

217/782-2113

CONSTRUCTION PERMIT/PSD APPROVAL  
NESHAP SOURCE

PERMITTEE

Archer Daniels Midland Company - Decatur West Plant  
Attn: Pete Brinkoetter  
3883 Faries Parkway  
Decatur, Illinois 62526

Application No.: 06120051

I.D. No.: 115015AAE

Applicant's Designation: SOYBEAN PLANT

Date Received: December 26, 2006

Subject: West Soybean Plant Expansion

Date Issued:

Location: 3883 Faries Parkway, Decatur

Permit is hereby granted to the above-designated Permittee to CONSTRUCT emission source(s) and/or air pollution control equipment consisting of modifications to the West Soybean Plant as described in the above referenced application. This Permit is subject to the following special condition(s) and standard conditions attached hereto, except as superseded by a special condition.

In conjunction with this permit, approval is given with respect to the Prevention of Significant Deterioration of Air Quality Regulations (PSD) for the above referenced project, in that the Illinois Environmental Protection Agency (Illinois EPA) finds that the application fulfills all applicable requirements of 40 CFR 52.21. This approval is issued pursuant to the Clean Air Act, as amended, 42 U.S.C. 7401 et. seq., the Federal regulations promulgated thereunder at 40 CFR 52.21 for Prevention of Significant Deterioration of Air Quality (PSD), and a Delegation of Authority agreement between the United States Environmental Protection Agency and the Illinois EPA for the administration of the PSD Program. This approval becomes effective in accordance with the provisions of 40 CFR 124.15 and may be appealed in accordance with the provisions of 40 CFR 124.19. This approval is based upon and subject to the following findings and the conditions. This approval is also subject to the general requirement that the project be developed and operated consistent with the specifications and data included in the application and any significant departure from the terms expressed in the application, if not otherwise authorized by this permit, must receive prior written authorization from the Illinois EPA.

If you have any questions on this permit, please call Kevin Smith at 217/782-2113.

Edwin C. Bakowski, P.E.  
Acting Manager, Permit Section  
Division of Air Pollution Control

ECB:KLS:jws

cc: Region 3 and USEPA Region V

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INTRODUCTION: FINDINGS

- 1a. Archer Daniels Midland (ADM) has requested a permit for an expansion of its west soybean plant (the affected plant) at its Decatur manufacturing complex. The plant produces vegetable oil and soybean meal from soybeans.
- b. The proposed expansion would increase plant capacity by various measures including installation of two additional flaking rolls in soybean preparation, modifications to the existing desolventizer toaster dryer cooler (DTDC) installation of a new DTDC, a new cooling tower and the addition of a meal grinder.
- 2a. The expansion will result in a significant increase in volatile organic materials (VOM) emissions as defined by the PSD rules. VOM emissions will be controlled by optimization of the extraction process, maintaining a leak repair and prevention program, and by use of add on controls.
- b. The plant expansion will also be accompanied by increases in emissions from existing boilers. In particular, the west soybean plant will utilize steam from existing coal-fired boilers, Boiler 1 through 9, in ADM's co-generation plant, which were constructed pursuant to Permits 85060030, 94020006 and 97050097. The expansion of the west soybean plant will also be accompanied by significant increases in emissions of SO<sub>2</sub> and NO<sub>x</sub> from these boilers. This permit does not authorize changes to the co-generation plant that would increase its capacity or allow emissions over the currently permitted levels, as set by Permits 85060030, 94020006 and 97050097.

The source is located in Decatur Township in Macon County. The area is designated attainment for all pollutants.
- c. The project is subject to PSD review for increases in VOM, SO<sub>x</sub> and NO<sub>x</sub> because the potential emissions of these PSD pollutants from the project are significant, as described in Attachment 1.
- 3a. After reviewing the materials submitted by ADM, the Illinois EPA has determined that the project, as proposed, would be designed to (i) comply with applicable state and federal emission standards and (ii) utilize Best Available Control Technology (BACT) for emissions VOM from new and modified emission units that are subject to PSD. (Refer to the BACT determinations in Condition 1.4 and in Condition 2.x.3 of the Unit-Specific Conditions of the permit.)
- b. The air quality analysis prepared for the project shows that the project would not threaten compliance with air quality standards. The air quality impact from the project for SO<sub>2</sub> and NO<sub>x</sub> is not significant. In the case of ozone, the project would not contribute to an exceedance of the ozone air quality standard in Macon County, considering current air quality as monitored in the county.
6. The Illinois EPA has determined that the project, as proposed, would comply with all applicable Illinois Air Pollution Board Regulations and the federal Prevention of Significant Deterioration of Air Quality Regulations (PSD), 40 CFR 52.21.

7. A copy of the application and a summary of the Illinois EPA's review of the application and a draft of this permit were placed in a location in the vicinity of the project, and the public was given notice and an opportunity to examine this material and to submit comments and to request a public hearing on this matter.

Section 1: Conditions for the Project:

1.1. Effect of Permit

- a. This permit does not relieve the Permittee of the responsibility to comply with all applicable local, state and federal requirements which are part of Illinois State implementation Plan, as well as all other applicable local, state and federal requirements.

1.2 Validity of Permit and Commencement of Construction

- a. This permit shall expire if construction on the expansion of the west soybean plant is not commenced within 18 months of the effectiveness of the permit or is not pursued in a reasonable manner thereafter, as provided by 40 CFR 52.21(r)(2).

1.3. Permitted Emissions of the Affected Plant

- a. i. Annual emissions from the affected plant, i.e., the West Soybean Plant, after commencement of construction, shall not exceed the following limits. These limits address all emissions from the affected plant, including emissions during startup, shutdown and malfunction. These limits do not address emissions from existing facilities, e.g., the Cogeneration plant and Wastewater Treatment Plant, due to increased utilization of these existing facilities. Compliance with these limitations and other annual limits in this permit shall be determined from a running total of 12 months of data.

Pollutant	PM	PM <sub>10</sub>	VOM
Increase(Tons/Yr)	6.72	6.50	216.4
Limit (Tons/Yr)	50.20	40.30	1,236.5

- ii. This permit is based on minimal emission of NO<sub>x</sub> SO<sub>2</sub> and CO from the expansion of the West Soybean Plant. For this purpose, emissions of these pollutants shall not exceed nominal emission rates of 0.1 lbs/hour and 0.44 tons/year.

- b. This permit is issued based on the existing source being a major source for Hazardous Air Pollutants (HAP), so that emissions of HAP from the affected plant are subject to the applicable National Emission Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 63).

1.4. BACT Determination - General Requirements

The Permittee shall operate and maintain the emission units at the affected plant, including associated air pollution control equipment, in a manner consistent with good air pollution control practice to minimize emissions, including the following practices:

- a. At all times, including periods of startup, shutdown, malfunction or breakdown, operate as practicable to minimize emissions.

- b. Air pollution control equipment shall be operated in accordance with written operating procedures that address startup and shutdown, as well as normal operation, which procedures shall be developed and maintained by the Permittee and may incorporate the manufacturers recommended operating instructions.
- c. Conduct visual inspections of emission units and associated air pollution control as specified in Section 2.
- d. Conduct regular preventative maintenance on emission units and associated air pollution control devices as needed to assure reliable operation.
- e. Make prompt repairs to emission units and associated air pollution control devices upon identification of need either as a consequence of formal inspections or other observations.
- f. Install, operate and maintain required monitoring devices and instrumentation in accordance with good monitoring practices, following the manufacturer's recommended operating and maintenance procedures or such other procedures as are otherwise needed to assure reliable operation of such devices.
- g. Maintain records for the above inspection, maintenance, and repair activities.

1.5 Records for Required Operational Monitoring Systems and Instrumentation

- a. The Permittee shall keep records of the data measured by required monitoring systems and instrumentation. Unless otherwise provided in a particular condition of this permit, the following requirements shall apply to such recordkeeping:
  - i. For required operational monitoring systems, data shall be automatically recorded by a central data system, dedicated data logging system, chart recorder or other data recording device. If an electronic data logging system is used, the recorded data shall be the hourly average value of the particular parameter for each hour. During periods when the automatic recording device is out of service, data shall be recorded manually at least once every 12 hours for periods when the associated emission unit(s) is in service.
  - ii. For required instrumentation, the measured data shall be recorded manually at least once per shift, with data and time both recorded, for periods when the associated emission unit(s) are in service, provided however that if data from an instrument is recorded automatically, the above provisions for recording of data from monitoring systems shall apply.
- b. The Permittee shall maintain logs or other records for the operation and maintenance of operational monitoring systems and instrumentation required by this permit.

#### 1.6. Retention and Availability of Records

- a. The Permittee shall retain all records required by this permit at the source for at least five years, at a location where the records are readily accessible for inspection by the Illinois EPA.
- b. The Permittee shall make all records required by this permit available for inspection at the source by the Illinois EPA, providing copies of records to the Illinois EPA upon request. For this purpose, the Permittee may keep records in a computerized data system provided that, upon request by the Illinois EPA during the sources normal working hours, requested information is retrieved and available prior to inspection completion to the Illinois EPA.

#### 1.7 Notifications

- a. The Permittee shall notify the Illinois EPA within 30 days of the following events related to the affected plant:
  - i. Commencement of construction.
  - ii. Initial startup of each new or modified unit.
- b. The Permittee shall notify the Illinois EPA within 30 days of any deviation from the annual emission limitations for the plant, as set in Condition 1.3. Any such notification shall include the information specified in Condition 3.4.
- c.
  - i. Two copies of the above notification and other reports and notifications required by this permit shall be sent to the Illinois EPA, Division of Air Pollution Control, Compliance Section, in Springfield, unless otherwise indicated.
  - ii. One copy of the above notification and other required reports and notifications required by this permit shall be sent to the Illinois EPA's Regional Office of the Division of Air Pollution Control, unless otherwise indicated.

#### 1.8 Authorization to Operate Emission Units

- a. The affected plant may be operated under this construction permit until final action is taken to incorporate these emission units in a revision to or renewal of its CAAPP Permit. The Permittee shall demonstrate initial compliance with the short-term emission limitations and emission testing in accordance with the Condition 3.1 of this permit.
- b. The Illinois EPA may extend this period upon request of the Permittee if additional time is needed to complete shakedown or perform emission testing.

SECTION 2: UNIT SPECIFIC CONDITIONS

2.1 Oil Extraction (Emissions of VOM)

2.1.1 Description

Vegetable oil is extracted from the soybean flakes using hexane as the extraction solvent. The oil is then separated from the hexane. The hexane is removed from the soybean meal and the meal is further processed prior to shipment. The hexane is recovered and reused for extraction. Emissions of VOM from these operations, which are present from hexane losses, will be controlled by recovery of hexane, a multi stage control system, and other practices to minimize loss of hexane.

2.1.2 List of Emission Units and Pollution Control Equipment

Process	Description	Emission Control Equipment
Hexane Extraction	Hexane Extraction and Recovery	Condensers and Mineral Oil Scrubber System

2.1.3-1 Applicability Provisions

- a. The "affected process" for the purpose of these unit specific conditions is the hexane extraction process as described in Conditions 2.1.1 and 2.1.2.
- b. The affected process is subject to 40 CFR 63 Subpart GGGG, National Emission Standards for Hazardous Air Pollutants (NESHAP): Solvent Extraction for Vegetable Oil Production. The affected process and the Permittee shall comply with all applicable provisions of the NESHAP.

2.1.3-2 BACT Determination

- a. The VOM emissions from the affected process shall not exceed 1.1lbs per ton, with compliance determined in accordance with the procedures of the NESHAP, 40 CFR 63 Subpart GGGG.

2.1.3-3 Applicable State Emissions Standards

- a. The affected process is subject to 35 IAC Subpart N, Vegetable Oil Processing. The affected process and Permittee shall comply with all applicable requirements of this subpart.

2.1.4 Operational and Production Limits and Work Practices

- a. The affected process shall not process more than 73 million bushels of soybean per year.

2.1.5 Emission Limitations

The emissions of VOM from the affected process shall not exceed 1,240 tons/year. Compliance with this limit shall be based on a running total of 12 months of data, using the methodology of the NESHAP.

2.1.6 Testing Requirements

None

2.1.7 Monitoring and Instrumentation Requirements

- a. For mineral oil scrubbing the Permittee shall install, maintain and operate instrumentation for the following operating parameter:
  - i. % LEL exiting the final vent exiting the mineral oil scrubber system
  - ii. Flow rate of mineral oil or exhaust gas temperature.

2.1.8 Recordkeeping Requirements

- a. The Permittee shall maintain the following logs or other records for each affected unit or group of related units:
  - i. An operating log, in accordance with Condition 3.3(a).
  - ii. An inspection, maintenance and repair log, in accordance with Condition 3.3(b).
- b. The Permittee shall maintain records for the VOM emissions of the affected process (tons/month and tons/year) with supporting calculations.

2.1.9 Reporting Requirements

- a. The Permittee shall fulfill applicable notification and reporting requirements of the NESHAP.
- b. The Permittee shall notify the Illinois EPA of any deviations from the requirements of this permit for the affected process with the reports required by the NESHAP. These notifications shall include the information specified by and be submitted in accordance with Condition 3.4.

## 2.2 Particulate Matter (PM) Process Emission Units

### 2.2.1 Description

At the affected plant, soybeans are cleaned and conditioned (heated, cracked and flaked) in preparation for the extraction of the oil. Soybean meal from the extractor is dried, cooled and handled. These operations are a source of particulate matter emissions. The expansion to the West Soybean Plant entails the construction of several new process emission units and modifications to existing process units which include:

### 2.2.2 List of Emission Units and Pollution Control Equipment

Operation	Description	Emission Control Equipment
DTDC(s)	Desolventizer Toaster Dryer Cooler	Cyclones
Meal Grinder	Grinds Spent Soybean Flake	Baghouse
Two Double Stand Flaking Rolls	Flaking of Soybean in Preparation for Extraction	Baghouse
Modified Elevator C Day Bins and Conveyors	Modification to Improve Operational Efficiency	None

### 2.2.3-1 Applicability Provision

- a. An "affected unit" for the purpose of these unit specific conditions is an emission unit described in Conditions 2.2.1 and 2.2.2.
- b. Except for modified affected emission units, this permit does not revise limits for existing affected units.

### 2.2.3-2 Applicable Emission Standards Regulations

- a. The affected units are subject to the general state emission standards for opacity (35 IAC 212.123) and PM (35 IAC 212.321).

### 2.2.4 Operational and Production Limits and Work Practices

- a. The Permittee shall operate each baghouse for affected unit(s) with a pressure drop that is within a range that is consistent with manufacturer's recommended levels or that during emission testing that demonstrated compliance with applicable requirements.
- b. The Permittee shall operate each affected cyclone in a manner consistent with good air pollution control practice.

### 2.2.5 Emission Limitations

- a. Emissions of PM from the new and modified affected units shall not exceed the following limits:

Unit	Limit	
	Lbs/Hour	Tons/Year
DTDC	1.18	4.14
New Cooling Tower	1.01	2.96
Meal Grinding	0.94	3.30*
Double Stand Flaking Rolls	0.58	2.03
Elevator C	2.60	2.00
Day Bins and Conveying	2.47	1.78
Hull Grind & Conveyor to Processing	0.58	1.59
Total	----	17.8

\*Includes associated storage and transfer

2.2.6 Testing Requirements

- a. Upon request by the Illinois EPA, the Permittee shall promptly have emission testing conducted for an affected unit in accordance with the methods and procedures specified in Condition 3.1.
- b. Upon request by the Illinois EPA, the Permittee shall promptly perform opacity observation for an affected unit in accordance with the methods and procedures specified by Condition 3.2.

2.2.7 Operational Monitoring Requirements

- a. The Permittee shall install, operate and maintain instrumentation on each new baghouse to measure the pressure drop across the device and record pressure drop at least once per operating week.
- b. The Permittee shall perform visual observations on each cyclone on the DTDC weekly.

2.2.8 Recordkeeping Requirements

- a. The Permittee shall maintain a file containing the following information for the control device(s) for the affected units:
- i. A copy of the manufacturer's specifications for the exhaust dust loading and the manufacturer's recommended operating and maintenance procedures for the device).
  - ii. The range of pressure drop within which each baghouse(s) will be operated, as required by Condition 2.2.4(a), if not the range recommended by the manufacturer, with explanation and supporting documentation.

- b. The Permittee shall maintain the following log(s) or other records for the affected units:
  - i. Operating log(s) in accordance with Condition 3.3(a).
  - ii. Inspection, maintenance and repair log(s) in accordance with Condition 3.3(b).
- c. The Permittee shall maintain the following records related to the emissions of each affected units:
  - i. Documentation for the PM emission factor(s) and maximum hourly emission rates used by the Permittee to determine emissions of the unit.
  - ii. Records for any hour in which emissions exceeded an applicable limit.
  - iii. The PM emissions of the unit (tons/month and tons/year) based on appropriate emission factors and operating data, with supporting calculations.

#### 2.2.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA of any deviations from the requirements of this permit for the affected units as follows. These notifications shall include the information specified by and be submitted in accordance with Condition 3.4.

- a. Excess opacity from the affected units that lasts more than 24 minutes (four 6-minute averaging periods) shall be immediately reported to the Illinois EPA.
- b. The deviations addressed above and all other deviations shall be reported with the quarterly compliance report in accordance with Condition 3.4.

## 2.3 Cooling Tower

### 2.3.1 Description

An additional cooling tower is being added to provide more cooling water for solvent recovery.

### 2.3.2 List of Emission Units and Pollution Control Measures

Emission Unit Description	Control Measures
Cooling Tower	Drift Eliminator

### 2.3.3-1 Applicable Provision

- a. The "affected cooling tower" for the purpose of these unit specific conditions is the cooling tower identified in Conditions 2.3.1 and 2.3.2.
- b. The affected cooling tower is subject to general state rules for opacity (35 IAC 212.123) and PM (35 IAC 212.321).

### 2.3.4 Non-Applicability of Regulations of Concern

None

### 2.3.5 Operational Requirements

- a. The affected cooling tower cells shall be equipped with drift eliminators that are designed to reduce drift loss to no more than 0.005 weight percent of the circulating water flow.
- b. The total dissolved solids (TDS) content of the water circulated in the cooling tower shall not exceed 2500 ppm, annual average.
- c. Process water or wastewater shall not be introduced into the cooling water, other than through unintentional leaks, which shall promptly be repaired.

### 2.3.6 Emission Limitations

- a. Emissions of PM from the affected cooling tower shall not exceed 0.3 tons/month and 2.96 tons/year. Compliance with this limit shall be calculated using a material balance based on design data for the drift eliminator and actual data for other operating parameters of the cooling tower.

### 2.3.7 Testing Requirements

None

### 2.3.8 Sampling and Analysis Requirements

- a. The Permittee shall sample and analyze the water circulated in the affected cooling tower on at least a quarterly basis for the TDS concentration, taking either grab samples or a daily composite sample of the water.
- b. The Permittee shall keep records for this sampling and analysis activity, including documentation for sampling and analysis as well the resulting data that is collected.

#### 2.3.9 Recordkeeping Requirements

- a. The Permittee shall maintain a file containing the following information for the affected cooling tower:
  - i. The manufacturer's specifications or design data for the cooling tower, including water circulation rate (gallons/hour) and design loss rate of the drift eliminators (percent), with supporting documentation.
  - ii. The maximum PM emissions from the cooling tower (tons/year), based on maximum operating rate of the cooling tower and factors that with greatest loss of PM as emissions, with supporting calculations.
- b. The Permittee shall maintain the following records for the actions that it uses to routinely verify the solids contents of the water circulating in the cooling tower, such as periodic grab sampling and analysis, conductivity measurements, etc., including:
  - i. A written description of the procedures, with explanation of how they act to address compliance.
  - ii. Records for implementation of the procedure, including measured value(s) of relevant parameter(s).
- c. The Permittee shall maintain the following operating records for the affected cooling tower:
  - i. Total dissolved solids concentration of the water circulated in the cooling tower, recorded on at least a quarterly basis (ppm).
  - ii. The amount of water circulated in the affected cooling tower, gallons/month, with supporting calculations.
- d. The Permittee shall maintain the following logs or other records for the cooling tower:
  - i. Operating log(s), in accordance with Condition 3.3(a).
  - ii. Inspection, maintenance and repair log(s) in accordance with Condition 3.3(b).

- e. The Permittee shall maintain records for the PM emissions from the cooling tower (ton/month and ton/year), with supporting documentation and calculations.

#### 2.3.10 Reporting Requirements

- a. The Permittee shall promptly notify the Illinois EPA of any deviations from the requirements of this permit for the cooling tower as follows. These notifications shall include the information specified by Condition 3.4.
  - i. If the cooling tower is damaged so there is a deviation from applicable requirements for the drift eliminators that is not repaired or otherwise corrected within 10 days, the Permittee shall notify the Illinois EPA within 30 days.
  - ii. The deviations addressed above and all other deviations shall be reported with the quarterly compliance report. The Permittee shall promptly notify the Illinois EPA of any deviations from the requirements of this permit for the cooling tower.

SECTION 3: GENERAL REQUIREMENTS

3.1. Emission Testing Requirements

- a. i. The following testing methods and procedures shall be used. Refer to 40 CFR 60, Appendix A for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
Moisture	USEPA Method 4
Particulate Matter (PM)	USEPA Method 5 <sup>a</sup> and 202 <sup>b</sup>
Opacity	USEPA Method 9 <sup>c</sup>

Notes:

- a. Particulate matter tests shall include measurements of condensable particulate matter, as collected in the back half of the Method 5 sampling train or by separate measurements using USEPA Method 202 (40 CFR Part 51, Appendix M).
- b. Observation of opacity shall be made in conjunction with measurements of PM emissions.
- c. Outlet testing and control efficiency testing shall be based on either Method 25 or Method 25A calibrated to propane, whichever is applicable depending on concentration (i.e., Method 25 shall be used on both the inlet and outlet when the outlet total hydrocarbon concentration is greater than 50 ppm as carbon and Method 25A shall be used on both the inlet and outlet when the outlet THC concentration is less than 50 ppm as carbon).
- d. If the composition of the VOM emission cannot be reasonably determined by process data, measurements by Method 18 shall be conducted for the purpose of determining the chemical composition of the VOM emissions.
- b. The Permittee shall submit a written test plan to the Illinois EPA for review and approval for the initial testing and if a significant change in the procedures for this testing is planned from the procedures followed in the previous test. This plan shall be submitted at least 60 days prior to the actual date of testing and include the following information as a minimum:
- i. A description of the planned test procedures.
- ii. The person(s) who will be performing sampling and analysis and their experience with similar tests.
- iii. The specific conditions under which testing will be performed, including a discussion of why these conditions

will be representative of maximum emissions and the means or manner by which the operating parameters for the emission unit and any control equipment will be determined.

- iv. The specific determinations of emissions and operation that are intended to be made, including sampling and monitoring locations.
  - v. The test method(s) that will be used, with the specific analysis method, if the method can be used with different analysis methods.
- c. The Permittee shall notify the Illinois EPA prior to conducting these measurements to enable the Illinois EPA to observe testing. Notification for the expected date of testing shall be submitted a minimum of 30 days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of 5 working days prior to the actual date of the test. The Illinois EPA may accept shorter advance notice if it does not interfere with the Illinois EPA's ability to observe testing.
- d. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 30 days after the test results are compiled and finalized but no later than 60 days after completion of sampling. The Final Report shall include as a minimum:
- i. General information, i.e., date of test, names of testing personnel, and names of Illinois EPA observers.
  - ii. A summary of results, e.g., PM or VOM emissions, lbs/hour and gr/scf or ppmv.
  - iii. A detailed description of operating conditions of the emission unit(s) during testing, including:
    - A. Process information, e.g., type or product and operating rate.
    - B. Control system operating parameters during testing, e.g., flow rate, ph of scrubbant and %LEL.
  - iv. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule
  - v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.
  - vi. Conclusions.

- f. The Permittee shall retain copies of emission test reports for at least three years beyond the date that an emission test is superseded by a more recent test.

### 3.2 Opacity Observations

- a. Opacity of emissions shall be determined during representative weather and operating conditions by a qualified observer in accordance with USEPA Test Method 9, as further specified below.
- b. The duration of opacity observations for each test shall be at least 30 minutes (five 6-minute averages) unless the average opacities for the first 12 minutes of observations (two six-minute averages) are both no more than half of the most stringent requirement applying to opacity.
- c.
  - i. The Permittee shall notify the Illinois EPA at least 7 days in advance of the date and time of these tests, in order to allow the Illinois EPA to witness testing. This notification shall include the name and employer of the qualified observer(s).
  - ii. The Permittee shall promptly notify the Illinois EPA of any changes in the time or date for testing.
- d. The Permittee shall provide a copy of its observer's readings to the Illinois EPA at the time of testing, if Illinois EPA personnel are present.
- e. The Permittee shall submit a written report for this testing within 15 days of the date of testing. This report shall include:
  - i. Date and time of testing.
  - ii. Name and employer of qualified observer, with a copy of his or her current certification.
  - iii. Description of observation condition, including recent weather.
  - iv. Description of the operating conditions of the affected operation or unit.
  - v. Opacity determinations, accompanied by raw data.
  - vi. Conclusions.
- f. The Permittee shall retain copies of test reports for at least three years after the date that a test is superseded by a more recent test.

### 3.3 General Requirements for Logs

- a. Operating logs required by this permit shall, at a minimum, include the following information:
  - i. Information identifying periods when an emission unit or group of related emission units was not in service.
  - ii. For periods when a unit or group of related units is in service and operating normally, relevant process information to generally confirm normal operation,
  - iii. For periods when a unit or group of related units is in service and is not operating normally, identification of each such period, with detailed information describing the operation of the unit(s) and the potential consequences for additional emissions from unit(s), with explanation.
- b. Inspection, maintenance and repair logs required by this permit shall, at a minimum, include the following information:
  - i. Identification of equipment, with date, time, responsible employee and type of activity.
  - ii. For inspections, a description of the inspection, findings, and any recommended actions, with reason.
  - iii. For maintenance and repair activity, a description of actions taken, reason for action, e.g., preventative measure or corrective action as a result of inspection, and the condition of equipment following completion of the activity.
- c. The logs required by this permit may be kept in manual or electronic form, and may be part of a larger information database maintained by the Permittee provided that the information required to be kept in a log is readily accessible.

#### 3.4 Reporting of Deviations

- a. Unless otherwise specified in a particular condition of this permit, if deviation(s) from requirements of this permit occur, the Permittee shall submit a deviation report immediately for emission violations and within 30 days of the actual occurrence for any other violations. The Permittee shall include the following information in reports of deviations:
  - i. Identify the deviation, with date, time, duration and description.
  - ii. Describe the effect of the deviation on compliance, with an estimate of the excess emissions that accompanied the deviation, if any.
  - iii. Describe the probable cause of the deviation and any corrective actions or preventive measures taken.

- b.
  - i. A deviation shall be considered to continue even if operation an emission unit is interrupted if the deviation is still present when operation of the unit is resumed.
  - ii. When this permit requires immediate notification, such notification shall be provided by telephone and followed by facsimile or e-mail transmittal of a narrative report.
- c. Upon inclusion of this permit into the Title V permit, the semi-annual monitoring requirements and annual compliance certification will supersede the requirements of this permit.

Attachment 1: Detailed Summary of Emissions Increases from the Project

Units	Emissions (tons/year)				
	PM/PM <sub>10</sub>	NO <sub>x</sub>	SO <sub>2</sub>	CO	VOM
Soybean Elevator	1.07/0.85	-	-	-	-
Soybean Preparation	0.51/0.51	-	-	-	-
Oil Extraction	3.91/3.91	-	-	-	216.4
Meal Grinding & Loadout	1.23/1.23	-	-	-	-
Subtotal	6.72/6.5	-	-	-	216.4
Cogeneration Plant <sup>a</sup>	5.7/5.7	68.0	185.8	33.5	5.4
Total Project Emissions	12.42/12.2	68.0	185.8	33.5	221.8
PSD Threshold	25.00/15.00	40.00	40.00	100.00	40.00
Significant Yes/No	No/No	Yes	Yes	No	Yes

<sup>a</sup> The increase in emissions from increased utilization of the cogeneration plant is the difference between projected actual emissions and the baseline actual emissions, excluding changes in emissions that would have occurred without the project.

Maximum emissions increase associated with increased utilization of the boilers at the cogeneration plant, based on the projected maximum steam demand of the West Soybean Plant, 135,000 pounds per hour.

KLS:jws