

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)

PERMITTEE

Monsanto Company-Illiopolis Production  
Attn: Dave Scheffler  
4370 Mt. Pulaski Road North  
Illiopolis, Illinois 62539

<u>Application No.:</u> 06100050	<u>I.D. No.:</u> 167812AAC
<u>Applicant's Designation:</u>	<u>Date Received:</u> October 19, 2006
<u>Subject:</u> Corn Seed Processing Plant	
<u>Date Issued:</u> October 11, 2011	<u>Expiration Date:</u> October 11, 2016
<u>Location:</u> 4370 Mt. Pulaski Road North, Illiopolis, Sangamon County	

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of:

Three (3) Corn Dump Pits (EU-RP01), EU-RP02, and EU-RP03;  
Husking and Sorting Equipment Line 1 and 2 (EU-HS01) and Line 3 (EU-HS02);  
One (1) Chopping Line (EU-CH01);  
Four (4) Natural Gas Fired Driers 1-4 (EU-DR01A), (EU-DR02), (EU-DR03), and (EU-DR04);  
Four (4) Shellers (1-4) Controlled by Baghouses;  
One (1) Receiving Pit;  
One (1) Cleaner Controlled by Cartridge Filter;  
Twelve 12 Sizers Controlled by Cartridge Filter;  
Nine (9) Gravity Tables Controlled by Cartridge Filter;  
Two Hundred Sixteen (216) Bulk Storage Bins;  
Internal Handling and Surge Bins;  
Loadout (Cobb, Bulk, Dust, and Chopper);  
Three (3) Aspirators Controlled by Cartridge Filters;  
Two (2) Aspirators (Sheller Aspirator Line 1 and 2) Controlled by Bag Filter;  
Packaging Controlled by Cartridge Filter;  
Debugging and Rebagging Controlled by Cartridge Filters; and  
Two (2) Treaters Controlled by Cartridge Filter

pursuant to the above-referenced application. This permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons/year for Particulate Matter less than 10 microns (PM<sub>10</sub>) and Volatile Organic Material (VOM), 10 tons/year for any single Hazardous Air Pollutant (HAP), and 25 tons/year for any combination of such HAPs). As a result, the source is excluded from the requirements to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit are described in Attachment A.

- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
  - c. This permit supersedes all operating permit(s) for this location.
- 2a. Pursuant to 35 Ill. Adm. Code 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to 35 Ill. Adm. Code 212.122.
- b. Pursuant to 35 Ill. Adm. Code 212.123(b), the emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 305 meter (1000 foot) radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.
  - c. Pursuant to 35 Ill. Adm. Code 212.301, no person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.
  - d. Pursuant to 35 Ill. Adm. Code 212.321(a), no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 Ill. Adm. Code 212.321(c).
  - e. Housekeeping Practices. Pursuant to 35 Ill. Adm. Code 212.461(b), all grain-handling and grain-drying operations, regardless of size, must implement and use the following housekeeping practices:
    - i. Air pollution control devices shall be checked daily and cleaned as necessary to insure proper operation.
    - ii. Cleaning and Maintenance.
      - A. Floors shall be kept swept and cleaned from boot pit to cupola floor. Roof or bin decks and other exposed flat surfaces shall be kept clean of grain and dust that would tend to rot or become airborne.
      - B. Cleaning shall be handled in such a manner as not to permit dust to escape to the atmosphere.

- C. The yard and surrounding open area, including but not limited to ditches and curbs, shall be cleaned to prevent the accumulation of rotting grain.
- iii. Dump Pit.
  - A. Aspiration equipment shall be maintained and operated.
  - B. Dust control devices shall be maintained and operated.
- iv. Head House. The head house shall be maintained in such a fashion that visible quantities of dust or dirt are not allowed to escape to the atmosphere.
- v. Property. The yard and driveway of any source shall be asphalted, oiled or equivalently treated to control dust.
- vi. Housekeeping Check List. Housekeeping check lists to be developed by the Illinois EPA shall be completed by the manager and maintained on the premises for inspection by Illinois EPA personnel.
- f. Pursuant to 35 Ill. Adm. Code 212.463, unless otherwise exempted pursuant to 35 Ill. Adm. Code 212.461(c) or (d) or allowed to use alternate control according to 35 Ill. Adm. Code 212.461(g), grain-drying operations for which construction or modification commenced prior to June 30, 1975, with a total grain-drying capacity in excess of 750 bushels per hour for 5 percent moisture extraction at manufacturer's rated capacity (using the American Society of Agricultural Engineers Standard 248.2, Section 9, Basis for Stating Drying Capacity of Batch and Continuous-Flow Grain Dryers) shall be operated in such a fashion as to preclude the emission of particulate matter larger than 300 microns mean particle diameter, shall apply for an operating permit pursuant to 35 Ill. Adm. Code 201, and shall comply with the following:
  - i. Column Dryers. The largest effective circular diameter of transverse perforations in the external sheeting of a column dryer shall not exceed 0.094 inch, and the grain inlet and outlet shall be enclosed.
  - ii. Rack Dryers. No portion of the exhaust air of rack dryers shall be emitted to the ambient atmosphere without having passed through a particulate collection screen having a maximum opening of 50 mesh, U.S. Sieve Series.
    - A. All such screens will have adequate self-cleaning mechanisms, the exhaust gas of which for grain-handling facilities having a grain through-put of not more than 2 million bushels per year or located outside a major population area shall be ducted through air pollution

control equipment which has a rated and actual particulate removal efficiency of 90 percent by weight prior to release into the atmosphere.

- B. All such screens will have adequate self-cleaning mechanisms, the exhaust gas of which for grain-handling sources having a grain through-put exceeding 2 million bushels per year and located in a major population area shall be ducted through air pollution control equipment which has a rated and actual particulate removal efficiency of 98 percent by weight prior to release into the atmosphere.

- iii. Other Types of Dryers. All other types of dryers shall be controlled in a manner which shall result in the same degree of control required for rack dryers pursuant to 35 Ill. Adm. Code 212.463(b).
3. Pursuant to 35 Ill. Adm. Code 214.301, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to exceed 2000 ppm.
  4. Pursuant to 35 Ill. Adm. Code 215.301, no person shall cause or allow the discharge of more than 3.6 kg/hour (8 lbs/hour) of organic material into the atmosphere from any emission source, except as provided in 35 Ill. Adm. Code 215.302, 215.303, 215.304 and the following exception: If no odor nuisance exists the limitation of 35 Ill. Adm. Code 215 Subpart K shall apply only to photochemically reactive material.
  5. This permit is issued based on the source not being subject to the New Source Performance Standards (NSPS) for Grain Elevators, 40 CFR 60 Subpart DD, because the permanent storage capacity is less than 88,100 m<sup>3</sup> (ca. 2.5 million U.S. bushels).
  - 6a. Pursuant to 35 Ill. Adm. Code 212.314, 35 Ill. Adm. Code 212.301 shall not apply and spraying pursuant to 35 Ill. Adm. Code 212.304 through 212.310 and 35 Ill. Adm. Code 212.312 shall not be required when the wind speed is greater than 40.2 km/hour (25 mph). Determination of wind speed for the purposes of this rule shall be by a one-hour average or hourly recorded value at the nearest official station of the U.S. Weather Bureau or by wind speed instruments operated on the site. In cases where the duration of operations subject to this rule is less than one hour, wind speed may be averaged over the duration of the operations on the basis of on-site wind speed instrument measurements.
  - b. Pursuant to 35 Ill. Adm. Code 212.461(a), 35 Ill. Adm. Code 212.302(a), 212.321, and 212.322 shall not apply to grain-handling and grain-drying operations, portable grain-handling equipment and one-turn storage space.
  - c. Pursuant to Section 9(f) of the Illinois Environmental Protection Act (Act), any grain elevator located outside of a major population area,

as defined in Section 211.3610 of Title 35 of the Illinois Administrative Code, shall be exempt from the requirements of 35 Ill. Adm. Code 212.462 of Title 35 of the Illinois Administrative Code provided that the elevator:

- i. Does not violate the prohibitions of Section 9(a) of the Act or have a certified investigation, as defined in 35 Ill. Adm. Code 211.970 of Title 35 of the Illinois Administrative Code, on file with the Illinois EPA; and
  - ii. Is not required to obtain a Clean Air Act Permit Program permit pursuant to Section 39.5 of the Act. Notwithstanding the above exemption, new stationary source performance standards for grain elevators, established pursuant to Section 9.1 of the Act and Section 111 of the federal Clean Air Act, shall continue to apply to grain elevators.
7. Pursuant to 35 Ill. Adm. Code 215.541, 35 Ill. Adm. Code 215.301 and 215.302 shall not apply to the spraying or use of insecticides, herbicides or other pesticides.
- 8a. Each dump pit shall be inspected for proper operation while receiving is occurring, at least once each week (Monday through Sunday) when grain is received.
- b. Each column grain dryer shall be inspected for any leaks in enclosures and proper condition of the external sheeting, on at least an annual basis prior to the harvest season.
- c.
  - i. Each rack dryer shall be inspected for any leaks in the enclosure for and proper condition of the external sheeting, on at least an annual basis prior to the harvest season.
  - ii. The cyclone or filter associated with any rack dryer shall be inspected for leaks and visible emissions in the exhaust while drying is occurring, at least once each week when a dryer is operated.
- d. The Grain transfer (internal transfer), and any grain cleaning shall be inspected for presence of visible emissions from internal transfer and cleaning, while such activity is occurring, at least once each week when such activity is performed.
- e. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the baghouses, cartridge filters, and bag filters such that the baghouses, cartridge filters, and bag filters are kept in proper working condition and not cause a violation of the Illinois Environmental Protection Act or regulations promulgated therein.

- f. The cartridge filters shall be in operation at all times when the associated, aspirators, cleaner, sizers, gravity tables, packaging, and, treaters are in operation and emitting air contaminants.
  - g. The bag filter shall be in operation at all times when the associated aspirators are in operation and emitting air contaminants.
  - h. The baghouse shall be in operation at all times when the associated two new aspirators are in operation and emitting air contaminants.
  - i. In the event that the operation of this source results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in raw material or installation of controls, in order to eliminate the odor nuisance.
  - j. The grain dryers shall only be operated with natural gas as the fuel. The use of any other fuel in the grain dryers requires that the Permittee first obtain a construction permit from the Illinois EPA and then perform stack testing to verify compliance with all applicable requirements.
- 9a. Emissions and operation of the following equipment shall not exceed the following limits:

<u>Equipment</u>	<u>Throughput</u>		<u>Emission Factor</u>		<u>E M I S S I O N S</u>			
	<u>(T/Hr)</u>	<u>(T/Yr)</u>	<u>PM</u> <u>(lb/T)</u>	<u>PM<sub>10</sub></u> <u>(lb/T)</u>	<u>PM</u> <u>(lb/Hr)</u>	<u>(T/Yr)</u>	<u>PM<sub>10</sub></u> <u>(lb/Hr)</u>	<u>(T/Yr)</u>
Green Corn Receiving								
Lines (1, 2, & 3)	126.0	44,800	0.18	0.059	22.68	4.03	7.434	1.32
Husking/Sorting								
Lines (1, 2, and 3)	126.0	44,800	0.375	0.229	47.25	8.40	28.82	5.12
Chopping Line	75.0	11,200	0.061	0.034	4.575	0.34	2.55	0.19
Dryers (1-4)	70.9	44,800	3.00	0.750	212.7	67.20	53.18	16.80
Shellers Lines (1-4)	126.0	1,103,760	0.375	0.229	0.95	4.14	0.58	2.52
3 Aspirators	51.0	446,760	0.375	0.229	0.38	1.68	0.23	1.02
2 New Aspirators								
(Sheller Aspirator								
Line 1 and 2)	140.0	1,226,400	0.375	0.229	1.05	4.60	0.64	2.81
Receiving Pit								
Bulk/Shelled Corn	42.0	367,920	0.18	0.059	7.56	33.11	2.48	10.85
Cleaners	126.0	1,103,760	0.375	0.229	0.95	4.14	0.58	2.53
Sizers	126.0	1,103,760	0.375	0.229	0.95	4.14	0.58	2.53
Gravity Tables	126.0	1,103,760	0.375	0.229	0.95	4.14	0.58	2.53
Bulk Storage Bins	420.0	3,679,200	0.025	0.0063	10.5	45.99	2.65	11.59
Internal Handling								
and Surge Bins	51.0	446,760	0.061	0.034	3.11	13.63	1.73	7.59
Loadout(Cobb, Bulk,								
Dust, and Chopper)	51.0	446,760	0.086	0.029	4.39	19.21	1.48	6.48

<u>Equipment</u>	<u>Throughput</u>		<u>Emission Factor</u>		<u>E M I S S I O N S</u>			
	<u>(T/Hr)</u>	<u>(T/Yr)</u>	<u>(lb/T)</u>	<u>(lb/T)</u>	<u>PM</u>		<u>PM<sub>10</sub></u>	
Packaging (Bagger and Seed Pak Filler	51.0	446,760	0.061	0.034	0.06	0.27	0.03	0.15
Treating	30.8	269,808	0.061	0.034	0.04	<u>0.16</u>	0.02	<u>0.09</u>
					Total:	215.18		74.12

These limits are based on the use of standard emission factors (Table 9.9-1-1, AP-42, Volume I, Fifth Edition, Update 2003, May 2003), 98% control efficiency and maximum process throughputs. The throughput of green corn receiving is on a dried shelled basis.

- b. Emissions and operation of the treaters shall not exceed the following limits:
  - i. The treaters combined shall not process more than 30.8 tons of seed/hour and 269,808 tons of seed per year.
  - ii. VOM and HAP emissions from the treaters:

<u>VOM Usage</u>		<u>Total HAP Usage</u>		<u>VOM Emissions</u>		<u>Total HAP Emissions</u>	
<u>(lbs/Hr)</u>	<u>(Tons/Yr)</u>	<u>(lbs/Hr)</u>	<u>(Tons/Yr)</u>	<u>(lbs/Hr)</u>	<u>(Tons/Yr)</u>	<u>(lbs/Hr)</u>	<u>(Tons/Yr)</u>
27.5	19.99	4.93	3.58	27.5	19.99	4.93	3.58

These limits are based on the maximum VOM concentration, the maximum application rates, and a maximum throughput of 269,808 tons per year.

- c. Emissions and operation of the dryers (1, 2, 3, and 4) shall not exceed the following limits:
  - i. Natural Gas Usage: 0.5638 mmscf/Hour, 1500 mmscf/Year
  - ii. Emissions from combustion of natural gas:

<u>Pollutant</u>	<u>Emission Factor</u>		<u>Emissions</u>	
	<u>(Lbs/mmscf)</u>	<u>(Lbs/Hr)</u>	<u>(Lbs/Hr)</u>	<u>(Tons/Yr)</u>
Carbon Monoxide (CO)	84	47.35		63.00
Nitrogen Oxides (NO <sub>x</sub> )	100	56.37		75.00
Particulate Matter (PM)	7.6	4.28		5.70
Sulfur Dioxide (SO <sub>2</sub> )	0.6	0.34		0.45
Volatile Organic Material (VOM)	5.5	3.10		4.13

These limits are based on the maximum natural gas usage and standard emission factors (Tables 1.4-1 and 1.4-2, AP-42, Fifth Edition, Volume I, Supplement D, July 1998).

- d. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act shall not exceed 0.79 tons/month and 7.90 tons/year of any single HAP and 1.99 tons/month and 19.9 tons/year of any combination of such HAPs. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirements of Section 112(g) of the Clean Air Act.
  - e. Compliance with the annual limits of this permit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).
- 10a. Pursuant to 35 Ill. Adm. Code 201.282, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:
- i. Testing by Owner or Operator. The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at such reasonable times as may be specified by the Illinois EPA and at the expense of the owner or operator of the emission source or air pollution control equipment. The Illinois EPA may adopt procedures detailing methods of testing and formats for reporting results of testing. Such procedures and revisions thereto, shall not become effective until filed with the Secretary of State, as required by the APA Act. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The Illinois EPA shall have the right to observe all aspects of such tests.
  - ii. Testing by the Illinois EPA. The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon request of the Illinois EPA, the owner or operator of the emission source or air pollution control equipment shall provide, without charge to the Illinois EPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary.
- b. Testing required by Condition 11 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.
11. Pursuant to 35 Ill. Adm. Code 212.110(c), upon a written notification by the Illinois EPA, the owner or operator of a particulate matter emission unit subject to 35 Ill. Adm. Code Part 212 shall conduct the applicable testing for particulate matter emissions, opacity, or visible emissions at such person's own expense, to demonstrate compliance. Such test results shall be submitted to the Illinois EPA

within thirty (30) days after conducting the test unless an alternative time for submittal is agreed to by the Illinois EPA.

12. Pursuant to 40 CFR 63.10(b)(3), if an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to Section 112(d) or (f) of the Clean Air Act, and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under 40 CFR Part 63) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the USEPA and/or Illinois EPA to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of 40 CFR Part 63 for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with USEPA guidance materials published to assist sources in making applicability determinations under Section 112 of the Clean Air Act, if any. The requirements to determine applicability of a standard under 40 CFR 63.1(b)(3) and to record the results of that determination under 40 CFR 63.10(b)(3) shall not by themselves create an obligation for the owner or operator to obtain a Title V permit.
13. Pursuant to 35 Ill. Adm. Code 212.110(e), the owner or operator of an emission unit subject to 35 Ill. Adm. Code Part 212 shall retain records of all tests which are performed. These records shall be retained for at least three (3) years after the date a test is performed.
- 14a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the conditions of this permit:
  - i. Records of housekeeping check lists;
  - ii. Vendor recommendations at the facility and be available for inspection and copying by the Illinois EPA;
  - iii. Records for the inspections required by Conditions 8(a) through (e) with date, time and observations if such information is not incorporated in the housekeeping check list.
  - iv. Records addressing use of good operating practices for the baghouses, cartridge filters, bag filters, and dust collectors:

- A. Records for periodic inspection of the baghouses, cartridge filters, packaging filters, and dust collectors with date, individual performing the inspection, and nature of inspection; and
  - B. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
- v. Amount of grain received (tons/month and tons/year);
  - vi. Amount of grain dried and processed (tons/month and tons/year);
  - vii. Amount of insecticide/herbicide used in the seed treater (gallons/month and gallons/year);
  - viii. VOM and HAP content of insecticide/herbicide used in the seed treaters (% by weight);
  - ix. Density of insecticide/herbicide used in the seed treaters (lbs/gallon);
  - x. Natural gas usage of the grain dryers (mmscf/month and mmscf/year); and
  - xi. Monthly and annual emissions of CO, NO<sub>x</sub>, PM, PM<sub>10</sub>, SO<sub>2</sub>, VOM, and HAPs from the source with supporting calculations (tons/month and tons/year).
- b. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five (5) years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer storage device) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.
- 15. Pursuant to 35 Ill. Adm. Code 212.110(d), a person planning to conduct testing for particulate matter emissions to demonstrate compliance shall give written notice to the Illinois EPA of that intent. Such notification shall be given at least thirty (30) days prior to the initiation of the test unless a shorter period is agreed to by the Illinois EPA. Such notification shall state the specific test methods from 35 Ill. Adm. Code 212.110 that will be used.
  - 16a. If there is an exceedance of or a deviation from the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance or deviation. The report shall include the emissions released in

accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or deviation and efforts to reduce emissions and future occurrences.

- b. Two (2) copies of required reports and notifications shall be sent to:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
Compliance Section (#40)  
P.O. Box 19276  
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
5407 N. University Street  
Peoria, Illinois 61614

It should be noted that this permit has been revised to include the operation of the equipment described in Construction Permit 11020035.

If you have any questions on this permit, please contact Mike Dragovich at 217/782-2113.

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

Date Signed: \_\_\_\_\_

ECB:MJD:psj

cc: Illinois EPA, FOS Region 2  
Lotus Notes

