

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION**

July 21, 2011

**PERMIT TO INSTALL  
43-11**

**ISSUED TO  
Zeeland Farm Services**

**LOCATED AT  
2468 84<sup>th</sup> Avenue  
Zeeland, Michigan**

**IN THE COUNTY OF  
Ottawa**

**STATE REGISTRATION NUMBER  
M4204**

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203:

**May 27, 2011**

DATE PERMIT TO INSTALL APPROVED:

**July 21, 2011**

SIGNATURE:

DATE PERMIT VOIDED:

SIGNATURE:

DATE PERMIT REVOKED:

SIGNATURE:

## PERMIT TO INSTALL

### Table of Contents

<b>Section</b>	<b>Page</b>
Alphabetical Listing of Common Abbreviations / Acronyms .....	2
General Conditions .....	3
Special Conditions .....	5
Emission Unit Summary Table.....	5
Special Conditions for EUDRYING .....	6
Special Conditions for EUPREPEQUIPMENT .....	9
Flexible Group Summary Table .....	11
Special Conditions for FGHANDLING .....	12
Special Conditions for FGEXTRACTION.....	15
Special Conditions for FGFACILITY .....	20

**Common Abbreviations / Acronyms**

<b>Common Acronyms</b>		<b>Pollutant/Measurement Abbreviations</b>	
AQD	Air Quality Division	BTU	British Thermal Unit
ANSI	American National Standards Institute	°C	Degrees Celsius
BACT	Best Available Control Technology	CO	Carbon Monoxide
CAA	Clean Air Act	dscf	Dry standard cubic foot
CEM	Continuous Emission Monitoring	dscm	Dry standard cubic meter
CFR	Code of Federal Regulations	°F	Degrees Fahrenheit
COM	Continuous Opacity Monitoring	gr	Grains
EPA	Environmental Protection Agency	Hg	Mercury
EU	Emission Unit	hr	Hour
FG	Flexible Group	H <sub>2</sub> S	Hydrogen Sulfide
GACS	Gallon of Applied Coating Solids	hp	Horsepower
GC	General Condition	lb	Pound
HAP	Hazardous Air Pollutant	m	Meter
HVLP	High Volume Low Pressure *	mg	Milligram
ID	Identification	mm	Millimeter
LAER	Lowest Achievable Emission Rate	MM	Million
MACT	Maximum Achievable Control Technology	MW	Megawatts
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfunction Abatement Plan	NO <sub>x</sub>	Oxides of Nitrogen
MDEQ	Michigan Department of Environmental Quality (Department)	PM	Particulate Matter
MIOSHA	Michigan Occupational Safety & Health Administration	PM10	PM less than or equal to 10 microns diameter
MSDS	Material Safety Data Sheet	PM2.5	PM less than or equal 2.5 microns diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	pph	Pound per hour
NSPS	New Source Performance Standards	ppm	Parts per million
NSR	New Source Review	ppmv	Parts per million by volume
PS	Performance Specification	ppmw	Parts per million by weight
PSD	Prevention of Significant Deterioration	psia	Pounds per square inch absolute
PTE	Permanent Total Enclosure	psig	Pounds per square inch gauge
PTI	Permit to Install	scf	Standard cubic feet
RACT	Reasonably Available Control Technology	sec	Seconds
ROP	Renewable Operating Permit	SO <sub>2</sub>	Sulfur Dioxide
SC	Special Condition	THC	Total Hydrocarbons
SCR	Selective Catalytic Reduction	tpy	Tons per year
SRN	State Registration Number	µg	Microgram
TAC	Toxic Air Contaminant	VOC	Volatile Organic Compounds
TEQ	Toxicity Equivalence Quotient	yr	Year
VE	Visible Emissions		

\* For High Volume Low Pressure (HVLP) applicators, the pressure measured at the HVLP gun air cap shall not exceed ten (10) pounds per square inch gauge (psig).

### GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**
2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**
3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**
4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**
5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **(R 336.1219)**
6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**
7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**
8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.
9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. **(R 336.1301)**
  - a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
  - b) A visible emission limit specified by an applicable federal new source performance standard.
  - c) A visible emission limit specified as a condition of this Permit to Install.
  
12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R 336.1370(2). **(R 336.1370)**
  
13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

**SPECIAL CONDITIONS**

**EMISSION UNIT SUMMARY TABLE**

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

<b>Emission Unit ID</b>	<b>Emission Unit Description (Process Equipment &amp; Control Devices)</b>	<b>Installation Date / Modification Date</b>	<b>Flexible Group ID</b>
EUDRYING	Cimbria Super Cyclofan grain dryers with five exhausts	10/15/1999	NA
EUPREPEQUIPMENT	Equipment used to prepare the bean for soybean oil extraction including: Scale, Jet Dryer, Siro Conditioner, CCC Aspirator, CCC Cyclone, Cracker, Hulloosinator, Bean Heater, Jet Dryer Cyclone, Split Soy Aspirator, Secondary Aspirator, 4 Flakers, Hull Screener, Hull Grinder, 2 Screeners, 2 Meal Grinders, Ball Crusher, Mixing Screw Conveyor, Meal Leg, 4 Loadout Bins, 2 Loadout Spouts.	8/19/1996 / 7/21/2011	NA
EUBIN	Storage Bin	6/15/1996 / 7/3/2000 / 3/1/2006 / 4/1/2007	FGHANDLING
EUHANDLING	South Receiving Leg, North Receiving Leg, Wet Leg, Receiving Belt, Reclaim Screw, Dryer Drag, Transfer Drag	8/19/1996	FGHANDLING
EUHANDLING2	Pit Leg, Cleaner Leg, Receiving Belt, Fill Conveyors, Reclaim Conveyors	3/1/2006	FGHANDLING
EUEXTRACTION	Extractor, DTDC, Spent Flake Conveyor, Evaporators, Oil Stripper Solvent System, Plug Screw Aspiration	8/19/1996	FGEXTRACTION
EUDTDCDRYER	Dryer #1, Dryer #2, Dryer Cyclones with level alarms.	8/15/1996	FGEXTRACTION
EUDTDCCOOLER	Cooler, Cooler Cyclone with level alarms	8/15/1996 / 7/21/2011	FGEXTRACTION
EUSTORAGETANK	Extraction Solvent Storage Tank, 15,000 gallons.	8/15/1996	FGEXTRACTION
EUDUMPTANK	Extraction Solvent Dump Tank, 15,000 gallons.	8/15/1996	FGEXTRACTION
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.			

**The following conditions apply to: EUDRYING**

**DESCRIPTION:** Cimbria Super Cyclofan grain dryers with five exhausts

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT:** Five cyclofans that function as both process and control equipment

**I. EMISSION LIMITS**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Testing / Monitoring Method</b>	<b>Underlying Applicable Requirements</b>
1. PM	0.03 pounds per 1000 lbs of exhaust gases calculated on a dry gas basis	Test Protocol	Each exhaust stack in EUDRYING	SC V.1	R 336.1331(1)(c)
2. PM10	12.65 pph	Test Protocol	The total of the five exhaust stacks combined in EUDRYING	SC V.1	R 336.2803, R 336.2804, 40 CFR 52.21 (c)&(d)
3. PM2.5	10.12 pph	Test Protocol	The total of the five exhaust stacks combined in EUDRYING	SC V.1	R 336.2803, R 336.2804, 40 CFR 52.21 (c)&(d)
4. Opacity	10%	6-minute average	Each exhaust stack in EUDRYING	SC VI.3	R 336.1301(1)(c), R 336.2803, R 336.2804, 40 CFR 52.21 (c)&(d)

**II. MATERIAL LIMITS**

<b>Material</b>	<b>Limit</b>	<b>Time Period/ Operating Scenario</b>	<b>Equipment</b>	<b>Monitoring/ Testing Method</b>	<b>Underlying Applicable Requirements</b>
1. Soybeans	2520 tons per day	Calendar day	EUDRYING	SC VI.1	R 336.2803, R 336.2804, 40 CFR 52.21 (c)&(d)
2. Soybeans	225,000 tons per year	12-month rolling time period as determined at the end of each calendar month	EUDRYING	SC VI.2	R 336.2803, R 336.2804, 40 CFR 52.21 (c)&(d)

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate Cimbria Super Cyclofan Dryer unless all discharges are controlled by properly installed and operated cyclofans. (R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))

**IV. DESIGN/EQUIPMENT PARAMETERS**

NA

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 180 days after permit issuance, the permittee shall verify PM, PM10, and PM2.5 emission rates from a single representative exhaust stack on the Cimbria Super Cyclofan Dryer by testing at owner's expense, in accordance with Department requirements. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Daily records of soybeans fed to the Cimbria dryer. **(R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
2. Yearly records of tons soybeans fed to the Cimbria dryer based on a 12-month rolling time period as determined at the end of each calendar month. **(R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
3. The operator shall perform and record a non-certified daily visible emission observation of each stack in EUDRYING for one six-minute period when the process is operating. The six-minute average shall be based on 24 equally spaced instantaneous opacity measurements per six-minute period. **(R 336.1301, R 336.1303, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTIONS**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter/Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVCIMBRIA1*	40	30	<b>R 336.2803, R 336.2804, 40 CFR 52.21 (c) &amp; (d)</b>
2. SVCIMBRIA2*	40	40	<b>R 336.2803, R 336.2804, 40 CFR 52.21 (c) &amp; (d)</b>
3. SVCIMBRIA3*	40	50	<b>R 336.2803, R 336.2804, 40 CFR 52.21 (c) &amp; (d)</b>
4. SVCIMBRIA4*	40	60	<b>R 336.2803, R 336.2804, 40 CFR 52.21 (c) &amp; (d)</b>
5. SVCIMBRIA5*	40	70	<b>R 336.2803, R 336.2804, 40 CFR 52.21 (c) &amp; (d)</b>

\*These stacks exhaust horizontally to the ambient air.

**IX. OTHER REQUIREMENTS**

NA

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

**The following conditions apply to: EUPREPEQUIPMENT**

**DESCRIPTION:** Equipment used to prepare the bean for soybean oil extraction including: Scale, Jet Dryer, Siro Conditioner, CCC Aspirator, CCC Cyclone, Cracker, Hullosesator, Bean Heater, Jet Dryer Cyclone, Split Soy Aspirator, Secondary Aspirator, 4 Flakers, Hull Screener, Hull Grinder, 2 Screeners, 2 Meal Grinders, Ball Crusher, Mixing Screw Conveyor, Meal Leg, 4 Loadout Bins, 2 Loadout Spouts.

**Flexible Group ID:** NA

**POLLUTION CONTROL EQUIPMENT:** Baghouse

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.044 pounds per 1,000 pounds of exhaust gases Calculated on a dry gas basis	Test Protocol	EUPREPEQUIPMENT	SC V.1	R 336.1331(1)(c)
2. PM10	5.55 pph	Test Protocol	EUPREPEQUIPMENT	SC V.1	R 336.2803, R 336.2804, 40 CFR 52.21 (c)&(d)
3. PM2.5	4.44 pph	Test Protocol	EUPREPEQUIPMENT	SC V.1	R 336.2803, R 336.2804, 40 CFR 52.21 (c)&(d)
4. Opacity	10%	6-minute average	Meal loading operations	SC VI.2	R 336.1301(1)(c), R 336.2803, R 336.2804, 40 CFR 52.21 (c)&(d)

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

NA

**IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall not operate any prep equipment unless the prep building baghouse dust collector is installed and operating properly. (R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c)&(d))
2. The permittee shall not operate EUPREPEQUIPMENT unless a gauge, which measures the pressure drop across the prep building baghouse dust collector is installed, calibrated, maintained and operated in a satisfactory manner. (R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 180 days after permit issuance, the permittee shall verify PM, PM10, and PM2.5 emission rates from EUPREPEQUIPMENT by testing at owner's expense, in accordance with Department requirements. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall once daily record the pressure drop across the prep building baghouse dust collector, date, time, production throughput rate and initials of individual taking the readings. **(R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
2. The operator shall perform and record a non-certified daily visible emission observation of the meal loading operations for one six-minute period when the process is operating. The six-minute average shall be based on 24 equally spaced instantaneous opacity measurements per six-minute period. **(R 336.1301, R 336.1303, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTIONS**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter/Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVBAGHOUSE	30	80	<b>R 336.2803, R 336.2804, 40 CFR 52.21 (c) &amp; (d)</b>

**IX. OTHER REQUIREMENTS**

NA

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

**FLEXIBLE GROUP SUMMARY TABLE**

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGHANDLING	Equipment used for off loading soybeans including: Receiving pits, Storage bins, Bean Cleaners, South Receiving Leg, North Reclaim Leg, Wet Leg, Pit Leg, Cleaner Leg, Receiving Belts, Bin Fill conveyors, Bin Reclaim conveyors, Cyclones, Baghouses, and Oil Spray Applicators. This equipment is subject to NSPS DD.	EUBIN, EUHANDLING, EUHANDLING2
FGEXTRACTION	Equipment used to remove oil from soybeans including: Extractor, DTDC, Spent Flake Conveyor, Evaporators, Oil Stripper Solvent System, Plug Screw Aspiration, Solvent Dump Tank, Solvent Storage Tank, MO Stripper, MO Absorber, MO Heater, MO Cooler, MO Heat Exchanger, MO Storage Tanks, Main Gas Vent, Vacuum Gauge and Fan Motion Alarm, Cooler, Cooler Cyclone with level alarms, Dryer #1, Dryer #2, Dryer Cyclones with level alarms. This is also the equipment and processes subject to the Solvent Extraction for Vegetable Oil Production NESHAP (Subpart GGGG)	EUEXTRACTION, EUDTDCDRYER, EUDTDCCOOLER, EUSTORAGETANK, EUDUMPTANK
FGFACILITY	All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.	

**The following conditions apply to: FGHANDLING**

**DESCRIPTION:** Equipment used for off loading soybeans including: Receiving pits, Storage bins, Bean Cleaners, South Receiving Leg, North Reclaim Leg, Wet Leg, Pit Leg, Cleaner Leg, Receiving Belts, Bin Fill conveyors, Bin Reclaim conveyors, Cyclones, Baghouses, and Oil Spray Applicators. This equipment is subject to NSPS DD.

**Emission Units:** EUBIN, EUHANDLING, EUHANDLING2

**POLLUTION CONTROL EQUIPMENT:** Cyclones, Baghouse systems, oil spray applicators

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.023 grams per dscm	Test Protocol	Each stack in FGHANDLING	SC V.1	40 CFR 60 Subparts A & DD
2. PM	0.019 pound per 1,000 pounds of exhaust gases, calculated on a dry gas basis	Test Protocol	Each stack in FGHANDLING	SC V.1	R 336.1331(1)(c), 40 CFR 60 Subparts A & DD
3. PM10	0.86 pph	Test Protocol	FGHANDLING (SVRECSTACK)	SC V.1	R 336.2803, R 336.2804, 40 CFR 52.21 (c)&(d)
4. PM10	0.51 pph	Test Protocol	FGHANDLING (SVRECSTACK2)	SC V.1	R 336.2803, R 336.2804, 40 CFR 52.21 (c)&(d)
5. PM2.5	0.69 pph	Test Protocol	FGHANDLING (SVRECSTACK)	SC V.1	R 336.2803, R 336.2804, 40 CFR 52.21 (c)&(d)
6. PM2.5	0.41 pph	Test Protocol	FGHANDLING (SVRECSTACK2)	SC V.1	R 336.2803, R 336.2804, 40 CFR 52.21 (c)&(d)
7. Opacity	0%	6-minute average	Grain handling operations (EUHANDLING, EUHANDLING2)	SC VI.4	R 336.1301(1)(c), 40 CFR 60 Subparts A & DD
8. Opacity	10%	6-minute average	Grain loading operations	SC VI.4	R 336.1301(1)(c), 40 CFR 60 Subparts A & DD
9. Opacity	5%	6-minute average	Grain unloading operations (EUHANDLING, EUHANDLING2)	SC VI.4	R 336.1301(1)(c), 40 CFR 60 Subparts A & DD

**II. MATERIAL LIMITS**

<b>Material</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Testing / Monitoring Method</b>	<b>Underlying Applicable Requirements</b>
1. Soybeans	10,500 tons per day	Calendar day / Received	FGHANDLING	SC VI.1	R 336.2803, R 336.2804, 40 CFR 52.21 (c)&(d)
2. Soybeans	450,000 tons per year	12-month rolling time period as determined at the end of each calendar month / Received	FGHANDLING	SC VI.3	R 336.2803, R 336.2804, 40 CFR 52.21 (c)&(d)

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate any soybean receiving equipment unless the receiving area baghouse and cyclone is installed and operating properly. **(R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
2. The permittee shall not unload soybeans into either hopper, nor transport soybeans via the south receiving leg, the north reclaim leg, the wet leg, the 18 inch receiving belt conveyor, the 16 inch reclaim screw conveyor, the drag conveyor, and/or the transfer drag conveyor, unless the oil application system is installed and operating properly. **(R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
3. The permittee shall not operate the truck dumper without the enclosure in place and the south access door closed. **(R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

**IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall equip and maintain the portion of the drive south of the dump pit with an enclosure. **(R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 180 days after permit issuance, the permittee shall verify PM, PM10, and PM2.5 emission rates from EUHANDLING and EUHANDLING2 by testing at owner's expense, in accordance with Department requirements. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d), 40 CFR 60 Subparts A & DD)**

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Daily records of tons of soybeans received. **(R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
2. Monthly records of tons of soybeans received. **(R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
3. Yearly records of tons of soybeans received based on a 12-month rolling time period as determined at the end of each calendar month. **(R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

4. Conduct and record daily non-certified visual emission observations of the grain handling operations, grain loading operations, and grain unloading operations when each process is operating. **(R 336.1301(1)(c), R 336.1303, 40 CFR 60 Subparts A & DD)**

**VII. REPORTING**

NA

**VIII. STACK/VENT RESTRICTIONS**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter/Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVRECSTACK	24	90	R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
2. SVRECSTACK2	16	35	R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

**IX. OTHER REQUIREMENTS**

1. The permittee shall comply with all applicable requirements of 40 CFR 60 Subparts A and DD. **(40 CFR 60 Subparts A & DD)**

**Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

**The following conditions apply to: FGEXTRACTION**

**DESCRIPTION:** Equipment used to remove oil from soybeans including: Extractor, DTDC, Spent Flake Conveyor, Evaporators, Oil Stripper Solvent System, Plug Screw Aspiration, Solvent Dump Tank, Solvent Storage Tank, MO Stripper, MO Absorber, MO Heater, MO Cooler, MO Heat Exchanger, MO Storage Tanks, Main Gas Vent, Vacuum Gauge and Fan Motion Alarm, Cooler, Cooler Cyclone with level alarms, Dryer #1, Dryer #2, Dryer Cyclones with level alarms. This is also the equipment and processes subject to the Solvent Extraction for Vegetable Oil Production NESHAP (Subpart GGGG)

**Emission Units:** EUEXTRACTION, EUDTDCDRYER, EUDTDCCOOLER, EUSTORAGETANK, EUDUMPTANK

**POLLUTION CONTROL EQUIPMENT:** Two cyclones

**I. EMISSION LIMITS**

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOC	7.12 pph	Test protocol	FGEXTRACTION (SVMAINVENT)	SC V.1	R 336.1225, R 336.1702(a)
2. VOC	30.3 tpy	12-month rolling time period as determined at the end of each calendar month	FGEXTRACTION (SVMAINVENT)	SC VI.11	R 336.1702(a)
3. VOC	14.6 pph	Test protocol	FGEXTRACTION (SVDCDRYER)	SC V.1	R 336.1225, R 336.1702(a)
4. VOC	62.2 tpy	12-month rolling time period as determined at the end of each calendar month	FGEXTRACTION (SVDCDRYER)	SC VI.11	R 336.1702(a)
5. PM	0.044 pound per 1,000 pounds of exhaust gases, calculated on a dry gas basis	Test Protocol	FGEXTRACTION (SVDCDRYER)	SC V.2	R 336.1331(1)(c)
6. PM10	1.98 pph	Test Protocol	FGEXTRACTION (SVDCDRYER)	SC V.2	R 336.2803, R 336.2804, 40 CFR 52.21(c)&(d)
7. PM2.5	1.58 pph	Test Protocol	FGEXTRACTION (SVDCDRYER)	SC V.2	R 336.2803, R 336.2804, 40 CFR 52.21(c)&(d)
8. PM	0.044 pound per 1,000 pounds of exhaust gases, calculated on a dry gas basis	Test Protocol	FGEXTRACTION (SVDCCOOLER)	SC V.2	R 336.1331(1)(c)
9. PM10	1.05 pph	Test Protocol	FGEXTRACTION (SVDCCOOLER)	SC V.2	R 336.2803, R 336.2804, 40 CFR 52.21(c)&(d)
10. PM2.5	0.84 pph	Test Protocol	FGEXTRACTION (SVDCCOOLER)	SC V.2	R 336.2803, R 336.2804, 40 CFR 52.21(c)&(d)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
11. Opacity	10%	6-minute average	FGEXTRACTION (SVDCCOOLER and SVD CDRYER)	SC VI.12	R 336.1301(1)(c)

**II. MATERIAL LIMITS**

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. Soybeans	1,050 tons per day	Calendar day	Extraction plant	SC VI.6	R 336.1702(a)
2. Soybeans	383,250 tpy	12-month rolling time period as determined at the end of each calendar month	Extraction plant	SC VI.7	R 336.1702(a)
3. Extraction solvent	0.150 gallon per ton of soybeans processed	12-month rolling time period as determined at the end of each calendar month	Extraction plant	SC VI.10	R 336.1225, R 336.1702(a), 40 CFR 63 Subpart GGGG
4. Extraction solvent	0.250 gallon per ton of soybeans processed	Three-month rolling time period as determined at the end of each calendar month	Extraction plant	SC VI.9	R 336.1225, R 336.1702(a)

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. During a malfunction (as defined in 40 CFR 63.2), the permittee shall meet the requirements associated with one of two compliance options. Within 15 days of the beginning date of the malfunction, the permittee shall choose to comply with the NESHAP under the requirements as if continuing under normal operation, or to comply with the NESHAP under the requirements outlined in Appendix 9 of MI-ROP-M4204-2007a (or latest revision) for a malfunction period. **(40 CFR 63.2850)**

**IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall not operate the extractor and its associated condenser, the desolventizer and/or toaster portions of the DTDC unit and their associated condenser, the spent flakes conveyor, either of the two evaporators and their associated condenser, and the oil stripper, unless the absorber system is installed and operating properly and in accordance with the approved MAP and PMP. **(R 336.1225, R 336.1702(a))**
2. The permittee shall not add nor remove extraction solvent from either the 15,000 gallon extraction solvent storage tank or the 15,000 gallon extraction solvent dump tank unless the vent from the respective tank is tied into the plant's absorber system and that absorber system is installed and operating properly and in accordance with the approved MAP and PMP. **(R 336.1225, R 336.1702(a))**
3. The permittee shall not operate dryer # 1 and/or dryer # 2 portions of the DTDC unless the two dryer cyclones are both installed and operating properly. **(R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c)&(d))**

4. The permittee shall not operate the cooler portion of the DTDC unless the cooler cyclone is installed and operating properly. **(R 336.2803, R 336.2804, 40 CFR 52.21(c)&(d))**
5. The permittee shall equip and maintain the absorber system with a device to measure changes in the vacuum across the system. **(R 336.1910)**

#### **V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Within 180 days after permit issuance, the permittee shall verify VOC emission rates from FGEXTRACTION by testing at owner's expense, in accordance with Department requirements. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1225, R 336.1702(a), R 336.2001, R 336.2003, R 336.2004)**
2. Within 180 days after permit issuance, the permittee shall verify PM, PM10, and PM2.5 emission rates from EUDCDRYER and EUDCCOOLER by testing at owner's expense, in accordance with Department requirements. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1331, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

#### **VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. For items 2 through 4 below, the permittee shall: **(R 336.1225, R 336.1702(a))**
  - a. promptly examine the cause of the variance.
  - b. respond as needed to minimize the possibility of exceeding any emission limits in this permit.
  - c. implement any measures necessary to return the affected parameter(s) to the normal range.
2. The permittee shall record the temperature of meal entering the meal dryer hourly, normal range 195-230°F. **(R 336.1225, R 336.1702(a))**
3. The permittee shall record the desolventizer toaster sparge deck temperature alarm hourly, normal range greater than 195°F. **(R 336.1225, R 336.1702(a))**
4. The permittee shall record the percent LEL in main gas vent a minimum of four times daily, normal range 0-50%. **(R 336.1225, R 336.1702(a))**
5. The permittee shall record each operating parameter alarm, if outside the normal range for all monitored components operating. **(R 336.1225, R 336.1702(a))**
6. The permittee shall keep daily records of tons of soybeans fed to the soybean oil extraction plant. **(R 336.1225, R 336.1702(a))**
7. The permittee shall determine and record the monthly/annual tons of each oilseed type processed as described in 40 CFR 63.2855. **(R 336.1225, R 336.1702(a), 40 CFR 63.2850)**
8. The permittee shall determine and record the extraction solvent loss, in gallons, as described in 40 CFR 63.2853. **(R 336.1225, R 336.1702(a), 40 CFR 63.2850)**
9. The permittee shall keep monthly records of the results of the three-month comparisons of extraction solvent used per ton of soybeans processed. **(R 336.1225, R 336.1702(a))**

10. The permittee shall 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 40 CFR 63.2840, by the end of the following calendar month. **(R 336.1225, R 336.1702(a), 40 CFR 63.2850)**
11. Using the most recent stack test data, the permittee shall keep monthly VOC calculations of both the main gas vent emissions and the combined dryer cyclones emissions on a 12-month rolling time period. **(R 336.1225, R 336.1702(a))**
12. The permittee shall conduct and record daily non-certified visual emission observations of FGEXTRACTION (SVDCCOOLER and SVDCDRYER) when each process is operating. **(R 336.1301(1)(c), R 336.1303)**
13. The permittee shall maintain all of the necessary records used to demonstrate compliance with the Solvent Extraction for Vegetable Oil Production NESHAP in accordance with 40 CFR 63.2862. **(40 CFR 63.2850)**
14. The permittee shall record the volume fraction of HAP present at greater than 1 percent by volume and gallons of extraction solvent in each shipment received. **(40 CFR 63.2850)**
15. The permittee shall determine and record the weighted average volume fraction of HAP in the extraction solvent received as described in 40 CFR 63.2854, by the end of the following calendar month. **(40 CFR 63.2850)**

## **VII. REPORTING**

1. At the end of each calendar month, the permittee shall compare the amount of extraction solvent used per ton of soybeans processed during the three-month and twelve-month rolling time periods ending that month to the maximum emission limits in Section II above. Within 15 calendar days of the end of the month, the permittee shall notify the AQD District Supervisor in writing of any exceedances of the emission limit. The notification shall include the amount of each exceedance, the three-month or twelve-month period during which each exceedance occurred, the reason for the exceedance, and a description of any measures taken to correct the condition causing the exceedance and/or to prevent future exceedances from occurring. **(R 336.1225, R 336.1702(a))**
2. The permittee shall submit a notification of compliance status report, in accordance with 40 CFR 63.2860, to the AQD District Supervisor no later than 60 days after determining the initial 12 operating month compliance ratio. **(40 CFR 63.2850)**
3. The permittee shall submit an annual compliance certification, in accordance with 40 CFR 63.2861(a), to the AQD District Supervisor. **(40 CFR 63.2850)**
4. The permittee shall submit periodic Startup, Shutdown, and Malfunction (SSM) reports, in accordance with 40 CFR 63.2861(c), to the AQD District Supervisor. **(40 CFR 63.2850)**
5. The permittee shall submit immediate SSM reports, in accordance with 40 CFR 63.2861(d), to the AQD District Supervisor. **(40 CFR 63.2850)**
6. The permittee shall submit a deviation notification report by the end of the calendar month following the month in which it was determined that the compliance ratio exceeded 1.00, in accordance with 40 CFR 63.2861(b), to the AQD District Supervisor. **(40 CFR 63.2850)**

### **VIII. STACK/VENT RESTRICTIONS**

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

<b>Stack &amp; Vent ID</b>	<b>Maximum Exhaust Diameter/Dimensions (inches)</b>	<b>Minimum Height Above Ground (feet)</b>	<b>Underlying Applicable Requirements</b>
1. SVMAINVENT	4	60.5	<b>R 336.1225</b>
2. SVDCCOOLER	15	50	<b>R 336.2803, R 336.2804, 40 CFR 52.21 (c) &amp; (d)</b>
3. SVDCDRYER	24	60.5	<b>R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c) &amp; (d)</b>

4. The minimum stack height above ground level listed in SC VIII.2 and requirement to discharge the exhaust gases unobstructed vertically upwards to the ambient air shall apply within 90 days of issuance of this permit. **(R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

### **IX. OTHER REQUIREMENTS**

1. The permittee shall have an approvable plan for demonstrating compliance, in accordance with 40 CFR 63.2851, with the NESHAP submitted to the AQD District Supervisor and implement such plan. **(40 CFR 63.2850)**
2. The permittee shall have an approvable written Startup, Shutdown, and Malfunction (SSM) Plan, in accordance with the provisions in 40 CFR 63.2852, submitted to the AQD District Supervisor. **(40 CFR 63.2850)**
3. The permittee shall use an oilseed solvent loss factor (SLF) of 0.2 for determining allowable HAP loss in compliance determinations. This factor is taken from Table 1 of 40 CFR 63.2840 for conventional soybean processing. **(40 CFR 63.2840)**
4. The permittee shall comply with all applicable requirements of 40 CFR Part 63, Subparts A & GGGG. **(40 CFR 63 Subparts A & GGGG)**

#### **Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

**The following conditions apply Source-Wide to: FGFACILITY**

**POLLUTION CONTROL EQUIPMENT:**

**I. EMISSION LIMITS**

<b>Pollutant</b>	<b>Limit</b>	<b>Time Period / Operating Scenario</b>	<b>Equipment</b>	<b>Testing / Monitoring Method</b>	<b>Underlying Applicable Requirements</b>
1. Opacity	5%	6-minute average	From all on-site vehicle traffic	SC VI.3	R 336.1301(1)(c), R 336.2803, R 336.2804, 40 CFR 52.21(c)&(d)

**II. MATERIAL LIMITS**

NA

**III. PROCESS/OPERATIONAL RESTRICTIONS**

1. The permittee shall not operate any portion of the facility unless the program for continuous fugitive emissions control for all plant roadways, the plant yard, and all material handling operations as specified in the PMP have been implemented and maintained. **(R 336.2803, R 336.2804, 40 CFR 52.21(c)&(d))**

**IV. DESIGN/EQUIPMENT PARAMETERS**

1. The permittee shall not have any outside storage piles of soybeans or soybean meal. **(R 336.2803, R 336.2804, 40 CFR 52.21(c)&(d))**

**V. TESTING/SAMPLING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

**VI. MONITORING/RECORDKEEPING**

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Maintain records of all Malfunction Abatement Procedures (MAP) performed at the plant as well as the date and time they were performed. **(R 336.1213(3))**
2. Maintain records of compliance with the approved Preventative Maintenance Plan (PMP). **(R 336.1213(3))**
3. Conduct and record daily non-certified visual emission observations of on-site vehicle traffic when traffic is present. **(R 336.1301(1)(c), R 336.1303, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
4. Unless utilizing the option in SC IX.4, within 120 days after completing all PM, PM10, and PM2.5 stack testing required by this permit, the permittee shall conduct an ambient air monitoring program for PM10 and PM2.5 in a manner and with instrumentation approved by the AQD Air Monitoring Unit. No less than 90 days prior to monitoring, the permittee shall submit a complete monitoring plan to the AQD. The AQD must approve the final plan prior to monitoring. The monitoring shall be conducted for a minimum of two consecutive calendar years. **(R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

## **VII. REPORTING**

1. If the permittee implements the ambient air monitoring program, the permittee shall submit all PM10 and PM2.5 monitoring data to both the AQD District Supervisor and the AQD Air Monitoring Unit in an acceptable format within 30 days following the end of the month in which the monitoring data was collected. **(R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

## **VIII. STACK/VENT RESTRICTIONS**

NA

## **IX. OTHER REQUIREMENTS**

1. The permittee shall implement and maintain an approved MAP. **(R 336.1911, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
2. The permittee shall implement and maintain an approved PMP. **(R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
3. Acceptable formats, including calculation method, for all recordkeeping and reports shall be approved by the AQD District Supervisor prior to being implemented and used. **(R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**
4. Within 120 days after completing all PM, PM10, and PM2.5 stack testing required by this permit, the permittee may opt to apply for and receive a new PTI instead of conducting the ambient air monitoring program required by SC VI.4. The permit application must be based on the results of the PM, PM10, and PM2.5 stack testing. The emission limits and/or other permit modifications must demonstrate compliance with the National Ambient Air Quality Standards (NAAQS) and PSD Increments for both PM10 and PM2.5 via air dispersion modeling. If agreement on new permit conditions cannot be reached within 90 days of the application submittal, the permittee shall implement the ambient air monitoring program required by SC VI.4. **(R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

### **Footnotes:**

<sup>1</sup>This condition is state only enforceable and was established pursuant to Rule 201(1)(b).