-6.400 does apply to these two units.

- 5) 10 CSR 10-6.400, *Restriction of Emission of Particulate Matter From Industrial Processes* EU0190, EU0200, EU0210, EU0220, and EU0240 (Boilers) are exempt from this rule because according to §(1)(B)6, the burning of fuel for indirect heating is exempt from the provisions of this rule.
- 6) Permit Condition EU0135-004 includes conditions contained in the March 14, 2003 U.S. EPA Consent Agreement – VOC Control Technology Plan for ADM’s Oilseed Plants. The permittee requested that the following reporting items be removed from the permit as they have been satisfied:

By no later than Dec, 31, 2007, the permittee shall propose in writing to the Missouri Department of Natural Resources final VOC SLR limits for the Mexico facility that satisfy the requirements of the Consent Decree. [[Control Technology Plan, Section 5.2\(a\)](#)]

Condenser Project Reports. In the semi-annual reports due on July 30th of 2004, 2005 and 2006, ADM shall submit reports to the EPA and Missouri Department of Natural Resources identifying the plants at which upgraded condenser systems have been installed since the last reporting period and ADM’s tentative projections for the remaining installations, to demonstrate that the deadlines in Paragraph 60 of the Consent Decree have been and will be met. For any plant not operating on April 1, 2006, the report shall be submitted 30 days after the installation deadline under Paragraph 60 of the Consent Decree. [Control Technology Plan, Section 7.0]

7) The calculations below verify compliance with both the PM Emission Rate and the PM Concentration for the listed emission units provided that the required control devices are in operation and working properly:

OP Emission Unit #	Emission Unit Description	Process Weight tons/h	Emission Factor lbs/ton	Control Dev. Efficiency %	Uncontrolled Emissions tpy	Uncontrolled Emission Rate lbs/h	Controlled Emission Rate lbs/h	Emission Limit lbs/h	Is rule applicable?	Is unit in compliance w/ controls?
EU0010	Northwest truck dump	300	0.0078	99.35	10.2492	2.34	0.015	63.00	NO	
EU0020	North truck dump	300	0.0078	99.40	10.2492	2.34	0.014	63.00	NO	
EU0250	West Truck Dump	300	0.0078	25.00	10.2492	2.34	1.755	63.00	NO	
EU0300	North Rail Unloading	450	0.0078	0.00	15.3738	3.51	NA	67.70	NO	
EU0350	South Rail Unloading	450	0.0078	0.00	15.3738	3.51	NA	67.70	NO	
EU0040	Small Grain Dryer	36	0.22	0.00	34.6896	7.92	NA	41.57	NO	
EU0050	Large Grain Dryer	75	0.22	0.00	72.27	16.50	NA	48.43	NO	
EU0060	NW Silos	600	0.025	99.35	65.7	15.00	0.098	71.16	NO	
EU0070	N Silos	300	0.025	0.00	32.85	7.50	NA	63.00	NO	
EU0080	Annex & West Silos	300	0.025	0.00	32.85	7.50	NA	63.00	NO	
EU0085	Storage Bin Vents	150	0.025	0.00	16.425	3.75	NA	55.44	NO	
EU0090	Headhouse and Internal Handling	300	0.061	99.35	80.154	18.30	0.119	63.00	NO	
EU0100	Cracking and Dehulling	96	0.494	80.00	208.25805	47.55	9.510	50.89	YES	YES
EU0110	Hull Grinding	75	0.1336	99.35	43.8876	10.02	0.065	48.43	YES	YES
EU0120	Grain Cleaning	75	0.375	80.00	123.1875	28.13	5.625	48.43	YES	YES
EU0130	Flaking	96	0.0325	80.00	13.701188	3.13	0.626	50.89	YES	YES
EU0140	Meal Dryer & Cooler	96	0.21	80.00	88.53075	20.21	4.043	50.89	YES	YES
EU0150	Meal Grinding	100	1.1	99.35	468.66	107.00	0.696	51.28	YES	YES
EU0160	Storage Bin Vents	140	0.25	0.00	153.3	35.00	35.000	54.72	YES	YES
EU0170	Meal Loadout (Truck)	200	0.27	99.35	236.52	54.00	0.351	58.51	YES	YES
EU0180	Meal Loadout (Rail)	200	0.27	99.35	236.52	54.00	0.351	58.51	YES	YES
EU0230	Bean Heater	200	0.005	80.00	4.38	1.00	0.200	58.51	YES	YES

EU0060 Emission factor from AP-42 Table 9.9.1-1 SCC#3-02-005-27 [factor from source testing so assumed combustion related PM emission included in factor]

EU0070 Emission factor from AP-42 Table 9.9.1-1 SCC#3-02-005-27 [factor from source testing so assumed combustion related PM emission included in factor]

EU0080 Emission factor from

- EU0090 Emission factor from AP-42 Table 9.9.1-1 SCC#3-02-005-40 [EF in permit app assumed 0.1 gr/ft<sup>3</sup>; EF = 1.24 ft<sup>3</sup>/bushel x 1 bushel/60 lb x 2000 lb/ton x 0.1 gr/ft<sup>3</sup> x 0.000143 lb/gr = 0.00059 lb/ton]
- EU0100 Emission factor from AP-42 Table 9.9.1-1 SCC#3-02-005-40 [EF in permit app assumed 0.1 gr/ft<sup>3</sup>; EF = 1.24 ft<sup>3</sup>/bushel x 1 bushel/60 lb x 2000 lb/ton x 0.1 gr/ft<sup>3</sup> x 0.000143 lb/gr = 0.00059 lb/ton]
- EU0110 Emission factor from AP-42 Table 9.9.1-1 SCC#3-02-005-40 [EF in permit app assumed 0.1 gr/ft<sup>3</sup>; EF = 1.24 ft<sup>3</sup>/bushel x 1 bushel/60 lb x 2000 lb/ton x 0.1 gr/ft<sup>3</sup> x 0.000143 lb/gr = 0.00059 lb/ton]
- EU0120 Emission factor from AP-42 Table 9.11.1-1 SCC#3-02-007-88; EF w/ cyclone = 0.037; assumed 80% control to determine uncontrolled EF = 0.037/0.2 = 0.185
- EU0130 Emission factor from AP-42 Table 9.9.1-1 SCC#3-02-005-40 [EF in permit app assumed 0.1 gr/ft<sup>3</sup>, 40 lb/ft<sup>3</sup>; EF = ft<sup>3</sup>/40 lb x 2000 lb/ton x 0.1 gr/ft<sup>3</sup> x 0.000143 lb/grain = 0.00071 lb/ton]
- EU0140 Plantwide conveyors with 3 baghouses with 99.35% overall control each; emission factor from AP-42 Table 9.9.1-1 SCC#3-02-005-30
- EU0150 Emission factor from AP-42 Table 9.11.1-1 SCC#3-02-007-85; EF w/ cyclone = 0.36; assumed 80% control to determine uncontrolled EF = 0.36/0.2 = 1.8
- EU0160 Emission factor from AP-42 Table 9.11.1-1 SCC#3-02-007-86; EF w/ cyclone = 0.2; assumed 80% control to determine uncontrolled EF = 0.2/0.2 = 1.0
- EU0170 Emission factor from AP-42 Table 9.9.1-1 SCC#3-02-005-37; EF w/ cyclone = 0.075; assumed 80% control to determine uncontrolled EF = 0.075/0.2 = 0.375
- EU0180 Emission factor from AP-42 Table 9.11.1-1 SCC#3-02-007-89; EF w/ cyclone = 0.18; assumed 80% control to determine uncontrolled EF 0.18/0.2 = 0.9
- EU0190 Emission factor from AP-42 Table 9.11.1-1 SCC#3-02-007-93; EF w/ cyclone = 0.34; assumed cyclone 80% to determine uncontrolled EF =0.34/0.2 = 1.7
- EU0200 Emission factor from AP-42 Table 9.11.1-1 SCC#3-02-007-91
- EU0210 Emission factor from AP-42 Table 9.11.1-1 SCC#3-02-007-91

**UNCONTROLLED GRAINS PER SCF LIMIT [(3)(A)(4)]**

Stack #	OP Emission Unit #	Emission Unit Description	Uncontrolled Emission Rate lb/h	Stack Temp. °F	Stack Flow ACFM	SCFM	Emission Rate gr/scf	Emission Limit gr/scf	Are uncontrolled units in compliance?
ERP-04	EU0060	Small Grain Dryer	2.34	100	65,000	61,286	0.004	0.3	YES
ERP-05	EU0070	Large Grain Dryer	16.50	100	98,000	92,400	0.021	0.3	YES
ERP-08	EU0080	NW Silos	15.00	77					
ERP-09	EU0090	N Silos	7.50	77					
ERP-10	EU0100	Annex & West Silos	7.50	77					
ERP-11	EU0110	Flat Storage Bldgs	3.75	77					
ERP-13	EU0120	Soybean Flaking	18.30	140	15,250	13,420	0.159	0.3	YES
ERP-16	EU0130	Meal Silos	47.55	77					YES
ERP-01	EU0140	Elevator Conveying1	10.02	77	18,000	17,698	0.204	0.3	
"	EU0010	NW Truck Dump	21.00						
ERP-02	EU0140	Elevator Conveying2	28.13	77	16,000	15,732	0.286	0.3	NO
	EU0020	North Truck Dump	10.50						
ERP-06	EU0140	Elevator Conveying3	3.13	77	7,500	7,374	0.049	0.3	YES
ERP-07	EU0150	Cracking & Dehulling	20.21	145	13,500	11,782	0.200	0.3	YES
ERP-14	EU0180	Meal Dryer & Cooler	54.00	140	40,000	35,200	0.179	0.3	YES

ERP-18	EU0160	Hull Grinding	107.00	77	40,000	39,330	0.581	0.3	NO
"	EU0170	Bean Cleaning	35.00						
"	EU0210	Meal Rail Loadout	0.00						
"	EU0190	Meal Grinding	54.00						
ERP-17	EU0200	Meal Truck Loadout	1.00	77	11,000	10,816	0.011	0.3	YES

**CONTROLLED**

Stack #	OP Emission Unit #	Emission Unit Description	Controlled Emission Rate lb/h	Stack Temp. °F	Stack Flow ACFM	SCFM	Emission Rate gr/scf	Emission Limit gr/scf	Are uncontrolled units in compliance?
ERP-04	EU0060	Small Grain Dryer	0.02	100	65,000	61,286	0.000	0.3	YES
ERP-05	EU0070	Large Grain Dryer	NA	100	98,000	92,400	0.021	0.3	YES
ERP-08	EU0080	NW Silos	0.10	77					
ERP-09	EU0090	N Silos	NA	77					
ERP-10	EU0100	Annex & West Silos	NA	77					
ERP-11	EU0110	Flat Storage Bldgs	NA	77					
ERP-13	EU0120	Soybean Flaking	0.12	140	15,250	13,420	0.001	0.3	YES
ERP-16	EU0130	Meal Silos	9.51	77					YES
ERP-01	EU0140	Elevator Conveying1	0.07	77	18,000	17,698	0.093	0.3	YES
"	EU0010	NW Truck Dump	14.07						
ERP-02	EU0140	Elevator Conveying2	0.63	77	16,000	15,732	0.005	0.3	YES
	EU0020	North Truck Dump	0.07						
ERP-06	EU0140	Elevator Conveying3	0.63	77	7,500	7,374	0.010	0.3	YES
ERP-07	EU0150	Cracking & Dehulling	4.04	145	13,500	11,782	0.040	0.3	YES
ERP-14	EU0180	Meal Dryer & Cooler	0.35	140	40,000	35,200	0.001	0.3	YES
ERP-18	EU0160	Hull Grinding	0.70	77	40,000	39,330	0.107	0.3	YES
"	EU0170	Bean Cleaning	35.00						
"	EU0210	Meal Rail Loadout	0.00						
"	EU0190	Meal Grinding	0.35						
ERP-17	EU0200	Meal Truck Loadout	0.20	77	11,000	10,816	0.002	0.3	YES

- 8) The calculations below verify compliance with both the PM Emission Rate and the PM Concentration for the listed emission units provided that the required control devices are in operation and working properly:

**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).

Prepared by:

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Jill Wade, P.E.  
Environmental Engineer

CERTIFIED MAIL: 70093410000193530722  
RETURN RECEIPT REQUESTED

Mr. Keith Stumpe, Plant Manager  
Archer Daniels Midland Company  
400 East Holt Street  
Mexico, MO 65265

Re: Archer Daniels Midland Company, 007-0002  
Permit Number: **OP2012-009B**

Dear Mr. Stumpe:

Enclosed with this letter is your Part 70 operating permit modification. The original permit OP2012-009 was updated to correct emission unit numbering and other minor errors that were overlooked during the initial review and issuance of the 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.

You may appeal this permit to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.078.16 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you have any questions or need additional information regarding this permit, please do not hesitate to contact Jill Wade at the department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102, or by telephone at (573) 751-4817. Thank you for your time and attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

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

MJS:jwk

Enclosures

c: Northeast Regional Office  
PAMS File: 2012-05-028