



Perdue AgriBusiness Inc.
 Environmental Services
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Office (252)348-4364

August 13, 2012



Mr. Thomas J. Hanlon, P.E.
 Environmental Engineering Manager
 Air Quality Program
 Pennsylvania Department of Environmental Protection
 Southcentral Regional Office
 909 Elmerton Avenue
 Harrisburg, PA 17110-8200

RE: Perdue Grain & Oilseed, LLC
 Conoy Township, Lancaster County
 Plan Approval Application – Phase 2 – Soybean Processing Facility

Dear Mr. Hanlon:

Enclosed please find three (3) copies of a Plan Approval Application for the approval of the soybean oil extraction portion (Phase 2) of the overall single project to construct and operate a soybean processing facility. The grain elevator operation (Phase 1 of the overall single project) is the subject of a separate Plan Approval Application that was previously submitted to the Department.

There are several attachments to the Plan Approval Application, including copies of county and municipal notifications, the General Information Form (GIF), and the Air Pollution Control Act Compliance Review Form. A check in the amount of \$7,000.00 is also enclosed to satisfy the application fee.

We greatly appreciate your attention to this matter, and we respectfully request that the Department review and approve this application as soon as possible. If you have any questions regarding this application or require any additional information, please contact me at 252-348-4326.

Sincerely,

C. Wayne Black
 Director – AgriBusiness Environmental

Enclosures





Submit in Triplicate

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY



PROCESSES

Application for Plan Approval to Construct, Modify or Reactivate an Air Contamination Source and/or Install an Air Cleaning Device

This application must be submitted with the General Information Form (GIF).

Before completing this form, read the instructions provided for the form.

Section A - Facility Name, Checklist And Certification	
Organization Name or Registered Fictitious Name/Facility Name: <u>Perdue Grain & Oilseed, LLC</u>	
DEP Client ID# (if known): <u>296620</u>	
Type of Review required and Fees:	
<input type="checkbox"/> Source which is not subject to NSPS, NESHAPs, MACT, NSR and PSD: \$ _____	
<input checked="" type="checkbox"/> Source requiring approval under NSPS or NESHAPs or both: \$ <u>1,700.00</u>	
<input checked="" type="checkbox"/> Source requiring approval under NSR regulations: \$ <u>5,300.00</u>	
<input type="checkbox"/> Source requiring the establishment of a MACT limitation: \$ _____	
<input type="checkbox"/> Source requiring approval under PSD: \$ _____	
Applicant's Checklist	
Check the following list to make sure that all the required documents are included.	
<input checked="" type="checkbox"/> General Information Form (GIF)	
<input checked="" type="checkbox"/> Processes Plan Approval Application	
<input checked="" type="checkbox"/> Compliance Review Form or provide reference of most recently submitted compliance review form for facilities submitting on a periodic basis: _____	
<input checked="" type="checkbox"/> Copy and Proof of County and Municipal Notifications	
<input checked="" type="checkbox"/> Permit Fees	
<input checked="" type="checkbox"/> Addendum A: Source Applicable Requirements (only applicable to existing Title V facility)	
Certification of Truth, Accuracy and Completeness by a Responsible Official	
I, <u>C. Wayne Black</u> , certify under penalty of law in 18 Pa. C. S. A. §4904, and 35 P.S. §4009(b) (2) that based on information and belief formed after reasonable inquiry, the statements and information in this application are true, accurate and complete.	
(Signature): <u></u>	Date: <u>8-13-2012</u>
Name (Print): <u>C. Wayne Black</u>	Title: <u>Director - AgriBusiness Environmental</u>
OFFICIAL USE ONLY	
Application No. _____	Unit ID _____
DEP Client ID #: _____	Site ID _____
Date Received _____	AUTH. ID _____
Date of 1 st Technical Deficiency _____	Date Assigned _____
Date of 2 nd Technical Deficiency _____	Reviewed By _____
Comments: _____	

Section B - Processes Information

1. Source Information

Source Description (give type, use, raw materials, product, etc). Attach additional sheets as necessary.

Soybean Preparation Process (Cleaning/Cracking/Dehulling) - Separation of exterior soybean hull from bean germ via cracking rolls and primary aspiration. Remaining soybean hulls, hull fines, and dust from primary hull separation are further screened, and any processable bean meats are returned to primary hull separation tables via fluidization.

Manufacturer Rotex or equivalent (cleaner screen) Highland or equivalent (whole bean tank) Highland or equivalent (cracked bean tank) Roskamp or equivalent (cracking rolls) Cantrell or equivalent (primary separation tables) Triple S or equivalent (secondary separation tables)	Model No. Rotex 822GC 10' square x 20' height 10' square x 20' height Roskamp 12 x 52 or equivalent Cantrell 241D or equivalent Triple S Model T-20 or equivalent	Number of Sources One (1) cleaner screen One (1) whole bean tank One (1) cracked bean tank Three (3) cracking rolls Six (6) primary separation tables Two (2) secondary separation tables
Source Designation 201 - Soybean Preparation Process	Maximum Capacity 62.5 tons/hour	Rated Capacity 62.5 tons/hour

Type of Material Processed
Soybeans

Maximum Operating Schedule

Hours/Day 24	Days/Week 7	Days/Year 365	Hours/Year 8,760
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Operational restrictions existing or requested, if any (e.g., bottlenecks or voluntary restrictions to limit PTE)

Capacity (specify units)

Per Hour NA	Per Day NA	Per Week NA	Per Year NA
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Operating Schedule

Hours/Day NA	Days/Week NA	Days/Year NA	Hours/Year NA
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Seasonal variations (Months) From NA to NA

If variations exist, describe them
NA

2. Fuel

Type	Quantity Hourly	Annually	Sulfur	% Ash (Weight)	BTU Content
Oil Number NA	GPH @ 60°F	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Oil Number _____	GPH @ 60°F	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Natural Gas	SCFH	X 10 ⁶ SCF	grain/100 SCF		Btu/SCF
Gas (other) _____	SCFH	X 10 ⁶ SCF	grain/100 SCF		Btu/SCF
Coal	TPH	Tons	% by wt		Btu/lb
Other *					

*Note: Describe and furnish information separately for other fuels in Addendum B.

Section B - Processes Information (Continued)

3. Burner

Manufacturer NA	Type and Model No. NA	Number of Burners NA
Description: NA		
Rated Capacity NA	Maximum Capacity NA	

4. Process Storage Vessels

A. For Liquids:

Name of material stored NA		
Tank I.D. No. NA	Manufacturer NA	Date Installed NA
Maximum Pressure NA	Capacity (gallons/Meter ³) NA	
Type of relief device (pressure set vent/conservation vent/emergency vent/open vent) NA		
Relief valve/vent set pressure (psig) NA	Vapor press. of liquid at storage temp. (psia/kPa) NA	
Type of Roof: Describe: NA		
Total Throughput Per Year NA	Number of fills per day (fill/day): NA Filling Rate (gal./min.): NA Duration of fill hr./fill): NA	

B. For Solids

Type: <input type="checkbox"/> Silo <input checked="" type="checkbox"/> Storage Bin <input type="checkbox"/> Other, Describe		Name of Material Stored Soybeans
Silo/Storage Bin I.D. No. Whole Bean Tank and Cracked Bean Tank	Manufacturer Highland or equivalent	Date Installed Not yet installed.
State whether the material will be stored in loose or bags in silos Loose	Capacity (Tons) 75 tons, each	
Turn over per year in tons 525,000 tons/year (max. approx.)	Turn over per day in tons 1,500 tons/day (max. approx.)	
Describe fugitive dust control system for loading and handling operations Baghouse emissions control.		
Describe material handling system Enclosed conveyance.		

5. Request for Confidentiality

Do you request any information on this application to be treated as "Confidential"? Yes No
If yes, include justification for confidentiality. Place such information on separate pages marked "confidential".

Section B - Processes Information (Continued)

6. Miscellaneous Information

Attach flow diagram of process giving all (gaseous, liquid and solid) flow rates. Also, list all raw materials charged to process equipment, and the amounts charged (tons/hour, etc.) at rated capacity (give maximum, minimum and average charges describing fully expected variations in production rates). Indicate (on diagram) all points where contaminants are controlled (location of water sprays, collection hoods, or other pickup points, etc.). Describe collection hoods location, design, airflow and capture efficiency. Describe any restriction requested and how it will be monitored.

See Attachment F.

Describe fully the facilities provided to monitor and to record process operating conditions, which may affect the emission of air contaminants. Show that they are reasonable and adequate.

The quantity of soybeans processed by the facility will be recorded. The baghouses controlling the process will each be equipped with a gauge to measure pressure drop across the collector. The pressure drop will be read and recorded monthly when the source is in operation.

Describe each proposed modification to an existing source.

NA

Identify and describe all fugitive emission points, all relief and emergency valves and any by-pass stacks.

The processing equipment will be located inside of a building; therefore, fugitive particulate matter emissions are not anticipated to be a concern. There will be no relief valves, emergency valves, and by-pass stacks.

Describe how emissions will be minimized especially during start up, shut down, process upsets and/or disruptions.

It is not anticipated that start up, shut down, process upsets, and/or disruptions will have any impact on emissions. The process equipment will not be operated unless the associated baghouses are also functioning as designed.

Anticipated Milestones:

- | | |
|--|----------------------|
| i. Expected commencement date of construction/reconstruction/installation: | <u>March 2013</u> |
| ii. Expected completion date of construction/reconstruction/installation: | <u>December 2013</u> |
| iii. Anticipated date of start-up: | <u>December 2013</u> |

Section B - Processes Information

1. Source Information

Source Description (give type, use, raw materials, product, etc). Attach additional sheets as necessary.
 Bean Conditioning - Cracked soybean pieces are heated by steam to make them pliable and keep them hydrated.

Manufacturer Crown Iron Works or equivalent	Model No. 95-7	Number of Sources One (1)
Source Designation 202 - Bean Conditioning	Maximum Capacity 59 tons/hour	Rated Capacity 59 tons/hour

Type of Material Processed
Soybeans

Maximum Operating Schedule

Hours/Day 24	Days/Week 7	Days/Year 365	Hours/Year 8,760
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Operational restrictions existing or requested, if any (e.g., bottlenecks or voluntary restrictions to limit PTE)

Capacity (specify units)

Per Hour NA	Per Day NA	Per Week NA	Per Year NA
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Operating Schedule

Hours/Day NA	Days/Week NA	Days/Year NA	Hours/Year NA
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Seasonal variations (Months) From NA to NA

If variations exist, describe them
NA

2. Fuel

Type	Quantity Hourly	Annually	Sulfur	% Ash (Weight)	BTU Content
Oil Number NA	GPH @ 60°F	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Oil Number _____	GPH @ 60°F	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Natural Gas	SCFH	X 10 ⁶ SCF	grain/100 SCF		Btu/SCF
Gas (other) _____	SCFH	X 10 ⁶ SCF	grain/100 SCF		Btu/SCF
Coal	TPH	Tons	% by wt		Btu/lb
Other * _____					

*Note: Describe and furnish information separately for other fuels in Addendum B.

Section B - Processes Information (Continued)

3. Burner

Manufacturer NA	Type and Model No. NA	Number of Burners NA
Description: NA		
Rated Capacity NA	Maximum Capacity NA	

4. Process Storage Vessels

A. For Liquids:

Name of material stored NA		
Tank I.D. No. NA	Manufacturer NA	Date Installed NA
Maximum Pressure NA	Capacity (gallons/Meter ³) NA	
Type of relief device (pressure set vent/conservation vent/emergency vent/open vent) NA		
Relief valve/vent set pressure (psig) NA	Vapor press. of liquid at storage temp. (psia/kPa) NA	
Type of Roof: Describe: NA		
Total Throughput Per Year NA		Number of fills per day (fill/day): NA Filling Rate (gal./min.): NA Duration of fill hr./fill): NA

B. For Solids

Type: <input type="checkbox"/> Silo <input type="checkbox"/> Storage Bin <input type="checkbox"/> Other, Describe		Name of Material Stored NA
Silo/Storage Bin I.D. No. NA	Manufacturer NA	Date Installed NA
State whether the material will be stored in loose or bags in silos NA	Capacity (Tons) NA	
Turn over per year in tons NA	Turn over per day in tons NA	
Describe fugitive dust control system for loading and handling operations NA		
Describe material handling system NA		

5. Request for Confidentiality

Do you request any information on this application to be treated as "Confidential"? Yes No
If yes, include justification for confidentiality. Place such information on separate pages marked "confidential".

Section B - Processes Information (Continued)

6. Miscellaneous Information

Attach flow diagram of process giving all (gaseous, liquid and solid) flow rates. Also, list all raw materials charged to process equipment, and the amounts charged (tons/hour, etc.) at rated capacity (give maximum, minimum and average charges describing fully expected variations in production rates). Indicate (on diagram) all points where contaminants are controlled (location of water sprays, collection hoods, or other pickup points, etc.). Describe collection hoods location, design, airflow and capture efficiency. Describe any restriction requested and how it will be monitored.

See Attachment F.

Describe fully the facilities provided to monitor and to record process operating conditions, which may affect the emission of air contaminants. Show that they are reasonable and adequate.

The quantity of soybeans processed by the facility will be recorded. The high efficiency cyclone controlling the process will be equipped with a gauge to measure pressure drop across the collector. The pressure drop will be read and recorded monthly when the source is in operation.

Describe each proposed modification to an existing source.

NA

Identify and describe all fugitive emission points, all relief and emergency valves and any by-pass stacks.

The processing equipment will be located inside of a building; therefore, fugitive particulate matter emissions are not anticipated to be a concern. There will be no relief valves, emergency valves, and by-pass stacks.

Describe how emissions will be minimized especially during start up, shut down, process upsets and/or disruptions.

It is not anticipated that start up, shut down, process upsets, and/or disruptions will have any impact on emissions. The process equipment will not be operated unless the associated cyclone is also functioning as designed.

Anticipated Milestones:

- i. Expected commencement date of construction/reconstruction/installation: March 2013
- ii. Expected completion date of construction/reconstruction/installation: December 2013
- iii. Anticipated date of start-up: December 2013

Section B - Processes Information

1. Source Information

Source Description (give type, use, raw materials, product, etc). Attach additional sheets as necessary.

Flaking Rolls - Cracked, dehulled, conditioned soybean pieces are compressed into flakes that are approximately 15,000th of an inch thick to increase surface area for proper oil extraction.

Manufacturer Roskamp or equivalent	Model No. Roskamp 28 x 62 or equivalent	Number of Sources Five (5) flaking mills
Source Designation 203 - Flaking Rolls	Maximum Capacity 59 tons/hour	Rated Capacity 59 tons/hour

Type of Material Processed

Soybeans

Maximum Operating Schedule

Hours/Day 24	Days/Week 7	Days/Year 365	Hours/Year 8,760
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Operational restrictions existing or requested, if any (e.g., bottlenecks or voluntary restrictions to limit PTE)

Capacity (specify units)

Per Hour NA	Per Day NA	Per Week NA	Per Year NA
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Operating Schedule

Hours/Day NA	Days/Week NA	Days/Year NA	Hours/Year NA
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Seasonal variations (Months) From NA to NA

If variations exist, describe them

NA

2. Fuel

Type	Quantity Hourly	Annually	Sulfur	% Ash (Weight)	BTU Content
Oil Number NA	GPH @ 60°F	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Oil Number _____	GPH @ 60°F	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Natural Gas	SCFH	X 10 ⁶ SCF	grain/100 SCF		Btu/SCF
Gas (other) _____	SCFH	X 10 ⁶ SCF	grain/100 SCF		Btu/SCF
Coal	TPH	Tons	% by wt		Btu/lb
Other *					

*Note: Describe and furnish information separately for other fuels in Addendum B.

Section B - Processes Information (Continued)

3. Burner

Manufacturer NA	Type and Model No. NA	Number of Burners NA
Description: NA		
Rated Capacity NA	Maximum Capacity NA	

4. Process Storage Vessels

A. For Liquids:

Name of material stored NA		
Tank I.D. No. NA	Manufacturer NA	Date Installed NA
Maximum Pressure NA	Capacity (gallons/Meter ³) NA	
Type of relief device (pressure set vent/conservation vent/emergency vent/open vent) NA		
Relief valve/vent set pressure (psig) NA	Vapor press. of liquid at storage temp. (psia/kPa) NA	
Type of Roof: Describe: NA		
Total Throughput Per Year NA	Number of fills per day (fill/day): NA Filling Rate (gal./min.): NA Duration of fill hr./fill): NA	

B. For Solids

Type: <input type="checkbox"/> Silo <input type="checkbox"/> Storage Bin <input type="checkbox"/> Other, Describe		Name of Material Stored NA
Silo/Storage Bin I.D. No. NA	Manufacturer NA	Date Installed NA
State whether the material will be stored in loose or bags in silos NA	Capacity (Tons) NA	
Turn over per year in tons NA	Turn over per day in tons NA	
Describe fugitive dust control system for loading and handling operations NA		
Describe material handling system NA		

5. Request for Confidentiality

Do you request any information on this application to be treated as "Confidential"? Yes No
If yes, include justification for confidentiality. Place such information on separate pages marked "confidential".

Section B - Processes Information (Continued)

6. Miscellaneous Information

Attach flow diagram of process giving all (gaseous, liquid and solid) flow rates. Also, list all raw materials charged to process equipment, and the amounts charged (tons/hour, etc.) at rated capacity (give maximum, minimum and average charges describing fully expected variations in production rates). Indicate (on diagram) all points where contaminants are controlled (location of water sprays, collection hoods, or other pickup points, etc.). Describe collection hoods location, design, airflow and capture efficiency. Describe any restriction requested and how it will be monitored.

See Attachment F.

Describe fully the facilities provided to monitor and to record process operating conditions, which may affect the emission of air contaminants. Show that they are reasonable and adequate.

The quantity of soybeans processed by the facility will be recorded. The high efficiency cyclone controlling the process will be equipped with a gauge to measure pressure drop across the collector. The pressure drop will be read and recorded monthly when the source is in operation.

Describe each proposed modification to an existing source.

NA

Identify and describe all fugitive emission points, all relief and emergency valves and any by-pass stacks.

The processing equipment will be located inside of a building; therefore, fugitive particulate matter emissions are not anticipated to be a concern. There will be no relief valves, emergency valves, and by-pass stacks.

Describe how emissions will be minimized especially during start up, shut down, process upsets and/or disruptions.

It is not anticipated that start up, shut down, process upsets, and/or disruptions will have any impact on emissions. The process equipment will not be operated unless the associated cyclone is also functioning as designed.

Anticipated Milestones:

- | | |
|--|----------------------|
| i. Expected commencement date of construction/reconstruction/installation: | <u>March 2013</u> |
| ii. Expected completion date of construction/reconstruction/installation: | <u>December 2013</u> |
| iii. Anticipated date of start-up: | <u>December 2013</u> |

Section B - Processes Information

1. Source Information

Source Description (give type, use, raw materials, product, etc). Attach additional sheets as necessary.

Extraction Process - Soybean flakes are "washed" with hexane solvent in a counter-current extractor to remove the soybean oil from the flakes. The solvent-laden flakes are then desolventized and toasted in the desolventizer-toaster (DT) by using steam to evaporate the hexane solvent and toast the flakes to produce soybean meal.

Manufacturer Desmet	Model No. 372 RE Reflex (oil extractor) Dimax DT-4000 (DT)	Number of Sources Two (2) - oil extractor and DT
Source Designation 204 - Extraction Process	Maximum Capacity 59 tons/hour	Rated Capacity 59 tons/hour

Type of Material Processed
Soybean flakes/meal

Maximum Operating Schedule

Hours/Day 24	Days/Week 7	Days/Year 365	Hours/Year 8,760
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Operational restrictions existing or requested, if any (e.g., bottlenecks or voluntary restrictions to limit PTE)

Capacity (specify units)

Per Hour NA	Per Day NA	Per Week NA	Per Year NA
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Operating Schedule

Hours/Day NA	Days/Week NA	Days/Year NA	Hours/Year NA
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Seasonal variations (Months) From NA to NA

If variations exist, describe them
NA

2. Fuel

Type	Quantity Hourly	Annually	Sulfur	% Ash (Weight)	BTU Content
Oil Number NA	GPH @ 60°F	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Oil Number _____	GPH @ 60°F	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Natural Gas	SCFH	X 10 ⁶ SCF	grain/100 SCF		Btu/SCF
Gas (other) _____	SCFH	X 10 ⁶ SCF	grain/100 SCF		Btu/SCF
Coal	TPH	Tons	% by wt		Btu/lb
Other * _____					

*Note: Describe and furnish information separately for other fuels in Addendum B.

Section B - Processes Information (Continued)		
3. Burner		
Manufacturer NA	Type and Model No. NA	Number of Burners NA
Description: NA		
Rated Capacity NA	Maximum Capacity NA	
4. Process Storage Vessels		
A. For Liquids:		
Name of material stored NA		
Tank I.D. No. NA	Manufacturer NA	Date Installed NA
Maximum Pressure NA	Capacity (gallons/Meter ³) NA	
Type of relief device (pressure set vent/conservation vent/emergency vent/open vent) NA		
Relief valve/vent set pressure (psig) NA	Vapor press. of liquid at storage temp. (psia/kPa) NA	
Type of Roof: Describe: NA		
Total Throughput Per Year NA	Number of fills per day (fill/day): NA Filling Rate (gal./min.): NA Duration of fill hr./fill): NA	
B. For Solids		
Type: <input type="checkbox"/> Silo <input type="checkbox"/> Storage Bin <input type="checkbox"/> Other, Describe		Name of Material Stored NA
Silo/Storage Bin I.D. No. NA	Manufacturer NA	Date Installed NA
State whether the material will be stored in loose or bags in silos NA	Capacity (Tons) NA	
Turn over per year in tons NA	Turn over per day in tons NA	
Describe fugitive dust control system for loading and handling operations NA		
Describe material handling system NA		
5. Request for Confidentiality		
Do you request any information on this application to be treated as "Confidential"? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, include justification for confidentiality. Place such information on separate pages marked "confidential".		

Section B - Processes Information (Continued)

6. Miscellaneous Information

Attach flow diagram of process giving all (gaseous, liquid and solid) flow rates. Also, list all raw materials charged to process equipment, and the amounts charged (tons/hour, etc.) at rated capacity (give maximum, minimum and average charges describing fully expected variations in production rates). Indicate (on diagram) all points where contaminants are controlled (location of water sprays, collection hoods, or other pickup points, etc.). Describe collection hoods location, design, airflow and capture efficiency. Describe any restriction requested and how it will be monitored.

See Attachment F.

Describe fully the facilities provided to monitor and to record process operating conditions, which may affect the emission of air contaminants. Show that they are reasonable and adequate.

As required by 40 CFR Part 63, Subpart GGGG, §63.2851, prior to start-up, the facility will develop and implement a written Plan for Demonstrating Compliance that provides the detailed procedures that will be followed to monitor and record data necessary for demonstrating compliance with Subpart GGGG. In addition, the hexane recovery system will be operated and maintained per the manufacturer's specifications.

Describe each proposed modification to an existing source.

NA

Identify and describe all fugitive emission points, all relief and emergency valves and any by-pass stacks.

The processing equipment will be located inside of a building; therefore, fugitive particulate matter emissions are not anticipated to be a concern. Fugitive hexane emissions will occur at various component fittings in the extraction process/hexane recovery system. The oil extractor is equipped with a purge fan that is for emergency use only.

Describe how emissions will be minimized especially during start up, shut down, process upsets and/or disruptions.

As required by 40 CFR Part 63, Subpart GGGG, §63.2852, prior to start-up, the facility will develop a written Startup, Shutdown, and Malfunction (SSM) Plan that provides detailed procedures for operating and maintaining the facility to minimize emissions during SSM events. The SSM Plan will specify a program of corrective action for malfunctioning process and air pollution control equipment and reflect the best practices now in use by the industry to minimize emissions.

Anticipated Milestones:

- i. Expected commencement date of construction/reconstruction/installation: March 2013
- ii. Expected completion date of construction/reconstruction/installation: December 2013
- iii. Anticipated date of start-up: December 2013

Section B - Processes Information

1. Source Information

Source Description (give type, use, raw materials, product, etc). Attach additional sheets as necessary.
 Meal Dryer - Desolventized and toasted flakes are dried via heat. The meal dryer is part of the meal dryer/cooler unit.

Manufacturer Desmet	Model No. Dryer (4-deck model)	Number of Sources One (1) dryer unit
Source Designation 205A - Meal Dryer	Maximum Capacity 59 tons/hour	Rated Capacity 59 tons/hour

Type of Material Processed
Soybean flakes/meal

Maximum Operating Schedule

Hours/Day 24	Days/Week 7	Days/Year 365	Hours/Year 8,760
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Operational restrictions existing or requested, if any (e.g., bottlenecks or voluntary restrictions to limit PTE)

Capacity (specify units)

Per Hour NA	Per Day NA	Per Week NA	Per Year NA
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Operating Schedule

Hours/Day NA	Days/Week NA	Days/Year NA	Hours/Year NA
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Seasonal variations (Months) From NA to NA

If variations exist, describe them
NA

2. Fuel

Type	Quantity Hourly	Annually	Sulfur	% Ash (Weight)	BTU Content
Oil Number NA	GPH @ 60°F	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Oil Number _____	GPH @ 60°F	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Natural Gas	SCFH	X 10 ⁶ SCF	grain/100 SCF		Btu/SCF
Gas (other) _____	SCFH	X 10 ⁶ SCF	grain/100 SCF		Btu/SCF
Coal	TPH	Tons	% by wt		Btu/lb
Other *					

*Note: Describe and furnish information separately for other fuels in Addendum B.

Section B - Processes Information (Continued)

3. Burner		
Manufacturer NA	Type and Model No. NA	Number of Burners NA
Description: NA		
Rated Capacity NA	Maximum Capacity NA	
4. Process Storage Vessels		
A. For Liquids:		
Name of material stored NA		
Tank I.D. No. NA	Manufacturer NA	Date Installed NA
Maximum Pressure NA	Capacity (gallons/Meter ³) NA	
Type of relief device (pressure set vent/conservation vent/emergency vent/open vent) NA		
Relief valve/vent set pressure (psig) NA	Vapor press. of liquid at storage temp. (psia/kPa) NA	
Type of Roof: Describe: NA		
Total Throughput Per Year NA	Number of fills per day (fill/day): NA Filling Rate (gal./min.): NA Duration of fill hr./fill): NA	
B. For Solids		
Type: <input type="checkbox"/> Silo <input type="checkbox"/> Storage Bin <input type="checkbox"/> Other, Describe	Name of Material Stored NA	
Silo/Storage Bin I.D. No. NA	Manufacturer NA	Date Installed NA
State whether the material will be stored in loose or bags in silos NA	Capacity (Tons) NA	
Turn over per year in tons NA	Turn over per day in tons NA	
Describe fugitive dust control system for loading and handling operations NA		
Describe material handling system NA		
5. Request for Confidentiality		
Do you request any information on this application to be treated as "Confidential"? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, include justification for confidentiality. Place such information on separate pages marked "confidential".		

Section B - Processes Information (Continued)

6. Miscellaneous Information

Attach flow diagram of process giving all (gaseous, liquid and solid) flow rates. Also, list all raw materials charged to process equipment, and the amounts charged (tons/hour, etc.) at rated capacity (give maximum, minimum and average charges describing fully expected variations in production rates). Indicate (on diagram) all points where contaminants are controlled (location of water sprays, collection hoods, or other pickup points, etc.). Describe collection hoods location, design, airflow and capture efficiency. Describe any restriction requested and how it will be monitored.

See Attachment F.

Describe fully the facilities provided to monitor and to record process operating conditions, which may affect the emission of air contaminants. Show that they are reasonable and adequate.

The quantity of soybeans processed by the facility will be recorded. The cyclone controlling the process will be equipped with a gauge to measure pressure drop across the collector. The pressure drop will be read and recorded monthly when the source is in operation.

Describe each proposed modification to an existing source.

NA

Identify and describe all fugitive emission points, all relief and emergency valves and any by-pass stacks.

The processing equipment will be located inside of a building; therefore, fugitive particulate matter emissions are not anticipated to be a concern. There will be no relief valves, emergency valves, and by-pass stacks.

Describe how emissions will be minimized especially during start up, shut down, process upsets and/or disruptions.

It is not anticipated that start up, shut down, process upsets, and/or disruptions will have any impact on emissions. The process equipment will not be operated unless the associated cyclone is also functioning as designed.

Anticipated Milestones:

- i. Expected commencement date of construction/reconstruction/installation: March 2013
- ii. Expected completion date of construction/reconstruction/installation: December 2013
- iii. Anticipated date of start-up: December 2013

Section B - Processes Information

1. Source Information

Source Description (give type, use, raw materials, product, etc). Attach additional sheets as necessary.

Meal Cooler - Desolventized, toasted, and dried flakes are cooled via ambient air. The meal cooler is part of the meal dryer/cooler unit.

Manufacturer Desmet	Model No. Cooler (4-deck model)	Number of Sources One (1) cooler unit
Source Designation 205B - Meal Cooler	Maximum Capacity 59 tons/hour	Rated Capacity 59 tons/hour

Type of Material Processed
Soybean flakes/meal

Maximum Operating Schedule

Hours/Day 24	Days/Week 7	Days/Year 365	Hours/Year 8,760
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Operational restrictions existing or requested, if any (e.g., bottlenecks or voluntary restrictions to limit PTE)

Capacity (specify units)

Per Hour NA	Per Day NA	Per Week NA	Per Year NA
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Operating Schedule

Hours/Day NA	Days/Week NA	Days/Year NA	Hours/Year NA
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Seasonal variations (Months) From NA to NA

If variations exist, describe them
NA

2. Fuel

Type	Quantity Hourly	Annually	Sulfur	% Ash (Weight)	BTU Content
Oil Number NA	GPH @ 60°F	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Oil Number _____	GPH @ 60°F	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Natural Gas	SCFH	X 10 ⁶ SCF	grain/100 SCF		Btu/SCF
Gas (other) _____	SCFH	X 10 ⁶ SCF	grain/100 SCF		Btu/SCF
Coal	TPH	Tons	% by wt		Btu/lb
Other * _____					

*Note: Describe and furnish information separately for other fuels in Addendum B.

Section B - Processes Information (Continued)

3. Burner

Manufacturer NA	Type and Model No. NA	Number of Burners NA
--------------------	--------------------------	-------------------------

Description:
NA

Rated Capacity NA	Maximum Capacity NA
----------------------	------------------------

4. Process Storage Vessels

A. For Liquids:

Name of material stored
NA

Tank I.D. No. NA	Manufacturer NA	Date Installed NA
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Maximum Pressure NA	Capacity (gallons/Meter ³) NA
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Type of relief device (pressure set vent/conservation vent/emergency vent/open vent)
NA

Relief valve/vent set pressure (psig) NA	Vapor press. of liquid at storage temp. (psia/kPa) NA
---	--

Type of Roof: Describe:
NA

Total Throughput Per Year NA	Number of fills per day (fill/day): NA Filling Rate (gal./min.): NA Duration of fill hr./fill): NA
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B. For Solids

Type: <input type="checkbox"/> Silo <input type="checkbox"/> Storage Bin <input type="checkbox"/> Other, Describe	Name of Material Stored NA
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Silo/Storage Bin I.D. No. NA	Manufacturer NA	Date Installed NA
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State whether the material will be stored in loose or bags in silos NA	Capacity (Tons) NA
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Turn over per year in tons NA	Turn over per day in tons NA
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Describe fugitive dust control system for loading and handling operations
NA

Describe material handling system
NA

5. Request for Confidentiality

Do you request any information on this application to be treated as "Confidential"? Yes No
If yes, include justification for confidentiality. Place such information on separate pages marked "confidential".

Section B - Processes Information (Continued)

6. Miscellaneous Information

Attach flow diagram of process giving all (gaseous, liquid and solid) flow rates. Also, list all raw materials charged to process equipment, and the amounts charged (tons/hour, etc.) at rated capacity (give maximum, minimum and average charges describing fully expected variations in production rates). Indicate (on diagram) all points where contaminants are controlled (location of water sprays, collection hoods, or other pickup points, etc.). Describe collection hoods location, design, airflow and capture efficiency. Describe any restriction requested and how it will be monitored.

See Attachment F.

Describe fully the facilities provided to monitor and to record process operating conditions, which may affect the emission of air contaminants. Show that they are reasonable and adequate.

The quantity of soybeans processed by the facility will be recorded. The cyclone controlling the process will be equipped with a gauge to measure pressure drop across the collector. The pressure drop will be read and recorded monthly when the source is in operation.

Describe each proposed modification to an existing source.

NA

Identify and describe all fugitive emission points, all relief and emergency valves and any by-pass stacks.

The processing equipment will be located inside of a building; therefore, fugitive particulate matter emissions are not anticipated to be a concern. There will be no relief valves, emergency valves, and by-pass stacks.

Describe how emissions will be minimized especially during start up, shut down, process upsets and/or disruptions.

It is not anticipated that start up, shut down, process upsets, and/or disruptions will have any impact on emissions. The process equipment will not be operated unless the associated cyclone is also functioning as designed.

Anticipated Milestones:

- i. Expected commencement date of construction/reconstruction/installation: March 2013
- ii. Expected completion date of construction/reconstruction/installation: December 2013
- iii. Anticipated date of start-up: December 2013

Section B - Processes Information

1. Source Information

Source Description (give type, use, raw materials, product, etc). Attach additional sheets as necessary.
 Meal Screening and Grinding - Desolventized and toasted soybean flakes are screened and ground to ensure uniformity for use as soybean meal.

Manufacturer Rotex or equivalent (screener) Roskamp or equivalent (grinder hammermill)	Model No. 581 or equivalent (screener) 4424 or equivalent (grinder hammermill)	Number of Sources One (1) screener Two (2) grinder hammermills
Source Designation 206 - Meal Screening and Grinding	Maximum Capacity 47 tons/hour	Rated Capacity 47 tons/hour

Type of Material Processed
Soybeans flakes/meal

Maximum Operating Schedule

Hours/Day 24	Days/Week 7	Days/Year 365	Hours/Year 8,760
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Operational restrictions existing or requested, if any (e.g., bottlenecks or voluntary restrictions to limit PTE)

Capacity (specify units)

Per Hour NA	Per Day NA	Per Week NA	Per Year NA
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Operating Schedule

Hours/Day NA	Days/Week NA	Days/Year NA	Hours/Year NA
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Seasonal variations (Months) From NA to NA

If variations exist, describe them
NA

2. Fuel

Type	Quantity Hourly	Annually	Sulfur	% Ash (Weight)	BTU Content
Oil Number NA	GPH @ 60°F	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Oil Number _____	GPH @ 60°F	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Natural Gas	SCFH	X 10 ⁶ SCF	grain/100 SCF		Btu/SCF
Gas (other) _____	SCFH	X 10 ⁶ SCF	grain/100 SCF		Btu/SCF
Coal	TPH	Tons	% by wt		Btu/lb
Other *					

*Note: Describe and furnish information separately for other fuels in Addendum B.

Section B - Processes Information (Continued)		
3. Burner		
Manufacturer NA	Type and Model No. NA	Number of Burners NA
Description: NA		
Rated Capacity NA	Maximum Capacity NA	
4. Process Storage Vessels		
A. For Liquids:		
Name of material stored NA		
Tank I.D. No. NA	Manufacturer NA	Date Installed NA
Maximum Pressure NA	Capacity (gallons/Meter ³) NA	
Type of relief device (pressure set vent/conservation vent/emergency vent/open vent) NA		
Relief valve/vent set pressure (psig) NA	Vapor press. of liquid at storage temp. (psia/kPa) NA	
Type of Roof: Describe: NA		
Total Throughput Per Year NA	Number of fills per day (fill/day): NA Filling Rate (gal./min.): NA Duration of fill hr./fill): NA	
B. For Solids		
Type: <input type="checkbox"/> Silo <input type="checkbox"/> Storage Bin <input type="checkbox"/> Other, Describe		Name of Material Stored NA
Silo/Storage Bin I.D. No. NA	Manufacturer NA	Date Installed NA
State whether the material will be stored in loose or bags in silos NA	Capacity (Tons) NA	
Turn over per year in tons NA	Turn over per day in tons NA	
Describe fugitive dust control system for loading and handling operations NA		
Describe material handling system NA		
5. Request for Confidentiality		
Do you request any information on this application to be treated as "Confidential"? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, include justification for confidentiality. Place such information on separate pages marked "confidential".		

Section B - Processes Information (Continued)

6. Miscellaneous Information

Attach flow diagram of process giving all (gaseous, liquid and solid) flow rates. Also, list all raw materials charged to process equipment, and the amounts charged (tons/hour, etc.) at rated capacity (give maximum, minimum and average charges describing fully expected variations in production rates). Indicate (on diagram) all points where contaminants are controlled (location of water sprays, collection hoods, or other pickup points, etc.). Describe collection hoods location, design, airflow and capture efficiency. Describe any restriction requested and how it will be monitored.

See Attachment F.

Describe fully the facilities provided to monitor and to record process operating conditions, which may affect the emission of air contaminants. Show that they are reasonable and adequate.

The quantity of soybeans processed by the facility will be recorded. The baghouse controlling the process will be equipped with a gauge to measure pressure drop across the collector. The pressure drop will be read and recorded monthly when the source is in operation.

Describe each proposed modification to an existing source.

NA

Identify and describe all fugitive emission points, all relief and emergency valves and any by-pass stacks.

The processing equipment will be located inside of a building; therefore, fugitive particulate matter emissions are not anticipated to be a concern. There will be no relief valves, emergency valves, and by-pass stacks.

Describe how emissions will be minimized especially during start up, shut down, process upsets and/or disruptions.

It is not anticipated that start up, shut down, process upsets, and/or disruptions will have any impact on emissions. The process equipment will not be operated unless the associated baghouse is also functioning as designed.

Anticipated Milestones:

- i. Expected commencement date of construction/reconstruction/installation: March 2013
- ii. Expected completion date of construction/reconstruction/installation: December 2013
- iii. Anticipated date of start-up: December 2013

Section B - Processes Information

1. Source Information

Source Description (give type, use, raw materials, product, etc). Attach additional sheets as necessary.
 Mill Feed (Hull) Grinding - Soybean hulls and dust from the hull separation process are conditioned and ground for use as feed.

Manufacturer Custom fabricated (hull conditioner) Roskamp or equivalent (hull grinder)	Model No. NA (hull conditioner) 4424 or equivalent (hull grinder)	Number of Sources One (1) hull conditioner Two (2) hull grinders
Source Designation 207 - Mill Feed (Hull) Grinding	Maximum Capacity 3.75 tons/hour	Rated Capacity 3.75 tons/hour

Type of Material Processed
Soybean hulls

Maximum Operating Schedule

Hours/Day 24	Days/Week 7	Days/Year 365	Hours/Year 8,760
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Operational restrictions existing or requested, if any (e.g., bottlenecks or voluntary restrictions to limit PTE)

Capacity (specify units)

Per Hour NA	Per Day NA	Per Week NA	Per Year NA
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Operating Schedule

Hours/Day NA	Days/Week NA	Days/Year NA	Hours/Year NA
-----------------	-----------------	-----------------	------------------

Seasonal variations (Months) From NA to NA

If variations exist, describe them
NA

2. Fuel

Type	Quantity Hourly	Annually	Sulfur	% Ash (Weight)	BTU Content
Oil Number NA	GPH @ 60°F	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Oil Number _____	GPH @ 60°F	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Natural Gas	SCFH	X 10 ⁶ SCF	grain/100 SCF		Btu/SCF
Gas (other) _____	SCFH	X 10 ⁶ SCF	grain/100 SCF		Btu/SCF
Coal	TPH	Tons	% by wt		Btu/lb
Other * _____					

*Note: Describe and furnish information separately for other fuels in Addendum B.

Section B - Processes Information (Continued)

3. Burner

Manufacturer NA	Type and Model No. NA	Number of Burners NA
--------------------	--------------------------	-------------------------

Description:
NA

Rated Capacity NA	Maximum Capacity NA
----------------------	------------------------

4. Process Storage Vessels

A. For Liquids:

Name of material stored
NA

Tank I.D. No. NA	Manufacturer NA	Date Installed NA
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Maximum Pressure NA	Capacity (gallons/Meter ³) NA
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Type of relief device (pressure set vent/conservation vent/emergency vent/open vent)
NA

Relief valve/vent set pressure (psig) NA	Vapor press. of liquid at storage temp. (psia/kPa) NA
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Type of Roof: Describe:
NA

Total Throughput Per Year NA	Number of fills per day (fill/day): NA Filling Rate (gal./min.): NA Duration of fill hr./fill): NA
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B. For Solids

Type: <input type="checkbox"/> Silo <input type="checkbox"/> Storage Bin <input type="checkbox"/> Other, Describe	Name of Material Stored NA
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Silo/Storage Bin I.D. No. NA	Manufacturer NA	Date Installed NA
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State whether the material will be stored in loose or bags in silos NA	Capacity (Tons) NA
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Turn over per year in tons NA	Turn over per day in tons NA
----------------------------------	---------------------------------

Describe fugitive dust control system for loading and handling operations
NA

Describe material handling system
NA

5. Request for Confidentiality

Do you request any information on this application to be treated as "Confidential"? Yes No
If yes, include justification for confidentiality. Place such information on separate pages marked "confidential".

Section B - Processes Information (Continued)

6. Miscellaneous Information

Attach flow diagram of process giving all (gaseous, liquid and solid) flow rates. Also, list all raw materials charged to process equipment, and the amounts charged (tons/hour, etc.) at rated capacity (give maximum, minimum and average charges describing fully expected variations in production rates). Indicate (on diagram) all points where contaminants are controlled (location of water sprays, collection hoods, or other pickup points, etc.). Describe collection hoods location, design, airflow and capture efficiency. Describe any restriction requested and how it will be monitored.

See Attachment F.

Describe fully the facilities provided to monitor and to record process operating conditions, which may affect the emission of air contaminants. Show that they are reasonable and adequate.

The quantity of soybeans processed by the facility will be recorded. The baghouse controlling the process will be equipped with a gauge to measure pressure drop across the collector. The pressure drop will be read and recorded monthly when the source is in operation.

Describe each proposed modification to an existing source.

NA

Identify and describe all fugitive emission points, all relief and emergency valves and any by-pass stacks.

The processing equipment will be located inside of a building; therefore, fugitive particulate matter emissions are not anticipated to be a concern. There will be no relief valves, emergency valves, and by-pass stacks.

Describe how emissions will be minimized especially during start up, shut down, process upsets and/or disruptions.

It is not anticipated that start up, shut down, process upsets, and/or disruptions will have any impact on emissions. The process equipment will not be operated unless the associated baghouse is also functioning as designed.

Anticipated Milestones:

- i. Expected commencement date of construction/reconstruction/installation: March 2013
- ii. Expected completion date of construction/reconstruction/installation: December 2013
- iii. Anticipated date of start-up: December 2013

Section B - Processes Information					
1. Source Information					
Source Description (give type, use, raw materials, product, etc). Attach additional sheets as necessary. Meal/Mill Feed Storage Bins - Bins for meal and mill feed storage.					
Manufacturer CST Columbia Storage Tank or equivalent		Model No. NA		Number of Sources Four (4) storage bins	
Source Designation 208 - Meal/Mill Feed Storage Bins		Maximum Capacity 500 tons (meal) 300 tons (mill feed)		Rated Capacity 500 tons (meal) 300 tons (mill feed)	
Type of Material Processed Soybean meal and mill feed					
Maximum Operating Schedule					
Hours/Day 24	Days/Week 7	Days/Year 365	Hours/Year 8,760		
Operational restrictions existing or requested, if any (e.g., bottlenecks or voluntary restrictions to limit PTE)					
Capacity (specify units)					
Per Hour NA	Per Day NA	Per Week NA	Per Year NA		
Operating Schedule					
Hours/Day NA	Days/Week NA	Days/Year NA	Hours/Year NA		
Seasonal variations (Months) From NA to NA					
If variations exist, describe them NA					
2. Fuel					
Type	Quantity Hourly	Annually	Sulfur	% Ash (Weight)	BTU Content
Oil Number NA	GPH @ 60°F	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Oil Number _____	GPH @ 60°F	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Natural Gas	SCFH	X 10 ⁶ SCF	grain/100 SCF		Btu/SCF
Gas (other) _____	SCFH	X 10 ⁶ SCF	grain/100 SCF		Btu/SCF
Coal	TPH	Tons	% by wt		Btu/lb
Other *					
*Note: Describe and furnish information separately for other fuels in Addendum B.					

Section B - Processes Information (Continued)		
3. Burner		
Manufacturer NA	Type and Model No. NA	Number of Burners NA
Description: NA		
Rated Capacity NA	Maximum Capacity NA	
4. Process Storage Vessels		
A. For Liquids:		
Name of material stored NA		
Tank I.D. No. NA	Manufacturer NA	Date Installed NA
Maximum Pressure NA	Capacity (gallons/Meter ³) NA	
Type of relief device (pressure set vent/conservation vent/emergency vent/open vent) NA		
Relief valve/vent set pressure (psig) NA	Vapor press. of liquid at storage temp. (psia/kPa) NA	
Type of Roof: Describe: NA		
Total Throughput Per Year NA	Number of fills per day (fill/day): NA Filling Rate (gal./min.): NA Duration of fill hr./fill): NA	
B. For Solids		
Type: <input type="checkbox"/> Silo <input checked="" type="checkbox"/> Storage Bin <input type="checkbox"/> Other, Describe		Name of Material Stored Soybean meal and mill feed
Silo/Storage Bin I.D. No. Meal/Mill Feed Bins Nos. 1 through 4	Manufacturer CST Columbia Storage Tank or equivalent	Date Installed To be installed
State whether the material will be stored in loose or bags in silos Loose		Capacity (Tons) 500 tons, each (meal); 300 tons, each (mill feed)
Turn over per year in tons 425,250 tons/year (max. approx.)		Turn over per day in tons 1,314 tons/day (max. approx.)
Describe fugitive dust control system for loading and handling operations Collapsible bin vent fabric filters and generally accepted best management practices (BMPs) for agricultural commodities. A closed drag system will be used for loading and handling operations.		
Describe material handling system Closed drag conveyance.		
5. Request for Confidentiality		
Do you request any information on this application to be treated as "Confidential"? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, include justification for confidentiality. Place such information on separate pages marked "confidential".		

Section B - Processes Information (Continued)

6. Miscellaneous Information

Attach flow diagram of process giving all (gaseous, liquid and solid) flow rates. Also, list all raw materials charged to process equipment, and the amounts charged (tons/hour, etc.) at rated capacity (give maximum, minimum and average charges describing fully expected variations in production rates). Indicate (on diagram) all points where contaminants are controlled (location of water sprays, collection hoods, or other pickup points, etc.). Describe collection hoods location, design, airflow and capture efficiency. Describe any restriction requested and how it will be monitored.

See Attachment F.

Describe fully the facilities provided to monitor and to record process operating conditions, which may affect the emission of air contaminants. Show that they are reasonable and adequate.

Monthly records of the total quantity of soybean meal and mill feed processed by the facility will be maintained. Monthly visual observation of the bin vent filters will be conducted to check for the presence of visible emissions.

Describe each proposed modification to an existing source.

NA

Identify and describe all fugitive emission points, all relief and emergency valves and any by-pass stacks.

Fugitive particulate matter emissions will occur from each bin's vent filter. There will be no relief valves, emergency valves, and by-pass stacks.

Describe how emissions will be minimized especially during start up, shut down, process upsets and/or disruptions.

It is not anticipated that start up, shut down, process upsets, and/or disruptions will have any impact on emissions. Product will not be loaded into or removed from a bin unless its associated bin vent filter is also functioning as designed.

Anticipated Milestones:

- i. Expected commencement date of construction/reconstruction/installation: March 2013
- ii. Expected completion date of construction/reconstruction/installation: December 2013
- iii. Anticipated date of start-up: December 2013

Section B - Processes Information

1. Source Information

Source Description (give type, use, raw materials, product, etc). Attach additional sheets as necessary.
 Meal/Mill Feed Loadout Tank - Tank used to store meal and mill feed prior to loading.

Manufacturer Lamco/Intersystems or equivalent		Model No. 4-bin cluster - 10' square x 40' height		Number of Sources One (1)	
Source Designation 209 - Meal/Mill Feed Loadout Tank		Maximum Capacity 300 tons (approx.)		Rated Capacity 300 tons (approx.)	
Type of Material Processed Soybean meal and mill feed					
Maximum Operating Schedule					
Hours/Day 24	Days/Week 7	Days/Year 365	Hours/Year 8,760		
Operational restrictions existing or requested, if any (e.g., bottlenecks or voluntary restrictions to limit PTE)					
Capacity (specify units)					
Per Hour NA	Per Day NA	Per Week NA	Per Year NA		
Operating Schedule					
Hours/Day NA	Days/Week NA	Days/Year NA	Hours/Year NA		
Seasonal variations (Months) From NA to NA					
If variations exist, describe them NA					

2. Fuel

Type	Quantity Hourly	Annually	Sulfur	% Ash (Weight)	BTU Content
Oil Number NA	GPH @ 60°F	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Oil Number _____	GPH @ 60°F	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Natural Gas	SCFH	X 10 ⁶ SCF	grain/100 SCF		Btu/SCF
Gas (other) _____	SCFH	X 10 ⁶ SCF	grain/100 SCF		Btu/SCF
Coal	TPH	Tons	% by wt		Btu/lb
Other * _____					

*Note: Describe and furnish information separately for other fuels in Addendum B.

Section B - Processes Information (Continued)

3. Burner

Manufacturer NA	Type and Model No. NA	Number of Burners NA
Description: NA		
Rated Capacity NA	Maximum Capacity NA	

4. Process Storage Vessels

A. For Liquids:

Name of material stored NA		
Tank I.D. No. NA	Manufacturer NA	Date Installed NA
Maximum Pressure NA	Capacity (gallons/Meter ³) NA	
Type of relief device (pressure set vent/conservation vent/emergency vent/open vent) NA		
Relief valve/vent set pressure (psig) NA	Vapor press. of liquid at storage temp. (psia/kPa) NA	
Type of Roof: Describe: NA		
Total Throughput Per Year NA	Number of fills per day (fill/day): NA Filling Rate (gal./min.): NA Duration of fill hr./fill): NA	

B. For Solids

Type: <input type="checkbox"/> Silo <input checked="" type="checkbox"/> Storage Bin <input type="checkbox"/> Other, Describe		Name of Material Stored Soybean meal and mill feed
Silo/Storage Bin I.D. No. Meal/Mill Feed Loadout Tank	Manufacturer Lamco/Intersystems or equivalent	Date Installed To be installed
State whether the material will be stored in loose or bags in silos Loose	Capacity (Tons) 300 tons (max. approx.)	
Turn over per year in tons 425,250 tons/year (max. approx.)	Turn over per day in tons 1,314 tons/day (max. approx.)	
Describe fugitive dust control system for loading and handling operations Collapsible bin vent fabric filters and generally accepted best management practices (BMPs) for agricultural commodities. A closed drag system will be used for loading and handling operations.		
Describe material handling system Closed drag conveyance.		

5. Request for Confidentiality

Do you request any information on this application to be treated as "Confidential"? Yes No
If yes, include justification for confidentiality. Place such information on separate pages marked "confidential".

Section B - Processes Information (Continued)

6. Miscellaneous Information

Attach flow diagram of process giving all (gaseous, liquid and solid) flow rates. Also, list all raw materials charged to process equipment, and the amounts charged (tons/hour, etc.) at rated capacity (give maximum, minimum and average charges describing fully expected variations in production rates). Indicate (on diagram) all points where contaminants are controlled (location of water sprays, collection hoods, or other pickup points, etc.). Describe collection hoods location, design, airflow and capture efficiency. Describe any restriction requested and how it will be monitored.

See Attachment F.

Describe fully the facilities provided to monitor and to record process operating conditions, which may affect the emission of air contaminants. Show that they are reasonable and adequate.

Monthly records of the total quantity of soybean meal and mill feed processed by the facility will be maintained. Monthly visual observation of the tank vent filter will be conducted to check for the presence of visible emissions.

Describe each proposed modification to an existing source.

NA

Identify and describe all fugitive emission points, all relief and emergency valves and any by-pass stacks.

Fugitive particulate matter emissions will occur from the bin's vent filter. There will be no relief valves, emergency valves, and by-pass stacks.

Describe how emissions will be minimized especially during start up, shut down, process upsets and/or disruptions.

It is not anticipated that start up, shut down, process upsets, and/or disruptions will have any impact on emissions. Product will not be loaded into or removed from the tank unless its associated bin vent filter is also functioning as designed.

Anticipated Milestones:

- i. Expected commencement date of construction/reconstruction/installation: March 2013
- ii. Expected completion date of construction/reconstruction/installation: December 2013
- iii. Anticipated date of start-up: December 2013

Section B - Processes Information

1. Source Information

Source Description (give type, use, raw materials, product, etc). Attach additional sheets as necessary.

Meal Loadout Area - Soybean meal/mill feed is loaded into trucks from a 4-bin bolt-together configuration pack.

Manufacturer CST Columbia Storage Tank or equivalent	Model No. 20 x 20	Number of Sources One (1) 4-bin bolt-together configuration pack	
Source Designation 210 - Meal Loadout Area	Maximum Capacity 100 tons/hour	Rated Capacity 100 tons/hour	
Type of Material Processed Soybean meal/mill feed			
Maximum Operating Schedule			
Hours/Day 24	Days/Week 7	Days/Year 365	Hours/Year 8,760
Operational restrictions existing or requested, if any (e.g., bottlenecks or voluntary restrictions to limit PTE)			
Capacity (specify units)			
Per Hour NA	Per Day NA	Per Week NA	Per Year NA
Operating Schedule			
Hours/Day NA	Days/Week NA	Days/Year NA	Hours/Year NA
Seasonal variations (Months) From NA to NA			
If variations exist, describe them NA			

2. Fuel

Type	Quantity Hourly	Annually	Sulfur	% Ash (Weight)	BTU Content
Oil Number NA	GPH @ 60°F	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Oil Number _____	GPH @ 60°F	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Natural Gas	SCFH	X 10 ⁶ SCF	grain/100 SCF		Btu/SCF
Gas (other) _____	SCFH	X 10 ⁶ SCF	grain/100 SCF		Btu/SCF
Coal	TPH	Tons	% by wt		Btu/lb
Other * _____					

*Note: Describe and furnish information separately for other fuels in Addendum B.

Section B - Processes Information (Continued)		
3. Burner		
Manufacturer NA	Type and Model No. NA	Number of Burners NA
Description: NA		
Rated Capacity NA	Maximum Capacity NA	
4. Process Storage Vessels		
A. For Liquids:		
Name of material stored NA		
Tank I.D. No. NA	Manufacturer NA	Date Installed NA
Maximum Pressure NA	Capacity (gallons/Meter ³) NA	
Type of relief device (pressure set vent/conservation vent/emergency vent/open vent) NA		
Relief valve/vent set pressure (psig) NA	Vapor press. of liquid at storage temp. (psia/kPa) NA	
Type of Roof: Describe: NA		
Total Throughput Per Year NA	Number of fills per day (fill/day): NA Filling Rate (gal./min.): NA Duration of fill hr./fill): NA	
B. For Solids		
Type: <input type="checkbox"/> Silo <input type="checkbox"/> Storage Bin <input type="checkbox"/> Other, Describe		Name of Material Stored NA
Silo/Storage Bin I.D. No. NA	Manufacturer NA	Date Installed NA
State whether the material will be stored in loose or bags in silos NA	Capacity (Tons) NA	
Turn over per year in tons NA	Turn over per day in tons NA	
Describe fugitive dust control system for loading and handling operations NA		
Describe material handling system NA		
5. Request for Confidentiality		
Do you request any information on this application to be treated as "Confidential"? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, include justification for confidentiality. Place such information on separate pages marked "confidential".		

Section B - Processes Information (Continued)

6. Miscellaneous Information

Attach flow diagram of process giving all (gaseous, liquid and solid) flow rates. Also, list all raw materials charged to process equipment, and the amounts charged (tons/hour, etc.) at rated capacity (give maximum, minimum and average charges describing fully expected variations in production rates). Indicate (on diagram) all points where contaminants are controlled (location of water sprays, collection hoods, or other pickup points, etc.). Describe collection hoods location, design, airflow and capture efficiency. Describe any restriction requested and how it will be monitored.

See Attachment F.

Describe fully the facilities provided to monitor and to record process operating conditions, which may affect the emission of air contaminants. Show that they are reasonable and adequate.

Monthly records of the total quantity of soybean meal and mill feed processed by the facility will be maintained. The baghouse controlling the process will be equipped with a gauge to measure pressure drop across the collector. The pressure drop will be read and recorded monthly when the source is in operation.

Describe each proposed modification to an existing source.

NA

Identify and describe all fugitive emission points, all relief and emergency valves and any by-pass stacks.

Fugitive particulate matter emissions are anticipated to be negligible. There will be no relief valves, emergency valves, and by-pass stacks.

Describe how emissions will be minimized especially during start up, shut down, process upsets and/or disruptions.

It is not anticipated that start up, shut down, process upsets, and/or disruptions will have any impact on emissions. The process equipment will not be operated unless the associated baghouse is also functioning as designed.

Anticipated Milestones:

- | | |
|--|----------------------|
| i. Expected commencement date of construction/reconstruction/installation: | <u>March 2013</u> |
| ii. Expected completion date of construction/reconstruction/installation: | <u>December 2013</u> |
| iii. Anticipated date of start-up: | <u>December 2013</u> |

Section B - Processes Information

1. Source Information

Source Description (give type, use, raw materials, product, etc). Attach additional sheets as necessary.
 Seed Silo Tanks - Bins used to store weed seeds that are screened from the incoming soybeans.

Manufacturer Chief or equivalent	Model No. CB 12-16	Number of Sources Three (3) storage bins
Source Designation 211 - Seed Silo Tanks	Maximum Capacity 1,500 tons, each (approx.)	Rated Capacity 1,500 tons, each (approx.)

Type of Material Processed
Weed seeds

Maximum Operating Schedule

Hours/Day 24	Days/Week 7	Days/Year 365	Hours/Year 8,760
-----------------	----------------	------------------	---------------------

Operational restrictions existing or requested, if any (e.g., bottlenecks or voluntary restrictions to limit PTE)

Capacity (specify units)

Per Hour NA	Per Day NA	Per Week NA	Per Year NA
----------------	---------------	----------------	----------------

Operating Schedule

Hours/Day NA	Days/Week NA	Days/Year NA	Hours/Year NA
-----------------	-----------------	-----------------	------------------

Seasonal variations (Months) From NA to NA
 If variations exist, describe them
 NA

2. Fuel

Type	Quantity Hourly	Annually	Sulfur	% Ash (Weight)	BTU Content
Oil Number NA	GPH @ 60°F	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Oil Number _____	GPH @ 60°F	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Natural Gas	SCFH	X 10 ⁶ SCF	grain/100 SCF		Btu/SCF
Gas (other) _____	SCFH	X 10 ⁶ SCF	grain/100 SCF		Btu/SCF
Coal	TPH	Tons	% by wt		Btu/lb
Other *					

*Note: Describe and furnish information separately for other fuels in Addendum B.

Section B - Processes Information (Continued)

3. Burner

Manufacturer NA	Type and Model No. NA	Number of Burners NA
Description: NA		
Rated Capacity NA	Maximum Capacity NA	

4. Process Storage Vessels

A. For Liquids:

Name of material stored NA		
Tank I.D. No. NA	Manufacturer NA	Date Installed NA
Maximum Pressure NA	Capacity (gallons/Meter ³) NA	
Type of relief device (pressure set vent/conservation vent/emergency vent/open vent) NA		
Relief valve/vent set pressure (psig) NA	Vapor press. of liquid at storage temp. (psia/kPa) NA	
Type of Roof: Describe: NA		
Total Throughput Per Year NA	Number of fills per day (fill/day): NA Filling Rate (gal./min.): NA Duration of fill hr./fill): NA	

B. For Solids

Type: <input checked="" type="checkbox"/> Silo <input type="checkbox"/> Storage Bin <input type="checkbox"/> Other, Describe		Name of Material Stored Weed seeds
Silo/Storage Bin I.D. No. Weed Seed Silos No. 1 through 3	Manufacturer Chief or equivalent	Date Installed To be installed
State whether the material will be stored in loose or bags in silos Loose	Capacity (Tons) 1,500 tons, each (max. approx.)	
Turn over per year in tons 72,000 tons/year (max. approx.)	Turn over per day in tons 1,500 tons/day (max. approx.)	
Describe fugitive dust control system for loading and handling operations Generally accepted best management practices (BMPs) for agricultural commodities. A closed drag system will be used for loading and handling operations.		
Describe material handling system Closed drag conveyance.		

5. Request for Confidentiality

Do you request any information on this application to be treated as "Confidential"? Yes No
If yes, include justification for confidentiality. Place such information on separate pages marked "confidential".

Section B - Processes Information (Continued)

6. Miscellaneous Information

Attach flow diagram of process giving all (gaseous, liquid and solid) flow rates. Also, list all raw materials charged to process equipment, and the amounts charged (tons/hour, etc.) at rated capacity (give maximum, minimum and average charges describing fully expected variations in production rates). Indicate (on diagram) all points where contaminants are controlled (location of water sprays, collection hoods, or other pickup points, etc.). Describe collection hoods location, design, airflow and capture efficiency. Describe any restriction requested and how it will be monitored.

See Attachment F.

Describe fully the facilities provided to monitor and to record process operating conditions, which may affect the emission of air contaminants. Show that they are reasonable and adequate.

Monthly records of the total quantity of weed seeds processed by the facility will be maintained. Monthly visual observation of the silo vents will be conducted to check for the presence of visible emissions.

Describe each proposed modification to an existing source.

NA

Identify and describe all fugitive emission points, all relief and emergency valves and any by-pass stacks.

Fugitive particulate matter emissions are anticipated to be negligible. There will be no relief valves, emergency valves, and by-pass stacks.

Describe how emissions will be minimized especially during start up, shut down, process upsets and/or disruptions.

It is not anticipated that start up, shut down, process upsets, and/or disruptions will have any impact on emissions. Product will not be loaded into or removed from a silo unless the silo is functioning as designed.

Anticipated Milestones:

- i. Expected commencement date of construction/reconstruction/installation: March 2013
- ii. Expected completion date of construction/reconstruction/installation: December 2013
- iii. Anticipated date of start-up: December 2013

Section B - Processes Information

1. Source Information

Source Description (give type, use, raw materials, product, etc). Attach additional sheets as necessary.
 Hexane Storage Tanks - Two (2) 20,000-gallon, aboveground, horizontal tanks for hexane solvent storage.

Manufacturer Highland Tank or equivalent	Model No. NA	Number of Sources Two (2) storage tanks
Source Designation 212 - Hexane Storage Tanks	Maximum Capacity 20,000 gallons, each	Rated Capacity 20,000 gallons, each

Type of Material Processed
Hexane

Maximum Operating Schedule

Hours/Day 24	Days/Week 7	Days/Year 365	Hours/Year 8,760
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Operational restrictions existing or requested, if any (e.g., bottlenecks or voluntary restrictions to limit PTE)

Capacity (specify units)

Per Hour NA	Per Day NA	Per Week NA	Per Year NA
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Operating Schedule

Hours/Day NA	Days/Week NA	Days/Year NA	Hours/Year NA
-----------------	-----------------	-----------------	------------------

Seasonal variations (Months) From NA to NA

If variations exist, describe them
NA

2. Fuel

Type	Quantity Hourly	Annually	Sulfur	% Ash (Weight)	BTU Content
Oil Number NA	GPH @ 60°F	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Oil Number _____	GPH @ 60°F	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Natural Gas	SCFH	X 10 ⁶ SCF	grain/100 SCF		Btu/SCF
Gas (other) _____	SCFH	X 10 ⁶ SCF	grain/100 SCF		Btu/SCF
Coal	TPH	Tons	% by wt		Btu/lb
Other * _____					

Note: Describe and furnish information separately for other fuels in Addendum B.

Section B - Processes Information (Continued)

3. Burner

Manufacturer NA	Type and Model No. NA	Number of Burners NA
Description: NA		
Rated Capacity NA	Maximum Capacity NA	

4. Process Storage Vessels

A. For Liquids:

Name of material stored Hexane		
Tank I.D. No. Hexane Tanks Nos. 1 and 2	Manufacturer Highland Tank or equivalent	Date Installed To be installed
Maximum Pressure Atmospheric	Capacity (gallons/Meter ³) 20,000 gallons, each	
Type of relief device (pressure set vent/conservation vent/emergency vent/open vent) Vacuum/pressure breather vents		
Relief valve/vent set pressure (psig) -0.03 psig vacuum, 0.03 psig pressure (approx.)	Vapor press. of liquid at storage temp. (psia/kPa) Typically between 1 and 3 psia, depending on month	
Type of Roof: Describe: Horizontal, fixed roof tank		
Total Throughput Per Year 86,625 gallons/year (max. approx.)	Number of fills per day (fill/day): NA Filling Rate (gal./min.): NA Duration of fill hr./fill): NA	

B. For Solids

Type: <input type="checkbox"/> Silo <input type="checkbox"/> Storage Bin <input type="checkbox"/> Other, Describe	Name of Material Stored NA	
Silo/Storage Bin I.D. No. NA	Manufacturer NA	Date Installed NA
State whether the material will be stored in loose or bags in silos NA	Capacity (Tons) NA	
Turn over per year in tons NA	Turn over per day in tons NA	
Describe fugitive dust control system for loading and handling operations NA		
Describe material handling system NA		

5. Request for Confidentiality

Do you request any information on this application to be treated as "Confidential"? Yes No
 If yes, include justification for confidentiality. Place such information on separate pages marked "confidential".

Section B - Processes Information (Continued)

6. Miscellaneous Information

Attach flow diagram of process giving all (gaseous, liquid and solid) flow rates. Also, list all raw materials charged to process equipment, and the amounts charged (tons/hour, etc.) at rated capacity (give maximum, minimum and average charges describing fully expected variations in production rates). Indicate (on diagram) all points where contaminants are controlled (location of water sprays, collection hoods, or other pickup points, etc.). Describe collection hoods location, design, airflow and capture efficiency. Describe any restriction requested and how it will be monitored.

See Attachment F.

Describe fully the facilities provided to monitor and to record process operating conditions, which may affect the emission of air contaminants. Show that they are reasonable and adequate.

Quantity of each hexane solvent delivery to the facility will be recorded.

Describe each proposed modification to an existing source.

NA

Identify and describe all fugitive emission points, all relief and emergency valves and any by-pass stacks.

Tanks will be equipped with vacuum/pressure breather vents.

Describe how emissions will be minimized especially during start up, shut down, process upsets and/or disruptions.

It is not anticipated that start up, shut down, process upsets, and/or disruptions will have will have any impact on tank emissions.

Anticipated Milestones:

- i. Expected commencement date of construction/reconstruction/installation: March 2013
- ii. Expected completion date of construction/reconstruction/installation: December 2013
- iii. Anticipated date of start-up: December 2013

Section B - Processes Information

1. Source Information

Source Description (give type, use, raw materials, product, etc). Attach additional sheets as necessary.
 Facility Roadways - Fugitive PM emissions due to truck traffic.

Manufacturer NA	Model No. NA	Number of Sources 1 (paved facility roadways)
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Source Designation 302 - Facility Roadways	Maximum Capacity NA	Rated Capacity NA
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Type of Material Processed
NA

Maximum Operating Schedule

Hours/Day 24	Days/Week 7	Days/Year 365	Hours/Year 8,760
-----------------	----------------	------------------	---------------------

Operational restrictions existing or requested, if any (e.g., bottlenecks or voluntary restrictions to limit PTE)

Capacity (specify units)

Per Hour NA	Per Day NA	Per Week NA	Per Year NA
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Operating Schedule

Hours/Day NA	Days/Week NA	Days/Year NA	Hours/Year NA
-----------------	-----------------	-----------------	------------------

Seasonal variations (Months) From NA to NA

If variations exist, describe them
NA

2. Fuel

Type	Quantity Hourly	Annually	Sulfur	% Ash (Weight)	BTU Content
Oil Number NA	GPH @ 60°F	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Oil Number	GPH @ 60°F	X 10 ³ Gal	% by wt		Btu/Gal. & Lbs./Gal. @ 60 °F
Natural Gas	SCFH	X 10 ⁶ SCF	grain/100 SCF		Btu/SCF
Gas (other)	SCFH	X 10 ⁶ SCF	grain/100 SCF		Btu/SCF
Coal	TPH	Tons	% by wt		Btu/lb
Other *					

*Note: Describe and furnish information separately for other fuels in Addendum B.

Section B - Processes Information (Continued)

3. Burner

Manufacturer NA	Type and Model No. NA	Number of Burners NA
Description: NA		
Rated Capacity NA	Maximum Capacity NA	

4. Process Storage Vessels

A. For Liquids:

Name of material stored NA		
Tank I.D. No. NA	Manufacturer NA	Date Installed NA
Maximum Pressure NA	Capacity (gallons/Meter ³) NA	
Type of relief device (pressure set vent/conservation vent/emergency vent/open vent) NA		
Relief valve/vent set pressure (psig) NA	Vapor press. of liquid at storage temp. (psia/kPa) NA	
Type of Roof: Describe: NA		
Total Throughput Per Year NA	Number of fills per day (fill/day): NA Filling Rate (gal./min.): NA Duration of fill hr./fill): NA	

B. For Solids

Type: <input type="checkbox"/> Silo <input type="checkbox"/> Storage Bin <input type="checkbox"/> Other, Describe	Name of Material Stored NA	
Silo/Storage Bin I.D. No. NA	Manufacturer NA	Date Installed NA
State whether the material will be stored in loose or bags in silos NA	Capacity (Tons) NA	
Turn over per year in tons NA	Turn over per day in tons NA	
Describe fugitive dust control system for loading and handling operations NA		
Describe material handling system NA		

5. Request for Confidentiality

Do you request any information on this application to be treated as "Confidential"? Yes No
 If yes, include justification for confidentiality. Place such information on separate pages marked "confidential".

Section B - Processes Information (Continued)

6. Miscellaneous Information

Attach flow diagram of process giving all (gaseous, liquid and solid) flow rates. Also, list all raw materials charged to process equipment, and the amounts charged (tons/hour, etc.) at rated capacity (give maximum, minimum and average charges describing fully expected variations in production rates). Indicate (on diagram) all points where contaminants are controlled (location of water sprays, collection hoods, or other pickup points, etc.). Describe collection hoods location, design, airflow and capture efficiency. Describe any restriction requested and how it will be monitored.

See Attachment F.

Describe fully the facilities provided to monitor and to record process operating conditions, which may affect the emission of air contaminants. Show that they are reasonable and adequate.

Daily visible observation of facility roadways.

Describe each proposed modification to an existing source.

NA

Identify and describe all fugitive emission points, all relief and emergency valves and any by-pass stacks.

Fugitive PM from the facility's paved roadways will occur during truck travel on site.

Describe how emissions will be minimized especially during start up, shut down, process upsets and/or disruptions.

Facility roadways will be swept and/or treated by water truck as necessary.

Anticipated Milestones:

- i. Expected commencement date of construction/reconstruction/installation: March 2013
- ii. Expected completion date of construction/reconstruction/installation: December 2013
- iii. Anticipated date of start-up: December 2013

Section C - Air Cleaning Device

1. Precontrol Emissions* *201 – Soybean Preparation Process*

Pollutant	Maximum Emission Rate			Calculation/ Estimation Method	
	Specify Units	Pounds/Hour	Hours/Year		
PM		271.88	8,760	1,141.88	AP-42, Sec. 9.11.1
PM ₁₀		67.97	8,760	285.47	AP-42, Sec. 9.11.1 & 9.9.1
SO _x					
CO					
NO _x					
VOC					
Others: (e.g., HAPs)	-----	-----	-----	-----	-----
PM _{2.5}		11.55	8,760	48.53	AP-42, Sec. 9.11.1 & 9.9.1

* These emissions must be calculated based on the requested operating schedule and/or process rate, e.g., operating schedule for maximum limits or restricted hours of operation and/or restricted throughput. Describe how the emission values were determined. Attach calculations.

2. Gas Cooling *Not Applicable (NA)*

Water quenching Yes No Water injection rate _____ GPM

Radiation and convection cooling Yes No Air dilution Yes No
 If yes, _____ CFM

Forced Draft Yes No Water cooled duct work Yes No

Other _____

Inlet Volume _____ ACFM Outlet Volume _____ ACFM
 @ _____ °F _____ % Moisture @ _____ °F _____ % Moisture

Describe the system in detail.

Section C - Air Cleaning Device (Continued)			
5. Fabric Collector <i>C201A, B, C, D, E – Soybean Preparation Process Baghouses (five (5) identical baghouses)</i>			
Equipment Specifications			
Manufacturer Airlanco		Model No. 236/158RLP8	<input type="checkbox"/> Pressurized Design <input checked="" type="checkbox"/> Suction Design
Number of Compartments 1	Number of Filters Per Compartment 158	Is Baghouse Insulated? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Can each compartment be isolated for repairs and/or filter replacement? NA			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are temperature controls provided? (Describe in detail) NA			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Dew point at maximum moisture <u>20 (approx.)</u> °F		Design inlet volume <u>12,500</u> SCFM	
Type of Fabric			
Material <u>Polyester</u>	<input type="checkbox"/> Felted	<input type="checkbox"/> Membrane	
Weight <u>16</u> oz/sq.yd	<input type="checkbox"/> Woven	<input type="checkbox"/> Others: List: _____	
Thickness <u>Unknown</u> in	<input checked="" type="checkbox"/> Felted-Woven		
Fabric permeability (clean) @ ½" water-Δ P <u>Unknown</u> CFM/sq.ft.			
Filter dimensions Length <u>8'</u>		Diameter/Width <u>6.25"</u>	
Effective area per filter <u>13.10 sq. ft.</u>		Maximum operating temperature (°F) <u>120</u>	
Effective air to cloth ratio Minimum <u>Unknown</u>		Maximum <u>6.04:1</u>	
Drawing of Fabric Filter			
A sketch of the fabric filter showing all access doors, catwalks, ladders and exhaust ductwork, location of each pressure and temperature indicator should be attached.			
Operation and Cleaning			
Volume of gases handled <u>12,500</u> ACFM @ <u>Ambient</u> °F		Pressure drop across collector (in. of water). 2-3" Describe the equipment to be used to monitor the pressure drop. Magnehelic gauge/pressure delta	
Type of filter cleaning			
<input type="checkbox"/> Manual Cleaning	<input type="checkbox"/> Bag Collapse	<input type="checkbox"/> Reverse Air Jets	
<input type="checkbox"/> Mechanical Shakers	<input type="checkbox"/> Sonic Cleaning	<input type="checkbox"/> Other: _____	
<input type="checkbox"/> Pneumatic Shakers	<input checked="" type="checkbox"/> Reverse Air Flow		
Describe the equipment provided if dry oil free air is required for collector operation <u>NA</u>			
Cleaning Initiated By			
<input type="checkbox"/> Timer	Frequency if timer actuated _____		
<input type="checkbox"/> Expected pressure drop range _____ in. of water	<input checked="" type="checkbox"/> Other Specify <u>Continuous clean</u>		
Does air cleaning device employ hopper heaters, hopper vibrators or hopper level detectors? If yes, describe. NA			
Describe the warning/alarm system that protects against operation when the unit is not meeting design requirements. Manual checks and pressure drop gauge readings.			
Emissions Data			
Pollutant	Inlet	Outlet	Removal Efficiency (%)
PM	271.88 lbs/hr	0.27 lb/hr	≥99.9%
PM10	67.97 lbs/hr	0.068 lb/hr	≥99.9%
PM2.5	11.55 lbs/hr	0.012 lb/hr	≥99.9%

Section C - Air Cleaning Device (Continued)

14. Costs

Indicate cost associated with air cleaning device and its operating cost (attach documentation if necessary)

C201A, B, C, D, E – Soybean Preparation Process Baghouses

Device	Direct Cost	Indirect Cost	Total Cost	Annual Operating Cost
Baghouse	\$75,000, each (approx.)	\$75,000, each (approx.)	\$150,000, each (approx.)	\$31,500, each (approx.)

15. Miscellaneous

Describe in detail the removal, handling and disposal of dust, effluent, etc. from the air cleaning device including proposed methods of controlling fugitive emissions.

All collected material is re-introduced into the process. The collected material is discharged from the baghouse through a rotary airlock and conveyed to the appropriate point in the process for re-introduction.

Attach manufacturer's performance guarantees and/or warranties for each of the major components of the control system (or complete system).

Properly maintained baghouse guaranteed to be ≥99.9% efficient.

Attach the maintenance schedule for the control equipment and any part of the process equipment that if in disrepair would increase air contaminant emissions.

Baghouses and dust handling system will be maintained according to manufacturer's specifications. A sufficient quantity of replacement bags will be kept on site.

Section C - Air Cleaning Device

1. Precontrol Emissions* *202 – Bean Conditioning*

Pollutant	Maximum Emission Rate			Calculation/ Estimation Method	
	Specify Units	Pounds/Hour	Hours/Year		
PM		5.90	8,760	24.68	AP-42, Sec. 9.11.1
PM ₁₀		1.48	8,760	6.17	AP-42, Sec. 9.11.1 & 9.9.1
SO _x					
CO					
NO _x					
VOC					
Others: (e.g., HAPs)	-----	-----	-----	-----	-----
PM _{2.5}		0.25	8,760	1.05	AP-42, Sec. 9.11.1 & 9.9.1

* These emissions must be calculated based on the requested operating schedule and/or process rate, e.g., operating schedule for maximum limits or restricted hours of operation and/or restricted throughput. Describe how the emission values were determined. Attach calculations.

2. Gas Cooling *Not Applicable (NA)*

Water quenching Yes No Water injection rate _____ GPM

Radiation and convection cooling Yes No Air dilution Yes No
If yes, _____ CFM

Forced Draft Yes No Water cooled duct work Yes No

Other _____

Inlet Volume _____ ACFM
@ _____ °F _____ % Moisture

Outlet Volume _____ ACFM
@ _____ °F _____ % Moisture

Describe the system in detail.

Section C - Air Cleaning Device (Continued)			
3. Settling Chambers		<i>Not Applicable (NA)</i>	
Manufacturer		Volume of gas handled _____ ACFM @ _____ °F	Gas velocity (ft/sec.)
Length of chamber (ft.)	Width of chamber (ft.)	Height of chamber (ft.)	Number of trays
Water injection <input type="checkbox"/> Yes <input type="checkbox"/> No		Water injection rate (GPM)	
Emissions Data			
Inlet	Outlet	Removal Efficiency (%)	
4. Inertial and Cyclone Collectors		<i>C202 -- Bean Conditioning Cyclone</i>	
Manufacturer Airlanco		Type High efficiency cyclone	Model No. HE-24
Pressure drop (in. of water) 6-8"		Inlet volume <u>3,000</u> ACFM @ <u>135 (approx.)</u> °F	Outlet volume <u>3,000</u> ACFM @ <u>135 (approx.)</u> °F
Number of individual cyclone(s) 1		Outlet straightening vanes used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Length of Cyclone(s) Cylinder (ft.) 3.6' (approx.)	Diameter of Cyclone(s) Cylinder (ft.) 2' (approx.)	Length of Cyclone(s) cone (ft.) 3.85' (approx.)	
Inlet Diameter (ft.) or duct area (ft. ²) of cyclone(s) 0.9 sq. ft. (approx.)		Outlet Diameter (ft.) or duct area (ft. ²) of cyclone(s) 0.92 sq. ft. (approx.)	
If a multi-clone or multi-tube unit is installed, will any of the individual cyclones or cyclone tubes be blanked or blocked off? NA			
Describe any exhaust gas recirculation loop to be employed. NA			
Attach particle size efficiency curve Not available			
Emissions Data			
Inlet	Outlet	Removal Efficiency (%)	
PM - 5.90 lbs/hr	0.30 lb/hr	95% (approx.)	
PM10 - 1.48 lbs/hr	0.074 lb/hr	95% (approx.)	
PM2.5 - 0.25 lb/hr	0.013 lb/hr	95% (approx.)	

Section C - Air Cleaning Device (Continued)

14. Costs

Indicate cost associated with air cleaning device and its operating cost (attach documentation if necessary)

C202 - Bean Conditioning Cyclone

Device	Direct Cost	Indirect Cost	Total Cost	Annual Operating Cost
Cyclone	\$17,000 (approx.)	\$17,000 (approx.)	\$34,000 (approx.)	\$4,725 (approx.)

15. Miscellaneous

Describe in detail the removal, handling and disposal of dust, effluent, etc. from the air cleaning device including proposed methods of controlling fugitive emissions.

All collected material is re-introduced into the process. The collected material is discharged from the cyclone through a rotary airlock and conveyed to the appropriate point in the process for re-introduction.

Attach manufacturer's performance guarantees and/or warranties for each of the major components of the control system (or complete system).

Properly maintained high efficiency cyclone guaranteed to be 95% efficient.

Attach the maintenance schedule for the control equipment and any part of the process equipment that if in disrepair would increase air contaminant emissions.

Cyclone and dust handling system will be maintained according to manufacturer's specifications.

Section C - Air Cleaning Device

1. Precontrol Emissions* *203 - Flaking Rolls*

Pollutant	Maximum Emission Rate			Calculation/ Estimation Method	
	Specify Units	Pounds/Hour	Hours/Year		
PM		21.83	8,760	91.30	AP-42, Sec. 9.11.1
PM ₁₀		5.46	8,760	22.82	AP-42, Sec. 9.11.1 & 9.9.1
SO _x					
CO					
NO _x					
VOC					
Others: (e.g., HAPs)	-----	-----	-----	-----	-----
PM _{2.5}		0.93	8,760	3.88	AP-42, Sec. 9.11.1 & 9.9.1

* These emissions must be calculated based on the requested operating schedule and/or process rate, e.g., operating schedule for maximum limits or restricted hours of operation and/or restricted throughput. Describe how the emission values were determined. Attach calculations.

2. Gas Cooling *Not Applicable (NA)*

Water quenching Yes No Water injection rate _____ GPM

Radiation and convection cooling Yes No Air dilution Yes No
 If yes, _____ CFM

Forced Draft Yes No Water cooled duct work Yes No

Other _____

Inlet Volume _____ ACFM Outlet Volume _____ ACFM
 @ _____ °F _____ % Moisture @ _____ °F _____ % Moisture

Describe the system in detail.

Section C - Air Cleaning Device (Continued)			
3. Settling Chambers		<i>Not Applicable (NA)</i>	
Manufacturer		Volume of gas handled _____ ACFM @ _____ °F	Gas velocity (ft/sec.)
Length of chamber (ft.)	Width of chamber (ft.)	Height of chamber (ft.)	Number of trays
Water injection <input type="checkbox"/> Yes <input type="checkbox"/> No		Water injection rate (GPM)	
Emissions Data			
Inlet	Outlet	Removal Efficiency (%)	
4. Inertial and Cyclone Collectors		<i>C203 - Flaking Rolls Cyclone</i>	
Manufacturer Airlanco		Type High efficiency cyclone	Model No. HE-48
Pressure drop (in. of water) 6-8"		Inlet volume <u>12,500</u> ACFM @ <u>110 (approx.)</u> °F	Outlet volume <u>12,500</u> ACFM @ <u>110 (approx.)</u> °F
Number of individual cyclone(s) 1		Outlet straightening vanes used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Length of Cyclone(s) Cylinder (ft.) 7' (approx.)	Diameter of Cyclone(s) Cylinder (ft.) 4' (approx.)	Length of Cyclone(s) cone (ft.) 8.5' (approx.)	
Inlet Diameter (ft.) or duct area (ft. ²) of cyclone(s) 3.44 sq. ft. (approx.)		Outlet Diameter (ft.) or duct area (ft. ²) of cyclone(s) 3.67 sq. ft. (approx.)	
If a multi-clone or multi-tube unit is installed, will any of the individual cyclones or cyclone tubes be blanked or blocked off? NA			
Describe any exhaust gas recirculation loop to be employed. NA			
Attach particle size efficiency curve Not available			
Emissions Data			
Inlet	Outlet	Removal Efficiency (%)	
PM - 21.83 lbs/hr	1.09 lbs/hr	95% (approx.)	
PM10 - 5.46 lbs/hr	0.27 lb/hr	95% (approx.)	
PM2.5 - 0.93 lb/hr	0.046 lb/hr	95% (approx.)	

Section C - Air Cleaning Device (Continued)

14. Costs

Indicate cost associated with air cleaning device and its operating cost (attach documentation if necessary)

C203 - Flaking Rolls Cyclone

Device	Direct Cost	Indirect Cost	Total Cost	Annual Operating Cost
Cyclone	\$35,000 (approx.)	\$35,000 (approx.)	\$70,000 (approx.)	\$25,200 (approx.)

15. Miscellaneous

Describe in detail the removal, handling and disposal of dust, effluent, etc. from the air cleaning device including proposed methods of controlling fugitive emissions.

All collected material is re-introduced into the process. The collected material is discharged from the cyclone through a rotary airlock and conveyed to the appropriate point in the process for re-introduction.

Attach manufacturer's performance guarantees and/or warranties for each of the major components of the control system (or complete system).

Properly maintained high efficiency cyclone guaranteed to be 95% efficient.

Attach the maintenance schedule for the control equipment and any part of the process equipment that if in disrepair would increase air contaminant emissions.

Cyclone and dust handling system will be maintained according to manufacturer's specifications.

Section C - Air Cleaning Device

1. Precontrol Emissions* *204 - Extraction Process*

Pollutant	Maximum Emission Rate			Calculation/ Estimation Method	
	Specify Units	Pounds/Hour	Hours/Year		
PM					
PM ₁₀					
SO _x					
CO					
NO _x					
VOC		1,177.45	8,760	5,157.22	LAER/material balance
Others: (e.g., HAPs)	-----	-----	-----	-----	-----
n-Hexane (HAP)		529.85	8,760	2,320.75	LAER/material balance

* These emissions must be calculated based on the requested operating schedule and/or process rate, e.g., operating schedule for maximum limits or restricted hours of operation and/or restricted throughput. Describe how the emission values were determined. Attach calculations.

2. Gas Cooling *Not Applicable (NA)*

Water quenching Yes No Water injection rate _____ GPM

Radiation and convection cooling Yes No Air dilution Yes No
If yes, _____ CFM

Forced Draft Yes No Water cooled duct work Yes No

Other

Inlet Volume _____ ACFM
@ _____ °F _____ % Moisture

Outlet Volume _____ ACFM
@ _____ °F _____ % Moisture

Describe the system in detail.

Section C - Air Cleaning Device (Continued)			
9. Absorption Equipment		<i>C204 - Hexane Solvent Recovery System Mineral Oil Scrubber</i>	
Equipment Specifications			
Manufacturer Desmet		Type Packed tower	Model No. NA
Design Inlet Volume (SCFM) <500 CFM @ 90 °F		Tower height (ft.) and inside diameter (ft.) Height: To be determined (TBD); Diameter: 1.2 ft. (est.)	
Packing type and size (if applicable) TBD		Height of packing (ft.) (if applicable) TBD	
Number of trays (if applicable) NA		Number of bubble caps (if applicable) NA	
Configuration <input checked="" type="checkbox"/> Counter-current <input type="checkbox"/> Cross flow <input type="checkbox"/> Cocurrent flow			
Describe pH and/or other monitoring and controls. To be determined.			
Absorbent Information			
Absorbent type and concentration. Mineral oil		Retention time (sec.) Unknown	
Attach equilibrium data for absorption (if applicable) NA			
Attach any additional information regarding auxiliary equipment, absorption solution supply system (once through or recirculating, system capacity, etc.) to thoroughly evaluate the control equipment. Indicate the flow rates for makeup, bleed and recirculation. Mineral oil system utilizes physical properties of affinity for hexane for removal from vapor stream. System is comprised of 250 to 300 gallons of mineral oil in absorber and stripper.			
Operating Parameters			
Volume of gas handled (ACFM) <500 CFM	Inlet temperature (°F) 90 °F (approx.)	Pressure drop (in. of water) and liquid flow rate. Describe the monitoring equipment. 2.5" water on absorber; 20" Hg on stripper. 20 to 25 gallons per minute mineral oil flow rate.	
State operating range for pH and/or absorbent concentration in scrubber liquid. Scrubber liquid is 100% mineral oil.			
Describe the warning/alarm system that protects against operation when unit is not meeting design requirements. See best management practices (BMPs) described in attached LAER Evaluation.			
Emissions Data			
Pollutant	Inlet	Outlet	Removal Efficiency (%)
VOC (hexane)	1,177.45 lbs/hr	11.77 lbs/hr	>99% (approx.)
n-Hexane (HAP)	529.85 lbs/hr	5.30 lbs/hr	>99% (approx.)

Section C - Air Cleaning Device (Continued)

14. Costs

Indicate cost associated with air cleaning device and its operating cost (attach documentation if necessary)

C204 - Hexane Solvent Recovery System Mineral Oil Scrubber

Device	Direct Cost	Indirect Cost	Total Cost	Annual Operating Cost
Hexane Solvent Recovery System Mineral Oil Scrubber	\$100,000 (approx.)	\$100,000 (approx.)	\$200,000 (approx.)	\$25,000 (approx.)

15. Miscellaneous

Describe in detail the removal, handling and disposal of dust, effluent, etc. from the air cleaning device including proposed methods of controlling fugitive emissions.

Recovered hexane solvent is reused in the extraction process. See Attachment E for a description of the hexane solvent recovery system process.

Attach manufacturer's performance guarantees and/or warranties for each of the major components of the control system (or complete system).

Properly maintained mineral oil scrubber guaranteed to be >99% efficient.

Attach the maintenance schedule for the control equipment and any part of the process equipment that if in disrepair would increase air contaminant emissions.

System will be maintained according to manufacturer's specifications.

Section C - Air Cleaning Device

1. Precontrol Emissions* *205A - Meal Dryer*

Pollutant	Maximum Emission Rate			Calculation/ Estimation Method	
	Specify Units	Pounds/Hour	Hours/Year		Tons/Year
PM		106.20	8,760	354.38	AP-42, Sec. 9.11.1
PM ₁₀		26.55	8,760	88.59	AP-42, Sec. 9.11.1 & 9.9.1
SO _x					
CO					
NO _x					
VOC		19.06	8,760	83.50	LAER/material balance
Others: (e.g., HAPs)	-----	-----	-----	-----	-----
PM _{2.5}		4.51	8,760	15.06	AP-42, Sec. 9.11.1 & 9.9.1
n-Hexane (HAP)		8.58	8,760	37.57	LAER/material balance

* These emissions must be calculated based on the requested operating schedule and/or process rate, e.g., operating schedule for maximum limits or restricted hours of operation and/or restricted throughput. Describe how the emission values were determined. Attach calculations.

2. Gas Cooling *Not Applicable (NA)*

Water quenching Yes No Water injection rate _____ GPM

Radiation and convection cooling Yes No Air dilution Yes No
 If yes, _____ CFM

Forced Draft Yes No Water cooled duct work Yes No

Other _____

Inlet Volume _____ ACFM Outlet Volume _____ ACFM
 @ _____ °F _____ % Moisture @ _____ °F _____ % Moisture

Describe the system in detail.

Section C - Air Cleaning Device (Continued)			
3. Settling Chambers		<i>Not Applicable (NA)</i>	
Manufacturer		Volume of gas handled _____ ACFM @ _____ °F	Gas velocity (ft/sec.)
Length of chamber (ft.)	Width of chamber (ft.)	Height of chamber (ft.)	Number of trays
Water injection <input type="checkbox"/> Yes <input type="checkbox"/> No		Water injection rate (GPM)	
Emissions Data			
Inlet	Outlet	Removal Efficiency (%)	
4. Inertial and Cyclone Collectors		<i>C205A - Meal Dryer Cyclone</i>	
Manufacturer Kice		Type Cyclone	Model No. CK-108
Pressure drop (in. of water) 4"		Inlet volume <u>19,500</u> ACFM @ <u>140 (approx.)</u> °F	Outlet volume <u>19,500</u> ACFM @ <u>140 (approx.)</u> °F
Number of individual cyclone(s) 1		Outlet straightening vanes used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Length of Cyclone(s) Cylinder (ft.) 8.5' (approx.)		Diameter of Cyclone(s) Cylinder (ft.) 9' (approx.)	Length of Cyclone(s) cone (ft.) 16' (approx.)
Inlet Diameter (ft.) or duct area (ft. ²) of cyclone(s) To be determined.		Outlet Diameter (ft.) or duct area (ft. ²) of cyclone(s) 4 ft. (approx.)	
If a multi-clone or multi-tube unit is installed, will any of the individual cyclones or cyclone tubes be blanked or blocked off? NA			
Describe any exhaust gas recirculation loop to be employed. NA			
Attach particle size efficiency curve Not available			
Emissions Data			
Inlet	Outlet	Removal Efficiency (%)	
PM - 106.20 lbs/hr	10.62 lbs/hr	90% (approx.)	
PM10 - 26.55 lbs/hr	2.66 lbs/hr	90% (approx.)	
PM2.5 - 4.51 lbs/hr	0.45 lb/hr	90% (approx.)	

Section C - Air Cleaning Device (Continued)

14. Costs

Indicate cost associated with air cleaning device and its operating cost (attach documentation if necessary)

C205A - Meal Dryer Cyclone

Device	Direct Cost	Indirect Cost	Total Cost	Annual Operating Cost
Cyclone	\$82,100 (approx.)	\$50,000 (approx.)	\$132,100 (approx.)	\$78,750 (approx.)

15. Miscellaneous

Describe in detail the removal, handling and disposal of dust, effluent, etc. from the air cleaning device including proposed methods of controlling fugitive emissions.

All collected material is re-introduced into the process. The collected material is discharged from the cyclone through a rotary airlock and conveyed to the appropriate point in the process for re-introduction.

Attach manufacturer's performance guarantees and/or warranties for each of the major components of the control system (or complete system).

Properly maintained cyclone guaranteed to be 90% efficient.

Attach the maintenance schedule for the control equipment and any part of the process equipment that if in disrepair would increase air contaminant emissions.

Cyclone and dust handling system will be maintained according to manufacturer's specifications.

Section C - Air Cleaning Device

1. Precontrol Emissions* 205B - Meal Cooler					
Pollutant	Specify Units	Maximum Emission Rate			Calculation/ Estimation Method
		Pounds/Hour	Hours/Year	Tons/Year	
PM		112.10	8,760	374.06	AP-42, Sec. 9.11.1
PM ₁₀		28.03	8,760	93.52	AP-42, Sec. 9.11.1 & 9.9.1
SO _x					
CO					
NO _x					
VOC		3.92	8,760	17.19	LAER/material balance
Others: (e.g., HAPs)	-----	-----	-----	-----	-----
PM _{2.5}		4.76	8,760	15.90	AP-42, Sec. 9.11.1 & 9.9.1
n-Hexane (HAP)		1.77	8,760	7.74	LAER/material balance

* These emissions must be calculated based on the requested operating schedule and/or process rate, e.g., operating schedule for maximum limits or restricted hours of operation and/or restricted throughput. Describe how the emission values were determined. Attach calculations.

2. Gas Cooling Not Applicable (NA)

Water quenching Yes No Water injection rate _____ GPM

Radiation and convection cooling Yes No Air dilution Yes No
 If yes, _____ CFM

Forced Draft Yes No Water cooled duct work Yes No

Other _____

Inlet Volume _____ ACFM Outlet Volume _____ ACFM
 @ _____ °F _____ % Moisture @ _____ °F _____ % Moisture

Describe the system in detail.

Section C - Air Cleaning Device (Continued)			
3. Settling Chambers		<i>Not Applicable (NA)</i>	
Manufacturer		Volume of gas handled _____ ACFM @ _____ °F	Gas velocity (ft/sec.)
Length of chamber (ft.)	Width of chamber (ft.)	Height of chamber (ft.)	Number of trays
Water injection <input type="checkbox"/> Yes <input type="checkbox"/> No		Water injection rate (GPM)	
Emissions Data		Inlet	Outlet
			Removal Efficiency (%)
4. Inertial and Cyclone Collectors		<i>C205B - Meal Cooler Cyclone</i>	
Manufacturer Kice		Type Cyclone	Model No. CK-108
Pressure drop (in. of water) 4"		Inlet volume <u>19,500</u> ACFM @ <u>110 (approx.)</u> °F	Outlet volume <u>19,500</u> ACFM @ <u>110 (approx.)</u> °F
Number of individual cyclone(s) 1		Outlet straightening vanes used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Length of Cyclone(s) Cylinder (ft.) 8.5' (approx.)		Diameter of Cyclone(s) Cylinder (ft.) 9' (approx.)	Length of Cyclone(s) cone (ft.) 16' (approx.)
Inlet Diameter (ft.) or duct area (ft. ²) of cyclone(s) To be determined.		Outlet Diameter (ft.) or duct area (ft. ²) of cyclone(s) 4 ft. (approx.)	
If a multi-clone or multi-tube unit is installed, will any of the individual cyclones or cyclone tubes be blanked or blocked off? NA			
Describe any exhaust gas recirculation loop to be employed. NA			
Attach particle size efficiency curve Not available			
Emissions Data		Inlet	Outlet
			Removal Efficiency (%)
		PM - 112.10 lbs/hr	90% (approx.)
		PM10 - 28.03 lbs/hr	90% (approx.)
		PM2.5 - 4.76 lbs/hr	90% (approx.)

Section C - Air Cleaning Device (Continued)

14. Costs

Indicate cost associated with air cleaning device and its operating cost (attach documentation if necessary)

C205B - Meal Cooler Cyclone

Device	Direct Cost	Indirect Cost	Total Cost	Annual Operating Cost
Cyclone	\$82,100 (approx.)	\$50,000 (approx.)	\$132,100 (approx.)	\$78,750 (approx.)

15. Miscellaneous

Describe in detail the removal, handling and disposal of dust, effluent, etc. from the air cleaning device including proposed methods of controlling fugitive emissions.

All collected material is re-introduced into the process. The collected material is discharged from the cyclone through a rotary airlock and conveyed to the appropriate point in the process for re-introduction.

Attach manufacturer's performance guarantees and/or warranties for each of the major components of the control system (or complete system).

Properly maintained cyclone guaranteed to be 90% efficient.

Attach the maintenance schedule for the control equipment and any part of the process equipment that if in disrepair would increase air contaminant emissions.

Cyclone and dust handling system will be maintained according to manufacturer's specifications.

Section C - Air Cleaning Device

1. Precontrol Emissions* 206 - Meal Screening and Grinding

Pollutant	Maximum Emission Rate			Calculation/ Estimation Method	
	Specify Units	Pounds/Hour	Hours/Year		
PM		159.80	8,760	669.38	AP-42, Sec. 9.11.1
PM ₁₀		39.95	8,760	167.34	AP-42, Sec. 9.11.1 & 9.9.1
SO _x					
CO					
NO _x					
VOC					
Others: (e.g., HAPs)	-----	-----	-----	-----	-----
PM _{2.5}		6.79	8,760	28.45	AP-42, Sec. 9.11.1 & 9.9.1

* These emissions must be calculated based on the requested operating schedule and/or process rate, e.g., operating schedule for maximum limits or restricted hours of operation and/or restricted throughput. Describe how the emission values were determined. Attach calculations.

2. Gas Cooling *Not Applicable (NA)*

Water quenching Yes No Water injection rate _____ GPM

Radiation and convection cooling Yes No Air dilution Yes No
 If yes, _____ CFM

Forced Draft Yes No Water cooled duct work Yes No

Other _____

Inlet Volume _____ ACFM Outlet Volume _____ ACFM
 @ _____ °F _____ % Moisture @ _____ °F _____ % Moisture

Describe the system in detail.

Section C - Air Cleaning Device (Continued)			
5. Fabric Collector <i>C206 - Meal Screening and Grinding Baghouse</i>			
Equipment Specifications			
Manufacturer Airlanco		Model No. 188RLP8	<input type="checkbox"/> Pressurized Design <input checked="" type="checkbox"/> Suction Design
Number of Compartments 1	Number of Filters Per Compartment 188	Is Baghouse Insulated? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Can each compartment be isolated for repairs and/or filter replacement? NA			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are temperature controls provided? (Describe in detail) NA			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Dew point at maximum moisture <u>40 (approx.)</u> °F		Design inlet volume <u>12,500</u> SCFM	
Type of Fabric			
Material <u>Polyester</u>	<input type="checkbox"/> Felted	<input type="checkbox"/> Membrane	
Weight <u>16</u> oz/sq.yd	<input type="checkbox"/> Woven	<input type="checkbox"/> Others: List: _____	
Thickness <u>Unknown</u> in	<input checked="" type="checkbox"/> Felted-Woven		
Fabric permeability (clean) @ ½" water-Δ P <u>Unknown</u> CFM/sq.ft.			
Filter dimensions Length <u>8'</u>		Diameter/Width <u>6.25"</u>	
Effective area per filter <u>13.10 sq. ft.</u>		Maximum operating temperature (°F) <u>120</u>	
Effective air to cloth ratio Minimum <u>Unknown</u>		Maximum <u>5.18:1</u>	
Drawing of Fabric Filter			
A sketch of the fabric filter showing all access doors, catwalks, ladders and exhaust ductwork, location of each pressure and temperature indicator should be attached.			
Operation and Cleaning			
Volume of gases handled <u>12,500</u> ACFM @ <u>Ambient</u> °F		Pressure drop across collector (in. of water). 2-3" Describe the equipment to be used to monitor the pressure drop. Magnehelic gauge/pressure delta	
Type of filter cleaning			
<input type="checkbox"/> Manual Cleaning	<input type="checkbox"/> Bag Collapse	<input type="checkbox"/> Reverse Air Jets	
<input type="checkbox"/> Mechanical Shakers	<input type="checkbox"/> Sonic Cleaning	<input type="checkbox"/> Other: _____	
<input type="checkbox"/> Pneumatic Shakers	<input checked="" type="checkbox"/> Reverse Air Flow		
Describe the equipment provided if dry oil free air is required for collector operation NA			
Cleaning Initiated By			
<input type="checkbox"/> Timer	Frequency if timer actuated _____		
<input type="checkbox"/> Expected pressure drop range _____ in. of water	<input checked="" type="checkbox"/> Other Specify <u>Continuous clean</u>		
Does air cleaning device employ hopper heaters, hopper vibrators or hopper level detectors? If yes, describe. NA			
Describe the warning/alarm system that protects against operation when the unit is not meeting design requirements. Manual checks and pressure drop gauge readings.			
Emissions Data			
Pollutant	Inlet	Outlet	Removal Efficiency (%)
PM	159.80 lbs/hr	0.16 lb/hr	≥99.9%
PM10	39.95 lbs/hr	0.040 lb/hr	≥99.9%
PM2.5	6.79 lbs/hr	0.0068 lb/hr	≥99.9%

Section C - Air Cleaning Device (Continued)

14. Costs

Indicate cost associated with air cleaning device and its operating cost (attach documentation if necessary)

C206 - Meal Screening and Grinding Baghouse

Device	Direct Cost	Indirect Cost	Total Cost	Annual Operating Cost
Baghouse	\$75,000 (approx.)	\$75,000 (approx.)	\$150,000 (approx.)	\$31,500 (approx.)

15. Miscellaneous

Describe in detail the removal, handling and disposal of dust, effluent, etc. from the air cleaning device including proposed methods of controlling fugitive emissions.

All collected material is re-introduced into the process. The collected material is discharged from the baghouse through a rotary airlock and conveyed to the appropriate point in the process for re-introduction.

Attach manufacturer's performance guarantees and/or warranties for each of the major components of the control system (or complete system).

Properly maintained baghouse guaranteed to be ≥99.9% efficient.

Attach the maintenance schedule for the control equipment and any part of the process equipment that if in disrepair would increase air contaminant emissions.

Baghouse and dust handling system will be maintained according to manufacturer's specifications. A sufficient quantity of replacement bags will be kept on site.

Section C - Air Cleaning Device					
1. Precontrol Emissions*		<i>207 - Mill Feed (Hull) Grinding</i>			
Pollutant	Maximum Emission Rate				Calculation/ Estimation Method
	Specify Units	Pounds/Hour	Hours/Year	Tons/Year	
PM		7.50	8,760	31.50	AP-42, Sec. 9.11.1
PM ₁₀		1.88	8,760	7.88	AP-42, Sec. 9.11.1 & 9.9.1
SO _x					
CO					
NO _x					
VOC					
Others: (e.g., HAPs)	-----	-----	-----	-----	-----
PM _{2.5}		0.32	8,760	1.34	AP-42, Sec. 9.11.1 & 9.9.1
* These emissions must be calculated based on the requested operating schedule and/or process rate, e.g., operating schedule for maximum limits or restricted hours of operation and/or restricted throughput. Describe how the emission values were determined. Attach calculations.					
2. Gas Cooling		<i>Not Applicable (NA)</i>			
Water quenching <input type="checkbox"/> Yes <input type="checkbox"/> No Water injection rate _____ GPM					
Radiation and convection cooling <input type="checkbox"/> Yes <input type="checkbox"/> No			Air dilution <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, _____ CFM		
Forced Draft <input type="checkbox"/> Yes <input type="checkbox"/> No			Water cooled duct work <input type="checkbox"/> Yes <input type="checkbox"/> No		
Other					
Inlet Volume _____ ACFM @ _____ °F _____ % Moisture			Outlet Volume _____ ACFM @ _____ °F _____ % Moisture		
Describe the system in detail.					

Section C - Air Cleaning Device (Continued)			
5. Fabric Collector <i>C207 - Mill Feed (Hull) Grinding Baghouse</i>			
Equipment Specifications			
Manufacturer Airlanco		Model No. 124RLP8	<input type="checkbox"/> Pressurized Design <input checked="" type="checkbox"/> Suction Design
Number of Compartments 1	Number of Filters Per Compartment 124	Is Baghouse Insulated? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Can each compartment be isolated for repairs and/or filter replacement? NA		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Are temperature controls provided? (Describe in detail) NA		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Dew point at maximum moisture <u>40 (approx.)</u> °F		Design inlet volume <u>7,000</u> SCFM	
Type of Fabric			
Material <u>Polyester</u>	<input type="checkbox"/> Felted	<input type="checkbox"/> Membrane	
Weight <u>16</u> oz/sq.yd	<input type="checkbox"/> Woven	<input type="checkbox"/> Others: List: _____	
Thickness <u>Unknown</u> in	<input checked="" type="checkbox"/> Felted-Woven		
Fabric permeability (clean) @ 1/2" water-Δ P <u>Unknown</u> CFM/sq.ft.			
Filter dimensions Length <u>8'</u>		Diameter/Width <u>6.25"</u>	
Effective area per filter <u>13.10 sq. ft.</u>		Maximum operating temperature (°F) <u>120</u>	
Effective air to cloth ratio Minimum <u>Unknown</u>		Maximum <u>4.39:1</u>	
Drawing of Fabric Filter			
A sketch of the fabric filter showing all access doors, catwalks, ladders and exhaust ductwork, location of each pressure and temperature indicator should be attached.			
Operation and Cleaning			
Volume of gases handled <u>7,000</u> ACFM @ <u>Ambient</u> °F		Pressure drop across collector (in. of water). 2-3" Describe the equipment to be used to monitor the pressure drop. Magnehelic gauge/pressure delta	
Type of filter cleaning			
<input type="checkbox"/> Manual Cleaning	<input type="checkbox"/> Bag Collapse	<input type="checkbox"/> Reverse Air Jets	
<input type="checkbox"/> Mechanical Shakers	<input type="checkbox"/> Sonic Cleaning	<input type="checkbox"/> Other: _____	
<input type="checkbox"/> Pneumatic Shakers	<input checked="" type="checkbox"/> Reverse Air Flow		
Describe the equipment provided if dry oil free air is required for collector operation NA			
Cleaning Initiated By			
<input type="checkbox"/> Timer		Frequency if timer actuated _____	
<input type="checkbox"/> Expected pressure drop range _____ in. of water		<input checked="" type="checkbox"/> Other Specify <u>Continuous clean</u>	
Does air cleaning device employ hopper heaters, hopper vibrators or hopper level detectors? If yes, describe. NA			
Describe the warning/alarm system that protects against operation when the unit is not meeting design requirements. Manual checks and pressure drop gauge readings.			
Emissions Data			
Pollutant	Inlet	Outlet	Removal Efficiency (%)
PM	7.50 lbs/hr	0.0075 lb/hr	≥99.9%
PM10	1.88 lbs/hr	0.0019 lb/hr	≥99.9%
PM2.5	0.32 lb/hr	0.00032 lb/hr	≥99.9%

Section C - Air Cleaning Device (Continued)

14. Costs

Indicate cost associated with air cleaning device and its operating cost (attach documentation if necessary)

C207 - Mill Feed (Hull) Grinding Baghouse

Device	Direct Cost	Indirect Cost	Total Cost	Annual Operating Cost
Baghouse	\$75,000 (approx.)	\$75,000 (approx.)	\$150,000 (approx.)	\$31,500 (approx.)

15. Miscellaneous

Describe in detail the removal, handling and disposal of dust, effluent, etc. from the air cleaning device including proposed methods of controlling fugitive emissions.

All collected material is re-introduced into the process. The collected material is discharged from the baghouse through a rotary airlock and conveyed to the appropriate point in the process for re-introduction.

Attach manufacturer's performance guarantees and/or warranties for each of the major components of the control system (or complete system).

Properly maintained baghouse guaranteed to be ≥99.9% efficient.

Attach the maintenance schedule for the control equipment and any part of the process equipment that if in disrepair would increase air contaminant emissions.

Baghouse and dust handling system will be maintained according to manufacturer's specifications. A sufficient quantity of replacement bags will be kept on site.

Section C - Air Cleaning Device

1. Precontrol Emissions* *210 - Meal Loadout Area*

Pollutant	Maximum Emission Rate			Calculation/ Estimation Method	
	Specify Units	Pounds/Hour	Hours/Year		
PM		27.00	8,760	57.41	AP-42, Sec. 9.11.1
PM ₁₀		6.75	8,760	14.35	AP-42, Sec. 9.11.1 & 9.9.1
SO _x					
CO					
NO _x					
VOC					
Others: (e.g., HAPs)	-----	-----	-----	-----	-----
PM _{2.5}		1.15	8,760	2.44	AP-42, Sec. 9.11.1 & 9.9.1

* These emissions must be calculated based on the requested operating schedule and/or process rate, e.g., operating schedule for maximum limits or restricted hours of operation and/or restricted throughput. Describe how the emission values were determined. Attach calculations.

2. Gas Cooling *Not Applicable (NA)*

Water quenching Yes No Water injection rate _____ GPM

Radiation and convection cooling Yes No Air dilution Yes No
 If yes, _____ CFM

Forced Draft Yes No Water cooled duct work Yes No

Other

Inlet Volume _____ ACFM Outlet Volume _____ ACFM
 @ _____ °F _____ % Moisture @ _____ °F _____ % Moisture

Describe the system in detail.

Section C - Air Cleaning Device (Continued)			
5. Fabric Collector <i>C210 - Meal Loadout Area Baghouse</i>			
Equipment Specifications			
Manufacturer Airlanco		Model No. 236RLP10	<input type="checkbox"/> Pressurized Design <input checked="" type="checkbox"/> Suction Design
Number of Compartments 1	Number of Filters Per Compartment 236	Is Baghouse Insulated? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Can each compartment be isolated for repairs and/or filter replacement? NA		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Are temperature controls provided? (Describe in detail) NA		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Dew point at maximum moisture <u>20 (approx.)</u> °F		Design inlet volume <u>30,000</u> SCFM	
Type of Fabric			
Material	<u>Polyester</u>	<input type="checkbox"/> Felted	<input type="checkbox"/> Membrane
Weight	<u>16</u> oz/sq.yd	<input type="checkbox"/> Woven	<input type="checkbox"/> Others: List: _____
Thickness	<u>Unknown</u> in	<input checked="" type="checkbox"/> Felted-Woven	
Fabric permeability (clean) @ ½" water-Δ P <u>Unknown</u> CFM/sq.ft.			
Filter dimensions Length <u>10'</u>		Diameter/Width <u>6.25"</u>	
Effective area per filter <u>16.22 sq. ft.</u>		Maximum operating temperature (°F) <u>120</u>	
Effective air to cloth ratio Minimum <u>Unknown</u>		Maximum <u>7.94:1</u>	
Drawing of Fabric Filter			
A sketch of the fabric filter showing all access doors, catwalks, ladders and exhaust ductwork, location of each pressure and temperature indicator should be attached.			
Operation and Cleaning			
Volume of gases handled <u>30,000</u> ACFM @ <u>Ambient</u> °F		Pressure drop across collector (in. of water). <u>2-3"</u> Describe the equipment to be used to monitor the pressure drop. Magnehelic gauge/pressure delta	
Type of filter cleaning			
<input type="checkbox"/> Manual Cleaning	<input type="checkbox"/> Bag Collapse	<input type="checkbox"/> Reverse Air Jets	
<input type="checkbox"/> Mechanical Shakers	<input type="checkbox"/> Sonic Cleaning	<input type="checkbox"/> Other: _____	
<input type="checkbox"/> Pneumatic Shakers	<input checked="" type="checkbox"/> Reverse Air Flow		
Describe the equipment provided if dry oil free air is required for collector operation NA			
Cleaning Initiated By			
<input type="checkbox"/> Timer	Frequency if timer actuated _____		
<input type="checkbox"/> Expected pressure drop range _____ in. of water	<input checked="" type="checkbox"/> Other Specify <u>Continuous clean</u>		
Does air cleaning device employ hopper heaters, hopper vibrators or hopper level detectors? If yes, describe. NA			
Describe the warning/alarm system that protects against operation when the unit is not meeting design requirements. Manual checks and pressure drop gauge readings.			
Emissions Data			
Pollutant	Inlet	Outlet	Removal Efficiency (%)
PM	27.00 lbs/hr	0.027 lb/hr	≥99.9%
PM10	6.75 lbs/hr	0.0068 lb/hr	≥99.9%
PM2.5	1.15 lbs/hr	0.0011 lb/hr	≥99.9%

Section C - Air Cleaning Device (Continued)

14. Costs

Indicate cost associated with air cleaning device and its operating cost (attach documentation if necessary)

C210 - Meal Loadout Area Baghouse

Device	Direct Cost	Indirect Cost	Total Cost	Annual Operating Cost
Baghouse	\$80,000 (approx.)	\$80,000 (approx.)	\$160,000 (approx.)	\$61,000 (approx.)

15. Miscellaneous

Describe in detail the removal, handling and disposal of dust, effluent, etc. from the air cleaning device including proposed methods of controlling fugitive emissions.

All collected material is re-introduced into the process. The collected material is discharged from the baghouse through a rotary airlock and conveyed to the appropriate point in the process for re-introduction.

Attach manufacturer's performance guarantees and/or warranties for each of the major components of the control system (or complete system).

Properly maintained baghouse guaranteed to be ≥99.9% efficient.

Attach the maintenance schedule for the control equipment and any part of the process equipment that if in disrepair would increase air contaminant emissions.

Baghouse and dust handling system will be maintained according to manufacturer's specifications. A sufficient quantity of replacement bags will be kept on site.

Section D - Additional Information

Will the construction, modification, etc. of the sources covered by this application increase emissions from other sources at the facility? If so, describe and quantify.

Not Applicable (NA) - entire new facility to be constructed.

If this project is subject to any one of the following, attach a demonstration to show compliance with applicable standards.

- a. Prevention of Significant Deterioration permit (PSD), 40 CFR 52? YES NO
- b. New Source Review (NSR), 25 Pa. Code Chapter 127, Subchapter E? YES NO
- c. New Source Performance Standards (NSPS), 40 CFR Part 60?
(If Yes, which subpart) _____ YES NO
- d. National Emissions Standards for Hazardous Air Pollutants (NESHAP),
40 CFR Part 61? (If Yes, which subpart) _____ YES NO
- e. Maximum Achievable Control Technology (MACT) 40 CFR Part 63?
(If Yes, which part) Subpart GGGG YES NO

Attach a demonstration showing that the emissions from any new sources will be the minimum attainable through the use of best available technology (BAT).

See Attachment J.

Provide emission increases and decreases in allowable (or potential) and actual emissions within the last five (5) years for applicable PSD pollutant(s) if the facility is an existing major facility (PSD purposes).

Not Applicable (NA)

Section E - Compliance Demonstration

Note: Complete this section if source is not a Title V facility. Title V facilities must complete Addendum A.

See attached Addendum A - Source Applicable Requirements and Addendum 1 - Method of Compliance Worksheets.

Method of Compliance Type: Check all that apply and complete all appropriate sections below

- Monitoring Testing Reporting
 Recordkeeping Work Practice Standard

Monitoring:

- a. Monitoring device type (Parameter, CEM, etc):
- b. Monitoring device location:
- c. Describe all parameters being monitored along with the frequency and duration of monitoring each parameter:

Testing:

- a. Reference Test Method: Citation
- b. Reference Test Method: Description

Recordkeeping:

Describe what parameters will be recorded and the recording frequency:

Reporting:

- a. Describe what is to be reported and frequency of reporting:

- b. Reporting start date: _____

Work Practice Standard:

Describe each:

Section F - Flue and Air Contaminant Emission					
1. Estimated Atmospheric Emissions*		<i>201 -- Soybean Preparation Process</i>			
Pollutant	Maximum emission rate			Calculation/ Estimation Method	
	specify units	lbs/hr	tons/yr.		
PM		0.27	1.14	AP-42, Sec. 9.11.1	
PM ₁₀		0.068	0.29	AP-42, Sec. 9.11.1 & 9.9.1	
SO _x					
CO					
NO _x					
VOC					
Others: (e.g., HAPs)	-----	-----	-----	-----	
PM _{2.5}		0.012	0.049	AP-42, Sec. 9.11.1 & 9.9.1	
<p>* These emissions must be calculated based on the requested operating schedule and/or process rate e.g., operating schedule for maximum limits or restricted hours of operation and /or restricted throughput. Describe how the emission values were determined. Attach calculations.</p>					
2. Stack and Exhauster					
Stack Designation/Number S201A-E - Soybean Preparation Process Baghouse Stacks (Five (5) identical stacks)					
List Source(s) or source ID exhausted to this stack: 201 - Soybean Preparation Process		% of flow exhausted to stack: 100%			
Stack height above grade (ft.) 40 (approx.) Grade elevation (ft.) 350 (approx.)	Stack diameter (ft) or Outlet duct area (sq. ft.) 3.69 sq. ft.		f. Weather Cap <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
Distance of discharge to nearest property line (ft.). Locate on topographic map. 450 ft. (approx.)					
Does stack height meet Good Engineering Practice (GEP)? NA					
If modeling (estimating) of ambient air quality impacts is needed, attach a site plan with buildings and their dimensions and other obstructions. NA					
Location of stack** Latitude/Longitude Point of Origin	Latitude			Longitude	
	Degrees	Minutes	Seconds	Degrees	Minutes Seconds
NA					
Stack exhaust Volume <u>12,500</u> ACFM Temperature <u>Ambient</u> °F Moisture <u>Ambient</u> %					
Indicate on an attached sheet the location of sampling ports with respect to exhaust fan, breeching, etc. Give all necessary dimensions. Should DEP require stack testing, appropriate sampling ports will be installed.					
Exhauster (attach fan curves) <u>Not available</u> in. of water <u>Not available</u> HP @ <u>Not available</u> RPM.					
** If the data and collection method codes differ from those provided on the General Information Form-Authorization Application, provide the additional detail required by that form on a separate form.					

Section F - Flue and Air Contaminant Emission						
1. Estimated Atmospheric Emissions*				<i>202 -- Bean Conditioning</i>		
Pollutant	Maximum emission rate			Calculation/ Estimation Method		
	specify units	lbs/hr	tons/yr.			
PM		0.30	1.23	AP-42, Sec. 9.11.1		
PM ₁₀		0.074	0.31	AP-42, Sec. 9.11.1 & 9.9.1		
SO _x						
CO						
NO _x						
VOC						
Others: (e.g., HAPs)	-----	-----	-----	-----		
PM _{2.5}		0.013	0.052	AP-42, Sec. 9.11.1 & 9.9.1		
<p>* These emissions must be calculated based on the requested operating schedule and/or process rate e.g., operating schedule for maximum limits or restricted hours of operation and /or restricted throughput. Describe how the emission values were determined. Attach calculations.</p>						
2. Stack and Exhauster						
Stack Designation/Number S202 - Bean Conditioning Cyclone Stack						
List Source(s) or source ID exhausted to this stack: 202 - Bean Conditioning				% of flow exhausted to stack: 100%		
Stack height above grade (ft.) 30 (approx.) Grade elevation (ft.) 350 (approx.)		Stack diameter (ft) or Outlet duct area (sq. ft.) 0.92 sq. ft.		f. Weather Cap <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
Distance of discharge to nearest property line (ft.). Locate on topographic map. 375 ft. (approx.)						
Does stack height meet Good Engineering Practice (GEP)? NA						
If modeling (estimating) of ambient air quality impacts is needed, attach a site plan with buildings and their dimensions and other obstructions. NA						
Location of stack** Latitude/Longitude Point of Origin		Latitude			Longitude	
		Degrees	Minutes	Seconds	Degrees	Minutes
NA						
Stack exhaust Volume <u>3,000</u> ACFM Temperature <u>135 (approx.)</u> °F Moisture <u>70 (approx.)</u> R.H. %						
Indicate on an attached sheet the location of sampling ports with respect to exhaust fan, breeching, etc. Give all necessary dimensions. Should DEP require stack testing, appropriate sampling ports will be installed.						
Exhauster (attach fan curves) <u>Not available</u> in. of water <u>Not available</u> HP @ <u>Not available</u> RPM.						
** If the data and collection method codes differ from those provided on the General Information Form-Authorization Application, provide the additional detail required by that form on a separate form.						

Section F - Flue and Air Contaminant Emission						
1. Estimated Atmospheric Emissions* <i>203 - Flaking Rolls</i>						
Pollutant	Maximum emission rate			Calculation/ Estimation Method		
	specify units	lbs/hr	tons/yr.			
PM		1.09	4.56	AP-42, Sec. 9.11.1		
PM ₁₀		0.27	1.14	AP-42, Sec. 9.11.1 & 9.9.1		
SO _x						
CO						
NO _x						
VOC						
Others: (e.g., HAPs)	-----	-----	-----	-----		
PM _{2.5}		0.046	0.194	AP-42, Sec. 9.11.1 & 9.9.1		
* These emissions must be calculated based on the requested operating schedule and/or process rate e.g., operating schedule for maximum limits or restricted hours of operation and /or restricted throughput. Describe how the emission values were determined. Attach calculations.						
2. Stack and Exhauster						
Stack Designation/Number S203 - Flaking Rolls Cyclone Stack						
List Source(s) or source ID exhausted to this stack: 203 - Flaking Rolls				% of flow exhausted to stack: 100%		
Stack height above grade (ft.) 40 (approx.) Grade elevation (ft.) 350 (approx.)		Stack diameter (ft) or Outlet duct area (sq. ft.) 3.67 sq. ft.		f. Weather Cap <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
Distance of discharge to nearest property line (ft.). Locate on topographic map. 375 ft. (approx.)						
Does stack height meet Good Engineering Practice (GEP)? NA						
If modeling (estimating) of ambient air quality impacts is needed, attach a site plan with buildings and their dimensions and other obstructions. NA						
Location of stack** Latitude/Longitude Point of Origin		Latitude Degrees Minutes Seconds			Longitude Degrees Minutes Seconds	
NA						
Stack exhaust Volume <u>12,500</u> ACFM Temperature <u>110 (approx.)</u> °F Moisture <u>80 (approx.)</u> R.H. %						
Indicate on an attached sheet the location of sampling ports with respect to exhaust fan, breeching, etc. Give all necessary dimensions. Should DEP require stack testing, appropriate sampling ports will be installed.						
Exhauster (attach fan curves) <u>Not available</u> in. of water <u>Not available</u> HP @ <u>Not available</u> RPM.						
** If the data and collection method codes differ from those provided on the General Information Form-Authorization Application, provide the additional detail required by that form on a separate form.						

Section F - Flue and Air Contaminant Emission						
1. Estimated Atmospheric Emissions*			204 - Extraction Process (Final Vent Emissions)			
Pollutant	Maximum emission rate			Calculation/ Estimation Method		
	specify units	lbs/hr	tons/yr.			
PM						
PM ₁₀						
SO _x						
CO						
NO _x						
VOC		11.77	51.57	LAER/material balance		
Others: (e.g., HAPs)	-----	-----	-----	-----		
n-Hexane		5.30	23.21	LAER/material balance		
* These emissions must be calculated based on the requested operating schedule and/or process rate e.g., operating schedule for maximum limits or restricted hours of operation and /or restricted throughput. Describe how the emission values were determined. Attach calculations.						
2. Stack and Exhauster						
Stack Designation/Number S204 - Extraction Process Final Vent Stack						
List Source(s) or source ID exhausted to this stack: 204 - Extraction Process				% of flow exhausted to stack: 100%		
Stack height above grade (ft.) 40 (approx.) Grade elevation (ft.) 350 (approx.)		Stack diameter (ft) or Outlet duct area (sq. ft.) 0.67 ft.		f. Weather Cap <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
Distance of discharge to nearest property line (ft.). Locate on topographic map. 275 ft. (approx.)						
Does stack height meet Good Engineering Practice (GEP)? NA						
If modeling (estimating) of ambient air quality impacts is needed, attach a site plan with buildings and their dimensions and other obstructions. NA						
Location of stack** Latitude/Longitude Point of Origin		Latitude Degrees Minutes Seconds			Longitude Degrees Minutes Seconds	
NA						
Stack exhaust Volume <500 (approx.) ACFM Temperature 90 (approx.) °F Moisture Ambient %						
Indicate on an attached sheet the location of sampling ports with respect to exhaust fan, breeching, etc. Give all necessary dimensions. Should DEP require stack testing, appropriate sampling ports will be installed.						
Exhauster (attach fan curves) Not available in. of water Not available HP @ Not available RPM.						
** If the data and collection method codes differ from those provided on the General Information Form-Authorization Application, provide the additional detail required by that form on a separate form.						

Section F - Flue and Air Contaminant Emission						
1. Estimated Atmospheric Emissions*		<i>204 - Extraction Process (Fugitive Emissions)</i>				
Pollutant	Maximum emission rate			Calculation/ Estimation Method		
	specify units	lbs/hr	tons/yr.			
PM						
PM ₁₀						
SO _x						
CO						
NO _x						
VOC		21.31	93.32		LAER/material balance	
Others: (e.g., HAPs)	-----	-----	-----		-----	
n-Hexane		9.59	41.99		LAER/material balance	
<p>* These emissions must be calculated based on the requested operating schedule and/or process rate e.g., operating schedule for maximum limits or restricted hours of operation and /or restricted throughput. Describe how the emission values were determined. Attach calculations.</p>						
2. Stack and Exhauster						
Stack Designation/Number Z204 - Extraction Process Fugitives						
List Source(s) or source ID exhausted to this stack: 204 - Extraction Process				% of flow exhausted to stack: NA - Fugitive		
Stack height above grade (ft.) NA - Fugitive Grade elevation (ft.) 350 (approx.)		Stack diameter (ft) or Outlet duct area (sq. ft.) NA - Fugitive			f. Weather Cap <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
Distance of discharge to nearest property line (ft.). Locate on topographic map. NA - Fugitive						
Does stack height meet Good Engineering Practice (GEP)? NA - Fugitive						
If modeling (estimating) of ambient air quality impacts is needed, attach a site plan with buildings and their dimensions and other obstructions. NA						
Location of stack** Latitude/Longitude Point of Origin		Latitude			Longitude	
		Degrees	Minutes	Seconds	Degrees	Minutes
NA						
Stack exhaust Volume <u>NA</u> ACFM Temperature <u>NA</u> °F Moisture <u>NA</u> %						
Indicate on an attached sheet the location of sampling ports with respect to exhaust fan, breeching, etc. Give all necessary dimensions. NA - Fugitive						
Exhauster (attach fan curves) <u>NA</u> in. of water <u>NA</u> HP @ <u>NA</u> RPM.						
** If the data and collection method codes differ from those provided on the General Information Form-Authorization Application, provide the additional detail required by that form on a separate form.						

Section F - Flue and Air Contaminant Emission						
1. Estimated Atmospheric Emissions*			205A - Meal Dryer			
Pollutant	Maximum emission rate			Calculation/ Estimation Method		
	specify units	lbs/hr	tons/yr.			
PM		10.62	35.44	AP-42, Sec. 9.11.1		
PM ₁₀		2.66	8.86	AP-42, Sec. 9.11.1 & 9.9.1		
SO _x						
CO						
NO _x						
VOC		19.06	83.50	LAER/material balance		
Others: (e.g., HAPs)	-----	-----	-----	-----		
n-Hexane		8.58	37.57	LAER/material balance		
PM _{2.5}		0.45	1.51	AP-42, Sec. 9.11.1 & 9.9.1		
* These emissions must be calculated based on the requested operating schedule and/or process rate e.g., operating schedule for maximum limits or restricted hours of operation and /or restricted throughput. Describe how the emission values were determined. Attach calculations.						
2. Stack and Exhauster						
Stack Designation/Number S205A - Meal Dryer Cyclone Stack						
List Source(s) or source ID exhausted to this stack: 205A - Meal Dryer				% of flow exhausted to stack: 100%		
Stack height above grade (ft.) 32 (approx.) Grade elevation (ft.) 350 (approx.)		Stack diameter (ft) or Outlet duct area (sq. ft.) 4 ft.		f. Weather Cap <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
Distance of discharge to nearest property line (ft.). Locate on topographic map. 375 ft. (approx.)						
Does stack height meet Good Engineering Practice (GEP)? NA						
If modeling (estimating) of ambient air quality impacts is needed, attach a site plan with buildings and their dimensions and other obstructions. NA						
Location of stack** Latitude/Longitude Point of Origin		Latitude			Longitude	
		Degrees	Minutes	Seconds	Degrees	Minutes
NA						
Stack exhaust Volume <u>19,500</u> ACFM Temperature <u>140 (approx.)</u> °F Moisture <u>85 (approx.)</u> R.H. %						
Indicate on an attached sheet the location of sampling ports with respect to exhaust fan, breeching, etc. Give all necessary dimensions. Should DEP require stack testing, appropriate sampling ports will be installed.						
Exhauster (attach fan curves) <u>Not available</u> in. of water <u>Not available</u> HP @ <u>Not available</u> RPM.						
** If the data and collection method codes differ from those provided on the General Information Form-Authorization Application, provide the additional detail required by that form on a separate form.						

Section F - Flue and Air Contaminant Emission

1. Estimated Atmospheric Emissions* 205B - Meal Cooler

Pollutant	Maximum emission rate			Calculation/ Estimation Method
	specify units	lbs/hr	tons/yr.	
PM		11.21	37.41	AP-42, Sec. 9.11.1
PM ₁₀		2.80	9.35	AP-42, Sec. 9.11.1 & 9.9.1
SO _x				
CO				
NO _x				
VOC		3.92	17.19	LAER/material balance
Others: (e.g., HAPs)	-----	-----	-----	-----
n-Hexane		1.77	7.74	LAER/material balance
PM _{2.5}		0.48	1.59	AP-42, Sec. 9.11.1 & 9.9.1

* These emissions must be calculated based on the requested operating schedule and/or process rate e.g., operating schedule for maximum limits or restricted hours of operation and /or restricted throughput. Describe how the emission values were determined. Attach calculations.

2. Stack and Exhauster

Stack Designation/Number S205B - Meal Cooler Cyclone Stack

 List Source(s) or source ID exhausted to this stack:
205B - Meal Cooler

% of flow exhausted to stack: 100%

 Stack height above grade (ft.) 32 (approx.)
Grade elevation (ft.) 350 (approx.)

 Stack diameter (ft) or Outlet duct area (sq. ft.)
4 ft.

 f. Weather Cap
 YES NO

 Distance of discharge to nearest property line (ft.). Locate on topographic map.
375 ft. (approx.)

 Does stack height meet Good Engineering Practice (GEP)?
NA

If modeling (estimating) of ambient air quality impacts is needed, attach a site plan with buildings and their dimensions and other obstructions. NA

Location of stack** Latitude/Longitude Point of Origin	Latitude			Longitude		
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
NA						

Stack exhaust

 Volume 19,500 ACFM

 Temperature 110 (approx.) °F

 Moisture 70 (approx.) R.H. %

 Indicate on an attached sheet the location of sampling ports with respect to exhaust fan, breeching, etc. Give all necessary dimensions.
Should DEP require stack testing, appropriate sampling ports will be installed.

 Exhauster (attach fan curves) Not available in. of water Not available HP @ Not available RPM.

** If the data and collection method codes differ from those provided on the General Information Form-Authorization Application, provide the additional detail required by that form on a separate form.

Section F - Flue and Air Contaminant Emission					
1. Estimated Atmospheric Emissions*		<i>206 - Meal Screening and Grinding</i>			
Pollutant	Maximum emission rate			Calculation/ Estimation Method	
	specify units	lbs/hr	tons/yr.		
PM		0.16	0.67	AP-42, Sec. 9.11.1	
PM ₁₀		0.040	0.17	AP-42, Sec. 9.11.1 & 9.9.1	
SO _x					
CO					
NO _x					
VOC					
Others: (e.g., HAPs)	-----	-----	-----	-----	
PM _{2.5}		0.0068	0.028	AP-42, Sec. 9.11.1 & 9.9.1	
<p>* These emissions must be calculated based on the requested operating schedule and/or process rate e.g., operating schedule for maximum limits or restricted hours of operation and /or restricted throughput. Describe how the emission values were determined. Attach calculations.</p>					
2. Stack and Exhauster					
Stack Designation/Number <u>S206 - Meal Screening and Grinding Baghouse Stack</u>					
List Source(s) or source ID exhausted to this stack: <u>206 - Meal Screening and Grinding</u>		% of flow exhausted to stack: <u>100%</u>			
Stack height above grade (ft.) <u>40 (approx.)</u> Grade elevation (ft.) <u>350 (approx.)</u>	Stack diameter (ft) or Outlet duct area (sq. ft.) <u>3.69 sq. ft.</u>		f. Weather Cap <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
Distance of discharge to nearest property line (ft.). Locate on topographic map. <u>450 ft. (approx.)</u>					
Does stack height meet Good Engineering Practice (GEP)? <u>NA</u>					
If modeling (estimating) of ambient air quality impacts is needed, attach a site plan with buildings and their dimensions and other obstructions. <u>NA</u>					
Location of stack** Latitude/Longitude Point of Origin	Latitude			Longitude	
	Degrees	Minutes	Seconds	Degrees	Minutes Seconds
<u>NA</u>					
Stack exhaust Volume <u>12,500</u> ACFM Temperature <u>Ambient</u> °F Moisture <u>Ambient</u> %					
Indicate on an attached sheet the location of sampling ports with respect to exhaust fan, breeching, etc. Give all necessary dimensions. Should DEP require stack testing, appropriate sampling ports will be installed.					
Exhauster (attach fan curves) <u>Not available</u> in. of water <u>Not available</u> HP @ <u>Not available</u> RPM.					
** If the data and collection method codes differ from those provided on the General Information Form-Authorization Application, provide the additional detail required by that form on a separate form.					

Section F - Flue and Air Contaminant Emission					
1. Estimated Atmospheric Emissions* 207 - Mill Feed (Hull) Grinding					
Pollutant	Maximum emission rate			Calculation/ Estimation Method	
	specify units	lbs/hr	tons/yr.		
PM		0.0075	0.032	AP-42, Sec. 9.11.1	
PM ₁₀		0.0019	0.0079	AP-42, Sec. 9.11.1 & 9.9.1	
SO _x					
CO					
NO _x					
VOC					
Others: (e.g., HAPs)	-----	-----	-----	-----	
PM _{2.5}		0.00032	0.0013	AP-42, Sec. 9.11.1 & 9.9.1	
* These emissions must be calculated based on the requested operating schedule and/or process rate e.g., operating schedule for maximum limits or restricted hours of operation and /or restricted throughput. Describe how the emission values were determined. Attach calculations.					
2. Stack and Exhauster					
Stack Designation/Number S207 - Mill Feed (Hull) Grinding Baghouse Stack					
List Source(s) or source ID exhausted to this stack: 207 - Mill Feed (Hull) Grinding			% of flow exhausted to stack: 100%		
Stack height above grade (ft.) 70 (approx.) Grade elevation (ft.) 350 (approx.)		Stack diameter (ft) or Outlet duct area (sq. ft.) 3.69 sq. ft.		f. Weather Cap <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
Distance of discharge to nearest property line (ft.). Locate on topographic map. 450 ft. (approx.)					
Does stack height meet Good Engineering Practice (GEP)? NA					
If modeling (estimating) of ambient air quality impacts is needed, attach a site plan with buildings and their dimensions and other obstructions. NA					
Location of stack** Latitude/Longitude Point of Origin		Latitude		Longitude	
		Degrees	Minutes	Seconds	Degrees
					Minutes
					Seconds
NA					
Stack exhaust Volume <u>7,000</u> ACFM Temperature <u>Ambient</u> °F Moisture <u>Ambient</u> %					
Indicate on an attached sheet the location of sampling ports with respect to exhaust fan, breeching, etc. Give all necessary dimensions. Should DEP require stack testing, appropriate sampling ports will be installed.					
Exhauster (attach fan curves) <u>Not available</u> in. of water <u>Not available</u> HP @ <u>Not available</u> RPM.					
** If the data and collection method codes differ from those provided on the General Information Form-Authorization Application, provide the additional detail required by that form on a separate form.					

Section F - Flue and Air Contaminant Emission					
1. Estimated Atmospheric Emissions*		208 – Meal/Mill Feed Storage Bins			
Pollutant	Maximum emission rate			Calculation/ Estimation Method	
	specify units	lbs/hr	tons/yr.		
PM		0.0014	0.0053	AP-42, Sec. 9.9.1	
PM ₁₀		0.00034	0.0013	AP-42, Sec. 9.9.1	
SO _x					
CO					
NO _x					
VOC					
Others: (e.g., HAPs)	-----	-----	-----	-----	
PM _{2.5}		0.00006	0.00023	AP-42, Sec. 9.9.1	
* These emissions must be calculated based on the requested operating schedule and/or process rate e.g., operating schedule for maximum limits or restricted hours of operation and /or restricted throughput. Describe how the emission values were determined. Attach calculations.					
2. Stack and Exhauster					
Stack Designation/Number Z208 - Meal/Mill Feed Storage Bin Filter Vents					
List Source(s) or source ID exhausted to this stack: 208 - Meal/Mill Feed Storage Bins			% of flow exhausted to stack: 100%		
Stack height above grade (ft.) 64 (approx.) Grade elevation (ft.) 350 (approx.)		Stack diameter (ft) or Outlet duct area (sq. ft.) 2.33 ft. (approx.)		f. Weather Cap <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
Distance of discharge to nearest property line (ft.). Locate on topographic map. 450 ft. (approx.)					
Does stack height meet Good Engineering Practice (GEP)? NA					
If modeling (estimating) of ambient air quality impacts is needed, attach a site plan with buildings and their dimensions and other obstructions. NA					
Location of stack** Latitude/Longitude Point of Origin		Latitude Degrees Minutes Seconds		Longitude Degrees Minutes Seconds	
NA					
Stack exhaust Volume <u>NA</u> ACFM Temperature <u>Ambient</u> °F Moisture <u>Ambient</u> %					
Indicate on an attached sheet the location of sampling ports with respect to exhaust fan, breeching, etc. Give all necessary dimensions. NA					
Exhauster (attach fan curves) <u>NA</u> _____ in. of water <u>NA</u> _____ HP @ <u>NA</u> _____ RPM.					
** If the data and collection method codes differ from those provided on the General Information Form-Authorization Application, provide the additional detail required by that form on a separate form.					

Section F - Flue and Air Contaminant Emission						
1. Estimated Atmospheric Emissions*		<i>209 – Meal/Mill Feed Loadout Tank</i>				
Pollutant	Maximum emission rate			Calculation/ Estimation Method		
	specify units	lbs/hr	tons/yr.			
PM		0.0014	0.0053	AP-42, Sec. 9.9.1		
PM ₁₀		0.00034	0.0013	AP-42, Sec. 9.9.1		
SO _x						
CO						
NO _x						
VOC						
Others: (e.g., HAPs)	-----	-----	-----	-----		
PM _{2.5}		0.00006	0.00023	AP-42, Sec. 9.9.1		
<p>* These emissions must be calculated based on the requested operating schedule and/or process rate e.g., operating schedule for maximum limits or restricted hours of operation and /or restricted throughput. Describe how the emission values were determined. Attach calculations.</p>						
2. Stack and Exhauster						
Stack Designation/Number <i>Z209 - Meal/Mill Feed Loadout Tank Filter Vent</i>						
List Source(s) or source ID exhausted to this stack: <i>209 - Meal/Mill Feed Loadout Tank</i>				% of flow exhausted to stack: <i>100%</i>		
Stack height above grade (ft.) <i>40 (approx.)</i>		Stack diameter (ft) or Outlet duct area (sq. ft.)		f. Weather Cap		
Grade elevation (ft.) <i>350 (approx.)</i>		<i>2.33 ft. (approx.)</i>		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
Distance of discharge to nearest property line (ft.). Locate on topographic map. <i>450 ft. (approx.)</i>						
Does stack height meet Good Engineering Practice (GEP)? <i>NA</i>						
If modeling (estimating) of ambient air quality impacts is needed, attach a site plan with buildings and their dimensions and other obstructions. <i>NA</i>						
Location of stack** Latitude/Longitude Point of Origin		Latitude			Longitude	
		Degrees	Minutes	Seconds	Degrees	Minutes
<i>NA</i>						
Stack exhaust Volume <u><i>NA</i></u> ACFM Temperature <u><i>Ambient</i></u> °F Moisture <u><i>Ambient</i></u> %						
Indicate on an attached sheet the location of sampling ports with respect to exhaust fan, breeching, etc. Give all necessary dimensions. <i>NA</i>						
Exhauster (attach fan curves) <u><i>NA</i></u> _____ in. of water <u><i>NA</i></u> _____ HP @ <u><i>NA</i></u> _____ RPM.						
** If the data and collection method codes differ from those provided on the General Information Form-Authorization Application, provide the additional detail required by that form on a separate form.						

Section F - Flue and Air Contaminant Emission						
1. Estimated Atmospheric Emissions*		210 - Meal Loadout Area				
Pollutant	Maximum emission rate			Calculation/ Estimation Method		
	specify units	lbs/hr	tons/yr.			
PM		0.027	0.057	AP-42, Sec. 9.11.1		
PM ₁₀		0.0068	0.014	AP-42, Sec. 9.11.1 & 9.9.1		
SO _x						
CO						
NO _x						
VOC						
Others: (e.g., HAPs)	-----	-----	-----	-----		
PM _{2.5}		0.0011	0.0024	AP-42, Sec. 9.11.1 & 9.9.1		
* These emissions must be calculated based on the requested operating schedule and/or process rate e.g., operating schedule for maximum limits or restricted hours of operation and /or restricted throughput. Describe how the emission values were determined. Attach calculations.						
2. Stack and Exhauster						
Stack Designation/Number S210 - Meal Loadout Area Baghouse Stack						
List Source(s) or source ID exhausted to this stack: 210 - Meal Loadout Area			% of flow exhausted to stack: 100%			
Stack height above grade (ft.) 10 (approx.) Grade elevation (ft.) 350 (approx.)		Stack diameter (ft) or Outlet duct area (sq. ft.) 9.62 sq. ft.			f. Weather Cap <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
Distance of discharge to nearest property line (ft.). Locate on topographic map. 450 (approx.)						
Does stack height meet Good Engineering Practice (GEP)? NA						
If modeling (estimating) of ambient air quality impacts is needed, attach a site plan with buildings and their dimensions and other obstructions. NA						
Location of stack** Latitude/Longitude Point of Origin		Latitude			Longitude	
		Degrees	Minutes	Seconds	Degrees	Minutes
NA						
Stack exhaust Volume <u>30,000</u> ACFM Temperature <u>Ambient</u> °F Moisture <u>Ambient</u> %						
Indicate on an attached sheet the location of sampling ports with respect to exhaust fan, breeching, etc. Give all necessary dimensions. Should DEP require stack testing, appropriate sampling ports will be installed.						
Exhauster (attach fan curves) <u>Not available</u> _____ in. of water <u>Not available</u> _____ HP @ <u>Not available</u> _____ RPM.						
** If the data and collection method codes differ from those provided on the General Information Form-Authorization Application, provide the additional detail required by that form on a separate form.						

Section F - Flue and Air Contaminant Emission						
1. Estimated Atmospheric Emissions*		<i>211 – Seed Silo Tanks</i>				
Pollutant	Maximum emission rate			Calculation/ Estimation Method		
	specify units	lbs/hr	tons/yr.			
PM		1.56	0.90	AP-42, Sec. 9.9.1		
PM ₁₀		0.39	0.23	AP-42, Sec. 9.9.1		
SO _x						
CO						
NO _x						
VOC						
Others: (e.g., HAPs)	-----	-----	-----	-----		
PM _{2.5}		0.069	0.040	AP-42, Sec. 9.9.1		
<p>* These emissions must be calculated based on the requested operating schedule and/or process rate e.g., operating schedule for maximum limits or restricted hours of operation and /or restricted throughput. Describe how the emission values were determined. Attach calculations.</p>						
2. Stack and Exhauster						
Stack Designation/Number Z211 - Seed Silo Tanks Vents						
List Source(s) or source ID exhausted to this stack: 211 - Seed Silo Tanks				% of flow exhausted to stack: 100%		
Stack height above grade (ft.) 40 (approx.) Grade elevation (ft.) 350 (approx.)		Stack diameter (ft) or Outlet duct area (sq. ft.) 2.33 ft. (approx.)		f. Weather Cap <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
Distance of discharge to nearest property line (ft.). Locate on topographic map. 350 ft. (approx.)						
Does stack height meet Good Engineering Practice (GEP)? NA						
If modeling (estimating) of ambient air quality impacts is needed, attach a site plan with buildings and their dimensions and other obstructions. NA						
Location of stack** Latitude/Longitude Point of Origin		Latitude			Longitude	
		Degrees	Minutes	Seconds	Degrees	Minutes Seconds
NA						
Stack exhaust Volume <u>NA</u> ACFM Temperature <u>Ambient</u> °F Moisture <u>Ambient</u> %						
Indicate on an attached sheet the location of sampling ports with respect to exhaust fan, breeching, etc. Give all necessary dimensions. NA						
Exhauster (attach fan curves) <u>NA</u> _____ in. of water <u>NA</u> _____ HP @ <u>NA</u> _____ RPM.						
** If the data and collection method codes differ from those provided on the General Information Form-Authorization Application, provide the additional detail required by that form on a separate form.						

Section F - Flue and Air Contaminant Emission						
1. Estimated Atmospheric Emissions*		<i>212 - Hexane Storage Tanks</i>				
Pollutant	Maximum emission rate			Calculation/ Estimation Method		
	specify units	lbs/hr	tons/yr.			
PM						
PM ₁₀						
SO _x						
CO						
NO _x						
VOC		0.21	0.93	TANKS 4.09D		
Others: (e.g., HAPs)	-----	-----	-----	-----		
n-Hexane (HAP)		0.096	0.42	TANKS 4.09D		
<p>* These emissions must be calculated based on the requested operating schedule and/or process rate e.g., operating schedule for maximum limits or restricted hours of operation and /or restricted throughput. Describe how the emission values were determined. Attach calculations.</p>						
2. Stack and Exhauster						
Stack Designation/Number Z212 - Hexane Storage Tanks Vents						
List Source(s) or source ID exhausted to this stack: 212 - Hexane Storage Tanks				% of flow exhausted to stack: 100%		
Stack height above grade (ft.) 15 (approx.) Grade elevation (ft.) 350 (approx.)		Stack diameter (ft) or Outlet duct area (sq. ft.) Unknown		f. Weather Cap <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
Distance of discharge to nearest property line (ft.). Locate on topographic map. 220 ft. (approx.)						
Does stack height meet Good Engineering Practice (GEP)? NA						
If modeling (estimating) of ambient air quality impacts is needed, attach a site plan with buildings and their dimensions and other obstructions. NA						
Location of stack** Latitude/Longitude Point of Origin		Latitude			Longitude	
		Degrees	Minutes	Seconds	Degrees	Minutes
NA						
Stack exhaust Volume <u>NA</u> ACFM Temperature <u>NA</u> °F Moisture <u>NA</u> %						
Indicate on an attached sheet the location of sampling ports with respect to exhaust fan, breeching, etc. Give all necessary dimensions. NA						
Exhauster (attach fan curves) <u>NA</u> _____ in. of water <u>NA</u> _____ HP @ <u>NA</u> _____ RPM.						
** If the data and collection method codes differ from those provided on the General Information Form-Authorization Application, provide the additional detail required by that form on a separate form.						

Section F - Flue and Air Contaminant Emission						
1. Estimated Atmospheric Emissions*		<i>302 - Facility Roadways</i>				
Pollutant	Maximum emission rate			Calculation/ Estimation Method		
	specify units	lbs/hr	tons/yr.			
PM		0.72	3.16	AP-42, Sec. 13.2.1		
PM ₁₀		0.14	0.63	AP-42, Sec. 13.2.1		
SO _x						
CO						
NO _x						
VOC						
Others: (e.g., HAPs)	-----	-----	-----	-----		
PM _{2.5}		0.035	0.16	AP-42, Sec. 13.2.1		
<p>* These emissions must be calculated based on the requested operating schedule and/or process rate e.g., operating schedule for maximum limits or restricted hours of operation and /or restricted throughput. Describe how the emission values were determined. Attach calculations.</p>						
2. Stack and Exhauster						
Stack Designation/Number <i>Z302 - Facility Roadways Fugitives</i>						
List Source(s) or source ID exhausted to this stack: <i>302 - Facility Roadways</i>				% of flow exhausted to stack: <i>NA - Fugitive</i>		
Stack height above grade (ft.) <i>NA - Fugitive</i> Grade elevation (ft.) <i>350 (approx.)</i>		Stack diameter (ft) or Outlet duct area (sq. ft.) <i>NA - Fugitive</i>		f. Weather Cap <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
Distance of discharge to nearest property line (ft.). Locate on topographic map. <i>NA - Fugitive</i>						
Does stack height meet Good Engineering Practice (GEP)? <i>NA - Fugitive</i>						
If modeling (estimating) of ambient air quality impacts is needed, attach a site plan with buildings and their dimensions and other obstructions. <i>NA</i>						
Location of stack** Latitude/Longitude Point of Origin		Latitude			Longitude	
		Degrees	Minutes	Seconds	Degrees	Minutes
<i>NA</i>						
Stack exhaust Volume <i>NA</i> ACFM Temperature <i>NA</i> °F Moisture <i>NA</i> %						
Indicate on an attached sheet the location of sampling ports with respect to exhaust fan, breeching, etc. Give all necessary dimensions. <i>NA - Fugitive</i>						
Exhauster (attach fan curves) <i>NA</i> _____ in. of water <i>NA</i> _____ HP @ <i>NA</i> _____ RPM.						
** If the data and collection method codes differ from those provided on the General Information Form-Authorization Application, provide the additional detail required by that form on a separate form.						

Section G - Attachments

Number and list all attachments submitted with this application below:

Addendum A/Addendum 1 - Source Applicable Requirements/Method of Compliance Worksheets
Addendum 3 - CAM Applicability Worksheets for Sources

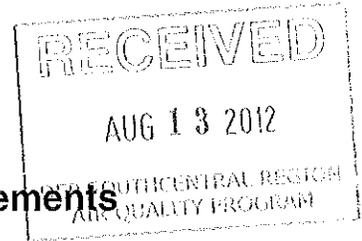
- Attachment A - USGS Site Location Map
- Attachment B - Facility Site Map
- Attachment C - Project Description
- Attachment D - Applicable Requirements
- Attachment E - Process Description
- Attachment F - Process Flow Diagram
- Attachment G - Potential Emission Calculations
- Attachment H - Lowest Achievable Emission Rate (LAER) Evaluation
- Attachment I - Alternative Siting Analysis
- Attachment J - Best Available Technology (BAT) Evaluation
- Attachment K - Compliance Assurance Monitoring (CAM) Plans
- Attachment L - County and Municipal Notifications
- Attachment M - General Information Form (GIF)
- Attachment N - Cultural Resource Notice
- Attachment O - Air Pollution Control Act Compliance Review Supplemental Form



ADDENDUM A/ADDENDUM 1
SOURCE APPLICABLE REQUIREMENTS/METHOD OF COMPLIANCE WORKSHEETS



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY



Addendum A: Source Applicable Requirements

Describe and cite all applicable requirements pertaining to this source.

Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.

Citation Number	Citation Limitation	Limitation Used
Entire Site:		
25 Pa. Code §123.1(c)	Fugitive PM emissions restriction: reasonable actions to prevent particulate matter emissions from roadways shall be taken.	N/A
25 Pa. Code §123.2	Fugitive PM emissions restriction: fugitive particulate matter must not be visible at the point the emissions pass outside the person's property.	N/A
25 Pa. Code §123.31	Malodorous air contaminant emissions restriction: malodors must not be detectable outside the property of the person on whose land the source is being operated.	N/A
25 Pa. Code §123.41	Visible emissions restriction: < 20% opacity for a period or periods aggregating more than three minutes in any 1 hour. Visible emissions restriction: < 60% opacity at any time.	N/A
25 Pa. Code §127.205(1)	A new or modified facility subject to this subchapter shall comply with Lowest Achievable Emission Rate (LAER).	0.165 gallons of solvent loss per ton of soybeans processed
40 CFR Part 63, Subpart GGGG	As determined per 40 CFR 63.2840(a) through (d), the calculated monthly compliance ratio must be ≤ 1.00 for the previous operating month.	N/A
201 – Soybean Preparation Process:		
25 Pa. Code §123.13(c)(1)(i)	PM emissions restriction: ≤ 0.04 grain per dry standard cubic foot, when the effluent gas volume is less than 150,000 dry standard cubic feet per minute.	N/A
40 CFR Part 64	Compliance assurance monitoring (CAM) must be conducted in accordance with the emission unit's CAM Plan.	N/A
202 – Bean Conditioning:		
25 Pa. Code §123.13(c)(1)(i)	PM emissions restriction: ≤ 0.04 grain per dry standard cubic foot, when the effluent gas volume is less than 150,000 dry standard cubic feet per minute.	N/A
203 – Flaking Rolls:		
25 Pa. Code §123.13(c)(1)(i)	PM emissions restriction: ≤ 0.04 grain per dry standard cubic foot, when the effluent gas volume is less than 150,000 dry standard cubic feet per minute.	N/A

205A – Meal Dryer:		
25 Pa. Code §123.13(c)(1)(i)	PM emissions restriction: ≤ 0.04 grain per dry standard cubic foot, when the effluent gas volume is less than 150,000 dry standard cubic feet per minute.	N/A
40 CFR Part 64	Compliance assurance monitoring (CAM) must be conducted in accordance with the emission unit's CAM Plan.	N/A
205B – Meal Cooler:		
25 Pa. Code §123.13(c)(1)(i)	PM emissions restriction: ≤ 0.04 grain per dry standard cubic foot, when the effluent gas volume is less than 150,000 dry standard cubic feet per minute.	N/A
40 CFR Part 64	Compliance assurance monitoring (CAM) must be conducted in accordance with the emission unit's CAM Plan.	N/A
206 – Meal Screening and Grinding:		
25 Pa. Code §123.13(c)(1)(i)	PM emissions restriction: ≤ 0.04 grain per dry standard cubic foot, when the effluent gas volume is less than 150,000 dry standard cubic feet per minute.	N/A
40 CFR Part 64	Compliance assurance monitoring (CAM) must be conducted in accordance with the emission unit's CAM Plan.	N/A
207 – Mill Feed (Hull) Grinding:		
25 Pa. Code §123.13(c)(1)(i)	PM emissions restriction: ≤ 0.04 grain per dry standard cubic foot, when the effluent gas volume is less than 150,000 dry standard cubic feet per minute.	N/A
210 – Meal Loadout Area:		
25 Pa. Code §123.13(c)(1)(i)	PM emissions restriction: ≤ 0.04 grain per dry standard cubic foot, when the effluent gas volume is less than 150,000 dry standard cubic feet per minute.	N/A
211 – Hexane Storage Tanks:		
25 Pa. Code §129.57	Storage tanks must have pressure relief valves which are maintained in good operating condition and which are set to release at no less than 0.7 psig (4.8 kilopascals) of pressure or 0.3 psig (2.1 kilopascals) of vacuum or the highest possible pressure and vacuum in accordance with state or local fire codes or the National Fire Prevention Association guidelines or other national consensus standards acceptable to DEP.	N/A



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Addendum 1
Method Of Compliance Worksheet

SECTION 1. APPLICABLE REQUIREMENT

Federal Tax Id: 20-5172625 Firm Name: Perdue Grain & Oilseed, LLC
Plant Code: 1 Plant Name: Soybean Processing Facility

Applicable Requirement for: (please check only one box below)

- The entire site
- A group of sources, Group ID: _____
- A single source, Unit ID: _____
- Alternative Scenario, Scenario Name: _____

Citation #: 25 Pa. Code §123.1(c)

Compliance Method based upon: Applicable Requirement Gap Filling Requirement

Method of Compliance Type: (Check all that applies and complete all appropriate sections below)

- Monitoring Testing Reporting
- Record Keeping Work Practice Standard

Section 2: Monitoring

1. Monitoring device type (stack test, CEM, etc.): N/A

2. Monitoring device location: N/A

Describe all parameters being monitored along with the frequency and duration of monitoring each parameter:
N/A

3. How will data be reported: N/A

Section 3: Testing

1. Reference Test Method Description: N/A
2. Reference Test Method Citation: N/A

Section 4: Record Keeping

Describe what parameters will be recorded and the frequency of recording:

N/A

Section 5: Reporting

Describe what is to be reported and the frequency of reporting:

N/A

1. Reporting start date: N/A

Section 6: Work Practice Standard

Describe any work practice standards:

Reasonable actions will be taken to prevent roadway particulate matter from becoming airborne. Such actions include paving and maintaining roadways on site, sweeping roadways, and applying water or suitable dust suppressant chemicals to roadways.



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DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

Addendum 1
Method Of Compliance Worksheet

SECTION 1. APPLICABLE REQUIREMENT

Federal Tax Id: 20-5172625 Firm Name: Perdue Grain & Oilseed, LLC

Plant Code: 1 Plant Name: Soybean Processing Facility

Applicable Requirement for: (please check only one box below)

- The entire site
- A group of sources, Group ID: _____
- A single source, Unit ID: _____
- Alternative Scenario, Scenario Name: _____

Citation #: 25 Pa. Code §123.2

Compliance Method based upon: Applicable Requirement Gap Filling Requirement

Method of Compliance Type: (Check all that applies and complete all appropriate sections below)

- Monitoring Testing Reporting
- Record Keeping Work Practice Standard

Section 2: Monitoring

1. Monitoring device type (stack test, CEM, etc.): N/A

2. Monitoring device location: N/A

Describe all parameters being monitored along with the frequency and duration of monitoring each parameter:

Monthly visual observation inspection for the presence of visible fugitive particulate matter emissions.

3. How will data be reported: N/A

Section 3: Testing

1. Reference Test Method Description: N/A

2. Reference Test Method Citation: N/A

Section 4: Record Keeping

Describe what parameters will be recorded and the frequency of recording:

Instances of visible fugitive particulate matter emissions detected during the monthly inspection will be recorded along with the name of the company representative monitoring these instances, the date and time of each occurrence, and any corrective action(s) taken to abate each recorded deviation or to prevent future occurrences.

Section 5: Reporting

Describe what is to be reported and the frequency of reporting:

N/A

1. Reporting start date: N/A

Section 6: Work Practice Standard

Describe any work practice standards:

Reasonable actions will be taken to prevent particulate matter from becoming airborne.



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DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

Addendum 1
Method Of Compliance Worksheet

SECTION 1. APPLICABLE REQUIREMENT

Federal Tax Id: 20-5172625 Firm Name: Perdue Grain & Oilseed, LLC

Plant Code: 1 Plant Name: Soybean Processing Facility

Applicable Requirement for: (please check only one box below)

- The entire site
- A group of sources, Group ID: _____
- A single source, Unit ID: _____
- Alternative Scenario, Scenario Name: _____

Citation #: 25 Pa. Code §123.31

Compliance Method based upon: Applicable Requirement Gap Filling Requirement

Method of Compliance Type: (Check all that applies and complete all appropriate sections below)

- Monitoring Testing Reporting
- Record Keeping Work Practice Standard

Section 2: Monitoring

1. Monitoring device type (stack test, CEM, etc.): N/A

2. Monitoring device location: N/A

Describe all parameters being monitored along with the frequency and duration of monitoring each parameter:

Monthly inspection for the presence of malodorous air emissions.

3. How will data be reported: N/A

Section 3: Testing

1. Reference Test Method Description: N/A

2. Reference Test Method Citation: N/A

Section 4: Record Keeping

Describe what parameters will be recorded and the frequency of recording:

Instances of malodorous air emissions detected during the monthly inspection will be recorded along with the name of the company representative monitoring these instances, the date and time of each occurrence, and any corrective action(s) taken to abate each recorded deviation or to prevent future occurrences.

Section 5: Reporting

Describe what is to be reported and the frequency of reporting:

N/A

1. Reporting start date: N/A

Section 6: Work Practice Standard

Describe any work practice standards:

N/A



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

Addendum 1
Method Of Compliance Worksheet

SECTION 1. APPLICABLE REQUIREMENT

Federal Tax Id: 20-5172625 Firm Name: Perdue Grain & Oilseed, LLC
Plant Code: 1 Plant Name: Soybean Processing Facility

Applicable Requirement for: (please check only one box below)

- The entire site
- A group of sources, Group ID: _____
- A single source, Unit ID: _____
- Alternative Scenario, Scenario Name: _____

Citation #: 25 Pa. Code §123.41

Compliance Method based upon: Applicable Requirement Gap Filling Requirement

Method of Compliance Type: (Check all that applies and complete all appropriate sections below)

- Monitoring Testing Reporting
- Record Keeping Work Practice Standard

Section 2: Monitoring

1. Monitoring device type (stack test, CEM, etc.): Trained and certified observer or DEP-approved device.
2. Monitoring device location: N/A

Describe all parameters being monitored along with the frequency and duration of monitoring each parameter:

Monthly visual observation inspection for the presence of visible emissions.

3. How will data be reported: N/A

Section 3: Testing

1. Reference Test Method Description: N/A

2. Reference Test Method Citation: N/A

Section 4: Record Keeping

Describe what parameters will be recorded and the frequency of recording:

Instances of visible emissions detected during the monthly inspection will be recorded along with the name of the company representative monitoring these instances, the date and time of each occurrence, and any corrective action(s) taken to abate each recorded deviation or to prevent future occurrences.

Section 5: Reporting

Describe what is to be reported and the frequency of reporting:

N/A

1. Reporting start date: N/A

Section 6: Work Practice Standard

Describe any work practice standards:

N/A



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

Addendum 1
Method Of Compliance Worksheet

SECTION 1. APPLICABLE REQUIREMENT

Federal Tax Id: 20-5172625 Firm Name: Perdue Grain & Oilseed, LLC

Plant Code: 1 Plant Name: Soybean Processing Facility

Applicable Requirement for: (please check only one box below)

- The entire site
- A group of sources, Group ID: _____
- A single source, Unit ID: _____
- Alternative Scenario, Scenario Name: _____

Citation #: 25 Pa. Code §127.205(1)

Compliance Method based upon: Applicable Requirement Gap Filling Requirement

Method of Compliance Type: (Check all that applies and complete all appropriate sections below)

- Monitoring Testing Reporting
- Record Keeping Work Practice Standard

Section 2: Monitoring

1. Monitoring device type (stack test, CEM, etc.): N/A

2. Monitoring device location: N/A

Describe all parameters being monitored along with the frequency and duration of monitoring each parameter:

Per the solvent loss, HAP content, and oilseed accounting procedures specified by §63.2853, §63.2854, and §63.2855, respectively.

3. How will data be reported: N/A

Section 3: Testing

1. Reference Test Method Description: N/A

2. Reference Test Method Citation: N/A

Section 4: Record Keeping

Describe what parameters will be recorded and the frequency of recording:

Monthly records of the calculated gallons of solvent loss per ton of soybeans processed will be maintained.

Section 5: Reporting

Describe what is to be reported and the frequency of reporting:

The monthly calculated gallons of solvent loss per ton of soybeans processed will be reported annually.

1. Reporting start date: March 1st of each year, covering the previous calendar year.

Section 6: Work Practice Standard

Describe any work practice standards:

As per the best management practices (BMPs) contained in the attached LAER Evaluation.



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Addendum 1
Method Of Compliance Worksheet

SECTION 1. APPLICABLE REQUIREMENT

Federal Tax Id: 20-5172625 Firm Name: Perdue Grain & Oilseed, LLC
Plant Code: 1 Plant Name: Soybean Processing Facility

Applicable Requirement for: (please check only one box below)

- The entire site
- A group of sources, Group ID: _____
- A single source, Unit ID: _____
- Alternative Scenario, Scenario Name: _____

Citation #: 40 CFR Part 63, Subpart GGGG

Compliance Method based upon: Applicable Requirement Gap Filling Requirement

Method of Compliance Type: (Check all that applies and complete all appropriate sections below)

- Monitoring Testing Reporting
- Record Keeping Work Practice Standard

Section 2: Monitoring

1. Monitoring device type (stack test, CEM, etc.): N/A
2. Monitoring device location: N/A

Describe all parameters being monitored along with the frequency and duration of monitoring each parameter:

As per the Plan for Demonstrating Compliance that is required by §63.2851 and per the solvent loss, HAP content, and oilseed accounting procedures specified by §63.2853, §63.2854, and §63.2855, respectively. As required by §63.2851, the Plan for Demonstrating Compliance will be developed and implemented prior to the start-up date.

3. How will data be reported: N/A

Section 3: Testing

- 1. Reference Test Method Description: N/A
- 2. Reference Test Method Citation: N/A

Section 4: Record Keeping

Describe what parameters will be recorded and the frequency of recording:

Records will be maintained as per the record keeping requirements specified in §63.2862 and §63.2863.

Section 5: Reporting

Describe what is to be reported and the frequency of reporting:

Notifications and reports will be submitted as per the requirements specified in §63.2860 and §63.2861, respectively.

- 1. Reporting start date: As per the notification and report requirements specified in §63.2860 and §63.2861, respectively.

Section 6: Work Practice Standard

Describe any work practice standards:

As per the Startup, Shutdown, and Malfunction (SSM) Plan that is required by §63.2852. As required by §63.2852, the SSM Plan will be completed prior to the start-up date.



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SECTION 1. APPLICABLE REQUIREMENT

Federal Tax Id: 20-5172625 Firm Name: Perdue Grain & Oilseed, LLC

Plant Code: 1 Plant Name: Soybean Processing Facility

Applicable Requirement for: (please check only one box below)

- The entire site
- A group of sources, Group ID: _____
- A single source, Unit ID: 201
- Alternative Scenario, Scenario Name: _____

Citation #: 25 Pa. Code §123.13(c)(1)(i)

Compliance Method based upon: Applicable Requirement Gap Filling Requirement

Method of Compliance Type: (Check all that applies and complete all appropriate sections below)

- Monitoring Testing Reporting
- Record Keeping Work Practice Standard

Section 2: Monitoring

1. Monitoring device type (stack test, CEM, etc.): Instrumentation (i.e., gauge).

2. Monitoring device location: Fabric collectors (baghouses).

Describe all parameters being monitored along with the frequency and duration of monitoring each parameter:

Differential pressure across the collectors will be continuously measured.

3. How will data be reported: N/A

Section 3: Testing

1. Reference Test Method Description: N/A
2. Reference Test Method Citation: N/A

Section 4: Record Keeping

Describe what parameters will be recorded and the frequency of recording:

The differential pressure across the collectors will be recorded once per month while the source is operating. Records of supporting calculations/ documentation/any required testing will be kept to verify compliance with the emission limit.

Section 5: Reporting

Describe what is to be reported and the frequency of reporting:

N/A

1. Reporting start date: N/A

Section 6: Work Practice Standard

Describe any work practice standards:

A sufficient quantity of spare bags for the collectors will be kept on hand in order to be able to immediately replace any bags requiring replacement due to deterioration resulting from routine operation of the source.



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SECTION 1. APPLICABLE REQUIREMENT

Federal Tax Id: 20-5172625 Firm Name: Perdue Grain & Oilseed, LLC

Plant Code: 1 Plant Name: Soybean Processing Facility

Applicable Requirement for: (please check only one box below)

- The entire site
- A group of sources, Group ID: _____
- A single source, Unit ID: 201
- Alternative Scenario, Scenario Name: _____

Citation #: 40 CFR Part 64

Compliance Method based upon: Applicable Requirement Gap Filling Requirement

Method of Compliance Type: (Check all that applies and complete all appropriate sections below)

- Monitoring Testing Reporting
- Record Keeping Work Practice Standard

Section 2: Monitoring

1. Monitoring device type (stack test, CEM, etc.): Instrumentation (i.e., gauge) and visual observation.

2. Monitoring device location: Gauge installed on fabric collectors (baghouses) and visual observation.

Describe all parameters being monitored along with the frequency and duration of monitoring each parameter:

Differential pressure across the collectors will be continuously measured, and a visual observation of each collector's exhaust will be conducted monthly.

3. How will data be reported: N/A

Section 3: Testing

1. Reference Test Method Description: N/A

2. Reference Test Method Citation: N/A

Section 4: Record Keeping

Describe what parameters will be recorded and the frequency of recording:

The differential pressure across the collectors will be recorded once per month while the source is operating, and the results of the monthly visual observation of each collector's exhaust will be recorded once per month.

Section 5: Reporting

Describe what is to be reported and the frequency of reporting:

The information required by §64.9, including the number, duration, and cause of excursions or exceedances of the CAM Plan's indicator range, as applicable, and the corrective actions taken.

1. Reporting start date: As per §64.9.

Section 6: Work Practice Standard

Describe any work practice standards:

N/A



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SECTION 1. APPLICABLE REQUIREMENT

Federal Tax Id: 20-5172625 Firm Name: Perdue Grain & Oilseed, LLC
Plant Code: 1 Plant Name: Soybean Processing Facility

Applicable Requirement for: (please check only one box below)

- The entire site
- A group of sources, Group ID: _____
- A single source, Unit ID: 202
- Alternative Scenario, Scenario Name: _____

Citation #: 25 Pa. Code §123.13(c)(1)(i)

Compliance Method based upon: Applicable Requirement Gap Filling Requirement

Method of Compliance Type: (Check all that applies and complete all appropriate sections below)

- Monitoring Testing Reporting
- Record Keeping Work Practice Standard

Section 2: Monitoring

1. Monitoring device type (stack test, CEM, etc.): Instrumentation (i.e., gauge).

2. Monitoring device location: Cyclone.

Describe all parameters being monitored along with the frequency and duration of monitoring each parameter:

Differential pressure across the collector will be continuously measured.

3. How will data be reported: N/A

Section 3: Testing

1. Reference Test Method Description: N/A
2. Reference Test Method Citation: N/A

Section 4: Record Keeping

Describe what parameters will be recorded and the frequency of recording:

The differential pressure across the collector will be recorded once per month while the source is operating. Records of supporting calculations/ documentation/any required testing will be kept to verify compliance with the emission limit.

Section 5: Reporting

Describe what is to be reported and the frequency of reporting:

N/A

1. Reporting start date: N/A

Section 6: Work Practice Standard

Describe any work practice standards:

N/A



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SECTION 1. APPLICABLE REQUIREMENT

Federal Tax Id: 20-5172625 Firm Name: Perdue Grain & Oilseed, LLC
Plant Code: 1 Plant Name: Soybean Processing Facility

Applicable Requirement for: (please check only one box below)

- The entire site
- A group of sources, Group ID: _____
- A single source, Unit ID: 203
- Alternative Scenario, Scenario Name: _____

Citation #: 25 Pa. Code §123.13(c)(1)(i)

Compliance Method based upon: Applicable Requirement Gap Filling Requirement

Method of Compliance Type: (Check all that applies and complete all appropriate sections below)

- Monitoring Testing Reporting
- Record Keeping Work Practice Standard

Section 2: Monitoring

1. Monitoring device type (stack test, CEM, etc.): Instrumentation (i.e., gauge).
2. Monitoring device location: Cyclone.

Describe all parameters being monitored along with the frequency and duration of monitoring each parameter:

Differential pressure across the collector will be continuously measured.

3. How will data be reported: N/A

Section 3: Testing

1. Reference Test Method Description: N/A
2. Reference Test Method Citation: N/A

Section 4: Record Keeping

Describe what parameters will be recorded and the frequency of recording:

The differential pressure across the collector will be recorded once per month while the source is operating. Records of supporting calculations/ documentation/any required testing will be kept to verify compliance with the emission limit.

Section 5: Reporting

Describe what is to be reported and the frequency of reporting:

N/A

1. Reporting start date: N/A

Section 6: Work Practice Standard

Describe any work practice standards:

N/A



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SECTION 1. APPLICABLE REQUIREMENT

Federal Tax Id: 20-5172625 Firm Name: Perdue Grain & Oilseed, LLC
Plant Code: 1 Plant Name: Soybean Processing Facility

Applicable Requirement for: (please check only one box below)

- The entire site
- A group of sources, Group ID: _____
- A single source, Unit ID: 205A
- Alternative Scenario, Scenario Name: _____

Citation #: 25 Pa. Code §123.13(c)(1)(i)

Compliance Method based upon: Applicable Requirement Gap Filling Requirement

Method of Compliance Type: (Check all that applies and complete all appropriate sections below)

- Monitoring Testing Reporting
- Record Keeping Work Practice Standard

Section 2: Monitoring

1. Monitoring device type (stack test, CEM, etc.): Instrumentation (i.e., gauge).
2. Monitoring device location: Cyclone.

Describe all parameters being monitored along with the frequency and duration of monitoring each parameter:

Differential pressure across the collector will be continuously measured.

3. How will data be reported: N/A

Section 3: Testing

1. Reference Test Method Description: N/A

2. Reference Test Method Citation: N/A

Section 4: Record Keeping

Describe what parameters will be recorded and the frequency of recording:

The differential pressure across the collector will be recorded once per month while the source is operating. Records of supporting calculations/ documentation/any required testing will be kept to verify compliance with the emission limit.

Section 5: Reporting

Describe what is to be reported and the frequency of reporting:

N/A

1. Reporting start date: N/A

Section 6: Work Practice Standard

Describe any work practice standards:

N/A



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SECTION 1. APPLICABLE REQUIREMENT

Federal Tax Id: 20-5172625 Firm Name: Perdue Grain & Oilseed, LLC
Plant Code: 1 Plant Name: Soybean Processing Facility

Applicable Requirement for: (please check only one box below)

- The entire site
- A group of sources, Group ID: _____
- A single source, Unit ID: 205A
- Alternative Scenario, Scenario Name: _____

Citation #: 40 CFR Part 64

Compliance Method based upon: Applicable Requirement Gap Filling Requirement

Method of Compliance Type: (Check all that applies and complete all appropriate sections below)

- Monitoring Testing Reporting
 Record Keeping Work Practice Standard

Section 2: Monitoring

1. Monitoring device type (stack test, CEM, etc.): Instrumentation (i.e., gauge) and visual observation.
2. Monitoring device location: Gauge installed on cyclone and visual observation.

Describe all parameters being monitored along with the frequency and duration of monitoring each parameter:

Differential pressure across the collector will be continuously measured, and a visual observation of the collector's exhaust will be conducted monthly.

3. How will data be reported: N/A

Section 3: Testing

1. Reference Test Method Description: N/A
2. Reference Test Method Citation: N/A

Section 4: Record Keeping

Describe what parameters will be recorded and the frequency of recording:

The differential pressure across the collector will be recorded once per month while the source is operating, and the results of the monthly visual observation of the collector's exhaust will be recorded once per month.

Section 5: Reporting

Describe what is to be reported and the frequency of reporting:

The information required by §64.9, including the number, duration, and cause of excursions or exceedances of the CAM Plan's indicator range, as applicable, and the corrective actions taken.

1. Reporting start date: As per §64.9.

Section 6: Work Practice Standard

Describe any work practice standards:

N/A



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SECTION 1. APPLICABLE REQUIREMENT

Federal Tax Id: 20-5172625 Firm Name: Perdue Grain & Oilseed, LLC
Plant Code: 1 Plant Name: Soybean Processing Facility

Applicable Requirement for: (please check only one box below)

- The entire site
- A group of sources, Group ID: _____
- A single source, Unit ID: 205B
- Alternative Scenario, Scenario Name: _____

Citation #: 25 Pa. Code §123.13(c)(1)(i)

Compliance Method based upon: Applicable Requirement Gap Filling Requirement

Method of Compliance Type: (Check all that applies and complete all appropriate sections below)

- Monitoring Testing Reporting
- Record Keeping Work Practice Standard

Section 2: Monitoring

1. Monitoring device type (stack test, CEM, etc.): Instrumentation (i.e., gauge).

2. Monitoring device location: Cyclone.

Describe all parameters being monitored along with the frequency and duration of monitoring each parameter:

Differential pressure across the collector will be continuously measured.

3. How will data be reported: N/A

Section 3: Testing

1. Reference Test Method Description: N/A

2. Reference Test Method Citation: N/A

Section 4: Record Keeping

Describe what parameters will be recorded and the frequency of recording:

The differential pressure across the collector will be recorded once per month while the source is operating. Records of supporting calculations/ documentation/any required testing will be kept to verify compliance with the emission limit.

Section 5: Reporting

Describe what is to be reported and the frequency of reporting:

N/A

1. Reporting start date: N/A

Section 6: Work Practice Standard

Describe any work practice standards:

N/A



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SECTION 1. APPLICABLE REQUIREMENT

Federal Tax Id: 20-5172625 Firm Name: Perdue Grain & Oilseed, LLC
Plant Code: 1 Plant Name: Soybean Processing Facility

Applicable Requirement for: (please check only one box below)

- The entire site
- A group of sources, Group ID: _____
- A single source, Unit ID: 205B
- Alternative Scenario, Scenario Name: _____

Citation #: 40 CFR Part 64

Compliance Method based upon: Applicable Requirement Gap Filling Requirement

Method of Compliance Type: (Check all that applies and complete all appropriate sections below)

- Monitoring Testing Reporting
 Record Keeping Work Practice Standard

Section 2: Monitoring

1. Monitoring device type (stack test, CEM, etc.): Instrumentation (i.e., gauge) and visual observation.
2. Monitoring device location: Gauge installed on cyclone and visual observation.

Describe all parameters being monitored along with the frequency and duration of monitoring each parameter:

Differential pressure across the collector will be continuously measured, and a visual observation of the collector's exhaust will be conducted monthly.

3. How will data be reported: N/A



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SECTION 1. APPLICABLE REQUIREMENT

Federal Tax Id: 20-5172625 Firm Name: Perdue Grain & Oilseed, LLC

Plant Code: 1 Plant Name: Soybean Processing Facility

Applicable Requirement for: (please check only one box below)

The entire site

A group of sources, Group ID: _____

A single source, Unit ID: 206

Alternative Scenario, Scenario Name: _____

Citation #: 25 Pa. Code §123.13(c)(1)(i)

Compliance Method based upon: Applicable Requirement Gap Filling Requirement

Method of Compliance Type: (Check all that applies and complete all appropriate sections below)

Monitoring

Testing

Reporting

Record Keeping

Work Practice Standard

Section 2: Monitoring

1. Monitoring device type (stack test, CEM, etc.): Instrumentation (i.e., gauge).

2. Monitoring device location: Fabric collector (baghouse).

Describe all parameters being monitored along with the frequency and duration of monitoring each parameter:

Differential pressure across the collector will be continuously measured.

3. How will data be reported: N/A



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SECTION 1. APPLICABLE REQUIREMENT

Federal Tax Id: 20-5172625 Firm Name: Perdue Grain & Oilseed, LLC
Plant Code: 1 Plant Name: Soybean Processing Facility

Applicable Requirement for: (please check only one box below) _____

- The entire site
- A group of sources, Group ID: _____
- A single source, Unit ID: 206
- Alternative Scenario, Scenario Name: _____

Citation #: 40 CFR Part 64

Compliance Method based upon: Applicable Requirement Gap Filling Requirement

Method of Compliance Type: (Check all that applies and complete all appropriate sections below)

- Monitoring Testing Reporting
- Record Keeping Work Practice Standard

Section 2: Monitoring

1. Monitoring device type (stack test, CEM, etc.): Instrumentation (i.e., gauge) and visual observation.
2. Monitoring device location: Gauge installed on fabric collector (baghouse) and visual observation.

Describe all parameters being monitored along with the frequency and duration of monitoring each parameter:

Differential pressure across the collector will be continuously measured, and a visual observation of the collector's exhaust will be conducted monthly.

3. How will data be reported: N/A



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SECTION 1. APPLICABLE REQUIREMENT

Federal Tax Id: 20-5172625 Firm Name: Perdue Grain & Oilseed, LLC

Plant Code: 1 Plant Name: Soybean Processing Facility

Applicable Requirement for: (please check only one box below)

The entire site

A group of sources, Group ID: _____

A single source, Unit ID: 207

Alternative Scenario, Scenario Name: _____

Citation #: 25 Pa. Code §123.13(c)(1)(i)

Compliance Method based upon: Applicable Requirement Gap Filling Requirement

Method of Compliance Type: (Check all that applies and complete all appropriate sections below)

Monitoring

Testing

Reporting

Record Keeping

Work Practice Standard

Section 2: Monitoring

1. Monitoring device type (stack test, CEM, etc.): Instrumentation (i.e., gauge).

2. Monitoring device location: Fabric collector (baghouse).

Describe all parameters being monitored along with the frequency and duration of monitoring each parameter:

Differential pressure across the collector will be continuously measured.

3. How will data be reported: N/A

Section 3: Testing

1. Reference Test Method Description: N/A
2. Reference Test Method Citation: N/A

Section 4: Record Keeping

Describe what parameters will be recorded and the frequency of recording:

The differential pressure across the collector will be recorded once per month while the source is operating. Records of supporting calculations/ documentation/any required testing will be kept to verify compliance with the emission limit.

Section 5: Reporting

Describe what is to be reported and the frequency of reporting:

N/A

1. Reporting start date: N/A

Section 6: Work Practice Standard

Describe any work practice standards:

A sufficient quantity of spare bags for the collector will be kept on hand in order to be able to immediately replace any bags requiring replacement due to deterioration resulting from routine operation of the source.



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SECTION 1. APPLICABLE REQUIREMENT

Federal Tax Id: 20-5172625 Firm Name: Perdue Grain & Oilseed, LLC
Plant Code: 1 Plant Name: Soybean Processing Facility

Applicable Requirement for: (please check only one box below)

- The entire site
- A group of sources, Group ID: _____
- A single source, Unit ID: 210
- Alternative Scenario, Scenario Name: _____

Citation #: 25 Pa. Code §123.13(c)(1)(i)

Compliance Method based upon: Applicable Requirement Gap Filling Requirement

Method of Compliance Type: (Check all that applies and complete all appropriate sections below)

- Monitoring Testing Reporting
- Record Keeping Work Practice Standard

Section 2: Monitoring

1. Monitoring device type (stack test, CEM, etc.): Instrumentation (i.e., gauge).

2. Monitoring device location: Fabric collector (baghouse).

Describe all parameters being monitored along with the frequency and duration of monitoring each parameter:

Differential pressure across the collector will be continuously measured.

3. How will data be reported: N/A



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SECTION 1. APPLICABLE REQUIREMENT

Federal Tax Id: 20-5172625 Firm Name: Perdue Grain & Oilseed, LLC

Plant Code: 1 Plant Name: Soybean Processing Facility

Applicable Requirement for: (please check only one box below)

- The entire site
- A group of sources, Group ID: _____
- A single source, Unit ID: 211
- Alternative Scenario, Scenario Name: _____

Citation #: 25 Pa. Code §129.57

Compliance Method based upon: Applicable Requirement Gap Filling Requirement

Method of Compliance Type: (Check all that applies and complete all appropriate sections below)

- Monitoring Testing Reporting
- Record Keeping Work Practice Standard

Section 2: Monitoring

1. Monitoring device type (stack test, CEM, etc.): N/A

2. Monitoring device location: N/A

Describe all parameters being monitored along with the frequency and duration of monitoring each parameter:

N/A

3. How will data be reported: N/A

Section 3: Testing

- 1. Reference Test Method Description: N/A
- 2. Reference Test Method Citation: N/A

Section 4: Record Keeping

Describe what parameters will be recorded and the frequency of recording:

N/A

Section 5: Reporting

Describe what is to be reported and the frequency of reporting:

N/A

- 1. Reporting start date: N/A

Section 6: Work Practice Standard

Describe any work practice standards:

Pressure relief valves will be maintained in good operating condition and set to release as required by §129.57.



ADDENDUM 3
CAM APPLICABILITY WORKSHEETS FOR SOURCES



COMMONWEALTH OF PENNSYLVANIA
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ADDENDUM 3
CAM APPLICABILITY WORKSHEET FOR SOURCES

SECTION A. GENERAL INFORMATION			
Federal Tax ID	20-5172625		
Firm Name	Perdue Grain & Oilseed, LLC		
Plant Code	Soybean Processing Facility	Source I.D.	201
Control Type	Baghouses	AIRS Code No.	Unknown Pollutant PM
Control Make	Airlanco	Control Model No.	236/158RLP8 Control Efficiency ≥99.9%
Control I.D.	C201A through E	Source or Emission Unit Name	Soybean Preparation Process
SECTION B. MONITORING			
The emissions unit is exempted from CAM because the emission limitations or standards are:			
Yes	No		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Proposed by the EPA Administrator after November 15, 1990 pursuant to Sections 111 or 112 of the Clean Air Act.	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Stratospheric ozone protection requirements under Title VI of the Act.	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Acid Rain Program requirements pursuant to sections 404-407(b) or 410 of the Clean Air Act	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Approved under an emissions trading program.	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	An emissions cap that meets the requirements specified in 40 CFR § 70.4(b)(12).	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Determined by a continuous compliance method that does not use an assumed control factor	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Requirements for a backup utility power emissions unit as defined in § 72.2 which:	
	Yes	No	
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is owned by a municipality and
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is exempt from all Part 75 monitoring requirements
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is operated solely for providing power during peak electrical demand or emergency situations
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Has annual average emissions (for previous 3 years) of less than 50% of the major source cut off and emissions are expected to remain below 50%
SECTION C. CAM STATUS			
Yes	No		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CAM applies (be sure to include appropriate citation numbers under Source Applicable Requirements section of the application)	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CAM Plan is attached or has been submitted	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	An Implementation Plan is attached	



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ADDENDUM 3
CAM APPLICABILITY WORKSHEET FOR SOURCES

SECTION A. GENERAL INFORMATION			
Federal Tax ID	20-5172625		
Firm Name	Perdue Grain & Oilseed, LLC		
Plant Code	Soybean Processing Facility	Source I.D.	205A
Control Type	Cyclone	AIRS Code No.	Unknown Pollutant PM
Control Make	Kice	Control Model No.	CK-108 Control Efficiency 90%
Control I.D.	C205A	Source or Emission Unit Name	Meal Dryer
SECTION B. MONITORING			
The emissions unit is exempted from CAM because the emission limitations or standards are:			
Yes	No		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Proposed by the EPA Administrator after November 15, 1990 pursuant to Sections 111 or 112 of the Clean Air Act.	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Stratospheric ozone protection requirements under Title VI of the Act.	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Acid Rain Program requirements pursuant to sections 404-407(b) or 410 of the Clean Air Act	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Approved under an emissions trading program.	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	An emissions cap that meets the requirements specified in 40 CFR § 70.4(b)(12).	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Determined by a continuous compliance method that does not use an assumed control factor	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Requirements for a backup utility power emissions unit as defined in § 72.2 which:	
	Yes	No	
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is owned by a municipality and
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is exempt from all Part 75 monitoring requirements
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is operated solely for providing power during peak electrical demand or emergency situations
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Has annual average emissions (for previous 3 years) of less than 50% of the major source cut off and emissions are expected to remain below 50%
SECTION C. CAM STATUS			
Yes	No		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CAM applies (be sure to include appropriate citation numbers under Source Applicable Requirements section of the application)	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CAM Plan is attached or has been submitted	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	An Implementation Plan is attached	



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ADDENDUM 3
CAM APPLICABILITY WORKSHEET FOR SOURCES

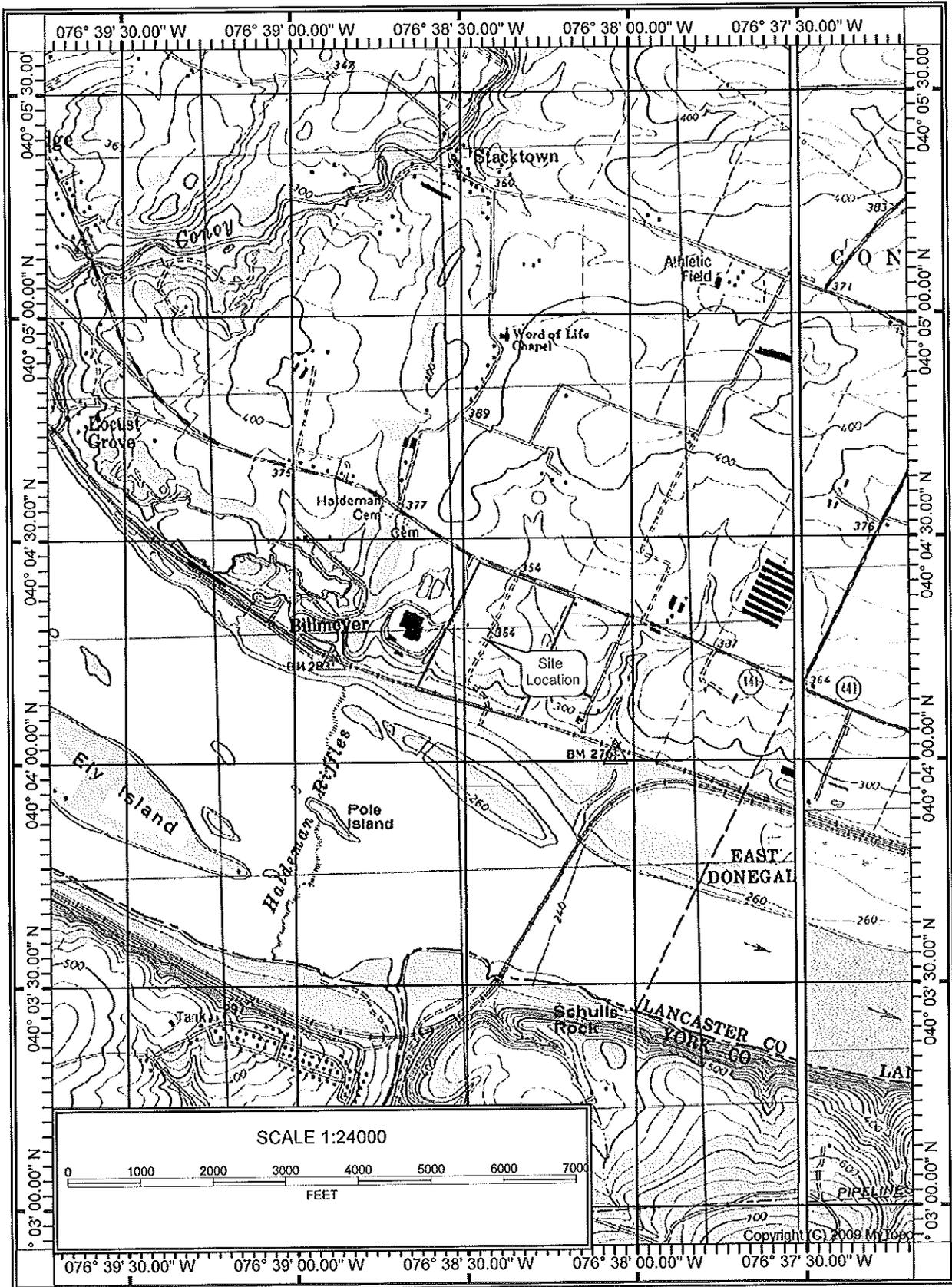
SECTION A. GENERAL INFORMATION			
Federal Tax ID	20-5172625		
Firm Name	Perdue Grain & Oilseed, LLC		
Plant Code	Soybean Processing Facility	Source I.D.	205B
Control Type	Cyclone	AIRS Code No.	Unknown Pollutant PM
Control Make	Kice	Control Model No.	CK-108 Control Efficiency 90%
Control I.D.	C205B	Source or Emission Unit Name	Meal Cooler
SECTION B. MONITORING			
The emissions unit is exempted from CAM because the emission limitations or standards are:			
Yes	No		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Proposed by the EPA Administrator after November 15, 1990 pursuant to Sections 111 or 112 of the Clean Air Act.	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Stratospheric ozone protection requirements under Title VI of the Act.	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Acid Rain Program requirements pursuant to sections 404-407(b) or 410 of the Clean Air Act	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Approved under an emissions trading program.	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	An emissions cap that meets the requirements specified in 40 CFR § 70.4(b)(12).	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Determined by a continuous compliance method that does not use an assumed control factor	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Requirements for a backup utility power emissions unit as defined in § 72.2 which:	
	Yes	No	
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is owned by a municipality and
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is exempt from all Part 75 monitoring requirements
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is operated solely for providing power during peak electrical demand or emergency situations
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Has annual average emissions (for previous 3 years) of less than 50% of the major source cut off and emissions are expected to remain below 50%
SECTION C. CAM STATUS			
Yes	No		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CAM applies (be sure to include appropriate citation numbers under Source Applicable Requirements section of the application)	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CAM Plan is attached or has been submitted	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	An Implementation Plan is attached	



COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 BUREAU OF AIR QUALITY

ADDENDUM 3
CAM APPLICABILITY WORKSHEET FOR SOURCES

SECTION A. GENERAL INFORMATION			
Federal Tax ID	20-5172625		
Firm Name	Perdue Grain & Oilseed, LLC		
Plant Code	Soybean Processing Facility	Source I.D.	206
Control Type	Baghouse	AIRS Code No.	Unknown
		Pollutant	PM
Control Make	Airlanco	Control Model No.	188RLP8
		Control Efficiency	≥99.9%
Control I.D.	C206	Source or Emission Unit Name	Meal Screening and Grinding
SECTION B. MONITORING			
The emissions unit is exempted from CAM because the emission limitations or standards are:			
Yes	No		
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Proposed by the EPA Administrator after November 15, 1990 pursuant to Sections 111 or 112 of the Clean Air Act.	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Stratospheric ozone protection requirements under Title VI of the Act.	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Acid Rain Program requirements pursuant to sections 404-407(b) or 410 of the Clean Air Act	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Approved under an emissions trading program.	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	An emissions cap that meets the requirements specified in 40 CFR § 70.4(b)(12).	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Determined by a continuous compliance method that does not use an assumed control factor	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Requirements for a backup utility power emissions unit as defined in § 72.2 which:	
	Yes	No	
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is owned by a municipality and
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is exempt from all Part 75 monitoring requirements
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is operated solely for providing power during peak electrical demand or emergency situations
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Has annual average emissions (for previous 3 years) of less than 50% of the major source cut off and emissions are expected to remain below 50%
SECTION C. CAM STATUS			
Yes	No		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CAM applies (be sure to include appropriate citation numbers under Source Applicable Requirements section of the application)	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	CAM Plan is attached or has been submitted	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	An Implementation Plan is attached	



Map Name: YORK HAVEN Horizontal Datum: NAD27
 Scale: 1 inch = 2,000 ft.

Perdue Grain & Oilseed, LLC
 Soybean Processing Facility
 Conoy Township, Lancaster County

ATTACHMENT B – FACILITY SITE MAP



ATTACHMENT C
PROJECT DESCRIPTION

Perdue Grain & Oilseed, LLC (Perdue) plans to construct and operate a soybean processing facility (Soybean Facility) at 1897 River Road, Conoy Township, Lancaster County. The Soybean Facility will receive soybeans from local and regional farms by truck and process the soybeans into soybean feed and soybean oil, both of which will be shipped off site by truck. The Soybean Facility will operate 24-hours-per-day, will be staffed in three shifts, and will employ approximately 35 people.

The proposed site of the Soybean Facility is adjacent to the Lancaster County Solid Waste Management Authority (LCSWMA) Resource Recovery Facility (RRF). The RRF incinerates municipal waste to produce steam/generate electricity. Perdue plans to purchase steam (which is produced in excess by the RRF) and process water from LCSWMA and, after use at the Soybean Facility, Perdue will send the steam condensate, used process water, and plant washdown water back to LCSWMA for reuse at the RRF. In the rare event that the LCSWMA RRF goes offline, Perdue may need to bring a portable temporary emergency boiler(s) onsite to generate process steam. Although such boiler(s) are not anticipated and would not be a permanent air emission source at the facility, emission estimates are provided in the Potential Emission Calculations Attachment of this application.

The Soybean Facility is comprised of two (2) distinct, yet closely related, operations: (1) the soybean grain elevator operation that will receive, handle, dry, and store the soybeans prior to processing, and (2) the soybean oil extraction operation that will process the soybeans into both soybean oil and soybean meal. The construction and operation of the proposed soybean grain elevator is the first phase (Phase 1) of the overall single project to construct and operate the Soybean Facility. The construction and operation of the proposed soybean oil extraction operation is the second phase (Phase 2) of the same project.

The Phase 1 grain elevator operations, if approved and constructed, will allow Perdue to receive, handle, dry, and store soybeans by the soybean harvest season of Fall 2013, while the Phase 2 processing operations, if approved, are being constructed. This will, in turn, allow Perdue to establish the market that will ultimately be served by the Phase 2 processing operations. In the event that the Phase 2 soybean oil extraction operations are not constructed, the Phase 1 grain elevator would function as a stand-alone facility. Under this scenario, soybeans originating locally would be received and stored at the facility. Soybeans would then be transferred either south or west for processing or export as is the current movement of the majority of soybeans produced in the area.

The Phase 2 soybean oil extraction operations, which include all of the equipment necessary to prepare the soybeans for extraction, extract the soybean oil, and produce the soybean meal, are the subject of this Plan Approval Application. A separate Plan Approval Application for the Phase 1 grain elevator operations was previously submitted to the Department.

As discussed in the Applicable Requirements Attachment, the overall project will be subject to the Non-attainment New Source Review (NNSR) requirements of 25 Pa. Code Chapter 127, Subchapter E., due primarily to the potential volatile organic compound (VOC) emissions from the use of hexane solvent in the Phase 2 operations. This Phase 2 Plan Approval Application addresses the NNSR requirements.

Based on the Phase 2 potential emissions, the soybean oil extraction operation (as well as the overall total project) is not classified as a major source with respect to the federal Prevention of Significant Deterioration (PSD) rules since the operation's potential to emit regulated pollutants is below the 250 tons per year applicability threshold that applies to such an operation. With respect to NNSR applicability, the Phase 2 potential to emit NNSR pollutants is above the applicable major source threshold for VOC, hence the overall project is subject to NNSR permitting for VOC. A summary table of Phase 1, Phase 2, and total project potential emissions is presented on the following page.

The air emissions of concern from the soybean oil extraction operation include VOC, hexane (a VOC), n-hexane (a VOC and a hazardous air pollutant (HAP)), and particulate matter (PM). As discussed in detail in the Applicable Requirements Attachment, the soybean oil extraction operations will be subject to the following emission standards:

- 40 CFR Part 63, Subpart GGGG – National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production
- Applicable requirements of 25 Pa. Code Chapter 123 – Standards for Contaminants

As discussed in the Lowest Achievable Emission Rate (LAER) Evaluation Attachment, the selected control equipment will satisfy LAER as required by 25 Pa. Code Chapter 127.205(1). In addition, as discussed in the Best Available Technology (BAT) Evaluation Attachment, the selected control equipment will satisfy BAT as required by 25 Pa. Code Chapter 127.12(a)(5).

Perdue Grain & Oilseed, LLC
 Plan Approval Application - Potential Emission Calculations
 Phase 2 - Soybean Processing Facility - Soybean Oil Extraction Operations
 Conoy Township, Lancaster County

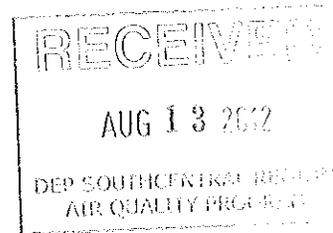
Perdue Grain & Oilseed, LLC - Soybean Processing Facility - Summary Table of Total Project Potential Emissions

Source	PM (tons/yr)	PM-10 (tons/yr)	PM-2.5 (tons/yr)	SOx (tons/yr)	CO (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	n-Hexane (tons/yr)	Formaldehyde (tons/yr)	Total HAPs (tons/yr)	CO2 (tons/yr)	N2O (tons/yr)	CH4 (tons/yr)	CO2-e (tons/yr)
PHASE 1: Grain Elevator Operations:														
101 - Grain Receiving & Grain Processing	0.0302	0.0132	0.0022											
102 - Wet Grain Storage Bins (4 bin tanks)	0.0788	0.0198	0.0035											
103 - Grain Dryer No. 1	4.79	2.19	1.47	0.1018	14.25	12.29	1.51	0.31	0.0127	0.32	23,635.25	0.50	0.39	23,796.65
104 - Grain Dryer No. 2	4.79	2.19	1.47	0.1018	14.25	12.29	1.51	0.31	0.0127	0.32	23,635.25	0.50	0.39	23,796.65
105 - Grain Storage Bins (4 bin tanks)	7.88	1.98	0.35											
106 - Grain Loadout	3.10	1.04	0.18											
301 - Grain Elevator Facility Roadways	6.74	1.35	0.33											
PHASE 1 TOTAL EMISSIONS:	27.40	8.79	3.80	0.20	28.50	24.58	3.03	0.61	0.03	0.64	47,270.49	0.99	0.78	47,593.31
PHASE 2: Soybean Oil Extraction Operations:														
201 - Soybean Preparation Process	1.14	0.29	0.05											
202 - Bean Conditioning	1.23	0.31	0.05											
203 - Flaking Rolls	4.56	1.14	0.19											
204 - Extraction Process (Final Vent Emissions)							51.57	23.21		23.21				
204 - Extraction Process (Fugitive Emissions)							93.32	41.99		41.99				
205A - Meal Dryer	35.44	8.86	1.51											
205B - Meal Cooler	37.41	9.35	1.59											
206 - Meal Screening and Grinding	0.6694	0.1673	0.0284											
207 - Mill Feed (Hull) Grinding	0.0315	0.0079	0.0013											
208 - Meal/Mill Feed Storage Bins (4 bin tanks)	0.0053	0.0013	0.0002											
209 - Meal/Mill Feed Loadout Tank	0.0053	0.0013	0.0002											
210 - Meal Loadout Area	0.0574	0.0144	0.0024											
211 - Seed Silo Tanks (3 tanks)	0.9000	0.2268	0.0396				0.93	0.42		0.42				
212 - Hexane Storage Tanks (2 tanks)*	3.16	0.63	0.16											
302 - Soybean Oil Extraction Facility Roadways	0.0398	0.0398	0.0398	0.0031	0.43	0.37	0.0455	0.0092	0.0004	0.0096	711.48	0.0149	0.0117	716.33
Temporary Portable Emergency Boiler(s)	84.65	21.04	3.66	0.00	0.43	0.37	245.63	110.52	0.00	110.94	711.48	0.01	0.01	716.33
PHASE 2 TOTAL EMISSIONS:	84.65	21.04	3.66	0.00	0.43	0.37	245.63	110.52	0.00	110.94	711.48	0.01	0.01	716.33
TOTAL PROJECT FACILITY EMISSIONS:	112.05	29.83	7.46	0.21	28.92	24.95	248.65	111.13	0.03	111.58	47,981.97	1.01	0.79	48,309.64

* Emissions from the Hexane Storage Tanks are accounted for in the Extraction Process fugitive emissions.

ATTACHMENT D – APPLICABLE REQUIREMENTS

ATTACHMENT D
APPLICABLE REQUIREMENTS



BACKGROUND

Perdue has reviewed both Pennsylvania and federal air quality regulations to determine their potential applicability to the overall Soybean Facility project. Although this Plan Approval Application only addresses Phase 2 (Soybean Oil Extraction Operations) of the project, this analysis of applicable requirements includes both phases of the overall project.

SINGLE SOURCE DETERMINATION

The proposed site of the Soybean Facility is adjacent to the Lancaster County Solid Waste Management Authority (LCSWMA) Resource Recovery Facility (RRF). The RRF incinerates municipal waste to produce steam/generate electricity. Perdue plans to purchase steam (which is produced in excess by the RRF) and process water from LCSWMA and, after use at the Soybean Facility, Perdue will send the steam condensate, used process water, and plant washdown water back to LCSWMA for reuse at the RRF.

Given the location of the RRF and the Soybean Facility and Perdue's anticipated purchase of steam and process water from LCSWMA, Perdue has evaluated whether the emissions from the RRF and the Soybean Facility must be aggregated for air quality permitting purposes. Although the RRF and the Soybean Facility will be on adjacent properties, they are not under common control. Second, the RRF and the Soybean Facility do not share a common owner. The LCSWMA, a government agency, owns the RRF. Perdue will own and operate the Soybean Facility. And, the two facilities do not belong to the same Standard Industrial Classification (SIC) code. The RRF belongs to SIC 4953, and the Soybean Facility belongs to SIC 2075. Because the RRF and the Soybean Facility meet only one of the three criteria, they must be considered as separate facilities for air permitting purposes.

To elaborate on the conclusion that the two facilities are separate for air permitting purposes:

- Perdue's purchase and use of steam from the RRF will in no way affect steam production or air emissions at the RRF. The RRF is currently generating approximately 300,000 pounds per hour of steam, of which the Soybean Facility will use approximately 35,000 pounds per hour after the steam's use in electrical generation. The steam the Soybean Facility will use would have previously been vented to the atmosphere by the RRF. Perdue could have installed boilers to produce steam at the Soybean Facility but elected to reduce the carbon footprint of the Soybean Facility by purchasing the RRF's excess steam. In the unlikely event that the RRF would be unable to provide steam to the Soybean Facility for a short period of time, Perdue will have the ability to hook-up a portable, truck-mounted steam plant at the Soybean Facility. Similarly, Perdue's purchase of process water and return of steam condensate and wastewater to the RRF will not affect operations at the RRF.
- The production of soybean meal and soybean oil will not be integrated in any way with the incineration of municipal waste at the RRF. The soybean meal and soybean oil production process will not be split between the RRF and the Soybean Facility, and no intermediate products from one facility will be further processed at the other facility. The two facilities will

not share any production intermediates, products, byproducts, manufacturing equipment, or air pollution control equipment.

- All air emission sources and air pollution control equipment at the Soybean Facility will be owned and operated exclusively by Perdue.
- Perdue and the LCSWMA do not have common executive officers or boards. The RRF and the Soybean Facility will not have common workforces, plant management, or security, nor will the employees and managers of one facility be involved with the other facility. The two facilities will not share administrative functions such as payroll, employee benefits, health plans, retirement funds, or insurance coverage.
- The only relationship between the two facilities will be a contract for the supply of utilities (steam and water).

FEDERAL AIR QUALITY REQUIREMENTS

For the proposed project, the following U.S. Environmental Protection Agency (EPA) regulations are potentially applicable:

- New Source Performance Standards (NSPS)
- National Emission Standards for Hazardous Air Pollutants (NESHAPs)
- New Source Review (NSR)
- Compliance Assurance Monitoring (CAM)

Each requirement is addressed in the following sections.

New Source Performance Standards (NSPS)

The EPA has promulgated standards of performance for new, modified, or reconstructed air emission sources under 40 CFR Part 60. Perdue has identified one (1) NSPS that is applicable to the Soybean Facility:

- 40 CFR Part 60, Subpart DD – Standards of Performance for Grain Elevators

NSPS – 40 CFR Part 60, Subpart DD

The grain elevator portion of the Soybean Facility will be subject to 40 CFR Part 60, Subpart DD since the facility meets the definition of a “grain storage elevator” as defined in 40 CFR §60.301(f) and construction will commence after August 3, 1978. The Soybean Facility will comply with the particulate matter (PM) standards of 40 CFR §60.302(a) through (c) by meeting the applicable opacity and PM emission limitations. These requirements were addressed in the Phase 1 Plan Approval Application.

National Emission Standards for Hazardous Air Pollutants (NESHAPs)

NESHAPs promulgated prior to the Clean Air Act Amendments (CAAA) of 1990 are codified under 40 CFR Part 61 and apply to specific pollutants that are emitted from specific processes. As a result of the CAAA of 1990, EPA promulgated industry-specific NESHAPs that are codified under 40 CFR Part 63. These 40

CFR Part 63 NESHAPs are also referred to as Maximum Achievable Control Technology (MACT) standards and apply to both major and area sources of hazardous air pollutants (HAPs). A major source of HAPs is defined as a source that emits, or has the potential to emit, 10 tons per year or more of any single HAP or 25 tons per year or more of total HAPs.

There are no 40 CFR Part 61 NESHAPs that apply to the Soybean Facility. However, one (1) 40 CFR Part 63 NESHAP is applicable to the proposed facility:

- 40 CFR Part 63, Subpart GGGG – National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production

NESHAP – 40 CFR Part 63, Subpart GGGG

The solvent extraction/vegetable oil production portion of the proposed facility will be subject to 40 CFR Part 63, Subpart GGGG since the facility will be a major source of HAP (n-hexane) emissions and will process soybeans as per 40 CFR §63.2832(a)(1) and (a)(2)(vii), respectively. The facility will comply with the applicable provisions of the rule, including the HAP emission requirements of 40 CFR §63.2840 that require the calculation of the compliance ratio for each operating month. These requirements are addressed in this Phase 2 Plan Approval Application.

Given its far-reaching applicability, Perdue has also evaluated whether 40 CFR Part 63, Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters applies to the Soybean Facility. This rule is not applicable because the Soybean Facility will not have boilers, the direct-fired grain dryers do not meet the rule's definition of a "process heater," and the Soybean Facility will be subject to another 40 CFR Part 63 rule, specifically Subpart GGGG. The major source boiler rule's 40 CFR 63.7491(h) exempts boilers and process heaters located at facilities that are subject to another NESHAP rule, and 40 CFR 63.7491(j) exempts temporary boilers.

It should also be noted that since the facility will be subject to 40 CFR Part 63, Subpart GGGG, the hexane storage tanks and the soybean oil storage tanks at the facility will not be subject to 40 CFR Part 60, Subpart Kb, as per 40 CFR 60.110b(d)(8).

New Source Review (NSR)

Lancaster County is classified as in attainment or unclassifiable for the National Ambient Air Quality Standards (NAAQS) for carbon monoxide (CO), nitrogen dioxide (NO₂), ozone, particulate matter less than 10 microns (PM-10), sulfur dioxide (SO₂), and lead (Pb). Lancaster County is classified as non-attainment for the NAAQS for particulate matter less than 2.5 microns (PM-2.5). Although Lancaster County is classified as in attainment or unclassifiable for ozone, the entire Commonwealth of Pennsylvania is included in the ozone transport region; and, therefore, the Non-attainment New Source Review (NNSR) regulations must be evaluated. In addition, Perdue has evaluated whether the Federal Prevention of Significant Deterioration (PSD) regulations will apply to the project.

Non-attainment New Source Review (NNSR)

The federal NNSR requirements are implemented under 25 Pa. Code Chapter 127, Subchapter E. Perdue has evaluated the applicability of NNSR to the project by assessing the Soybean Facility's potential to

emit (PTE) for volatile organic compounds (VOC), nitrogen oxides (NO_x), and PM-2.5/PM-2.5 precursors. The Soybean Facility's PTE for NO_x and PM-2.5/PM-2.5 precursors is not anticipated to be greater than the major source threshold (100 tons per year) for each pollutant for NNSR applicability. The Soybean Facility's PTE for VOC is anticipated to be greater than the 50 tons per year major source threshold for NNSR applicability. A summary table of total project potential emissions is presented on the following page.

Under 25 Pa. Code §127.203a(a)(1)(i)(B), the increase of a regulated NSR pollutant from new emissions units will be the PTE from each new unit. Since Perdue is seeking approval for the construction of a new soybean processing facility, the VOC emissions increase will be the PTE from the Soybean Facility. As shown in the summary table, the Soybean Facility's potential VOC emissions are greater than the 50 tons per year NNSR applicability threshold for new facilities; therefore, the Soybean Facility will be required to comply with lowest achievable emission rate (LAER) and obtain the necessary emission reduction credits (ERCs) at the required offset ratio. Suitable ERCs are available in Pennsylvania's ERC Registry. Perdue plans to secure adequate ERCs prior to construction and operation of the project's Phase 2 soybean oil extraction operation and expects the ERC requirement to be a condition of the Phase 2 Plan Approval. In regard to 25 Pa. Code §127.205(2), Perdue does not currently own or operate any existing major sources in Pennsylvania which are subject to Subchapter E.

Prevention of Significant Deterioration (PSD)

The proposed project does not meet the definition of a major source with regard to the federal PSD regulations since the calculated PTE for each PSD-regulated pollutant is anticipated to be less than the 250 tons per year threshold that is applicable to this type of facility. Therefore, the PSD regulations are not applicable.

Compliance Assurance Monitoring (CAM)

The EPA's CAM rule is promulgated at 40 CFR Part 64. The rule requires that certain monitoring parameters be established in the form of a CAM Plan for affected air emission sources and associated control devices at Title V facilities. A number of the PM emission sources/control devices at the Soybean Facility will be subject to CAM, and those requirements are addressed in this Phase 2 Plan Approval Application. Since the facility is subject to 40 CFR Part 63, Subpart GGGG which was proposed on May 26, 2000, the extraction process is exempt from CAM according to 40 CFR 64.2(b)(1)(i).

COMMONWEALTH OF PENNSYLVANIA AIR QUALITY REQUIREMENTS

The following Pennsylvania Department of Environmental Protection (DEP) regulations are applicable to the project:

- 25 Pa. Code Chapter 121 – General Provisions
- 25 Pa. Code Chapter 122 – National Standards of Performance for New Stationary Sources
- 25 Pa. Code Chapter 123 – Standards for Contaminants
- 25 Pa. Code Chapter 127 – Construction, Modification, Reactivation, and Operation of Sources
- 25 Pa. Code Chapter 129 – Standards for Sources

Each requirement is addressed in the following sections.

Perdue Grain & Oilseed, LLC
 Plan Approval Application - Potential Emission Calculations
 Phase 2 - Soybean Processing Facility - Soybean Oil Extraction Operations
 Conoy Township, Lancaster County

Perdue Grain & Oilseed, LLC - Soybean Processing Facility - Summary Table of Total Project Potential Emissions

Source	PM (tons/yr)	PM-10 (tons/yr)	PM-2.5 (tons/yr)	SOx (tons/yr)	CO (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	n-Hexane (tons/yr)	Formaldehyde (tons/yr)	Total HAPs (tons/yr)	CO2 (tons/yr)	N2O (tons/yr)	CH4 (tons/yr)	CO2-e (tons/yr)
PHASE 1: Grain Elevator Operations:														
101 - Grain Receiving & Grain Processing	0.0302	0.0132	0.0022											
102 - Wet Grain Storage Bins (4 bin tanks)	0.0788	0.0198	0.0035											
103 - Grain Dryer No. 1	4.79	2.19	1.47	0.1018	14.25	12.29	1.51	0.31	0.0127	0.32	23,635.25	0.50	0.39	23,796.65
104 - Grain Dryer No. 2	4.79	2.19	1.47	0.1018	14.25	12.29	1.51	0.31	0.0127	0.32	23,635.25	0.50	0.39	23,796.65
105 - Grain Storage Bins (4 bin tanks)	7.88	1.98	0.35											
106 - Grain Loadout	3.10	1.04	0.18											
301 - Grain Elevator Facility Roadways	6.74	1.35	0.33											
PHASE 1 TOTAL EMISSIONS:	27.40	8.79	3.80	0.20	28.50	24.58	3.03	0.61	0.03	0.64	47,270.49	0.99	0.78	47,593.31
PHASE 2: Soybean Oil Extraction Operations:														
201 - Soybean Preparation Process	1.14	0.29	0.05											
202 - Bean Conditioning	1.23	0.31	0.05											
203 - Flaking Rolls	4.56	1.14	0.19											
204 - Extraction Process (Final Vent Emissions)							51.57	23.21		23.21				
204 - Extraction Process (Fugitive Emissions)							93.32	41.99		41.99				
205A - Meal Dryer	35.44	8.86	1.51				83.50	37.57		37.57				
205B - Meal Cooler	37.41	9.35	1.59				17.19	7.74		7.74				
206 - Meal Screening and Grinding	0.6694	0.1673	0.0284											
207 - Mill Feed (Hull) Grinding	0.0315	0.0079	0.0013											
208 - Meal/Mill Feed Storage Bins (4 bin tanks)	0.0053	0.0013	0.0002											
209 - Meal/Mill Feed Loadout Tank	0.0053	0.0013	0.0002											
210 - Meal Loadout Area	0.0574	0.0144	0.0024											
211 - Seed Silo Tanks (3 tanks)	0.9000	0.2268	0.0396											
212 - Hexane Storage Tanks (2 tanks)*							0.93	0.42		0.42				
302 - Soybean Oil Extraction Facility Roadways	3.16	0.63	0.16											
Temporary Portable Emergency Boiler(s)	0.0398	0.0398	0.0398	0.0031	0.43	0.37	0.0455	0.0092	0.0004	0.0096	711.48	0.0149	0.0117	716.33
PHASE 2 TOTAL EMISSIONS:	84.65	21.04	3.66	0.00	0.43	0.37	245.63	110.52	0.00	110.94	711.48	0.01	0.01	716.33
TOTAL PROJECT FACILITY EMISSIONS:	112.05	29.83	7.46	0.21	28.92	24.95	248.65	111.13	0.03	111.58	47,981.97	1.01	0.79	48,309.64

* Emissions from the Hexane Storage Tanks are accounted for in the Extraction Process fugitive emissions.

25 Pa. Code Chapter 121 – General Provisions

Certain general, facility-wide provisions of this chapter are applicable to the proposed project.

25 Pa. Code Chapter 122 – National Standards of Performance for New Stationary Sources

The federal NSPSs promulgated under 40 CFR Part 60 are adopted in their entirety in this chapter. The specific NSPS subparts that are applicable to the proposed project are addressed above in the Federal Air Quality Requirements section.

25 Pa. Code Chapter 123 – Standards for Contaminants

Sections 123.1 through 123.121 establish standards for fugitive emissions, particulate matter, sulfur compounds, odor, visible emissions, and nitrogen compound emissions.

25 Pa. Code §123.1 – Prohibition of certain fugitive emissions

Sources are not permitted to emit fugitive particulate matter from a source other than those listed in §123.1(a)(1) through (9). §123.1(a)(3) addresses the use of roads and streets; however, §123.1(c) requires that sources take all reasonable actions to prevent particulate matter from becoming airborne. Such actions include, but are not limited to, the paving and maintenance of roadways.

Perdue will comply with the requirements by paving and maintaining the roadways at the Soybean Facility. In addition, Perdue will sweep or apply water or suitable dust suppressant chemicals to the roadways, if needed.

25 Pa. Code §123.2 – Fugitive particulate matter

Sources specified in §123.1(a)(1) through (9) are not permitted to emit fugitive particulate matter into the outdoor atmosphere if the emissions are visible at the point the emissions pass outside the facility's property line. Perdue will conduct a weekly inspection around the plant periphery during daylight hours when the plant is in operation to check for fugitive particulate matter.

25 Pa. Code §123.13 – Processes

Process sources are not permitted to emit particulate matter into the outdoor atmosphere in excess of the limits established by §123.13(b) (for grain elevators, grain screening and cleaning, and grain drying) and §123.13(c) (for processes not covered under §123.13(b)). Perdue will maintain emissions calculations to demonstrate compliance.

25 Pa. Code §123.21 – General

Sources are not permitted to emit into the outdoor atmosphere sulfur oxides in a manner that the concentration of the sulfur oxides, expressed as SO₂, in the effluent gas exceeds 500 parts per million, by volume, dry basis. This standard applies specifically to the grain dryers that were addressed in the Phase 1 Plan Approval Application. Perdue will maintain emissions calculations to demonstrate compliance.

25 Pa. Code §123.31 – Limitations

Sources are not permitted to emit into the outdoor atmosphere any malodorous air contaminants from any source, in such a manner that the malodors are detectable outside the property line of the facility. Perdue will conduct a weekly inspection around the plant periphery during daylight hours when the plant is in operation to check for malodorous air contaminants.

25 Pa. Code §123.41 – Limitations

A facility may not permit the emission into the outdoor atmosphere of visible air contaminants in such a manner that the opacity of the emission is either of the following: (1) equal to or greater than 20% for a period or periods aggregating more than 3 minutes in any 1 hour; (2) equal to or greater than 60% at any time. Perdue will conduct a weekly inspection around the plant periphery during daylight hours when the plant is in operation to check for visible emissions.

25 Pa. Code Chapter 127 – Construction, Modification, Reactivation, and Operation of Sources

Pennsylvania's plan approval requirements, PSD requirements, and NSR requirements are established under 25 Pa. Code Chapter 127, Subchapters B, D, and E, respectively.

25 Pa. Code Chapter 127, Subchapter B – Plan Approval Requirements

25 Pa. Code Chapter 127.11 requires that the construction, modification, reactivation, or installation of an air contamination source be approved by the DEP. Perdue is submitting two (2) Plan Approval Applications for the Soybean Facility project in accordance with 25 Pa. Code Chapter 127, Subchapter B.

25 Pa. Code Chapter 127.12(a)(5) requires that emissions from new sources be the minimum attainable through the use of best available technology (BAT). BAT for the proposed new sources in Phase 2 of the project is addressed in Attachment J to this Plan Approval Application.

The federal NESHAPs promulgated under 40 CFR Part 63 are incorporated by reference in §127.35(b). The specific NESHAP subparts that are applicable to the proposed project are addressed above in the Federal Air Quality Requirements section.

25 Pa. Code Chapter 127, Subchapter D – Prevention of Significant Deterioration of Air Quality

The federal PSD requirements promulgated under 40 CFR Part 52 are adopted in their entirety under §127.83. As discussed above, the proposed project does not meet the definition of a major source with regard to the federal PSD regulations, since the calculated PTE for each PSD-regulated pollutant is anticipated to be less than the 250 tons per year threshold that is applicable to this type of facility. Therefore, the PSD regulations are not applicable.

25 Pa. Code Chapter 127, Subchapter E – New Source Review

The federal NNSR requirements are implemented under 25 Pa. Code Chapter 127, Subchapter E. As discussed above, Perdue has evaluated the proposed project for NNSR applicability by assessing the Soybean Facility's PTE for VOC, NO_x, and PM-2.5/PM-2.5 precursors. The Soybean Facility's PTE for NO_x and PM-2.5/PM-2.5 precursors is not anticipated to be greater than the major source threshold (100

tons per year) for each pollutant for NNSR applicability. The Soybean Facility's PTE for VOC is anticipated to be greater than the 50 tons per year major source threshold for NNSR applicability. The previous table provides a summary of the total project potential emissions.

Under 25 Pa. Code §127.203a(a)(1)(i)(B), the emissions increase of a regulated NSR pollutant from new emissions units will be the PTE from each new unit. Since Perdue is seeking approval for the construction of a new Soybean Facility, the VOC emissions increase will be the PTE from the facility. As shown in the previous table, the Soybean Facility's potential VOC emissions are greater than the 50 tons per year NNSR applicability threshold for new facilities; therefore, the Soybean Facility will be required to comply with LAER and obtain the necessary ERCs at the required offset ratio. Suitable ERCs are available in Pennsylvania's ERC Registry. Perdue plans to secure adequate ERCs prior to construction and operation of the project's Phase 2 soybean oil extraction operation and expects the ERC requirement to be a condition of the Phase 2 Plan Approval. In regard to 25 Pa. Code §127.205(2), Perdue does not currently own or operate any existing major sources in Pennsylvania which are subject to Subchapter E.

25 Pa. Code Chapter 129 – Standards for Sources

Chapter 129 establishes standards for various specific sources of air emissions.

25 Pa. Code §129.57 – Storage Tanks Less Than or Equal to 40,000 Gallons Capacity Containing VOCs

The provisions of this section apply to aboveground storage tanks with a capacity equal to or greater than 2,000 gallons which contain VOCs with vapor pressure greater than 1.5 psia (10.5 kilopascals) under actual storage conditions. Storage tanks covered under this section must have pressure relief valves which are maintained in good operating condition and which are set to release at no less than 0.7 psig (4.8 kilopascals) of pressure or 0.3 psig (2.1 kilopascals) of vacuum or the highest possible pressure and vacuum in accordance with state or local fire codes or the National Fire Prevention Association guidelines or other national consensus standards acceptable to DEP. Specifically, the two (2) 20,000-gallon hexane storage tanks included in this Phase 2 Plan Approval Application are subject to this section and will comply with the applicable requirements.

ATTACHMENT E – PROCESS DESCRIPTION

ATTACHMENT E

PROCESS DESCRIPTION

The Soybean Facility is comprised of two (2) operations: (1) the grain elevator operation that will receive, dry, and store soybeans prior to processing, and (2) the soybean processing operation that will process soybeans into soybean oil, soybean meal, and soybean hulls. The construction and operation of the grain elevator is the first phase (Phase 1) of the overall project. Perdue previously submitted a Plan Approval Application for the Phase 1 grain elevator operation to the Department, and that application includes a process description of the Phase 1 operation. The construction and operation of the soybean processing operation is the second phase (Phase 2) of the overall project and is the subject of this Plan Approval Application. The Phase 2 process is detailed below.

Soybeans dried and stored at the grain elevator operation will be conveyed to the preparation building where they will be cleaned and cracked into smaller pieces by cracking rolls. The hulls will then be separated by aspiration. The removed hulls will be ground for use in animal feed (mill feed) and subsequently stored, loaded, and shipped off-site via truck. The cracked bean pieces will then be sent to the bean conditioner where they will be conditioned to make the bean pieces pliable. Next, the bean pieces will be conveyed to smooth flaking rolls where the bean pieces are pressed into thin flakes.

To remove the soybean oil, the flakes will be "washed" with hexane solvent in a countercurrent extractor. This process will produce a solvent/soybean oil mixture and solvent-laden flakes. The solvent/soybean oil mixture will be desolventized by exposure to heat and steam in the distillation system. The evaporated solvent vapor/steam mixture will then be condensed, and the condensed solvent will be separated from the steam condensate and reused in the process. Any hexane that remains after distillation and condensation will be removed in a mineral oil scrubber. The soybean oil will be stored for subsequent loadout and shipment off-site via truck.

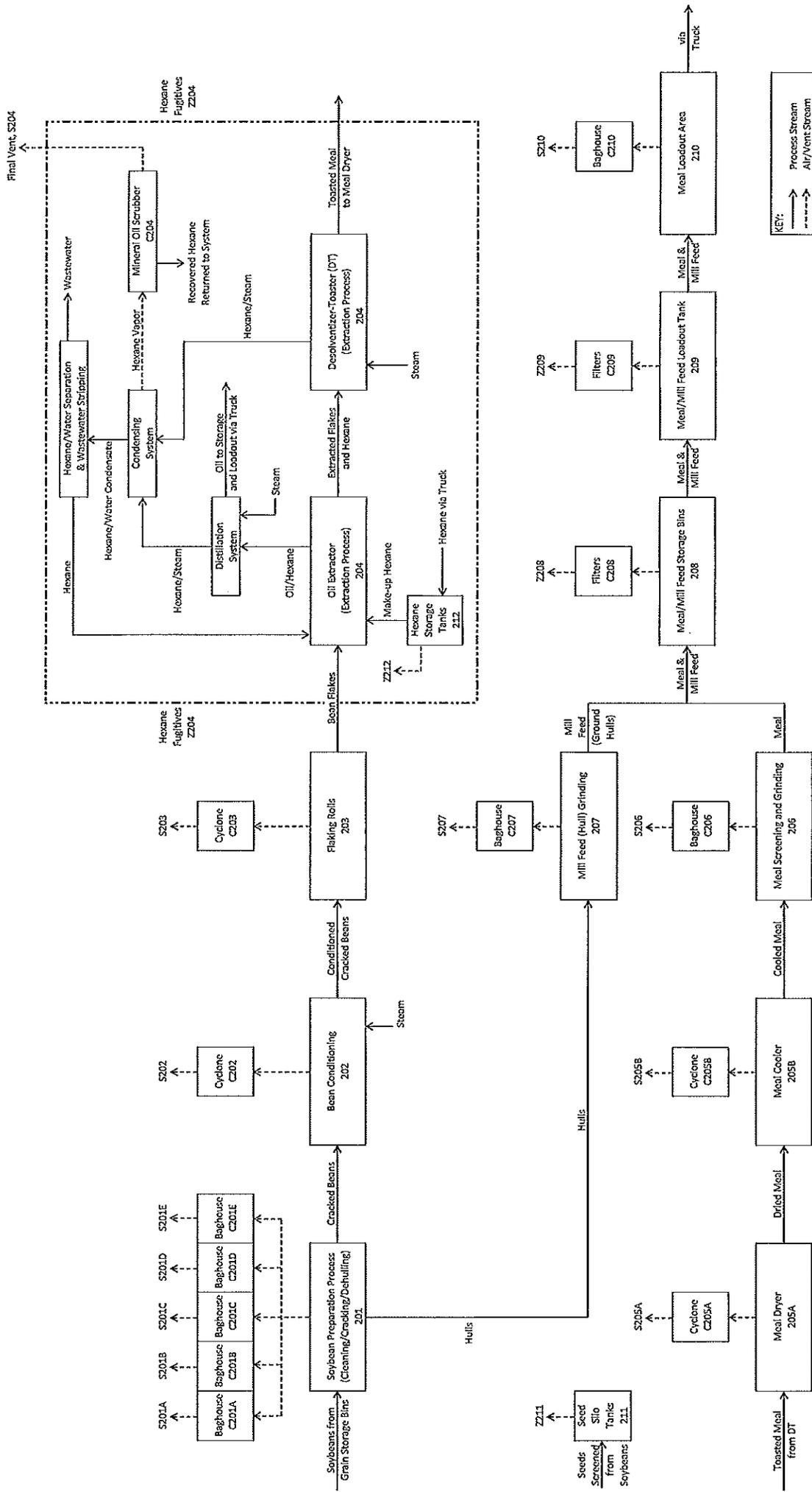
The solvent-laden flakes that leave the extractor will be desolventized in the Desolventizer-Toaster (DT). Steam will be used to evaporate the solvent contained in the flakes. The DT will also heat the flakes to make them usable for animal feed (meal). The solvent/steam vapor will then be condensed, and the condensed solvent will be separated from the steam condensate and reused in the process. Any hexane that remains after condensation will be removed in a mineral oil scrubber.

From the DT, the meal will then pass to the meal dryer where excess moisture will be removed by heat. Next, the meal will be sent to the meal cooler where ambient air will be used to cool the meal. The meal will then be screened and ground for use as animal feed and subsequently stored, loaded, and shipped off-site via truck.

ATTACHMENT F – PROCESS FLOW DIAGRAM

Perdue Grain & Oilseed, LLC
 Plan Approval Application - Potential Emission Calculations
 Phase 2 - Soybean Processing Facility - Soybean Oil Extraction Operations
 Conoy Township, Lancaster County

Process Flow Diagram



ATTACHMENT G – POTENTIAL EMISSION CALCULATIONS

Perdue Grain & Oilseed, LLC
 Plan Approval Application - Potential Emission Calculations
 Phase 2 - Soybean Processing Facility - Soybean Oil Extraction Operations
 Conoy Township, Lancaster County

Perdue Grain & Oilseed, LLC - Soybean Processing Facility - Summary Table of Total Project Potential Emissions

Source	PM (tons/yr)	PM-10 (tons/yr)	PM-2.5 (tons/yr)	SOx (tons/yr)	CO (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	n-Hexane (tons/yr)	Formaldehyde (tons/yr)	Total HAPs (tons/yr)	CO2 (tons/yr)	N2O (tons/yr)	CH4 (tons/yr)	CO2-e (tons/yr)
PHASE 1: Grain Elevator Operations:														
101 - Grain Receiving & Grain Processing	0.0302	0.0132	0.0022											
102 - Wet Grain Storage Bins (4 bin tanks)	0.0788	0.0198	0.0035											
103 - Grain Dryer No. 1	4.79	2.19	1.47	0.1018	14.25	12.29	1.51	0.31	0.0127	0.32	23,635.25	0.50	0.39	23,796.65
104 - Grain Dryer No. 2	4.79	2.19	1.47	0.1018	14.25	12.29	1.51	0.31	0.0127	0.32	23,635.25	0.50	0.39	23,796.65
105 - Grain Storage Bins (4 bin tanks)	7.88	1.98	0.35											
106 - Grain Loadout	3.10	1.04	0.18											
301 - Grain Elevator Facility Roadways	6.74	1.35	0.33											
PHASE 1 TOTAL EMISSIONS:	27.40	8.79	3.80	0.20	28.50	24.58	3.03	0.61	0.03	0.64	47,270.49	0.99	0.78	47,593.31
PHASE 2: Soybean Oil Extraction Operations:														
201 - Soybean Preparation Process	1.14	0.29	0.05											
202 - Bean Conditioning	1.23	0.31	0.05											
203 - Flaking Rolls	4.56	1.14	0.19											
204 - Extraction Process (Final Vent Emissions)														
204 - Extraction Process (Fugitive Emissions)														
205A - Meal Dryer	35.44	8.86	1.51				51.57	23.21		23.21				
205B - Meal Cooler	37.41	9.35	1.59				93.32	41.99		41.99				
206 - Meal Screening and Grinding	0.6694	0.1673	0.0284				83.50	37.57		37.57				
207 - Mill Feed (Hull) Grinding	0.0315	0.0079	0.0013				17.19	7.74		7.74				
208 - Meal/Mill Feed Storage Bins (4 bin tanks)	0.0053	0.0013	0.0002											
209 - Meal/Mill Feed Loadout Tank	0.0053	0.0013	0.0002											
210 - Meal Loadout Area	0.0574	0.0144	0.0024											
211 - Seed Silo Tanks (3 tanks)	0.9000	0.2268	0.0396											
212 - Hexane Storage Tanks (2 tanks)*	3.16	0.63	0.16											
302 - Soybean Oil Extraction Facility Roadways	0.0398	0.0398	0.0398	0.0031	0.43	0.37	0.0455	0.0092	0.0004	0.0096	711.48	0.0149	0.0117	716.33
Temporary Portable Emergency Boiler(s)	84.65	21.04	3.66	0.00	0.43	0.37	245.63	110.52	0.00	110.94	711.48	0.01	0.01	716.33
PHASE 2 TOTAL EMISSIONS:	84.65	21.04	3.66	0.00	0.43	0.37	245.63	110.52	0.00	110.94	711.48	0.01	0.01	716.33
TOTAL PROJECT FACILITY EMISSIONS:	112.05	29.83	7.46	0.21	28.92	24.95	248.65	111.13	0.03	111.58	47,981.97	1.01	0.79	48,309.64

* Emissions from the Hexane Storage Tanks are accounted for in the Extraction Process fugitive emissions.

Perdue Grain & Oilseed, LLC
 Plan Approval Application - Potential Emission Calculations
 Phase 2 - Soybean Processing Facility - Soybean Oil Extraction Operations
 Conoy Township, Lancaster County

Facility-Wide Hexane Solvent Loss Calculations:

Total hexane (VOC) loss rate (from LAER Evaluation):	0.165 gal total hexane loss/ton soybeans processed
Typical volume fraction of HAP (n-hexane) in solvent:	0.45 n-hexane gal/total hexane gal
n-Hexane (HAP) loss rate:	0.0743 gal n-hexane loss/ton soybeans processed
Typical density of hexane solvent:	5.67 lbs/gal
Maximum soybean processing rate:	525,000 tons soybeans/yr
Total hexane (VOC) emissions:	245.58 tons/yr
n-Hexane (HAP) emissions:	110.51 tons/yr

Estimated emissions per source:

Emission Point	Estimated Percent	Total	
		Hexane VOC Emissions (tons/yr)	n-Hexane HAP Emissions (tons/yr)
S204 - Mineral Oil Scrubber Final Vent	21%	51.57	23.21
S205A - Meal Dryer Cyclone Stack	34%	83.50	37.57
S205B - Meal Cooler Cyclone Stack	7%	17.19	7.74
Z204 - Fugitives (including components, tanks, wastewater, etc.)	38%	93.32	41.99
Total:	100%	245.58	110.51

As per AP-42 and 40 CFR Part 63 Subpart GGGG, hexane emissions from solvent utilization are calculated on a facility-wide basis. In order to attribute hexane emissions to individual sources, Perdue has developed percentage estimates based on vapor concentration measurements. Consistent with AP-42 and 40 CFR Part 63 Subpart GGGG, Perdue is requesting that VOC (hexane) emissions be limited via LAER on a facility-wide basis and not on a source-specific basis.

Perdue Grain & Oilseed, LLC
 Plan Approval Application - Potential Emission Calculations
 Phase 2 - Soybean Processing Facility - Soybean Oil Extraction Operations
 Conroy Township, Lancaster County

201 - Soybean Preparation Process

(Includes Rotex cleaner, whole bean tank, cracked bean tank, cracking rolls, and primary/secondary dehulling aspiration.)

Pollutant	Cyclone Controlled Emission Factor (lb/ton soybeans processed)	Calculated Uncontrolled Emission Factor (lb/ton soybeans processed)	Maximum Soybean Processing Rate		Baghouse Control Efficiency (%)	Potential Precontrol Emissions		Potential Atmospheric Emissions	
			(tons/hr)	(tons/yr)		(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)
PM	0.435	4.35	62.5	525,000	99.9%	271.88	1,141.88	0.2719	1.1419
PM-10						67.97	285.47	0.0680	0.2855
PM-2.5						11.55	48.53	0.0116	0.0485

PM Emission Factor Source: U.S. EPA AP-42, Section 9.11.1, Table 9.11.1-1, 11/1995 and Section 9.9.1, Table 9.9.1-1, 03/2003.

Emission factor shown above is the sum of 0.36 lb/ton (Table 9.11.1-1 Cracking/Dehulling factor) and 0.075 lb/ton (Table 9.9.1-1 Grain Cleaning factor).

AP-42 emission factors based on cyclone control. Uncontrolled emission factor "back calculated" assuming 90% cyclone control efficiency.

AP-42 Section 9.11.1 PM-10 and PM-2.5 emission factors not available.

PM-10 emissions estimated as 25% of PM emissions, as per AP-42, Section 9.9.1, Grain Elevators and Processes.

PM-2.5 emissions estimated as 17% of PM-10 emissions, as per AP-42, Section 9.9.1, Grain Elevators and Processes.

Emissions are controlled by C201A - Miscellaneous Aspiration Baghouse, C201B-D - Primary Hull Separation Baghouses, and C201E - Secondary Hull Separation Baghouse.

202 - Bean Conditioning

Pollutant	Cyclone Controlled Emission Factor (lb/ton soybeans processed)	Calculated Uncontrolled Emission Factor (lb/ton soybeans processed)	Maximum Soybean Processing Rate		High Efficiency Cyclone Control Efficiency (%)	Potential Precontrol Emissions		Potential Atmospheric Emissions	
			(tons/hr)	(tons/yr)		(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)
PM	0.010	0.1	59	493,500	95.0%	5.90	24.68	0.2950	1.2338
PM-10						1.48	6.17	0.0738	0.3084
PM-2.5						0.25	1.05	0.0125	0.0524

PM Emission Factor Source: U.S. EPA AP-42, Section 9.11.1, Table 9.11.1-1, 11/1995.

AP-42 emission factor based on cyclone control. Uncontrolled emission factor "back calculated" assuming 90% cyclone control efficiency.

PM-10 and PM-2.5 emission factors not available.

PM-10 emissions estimated as 25% of PM emissions, as per AP-42, Section 9.9.1, Grain Elevators and Processes.

PM-2.5 emissions estimated as 17% of PM-10 emissions, as per AP-42, Section 9.9.1, Grain Elevators and Processes.

Emissions are controlled by C202 - Bean Conditioning Cyclone (95% control efficiency, estimated).

203 - Flaking Rolls

Pollutant	Cyclone Controlled Emission Factor (lb/ton soybeans processed)	Calculated Uncontrolled Emission Factor (lb/ton soybeans processed)	Maximum Soybean Processing Rate		High Efficiency Cyclone Control Efficiency (%)	Potential Precontrol Emissions		Potential Atmospheric Emissions	
			(tons/hr)	(tons/yr)		(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)
PM	0.037	0.37	59	493,500	95.0%	21.83	91.30	1.0915	4.5649
PM-10						5.46	22.82	0.2729	1.1412
PM-2.5						0.93	3.88	0.0464	0.1940

PM Emission Factor Source: U.S. EPA AP-42, Section 9.11.1, Table 9.11.1-1, 11/1995.

AP-42 emission factor based on cyclone control. Uncontrolled emission factor "back calculated" assuming 90% cyclone control efficiency.

PM-10 and PM-2.5 emission factors not available.

PM-10 emissions estimated as 25% of PM emissions, as per AP-42, Section 9.9.1, Grain Elevators and Processes.

PM-2.5 emissions estimated as 17% of PM-10 emissions, as per AP-42, Section 9.9.1, Grain Elevators and Processes.

Emissions are controlled by C203 - Flaking Rolls Cyclone (95% control efficiency, estimated).

204 - Extraction Process (Oil Extractor, Desolventizer-Toaster (DT), and Various Equipment Components)

Final Vent Emissions:

Pollutant	Potential	Estimated Percent Emitted via Final Vent	Potential		Potential	
	Facility-Wide Emissions per LAER (tons/yr)		Precontrol Emissions (lbs/hr)	Precontrol Emissions (tons/yr)	Atmospheric Emissions (lbs/hr)	Atmospheric Emissions (tons/yr)
VOC (hexane)	245.58	21%	1,177.45	5,157.22	11.77	51.57
n-Hexane	110.51	21%	529.85	2,320.75	5.30	23.21

As per AP-42 and 40 CFR Part 63 Subpart GGGG, hexane emissions from solvent utilization are calculated on a facility-wide basis. In order to attribute hexane emissions to individual sources, Perdue has developed percentage estimates based on vapor concentration measurements.

Consistent with AP-42 and 40 CFR Part 63 Subpart GGGG, Perdue is requesting that VOC (hexane) emissions be limited via LAER on a facility-wide basis and not on a source-specific basis.

Hexane vapors from the oil extractor unit and the DT are recovered via the distillation/condensing/mineral oil scrubber system. Residual hexane vapors that are not recovered are emitted from the final vent.

Potential precontrol emissions from the final vent calculated based on 99% control efficiency for the mineral oil scrubber.

Fugitive Emissions:

Pollutant	Potential	Estimated Percent Emitted via Fugitive Losses	Potential		Potential	
	Facility-Wide Emissions per LAER (tons/yr)		Precontrol Emissions (lbs/hr)	Precontrol Emissions (tons/yr)	Atmospheric Emissions (lbs/hr)	Atmospheric Emissions (tons/yr)
VOC (hexane)	245.58	38%	21.31	93.32	21.31	93.32
n-Hexane	110.51	38%	9.59	41.99	9.59	41.99

As per AP-42 and 40 CFR Part 63 Subpart GGGG, hexane emissions from solvent utilization are calculated on a facility-wide basis. In order to attribute hexane emissions to individual sources, Perdue has developed percentage estimates based on vapor concentration measurements.

Consistent with AP-42 and 40 CFR Part 63 Subpart GGGG, Perdue is requesting that VOC (hexane) emissions be limited via LAER on a facility-wide basis and not on a source-specific basis.

Fugitive hexane emissions occur from various hexane-handling equipment components, hexane storage tanks, process wastewater collection, etc.

205A - Meal Dryer

Pollutant	Cyclone Controlled Emission Factor (lb/ton soybeans processed)	Calculated Uncontrolled Emission Factor (lb/ton soybeans processed)	Maximum Soybean Processing Rate		Cyclone Control Efficiency (%)	Potential Precontrol Emissions		Potential Atmospheric Emissions	
			(tons/hr)	(tons/yr)		(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)
PM	0.18	1.8	59	393,750	90.0%	106.20	354.38	10.62	35.44
PM-10						26.55	88.59	2.66	8.86
PM-2.5						4.51	15.06	0.45	1.51

PM Emission Factor Source: U.S. EPA AP-42, Section 9.11.1, Table 9.11.1-1, 11/1995.

AP-42 emission factor based on cyclone control. Uncontrolled emission factor "back calculated" assuming 90% cyclone control efficiency.

PM-10 and PM-2.5 emission factors not available.

PM-10 emissions estimated as 25% of PM emissions, as per AP-42, Section 9.9.1, Grain Elevators and Processes.

PM-2.5 emissions estimated as 17% of PM-10 emissions, as per AP-42, Section 9.9.1, Grain Elevators and Processes.

PM Emissions are controlled by C205A - Meal Dryer Cyclone (90% control efficiency, estimated).

Pollutant	Potential Facility-Wide Emissions per LAER (tons/yr)	Estimated Percent Emitted via Meal Dryer	Potential Precontrol Emissions		Potential Atmospheric Emissions	
			(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)
VOC (hexane)	245.58	34%	19.06	83.50	19.06	83.50
n-Hexane	110.51	34%	8.58	37.57	8.58	37.57

As per AP-42 and 40 CFR Part 63 Subpart GGGG, hexane emissions from solvent utilization are calculated on a facility-wide basis. In order to attribute hexane emissions to individual sources, Perdue has developed percentage estimates based on vapor concentration measurements.

Consistent with AP-42 and 40 CFR Part 63 Subpart GGGG, Perdue is requesting that VOC (hexane) emissions be limited via LAER on a facility-wide basis and not on a source-specific basis.

205B - Meal Cooler

Pollutant	Cyclone Controlled Emission Factor (lb/ton soybeans processed)	Calculated Uncontrolled Emission Factor (lb/ton soybeans processed)	Maximum Soybean Processing Rate		Cyclone Control Efficiency (%)	Potential Precontrol Emissions		Potential Atmospheric Emissions	
			(tons/hr)	(tons/yr)		(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)
PM	0.19	1.9	59	393,750	90.0%	112.10	374.06	11.21	37.41
PM-10						28.03	93.52	2.80	9.35
PM-2.5						4.76	15.90	0.48	1.59

PM Emission Factor Source: U.S. EPA AP-42, Section 9.11.1, Table 9.11.1-1, 11/1995.

AP-42 emission factor based on cyclone control. Uncontrolled emission factor "back calculated" assuming 90% cyclone control efficiency.

PM-10 and PM-2.5 emission factors not available.

PM-10 emissions estimated as 25% of PM emissions, as per AP-42, Section 9.9.1, Grain Elevators and Processes.

PM-2.5 emissions estimated as 17% of PM-10 emissions, as per AP-42, Section 9.9.1, Grain Elevators and Processes.

PM Emissions are controlled by C205B - Meal Cooler Cyclone (90% control efficiency, estimated).

Pollutant	Potential Facility-Wide Emissions per LAER (tons/yr)	Estimated Percent Emitted via Meal Cooler	Potential Precontrol Emissions		Potential Atmospheric Emissions	
			(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)
VOC (hexane)	245.58	7%	3.92	17.19	3.92	17.19
n-Hexane	110.51	7%	1.77	7.74	1.77	7.74

As per AP-42 and 40 CFR Part 63 Subpart GGGG, hexane emissions from solvent utilization are calculated on a facility-wide basis. In order to attribute hexane emissions to individual sources, Perdue has developed percentage estimates based on vapor concentration measurements.

Consistent with AP-42 and 40 CFR Part 63 Subpart GGGG, Perdue is requesting that VOC (hexane) emissions be limited via LAER on a facility-wide basis and not on a source-specific basis.

206 - Meal Screening and Grinding

Pollutant	Cyclone Controlled Emission Factor (lb/ton soybeans processed)	Calculated Uncontrolled Emission Factor (lb/ton soybeans processed)	Maximum Soybean Processing Rate		Baghouse Control Efficiency (%)	Potential Precontrol Emissions		Potential Atmospheric Emissions	
			(tons/hr)	(tons/yr)		(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)
PM	0.34	3.4	47	393,750	99.9%	159.80	669.38	0.1598	0.6694
PM-10						39.95	167.34	0.0400	0.1673
PM-2.5						6.79	28.45	0.0068	0.0284

PM Emission Factor Source: U.S. EPA AP-42, Section 9.11.1, Table 9.11.1-1, 11/1995.

AP-42 emission factor based on cyclone control. Uncontrolled emission factor "back calculated" assuming 90% cyclone control efficiency.

PM-10 and PM-2.5 emission factors not available.

PM-10 emissions estimated as 25% of PM emissions, as per AP-42, Section 9.9.1, Grain Elevators and Processes.

PM-2.5 emissions estimated as 17% of PM-10 emissions, as per AP-42, Section 9.9.1, Grain Elevators and Processes.

Emissions are controlled by C206 - Meal Screening and Grinding Baghouse.

207 - Mill Feed (Hull) Grinding

Pollutant	Cyclone Controlled Emission Factor (lb/ton soybeans processed)	Calculated Uncontrolled Emission Factor (lb/ton soybeans processed)	Maximum Soybean Processing Rate		Baghouse Control Efficiency (%)	Potential Precontrol Emissions		Potential Atmospheric Emissions	
			(tons/hr)	(tons/yr)		(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)
PM	0.20	2.0	3.75	31,500	99.9%	7.50	31.50	0.00750	0.03150
PM-10						1.88	7.88	0.00188	0.00788
PM-2.5						0.32	1.34	0.00032	0.00134

PM Emission Factor Source: U.S. EPA AP-42, Section 9.11.1, Table 9.11.1-1, 11/1995.

AP-42 emission factor based on cyclone control. Uncontrolled emission factor "back calculated" assuming 90% cyclone control efficiency.

PM-10 and PM-2.5 emission factors not available.

PM-10 emissions estimated as 25% of PM emissions, as per AP-42, Section 9.9.1, Grain Elevators and Processes.

PM-2.5 emissions estimated as 17% of PM-10 emissions, as per AP-42, Section 9.9.1, Grain Elevators and Processes.

Emissions are controlled by C207 - Mill Feed (Hull) Grinding Baghouse.

208 - Meal/Mill Feed Storage Bins (4 bin tanks)

Pollutant	Uncontrolled Emission Factor (lb/ton soybeans processed)	Maximum Soybean Processing Rate		Filter Control Efficiency (%)	Potential Precontrol Emissions		Potential Atmospheric Emissions	
		(tons/hr)	(tons/yr)		(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)
PM	0.025	54.75	425,250	99.9%	1.37	5.32	0.00137	0.00532
PM-10	0.0063	54.75	425,250	99.9%	0.34	1.34	0.00034	0.00134
PM-2.5	0.0011	54.75	425,250	99.9%	0.06	0.23	0.00006	0.00023

Emission Factor Source: U.S. EPA AP-42, Section 9.9.1, Table 9.9.1-1, 03/2003.

Emissions are controlled by C208 - Meal/Mill Feed Storage Bin Filters.

209 - Meal/Mill Feed Loadout Tank

Pollutant	Uncontrolled Emission Factor (lb/ton soybeans processed)	Maximum Soybean Processing Rate		Filter Control Efficiency (%)	Potential Precontrol Emissions		Potential Atmospheric Emissions	
		(tons/hr)	(tons/yr)		(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)
PM	0.025	54.75	425,250	99.9%	1.37	5.32	0.00137	0.00532
PM-10	0.0063	54.75	425,250	99.9%	0.34	1.34	0.00034	0.00134
PM-2.5	0.0011	54.75	425,250	99.9%	0.06	0.23	0.00006	0.00023

Emission Factor Source: U.S. EPA AP-42, Section 9.9.1, Table 9.9.1-1, 03/2003.
Emissions are controlled by C209 - Meal/Mill Feed Loadout Tank BIn Filter.

210 - Meal Loadout Area

Pollutant	Uncontrolled Emission Factor (lb/ton soybeans processed)	Maximum Soybean Processing Rate		Baghouse Control Efficiency (%)	Potential Precontrol Emissions		Potential Atmospheric Emissions	
		(tons/hr)	(tons/yr)		(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)
PM	0.27	100	425,250	99.9%	27.00	57.41	0.0270	0.0574
PM-10					6.75	14.35	0.0068	0.0144
PM-2.5					1.15	2.44	0.0011	0.0024

PM Emission Factor Source: U.S. EPA AP-42, Section 9.11.1, Table 9.11.1-1, 11/1995.
AP-42 emission factor based on no control.
PM-10 and PM-2.5 emission factors not available.
PM-10 emissions estimated as 25% of PM emissions, as per AP-42, Section 9.9.1, Grain Elevators and Processes.
PM-2.5 emissions estimated as 17% of PM-10 emissions, as per AP-42, Section 9.9.1, Grain Elevators and Processes.
Emissions are controlled by C210 - Meal Loadout Area Baghouse.

211 - Seed Silo Tanks (3 tanks)

Pollutant	Uncontrolled Emission Factor (lb/ton soybeans processed)	Maximum Soybean Processing Rate		Control Efficiency (%)	Potential Precontrol Emissions		Potential Atmospheric Emissions	
		(tons/hr)	(tons/yr)		(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)
PM	0.025	62.5	72,000	0.0%	1.5625	0.9000	1.5625	0.9000
PM-10	0.0063	62.5	72,000	0.0%	0.3938	0.2268	0.3938	0.2268
PM-2.5	0.0011	62.5	72,000	0.0%	0.0688	0.0396	0.0688	0.0396

Emission Factor Source: U.S. EPA AP-42, Section 9.9.1, Table 9.9.1-1, 03/2003.

Perdue Grain & Oilseed, LLC
Plan Approval Application - Potential Emission Calculations
Phase 2 - Soybean Processing Facility - Soybean Oil Extraction Operations
Conoy Township, Lancaster County

212 - Hexane Storage Tanks (2 tanks)*

(Emissions shown below are per tank.)

Pollutant	Potential Precontrol Emissions		Potential Atmospheric Emissions	
	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)
VOC (hexane)	0.11	0.47	0.11	0.47
n-Hexane	0.048	0.21	0.048	0.21

Emissions calculated using EPA TANKS 4.09D.

*TANKS Emissions Report is attached.

TANKS 4.0.9d
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Identification

User Identification: Perdue Hexane Storage Tank
 City: Conoy Twp.
 State: Pennsylvania
 Company: Perdue
 Type of Tank: Horizontal Tank
 Description: Source ID: 212

Tank Dimensions

Shell Length (ft): 34.00
 Diameter (ft): 10.00
 Volume (gallons): 20,000.00
 Turnovers: 2.17
 Net Throughput(gal/yr): 43,312.50
 Is Tank Heated (y/n): N
 Is Tank Underground (y/n): N

Paint Characteristics

Shell Color/Shade: White/White
 Shell Condition: Good

Breather Vent Settings

Vacuum Settings (psig): -0.03
 Pressure Settings (psig): 0.03

Meteorological Data used in Emissions Calculations: Harrisburg, Pennsylvania (Avg Atmospheric Pressure = 14.57 psia)

TANKS 4.0.9d
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Perdue Hexane Storage Tank - Horizontal Tank
Conoy Twp., Pennsylvania

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Hexane (-n)	Jan	43.00	39.61	46.38	52.85	1.2073	1.0965	1.3272	86.1700		86.17	Option 2: A=6.876, B=1171.17, C=224.41	
Hexane (-n)	Feb	44.53	40.62	48.43	52.85	1.2603	1.1286	1.4044	86.1700		86.17	Option 2: A=6.876, B=1171.17, C=224.41	
Hexane (-n)	Mar	49.31	44.59	54.02	52.85	1.4386	1.2626	1.6343	86.1700		86.17	Option 2: A=6.876, B=1171.17, C=224.41	
Hexane (-n)	Apr	54.35	48.79	59.91	52.85	1.6486	1.4184	1.9089	86.1700		86.17	Option 2: A=6.876, B=1171.17, C=224.41	
Hexane (-n)	May	59.15	53.21	65.10	52.85	1.8716	1.5989	2.1813	86.1700		86.17	Option 2: A=6.876, B=1171.17, C=224.41	
Hexane (-n)	Jun	63.39	57.39	69.39	52.85	2.0868	1.7867	2.4305	86.1700		86.17	Option 2: A=6.876, B=1171.17, C=224.41	
Hexane (-n)	Jul	65.43	59.56	71.31	52.85	2.2002	1.8915	2.5489	86.1700		86.17	Option 2: A=6.876, B=1171.17, C=224.41	
Hexane (-n)	Aug	64.42	58.92	69.91	52.85	2.1441	1.8605	2.4621	86.1700		86.17	Option 2: A=6.876, B=1171.17, C=224.41	
Hexane (-n)	Sep	60.63	55.46	65.80	52.85	1.9448	1.6979	2.2204	86.1700		86.17	Option 2: A=6.876, B=1171.17, C=224.41	
Hexane (-n)	Oct	54.99	50.18	59.80	52.85	1.6770	1.4732	1.9034	86.1700		86.17	Option 2: A=6.876, B=1171.17, C=224.41	
Hexane (-n)	Nov	49.98	46.24	53.71	52.85	1.4651	1.3220	1.6209	86.1700		86.17	Option 2: A=6.876, B=1171.17, C=224.41	
Hexane (-n)	Dec	45.08	41.94	48.22	52.85	1.2799	1.1718	1.3961	86.1700		86.17	Option 2: A=6.876, B=1171.17, C=224.41	

Tank Diameter (ft):
Working Loss Product Factor:

10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000	10.0000
1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
39.5488	43.1553	63.3147	82.2402	102.6488	113.0890	120.5716	110.3257	91.5832	75.5412	51.2004	39.3200

Total Losses (lb):

TANKS 4.0.9d
Emissions Report - Detail Format
Individual Tank Emission Totals

Emissions Report for: January, February, March, April, May, June, July, August, September, October, November, December

Perdue Hexane Storage Tank - Horizontal Tank
Conoy Twp., Pennsylvania

		Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions	
Hexane (-1)	149.78	782.76	932.54	

2 - Soybean Oil Extraction Facility Roadways

Equation 2 from U.S. EPA AP-42, Section 13.2.1, 01/2011 was used to estimate PM, PM-10, and PM-2.5 emissions:

$$E_{ext} = [k (sL)^{0.91} \times (W)^{1.02}] (1-P/4N)$$

where:

- E_{ext} = annual average particulate emission factor (lb/VMT)
- k = particle size multiplier for particle size range and units of interest (lb/VMT)
- sL = road surface silt loading (g/m²)
- W = average weight (tons) of the vehicles traveling the road
- P = number of "wet" days with at least 0.254 mm (0.01 in) of precipitation during the averaging period
- N = number of days in the averaging period (e.g., 365 days for annual)

Pollutant	k	sL	W	P	N	E_{ext}	Annual Vehicle Miles Traveled (VMT/yr)	Potential		Potential	
	Particle Size Multiplier (lb/VMT)	Road Surface Silt Loading (g/m ²)	Average Weight of Vehicles (tons)	Number of "Wet" Days with at Least 0.254 mm of Precipitation	Number of Days In the Averaging Period	Annual Average Particulate Emission Factor (lb/VMT)		Precontrol Emissions (lbs/hr)	(tons/yr)	Atmospheric Emissions (lbs/hr)	(tons/yr)
PM	0.011	1.1	34	140	365	0.3957	15,961	0.7210	3.1581	0.7210	3.1581
PM-10	0.0022	1.1	34	140	365	0.0791	15,961	0.1442	0.6316	0.1442	0.6316
PM-2.5	0.00054	1.1	34	140	365	0.0194	15,961	0.0354	0.1550	0.0354	0.1550

k, particle size multiplier from AP-42 Table 13.2.1-1; PM (PM-30) = 0.011 lb/VMT, PM-10 = 0.0022 lb/VMT, and PM-2.5 = 0.00054 lb/VMT.
 sL, road surface silt loading from AP-42 Table 13.2.1-3; Corn wet mills, mean = 1.1 g/m².
 P, number of "wet" days with at least 0.254 mm (0.01 in) of precipitation from AP-42 Figure 13.2.1-2.
 VMT = vehicle mile traveled.

Perdue Grain & Oilseed, LLC
 Plan Approval Application - Potential Emission Calculations
 Phase 2 - Soybean Processing Facility - Soybean Oil Extraction Operations
 noy Township, Lancaster County

Temporary Portable Emergency Boiler(s)

In the rare event that the LCSWMA RRF goes offline, Perdue may need to bring a portable temporary emergency boiler(s) onsite to generate process steam. It is anticipated that the longest time period for such a boiler(s) to be operating onsite would be one (1) week (168 hours) during the course of a year. Perdue has determined a total maximum heat input rating of 62 MMBTU/hr would be necessary to generate the required quantity of steam. The temporary portable emergency boiler(s) would be either natural gas-fired or propane-fired. Although such boiler(s) are not anticipated and would not be a permanent air emission source at the facility, emission estimates are provided for completeness.

Emissions Due to Natural Gas Combustion:

Pollutant	Emission Factor (lb/MMSCF)	Maximum Heat Input Rating (MMBTU/hr)	Fuel Heating Value (BTU/SCF)	Maximum Operation (hrs/yr)	Maximum Fuel		Potential Precontrol Emissions		Potential Atmospheric Emissions	
					(MMSCF/hr)	(MMSCF/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)
PM (Total)	7.6	62	1,020	168	0.0608	10.21	0.46	0.04	0.46	0.04
PM (Condensable)	5.7	62	1,020	168	0.0608	10.21	0.35	0.03	0.35	0.03
PM (Filterable)	1.9	62	1,020	168	0.0608	10.21	0.12	0.01	0.12	0.01
SOx	0.6	62	1,020	168	0.0608	10.21	0.04	0.00	0.04	0.00
CO	84	62	1,020	168	0.0608	10.21	5.11	0.43	5.11	0.43
NOx	50	62	1,020	168	0.0608	10.21	3.04	0.26	3.04	0.26
VOC	5.5	62	1,020	168	0.0608	10.21	0.33	0.03	0.33	0.03
Benzene	2.1E-03	62	1,020	168	0.0608	10.21	0.00	0.00	0.00	0.00
Dichlorobenzene	1.2E-03	62	1,020	168	0.0608	10.21	0.00	0.00	0.00	0.00
Formaldehyde	7.5E-02	62	1,020	168	0.0608	10.21	0.00	0.00	0.00	0.00
Hexane	1.8E+00	62	1,020	168	0.0608	10.21	0.11	0.01	0.11	0.01
Naphthalene	6.1E-04	62	1,020	168	0.0608	10.21	0.00	0.00	0.00	0.00
Toluene	3.4E-03	62	1,020	168	0.0608	10.21	0.00	0.00	0.00	0.00
PM	8.8E-05	62	1,020	168	0.0608	10.21	0.00	0.00	0.00	0.00
Asenic	2.0E-04	62	1,020	168	0.0608	10.21	0.00	0.00	0.00	0.00
Beryllium	1.2E-05	62	1,020	168	0.0608	10.21	0.00	0.00	0.00	0.00
Cadmium	1.1E-03	62	1,020	168	0.0608	10.21	0.00	0.00	0.00	0.00
Chromium	1.4E-03	62	1,020	168	0.0608	10.21	0.00	0.00	0.00	0.00
Cobalt	8.4E-05	62	1,020	168	0.0608	10.21	0.00	0.00	0.00	0.00
Lead Compounds	0.0005	62	1,020	168	0.0608	10.21	0.00	0.00	0.00	0.00
Manganese	3.8E-04	62	1,020	168	0.0608	10.21	0.00	0.00	0.00	0.00
Mercury	2.6E-04	62	1,020	168	0.0608	10.21	0.00	0.00	0.00	0.00
Nickel	2.1E-03	62	1,020	168	0.0608	10.21	0.00	0.00	0.00	0.00
Selenium	2.4E-05	62	1,020	168	0.0608	10.21	0.00	0.00	0.00	0.00
Total HAPs	1.9E+00	62	1,020	168	0.0608	10.21	0.11	0.01	0.11	0.01
Lead	0.0005	62	1,020	168	0.0608	10.21	0.00	0.00	0.00	0.00
TOC	11	62	1,020	168	0.0608	10.21	0.67	0.06	0.67	0.06
Butane	2.1E+00	62	1,020	168	0.0608	10.21	0.13	0.01	0.13	0.01
Ethane	3.1E+00	62	1,020	168	0.0608	10.21	0.19	0.02	0.19	0.02
Pentane	2.6E+00	62	1,020	168	0.0608	10.21	0.16	0.01	0.16	0.01
Propane	1.6E+00	62	1,020	168	0.0608	10.21	0.10	0.01	0.10	0.01
Barium	4.4E-03	62	1,020	168	0.0608	10.21	0.00	0.00	0.00	0.00
Copper	8.5E-04	62	1,020	168	0.0608	10.21	0.00	0.00	0.00	0.00
Molybdenum	1.1E-03	62	1,020	168	0.0608	10.21	0.00	0.00	0.00	0.00
Vanadium	2.3E-03	62	1,020	168	0.0608	10.21	0.00	0.00	0.00	0.00
Zinc	2.9E-02	62	1,020	168	0.0608	10.21	0.00	0.00	0.00	0.00
CO2	120,000	62	1,020	168	0.0608	10.21	7,294.12	612.71	7,294.12	612.71
N2O	0.64	62	1,020	168	0.0608	10.21	0.04	0.00	0.04	0.00
Methane (CH4)	2.3	62	1,020	168	0.0608	10.21	0.14	0.01	0.14	0.01
CO2-e							7,309.11	613.97	7,309.11	613.97

Emission Factor Source: U.S. EPA AP-42, Section 1.4, Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4, 07/1998.
 Each boiler would be equipped with low NOx burners.

Temporary Portable Emergency Boiler(s) (Cont.)

Emissions Due to Propane Combustion:

Pollutant	Emission Factor (lb/Mgal)	Maximum Heat Input Rating (MMBTU/hr)	Fuel Heating Value (BTU/gal)	Maximum Operation (hrs/yr)	Maximum Fuel Combustion Rate		Potential Precontrol Emissions		Potential Atmospheric Emissions	
					(Mgal/hr)	(Mgal/yr)	(lbs/hr)	(tons/yr)	(lbs/hr)	(tons/yr)
PM (Total)	0.7	62	91,500	168	0.68	113.84	0.47	0.04	0.47	0.04
PM (Condensable)	0.5	62	91,500	168	0.68	113.84	0.34	0.03	0.34	0.03
PM (Filterable)	0.2	62	91,500	168	0.68	113.84	0.14	0.01	0.14	0.01
SOx	0.018	62	91,500	168	0.68	113.84	0.01	0.00	0.01	0.00
CO	7.5	62	91,500	168	0.68	113.84	5.08	0.43	5.08	0.43
NOx	6.5	62	91,500	168	0.68	113.84	4.40	0.37	4.40	0.37
VOC	0.8	62	91,500	168	0.68	113.84	0.54	0.05	0.54	0.05
TOC	1	62	91,500	168	0.68	113.84	0.68	0.06	0.68	0.06
CO2	12,500	62	91,500	168	0.68	113.84	8,469.95	711.48	8,469.95	711.48
N2O	0.262	62	91,500	168	0.68	113.84	0.18	0.01	0.18	0.01
Methane (CH4)	0.2	62	91,500	168	0.68	113.84	0.14	0.01	0.14	0.01
CO2-e							8,527.79	716.33	8,527.79	716.33

Emission Factor Source: U.S. EPA AP-42, Section 1.5, Table 1.5-1, 07/2008.

Each boiler would be equipped with low NOx burners.

Low NOx emission factors are not available for propane combustion. Low NOx emission factors were estimated by applying the same reduction realized by low NOx burners combusting natural gas.

ATTACHMENT H – LOWEST ACHIEVABLE EMISSION RATE (LAER) EVALUATION



ATTACHMENT H

LOWEST ACHIEVABLE EMISSION RATE (LAER) EVALUATION

A new major stationary source locating in a non-attainment area must conduct an evaluation to demonstrate that it will comply with the Lowest Achievable Emission Rate (LAER). In accordance with 25 Pa. Code §127.205(1), Perdue has conducted a LAER Evaluation for the Soybean Facility.

Background

Currently, all existing solvent extraction processes for vegetable oil production use a hexane-based extraction solvent (Preamble to the proposed 40 CFR Part 63, Subpart GGGG, Solvent Extraction for Vegetable Oil Production NESHAP (65 FR 34252 (May 26, 2000)) (Proposed Subpart GGGG Preamble). Typically, the only hazardous air pollutant (HAP) contained (in varying percentages) in such solvent is n-hexane. The remaining portion of the solvent consists of hexane isomers which are classified as volatile organic compounds (VOC), but not as HAPs. The entire hexane solvent mixture (all isomers of hexane, including n-hexane) is classified as VOC. The process of controlling VOC emissions also reduces emissions of n-hexane.

There are operations associated with soybean oil extraction that emit VOC both upstream and downstream of the solvent extraction and desolventizing components of the process. For example, upstream, the hexane storage tanks are sources of VOC emissions, and downstream, the meal dryer, the meal cooler, and the fugitive emissions from the soybean meal are sources of VOC. As noted in the Proposed Subpart GGGG Preamble, the following VOC emission points exist at a typical soybean oil extraction facility:

- Exhaust from the mineral oil scrubber system final vent;
- Exhaust from the meal dryer cyclone stack;
- Exhaust from the meal cooler cyclone stack;
- Fugitive residual losses from crude soybean meal;
- Fugitive residual losses from crude soybean oil;
- Fugitive evaporative losses from equipment leaks;
- Fugitive breathing and working losses from the hexane storage tanks;
- Fugitive evaporative losses from process wastewater collection; and
- Fugitive losses from process startup and shutdowns.

The Proposed Subpart GGGG Preamble states that "It is not practical from a cost standpoint to quantify losses of HAP from the individual emission points. However, total HAP emissions from the entire source can be determined using records of deliveries and inventories of solvent and oilseed. Thus, the

regulatory format for the proposed rule was selected as an emission limit expressed in terms of gallons of HAP lost per ton of oilseed processed.” This regulatory format, specifically a facility-wide emission limit expressed in terms of gallons of VOC/HAP lost per ton of oilseed processed, was retained in the final Subpart GGGG rule. The emission estimation methodology in Section 9.11.1, Vegetable Oil Processing of AP-42, Compilation of Air Pollutant Emission Factors (AP-42) is consistent with the Subpart GGGG methodology of estimating facility-wide rather than source-specific emissions. Section 9.11.1.3 of AP-42 states “The recommended method for estimating annual hexane emissions from soybean solvent extraction facilities is to obtain the annual hexane usage from the specific plant’s records, and to assume that all hexane make-up is due to losses to the air.” Due to the impracticality of quantifying individual sources of fugitive VOC emissions within the soybean oil extraction process, this approach represents an overall total loss factor for soybean oil processing, covering all sources of vented and fugitive VOC emissions, as well as any VOC leaving the Soybean Facility as part of the soybean oil or soybean meal products. As noted in the Proposed Subpart GGGG Preamble, the emissions reduction techniques that will be used to comply with the NESHAP are pollution prevention technologies designed to recover and recycle solvent.

In keeping with the regulatory precedent established by Subpart GGGG, the recommended emission quantification methodology in AP-42, and the establishment of facility-wide gallon per ton emission limits in permits issued to other soybean processing facilities, Perdue has conducted this LAER Evaluation based on a facility-wide gallons of VOC per ton of soybeans processed emission limitation.

Identification of Control Device Technologies

A review of the soybean processing facility permits in the U.S. EPA RACT/BACT/LAER Clearinghouse (RBLC) was performed. In addition, Perdue reviewed emission limit information for other facilities that was compiled by the Missouri Department of Natural Resources (MO DNR) in connection with its review of permits to construct soybean processing facilities. Table 1 sets forth the data that was collected by the RBLC and MO DNR and includes the facility name, location, process type, control method (if known), permitted VOC emission limit, and permit issuance date. The RBLC, air permits issued in states other than Pennsylvania, and industry information indicates that a condensing/mineral oil scrubber system is the prevalent technique utilized to control VOC emissions from the extraction and desolventizer-toaster (DT) segment of the soybean oil extraction process.

The condensing/mineral oil scrubber system is identified throughout the RBLC as VOC control for soybean processing facilities. However, these systems are not considered by industry to be solely control devices, as the recovery of solvent is the primary function of the system and control of VOC emissions is a secondary function. The soybean processing industry recovers hexane to the maximum extent possible and reuses it due to its cost. Therefore, it is in the best interest of both the environment and Perdue to design and operate a solvent recovery system that minimizes VOC emission losses to the maximum extent possible.

Regarding the meal dryer and meal cooler VOC emissions, no control technologies for these sources were identified in the RBLC or in the available information collected by MO DNR. Also, the Proposed Subpart GGGG Preamble indicates that soybean oil extraction facilities have not installed VOC emission controls on meal dryer or meal cooler vents.

The potential technically feasible control technologies identified for the post-condensing/mineral oil scrubber system (final vent) VOC emissions and the meal dryer and meal cooler VOC emissions are as follows:

- Biofiltration
- Carbon Adsorption
- Incineration (Regenerative Thermal Oxidizer (RTO) or Catalytic Oxidizer)

Biofiltration

Biofiltration technology encompasses a wide range of pollution control systems that utilize a fixed matrix of biological films to oxidize VOCs in an exhaust stream. These systems have been under development, especially outside of the United States, for the last several years but are still not widely considered to be a proven VOC control technology. The application of biofiltration technology beyond bench-scale and pilot plant operations has been very limited. Based on a search of the RBLC and an internet search of available permits, Perdue is not aware of the current use of biofiltration at any soybean processing facilities in the United States.

The thermodynamic, physical, and chemical treatment methods that form the basis for conventional methods of VOC emissions control are typically energy intensive. In contrast, biological VOC emissions control systems employ the natural degrading abilities of microorganisms to biochemically oxidize organic contaminants at normal temperatures and pressures. Thus, biological systems typically require a smaller energy input. The key drawback of a biofilter is that it is, essentially, a "living" control system. As such, the system is vulnerable to changes in the inlet gas stream composition or changes in the physical operating conditions of the system. This vulnerability can lead to wide fluctuations in the destruction efficiencies provided by such systems.

All biofilters use some type of material to support a microbial film. The most common types of materials used are soils or a high organic content material such as compost and peat. In either case, the waste gas is drawn through a packed bed arrangement of the support material. Contaminants in the waste gas then diffuse into the microbial films growing on the support material. Given a suitable growth environment, including adequate quantities of dissolved oxygen and inorganic nutrients, organisms in the films can utilize the VOC contaminants as energy sources. End products of the biofilter reactor consist of new biological cell mass, carbon dioxide, water, and mineral salts.

A biofilter system is dynamic, since the system continually changes with changes in the microbial growths it contains. Knowledge of the behavior of these dynamic systems over extended operating periods is not available, and, as a result, there is no basis from which the long-term reliability of the system can be established. Additionally, the absence of reliable, long-term performance information for the systems makes it impossible to design for or predict the destruction efficiency that could be achieved for a soybean processing facility.

Destruction efficiencies in biofilter systems are largely governed by gas residence time in the biofilter bed and the degradability of the contaminant to be treated. Hexane does have a relatively high degree of biodegradability, but the bed volume required to provide even a few seconds of residence time would be prohibitively large. At this stage in its development, the application of biofiltration for control of the VOC in the mineral oil scrubber, meal dryer, and meal cooler exhaust streams would be technically infeasible, primarily due to the relatively large gas flow rate to be treated at the proposed soybean processing facility.

Since biofiltration is not a technically feasible proven control method for VOC emissions from solvent extraction plants, biofiltration has been eliminated from further consideration as LAER for the extraction process mineral oil scrubber, meal dryer, and meal cooler.

Carbon Adsorption

Adsorption is the mechanism by which molecules of gaseous contaminants pass through a bed of solid particles (e.g., activated carbon) and migrate to the surface of the solid particles where they are held by physical attraction. This allows clean air to exit the control device with only minimal gaseous contaminants remaining. The adsorptive capacity of the solid material for the gaseous contaminants will generally increase with the gas phase concentration, molecular weight, diffusivity, polarity, and boiling point. Carbon adsorption is used to remove VOC from relatively low to medium VOC concentration exhaust streams when a strict exhaust outlet concentration must be attained and/or recovery of the VOC is desired.

There are various types of adsorbents that can be used, depending on the type of process to which it is being applied. The possible adsorbents include activated carbon, synthetic zeolite, silica gel, and activated alumina. There are also various types of adsorption equipment used in collecting gases, and these include fixed regenerable beds and canister types of units. For the control of VOC from exhaust streams, the most common adsorbent is activated carbon and the most common adsorber is the regenerable fixed bed adsorber. This combination is effective for VOC emissions control, with control efficiencies typically ranging between 95 and greater than 99 percent.

When the adsorptive capacity of the activated carbon is approached, the adsorbed VOC must be removed from the carbon. For this reason, many operations are equipped with a two-bed, continuous operating system, one bed being on-line while the other bed is off-line and being regenerated. This regeneration or desorption can be accomplished either by using steam or by a combination of high

vacuum and purged air stripping. Once the VOC is removed from the bed, the carbon's ability to adsorb VOC vapors is restored, and the bed can be placed back on-line. Carbon adsorption units are designed to take into consideration site-specific conditions such as the mass flow rate of VOC vapors, the inlet VOC concentration, the desired VOC concentration at the outlet, the adsorption time, and the working capacity of the activated carbon.

Carbon adsorption is not used to control VOC emissions in soybean oil extraction facilities for technical and safety reasons. Carbon adsorption systems were applied rather widely to the final vent emissions stream from solvent extraction plants in the late 1940s and early 1950s. The aerosol oil in the mineral oil scrubber exhaust and the particulate matter (PM) in the meal dryer and meal cooler exhausts causes fouling of the carbon bed. Also, soybeans naturally contain small amounts of sulfur compounds, which also cause fouling of the carbon bed. Although the PM concentration in the meal dryer and meal cooler exhausts can be greatly reduced by a cyclone, the aerosol oils and sulfur compounds cannot be similarly removed. In the late 1950s, mineral oil scrubber systems began to replace carbon adsorption units.

Carbon adsorbers are not considered a feasible VOC control option for soybean oil extraction facilities because they create a risk of fire and/or explosion. The adsorption of hexane onto carbon is an exothermic reaction. Increases in the VOC concentration of the inlet stream will cause additional heat to build up in the carbon bed. Under optimum conditions, the air movement through the bed will remove the heat via convection. However, if channeling occurs in the carbon bed, or if the increase in VOC concentration is too large (as in an upset condition), the bed can overheat to the point of auto-ignition. Good design and controls can eliminate overheating of the carbon bed under normal operating conditions, but during an upset or when the equipment or controls fail, overheating will result. This makes the carbon adsorber unit a potential source of ignition. The carbon adsorber unit would be directly connected to the process by ductwork, which allows a flame path back to the process. The highest probability of a fire occurring in the adsorber is during process upsets when solvent vapor fills the duct connecting the process to the adsorber unit. A flame front could potentially flow back into the process from the adsorber creating a fire and explosion hazard. The inherent presence of highly flammable fugitive hexane vapors at the facility could also lead to catastrophic results.

Based on a search of the RBLC and an internet search of available permits, carbon adsorption is not being used for VOC control at any soybean processing facilities in the United States. Because of the above technical feasibility and safety concerns, carbon adsorption is eliminated from further consideration as LAER for the extraction process mineral oil scrubber, meal dryer, and meal cooler.

Incineration

Incineration control devices are effective in destroying VOC vapors in process exhaust streams. A regenerative thermal oxidizer (RTO) is an incinerator with a set of refractory beds (packing) that store heat. It is common to use three ceramic beds in an RTO. One bed is used to pre-heat the waste gas stream, one bed is used to store heat from the treated gas stream, and one bed is in a purge cycle. Pre-heating the gas stream reduces supplemental fuel requirements, as compared to an incinerator without

heat exchangers. Final combustion chamber temperatures are typically in excess of 1,300 degrees Fahrenheit (°F) to ensure complete combustion of the VOC in the incoming gas stream.

Catalytic incinerators are similar to thermal/recuperative incinerators, with the primary difference being that the exhaust gas, after passing through the flame area, passes through a catalyst bed. The catalyst has the effect of increasing the oxidation reaction rate, thus enabling oxidation to occur at a lower reaction temperature than normal thermal oxidation units. Catalysts typically used for VOC incineration include platinum and palladium. Outlet temperatures for catalytic incinerators are dependent on the concentration of VOC, but are typically below 1,000 °F. Commercially available RTOs or catalytic incinerators can achieve VOC destruction efficiencies that exceed 95 percent, depending on the particular installation and process being controlled.

RTOs and incineration systems are not used to control VOC emissions in soybean oil extraction facilities for both technical and safety reasons. From a technical standpoint, the exhaust from the mineral oil scrubber will include small amounts of oil in aerosol form. This aerosol oil is likely to cause carbonization and degradation of the packing in the RTO, leading to a loss of heat transfer. Degrading the packing and losing heat transfer capability will make the RTO less effective. The exhaust from the meal dryer and meal cooler will include PM, and the packing material and the inlet screen in the regeneration system of an RTO are both susceptible to plugging by PM. The plugging will potentially cause the RTO to malfunction. Therefore, an RTO to control VOC emissions from the meal dryer and the cooler is technically infeasible.

In addition to the technical feasibility issues associated with the use of incineration as a control technology, incineration is not feasible for safety reasons. Since hexane is highly flammable, one of the reasons that incineration processes are not used at solvent extraction facilities is due to fire and/or explosion safety concerns. The National Fire Protection Association (NFPA) Standard 36 for Solvent Extraction Plants does not appear to prohibit the use of incineration processes, but there are requirements regarding minimum distance from the extraction process to ignition sources, placement of vapor barriers between the extraction area and ignition sources, flashback prevention, etc. The inherent presence of highly flammable fugitive hexane vapors at the facility, along with the presence of an open flame in an incineration control device creates a risk of fire and/or explosion.

In addition to fugitive hexane vapors, variations in flow and solvent concentrations during normal operation, normal shutdown procedures, process upsets, and malfunctions may result in near lower explosive limit (LEL) conditions at the final vent exhaust and increase the risk of explosion. Furthermore, the use of an RTO leads to increased energy consumption, as well as the emission of more greenhouse gases (GHG).

The RBLC did not identify any permits for soybean processing facilities in the United States that authorized incineration as a VOC control technology. However, in October 2010 MO DNR issued a Prevention of Significant Deterioration (PSD) Permit to Construct to Archer Daniels Midland and, in doing so, noted a February 2007 construction permit (No. 022007-004) issued to a Prairie Pride, Inc.

solvent extraction facility. The Prairie Pride permit included a condition requiring use of a thermal oxidizer for control of VOCs from the mineral oil scrubber.

Potential emissions of VOC for the Prairie Pride facility, as permitted, were below major source levels and, therefore, a BACT analysis was not required. Prairie Pride's decision to use an RTO for VOC control was to avoid PSD requirements and was not the result of a BACT determination. It is Perdue's understanding that an RTO was never installed at the Prairie Pride facility, as safety concerns prevailed.

Because of the above technical feasibility and safety concerns, incineration is eliminated from further consideration as LAER for the extraction process mineral oil scrubber, meal dryer, and meal cooler.

Solvent Recovery System Design and Best Management Practices (BMPs)

A solvent recovery system design based on the latest proven developments in solvent vapor recovery technology and the use of operational BMPs designed to minimize VOC emissions constitutes the only technically feasible VOC control options for the Soybean Facility.

Solvent recovery will be achieved by a distillation/condensation/mineral oil scrubber system. The solvent/soybean oil mixture that leaves the extractor will be desolventized by exposure to heat and steam in the distillation system. The evaporated solvent vapor/steam mixture will then be condensed, and the condensed solvent will be separated from the steam condensate and reused in the process. Any hexane that remains after distillation and condensation will be removed in the mineral oil scrubber. The solvent-laden flakes that leave the extractor will be desolventized in the Desolventizer-Toaster (DT). Steam will be used to evaporate the solvent contained in the flakes. The solvent/steam vapor will then be condensed, and the condensed solvent will be separated from the steam condensate and reused in the process. Any hexane that remains after condensation will be removed in the mineral oil scrubber.

The mineral oil scrubber is a packed tower absorber that uses mineral oil to absorb hexane. The cleaned vapor stream will be exhausted to the atmosphere, and the mineral oil/hexane mixture will be routed to a steam-stripping column that separates the hexane from the mineral oil. The hexane/steam vapor will then be condensed, and the condensed hexane will be separated from the steam condensate and reused in the process. The mineral oil will be reused in the mineral oil scrubber.

Perdue proposes the following system design specifications in order to minimize VOC emissions:

- The final vent condenser will be conservatively sized and supplied with chilled cooling water at a temperature of less than 60 °F.
- The mineral oil scrubber system will be sized for a flow rate of 20 to 25 gallons per minute and the oil cooler will be supplied with chilled cooling water at a temperature of less than 60 °F.
- The chilled cooling water will be supplied by using a 21 ton chiller system.

- The desolventizer-toaster (DT) will be of the latest design technology consisting of four (4) countercurrent trays and a steam drying/vapor recovery tray.
- An atmospheric condenser will be installed between the oil extractor and the mineral oil scrubber.

Perdue proposes the following operational BMPs in order to minimize VOC emissions:

- Maintain a -0.1" water column (WC) pressure reading on the oil extractor and a -1" WC pressure reading on the DT.
- Maintain a very "tight" system so that the mineral oil scrubber final vent fan exhaust flow rate is less than 500 cubic feet per minute (CFM).
- Monitor and operate the final oil stripper to achieve volatiles less than 100 parts per million (ppm) in the crude soybean oil.
- To ensure that the solvent recovery system is functioning properly and that a negative pressure remains on system, manual readings of the hexane level in the exhaust air stream will be conducted at the final vent fan every two (2) hours to ensure that the hexane concentration remains less than 20% of the LEL. Typical values are less than 5%. If levels are found to be above the 20% threshold, immediate action will be taken to ascertain the probable cause and necessary corrective action will be taken, including the interruption of operations which could involve shutdown of the process.

For additional system information regarding VOC emissions minimization, see the attached letter dated July 23, 2012 from the system manufacturer (Desmet Ballestra) that follows this LAER Evaluation.

Based on a review of the RBLC and other available permits, Perdue has concluded that both the solvent recovery system design and the BMPs in conjunction with a facility-wide solvent loss limit (in gallons of solvent loss per ton of soybeans processed) are LAER. Perdue proposes a facility-wide solvent loss limit of 0.165 gallons of solvent loss per ton of soybeans processed (gal/ton). The proposed 0.165 gal/ton limit is more restrictive than the Maximum Achievable Control Technology (MACT) limit of 0.2 gal/ton specified in 40 CFR Part 63, Subpart GGGG. A review of the LAER search results contained in Table 1 indicates permitted solvent loss limits ranging from 0.115 gal/ton to 0.2 gal/ton; however, it is unknown if these limitations are consistently being achieved in practice.

The Prairie Pride facility (Eve, MO) includes a biodiesel production operation and was apparently constructed without an RTO; therefore, the 0.115 gal/ton RTO limit was excluded from further consideration. Furthermore, it is Perdue's understanding that the Prairie Pride facility agreed to very strict permit limitations in order to avoid PSD permitting requirements and therefore minimize permit application review time. The facility apparently struggled to operate and was subsequently sold to ADM in 2011. It is unknown if the facility is able to meet the non-RTO limit of 0.125 gal/ton. Given the permitting history of the facility and the operational issues while under Prairie Pride's ownership, the 0.125 gal/ton limit was excluded from further consideration.

Excluding the Prairie Pride facility, the Louis Dreyfus Ag. Ind. (Claypool, IN), Ag Processing (St. Joseph, MO), Cargill Oil Seeds (Sidney, OH), ADM (Mankato, MN), and ADM (Mexico, MO) facilities have the lowest permit limits, ranging from 0.134 gal/ton to 0.15 gal/ton (the ConAgra facility in Morristown, IN, with a permit limit of 0.16 gal/ton, was not constructed). These five facilities are all larger capacity facilities compared to Perdue's facility, with soybean crush capacities ranging from approximately 2,100 tons per day (TPD) to approximately 5,000 TPD. The Perdue facility is designed for 1,500 TPD soybean crush capacity.

The fugitive VOC losses (gal/day) of a facility are not proportional to the facility's capacity, and for a smaller capacity facility, there are fewer tons of crush capacity (tons/day). The result is a higher fugitive VOC loss in terms of gal/ton at a smaller capacity facility such as Perdue's facility. Fugitive losses are not proportional to capacity since all facilities, regardless of capacity, have approximately the same number of pipes and connections. Fugitive losses are attributable to leaks in the periphery of flanges, valves, and other components. These leaks occur at the circumference of the components, and are not related to the area. As an example, where a 4,000 TPD facility would specify a 16" diameter pipe/connector, a 1,500 TPD facility would specify a 10" diameter pipe/connector. Therefore, even though a 1,500 TPD facility is 38% as large as a 4,000 TPD facility and uses piping which is 39% as large in terms of cross sectional area (78.54 in.² vs. 201.06 in.²), the circumference where leaks can occur is 63% of that of a 4,000 TPD facility (31.42 in. vs. 50.27 in.). This example illustrates the higher relative fugitive VOC loss for a smaller facility as compared to a larger facility.

Excluding the Prairie Pride facility, Perdue estimated the maximum total annual gallons of solvent loss (gal/yr) from each of the operating facilities listed in Table 1. Based on estimated annual crush capacities (tons/yr) and the permitted solvent loss limits (gal/ton), the maximum total annual solvent loss for the other facilities ranged from approximately 105,000 gal/yr to 311,500 gal/yr. By comparison, the Perdue facility's maximum total annual solvent loss would be limited to 86,625 gal/yr based on an annual crush capacity of 525,000 tons/yr and a permitted solvent loss limit of 0.165 gal/ton.

The variability of soybean characteristics, such as size and cellular structure, hull/debris content, moisture, oil, and fatty acid content, and soybean maturity, will also affect the VOC emission levels of a soybean processing facility. This variability must be taken into account when establishing a solvent loss limit.

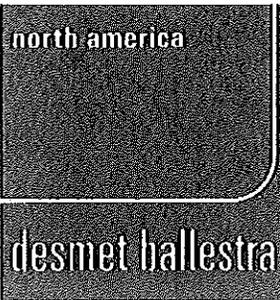
Based on fugitive solvent losses relative to facility capacity, the maximum total annual solvent loss in comparison to other facilities, and the variability of soybean characteristics, Perdue has concluded that a continuously achievable LAER emission limit should be established as 0.165 gal/ton for a smaller capacity facility such as the Perdue facility.

Table 1. Summary of LAER Search Results

Facility	Location	Process	Control Method	VOC Emission Limit	Permit Issuance Date	Information Source	Information Source
Central Soya Co.	Belleuve, OH	Extraction Operation	Condenser and adsorber	0.2 gal/ton soybean	11/28/2003	RACT/BACT/LAER Clearinghouse	Noted in ADM's Oct 2010 Permit to Construct from MO DNR
Cargill	Lafayette, IN	Soybean Oil Extraction - Conventional Process	Not provided	0.2 gal/ton soybeans	08/28/2006	Noted in ADM's Oct 2010 Permit to Construct from MO DNR	
Minnesota Soybean Processors	Brewster, MN	Soybean Oil Extraction - Plant Wide	Not provided	0.2 gal/ton soybeans	12/19/2002	Noted in ADM's Oct 2010 Permit to Construct from MO DNR	
Cenex Harvest States Coop	Fairmont, MN	Soybean Oil Extraction - Plant Wide	Not provided	0.2 gal/ton soybeans	11/30/2001	Noted in ADM's Oct 2010 Permit to Construct from MO DNR	
Bunge North America	Morristown, IN	Soybean Oil Extraction - Plants A & B	Not provided	0.19 gal/ton soybeans (0.20 during 1st yr); reduced to 0.16 per 2010 consent decree	05/14/2004	Noted in ADM's Oct 2010 Permit to Construct from MO DNR	
Bunge North America	Council Bluffs, IA	Soybean Oil Extraction - Plant Wide	Mineral Oil Absorber	0.178 gal/ton soybean	1/29/2007	RACT/BACT/LAER Clearinghouse	Noted in ADM's Oct 2010 Permit to Construct from MO DNR
Cargill	Kansas City, MO	Soybean Oil Extraction - Plant Wide	Not provided	0.165 gal/ton soybeans; Actual max 12 mo = 0.133; Actual avg 12 mo=0.113 0.14 gal/ton soybeans (at < 90% capacity)	08/28/2006	Noted in ADM's Oct 2010 Permit to Construct from MO DNR	
ConAgra	Morristown, IN	Soybean Oil Extraction (Plant never constructed, per MO DNR.)	Mineral oil adsorber	0.16 gal/ton soybean	8/14/1998	RACT/BACT/LAER Clearinghouse	
Archer Daniels Midland	Mexico, MO	Soybean Oil Extraction	Evaporators, condensers and a mineral oil absorption system	0.15 gal/ton oilseed (not applic. to malfunction periods); Actual max 12 mo = 0.159; Actual avg 12 mo=0.121 0.171 gal/ton oilseed (incl. SS&M)	10/5/2010	Permit to Construct	

Table 1. Summary of LAER Search Results

Facility	Location	Process	Control Method	VOC Emission Limit	Permit Issuance Date	Information Source	Information Source
Archer Daniels Midland	Mankato, MN	Soybean Oil Extraction - Plant Wide	Not provided	Limit: 0.15 gal/ton soybean; Actual max 12 mo = 0.141; Actual avg 12 mo=0.116	6/28/2005	Noted in ADM's Oct 2010 Permit to Construct from MO DNR	Noted in ADM's Oct 2010 Permit to Construct from MO DNR
Cargill Oil Seeds	Sidney, OH	Soybean Oil Extraction	Condenser, mineral oil adsorber	0.146 gal/ton soybean	11/28/2003	RACT/BACT/LAER Clearinghouse	Noted in ADM's Oct 2010 Permit to Construct from MO DNR
Ag Processing	St. Joseph, MO	Soybean Processing Plant	Condenser, mineral oil adsorber	0.145 gal/ton soybean (not applic. to malfunction periods); Actual max 12 mo = 0.153; Actual avg 12 mo=0.124	5/16/2007	RACT/BACT/LAER Clearinghouse and Permit to Construct	Noted in ADM's Oct 2010 Permit to Construct from MO DNR
Louis Dreyfus Ag-Ind.	Claypool, IN	Soybean Oil Extraction - Plant Wide	Not provided	0.134 gal/ton soybean	1/24/2006	Noted in ADM's Oct 2010 Permit to Construct from MO DNR	Noted in ADM's Oct 2010 Permit to Construct from MO DNR
Prairie Pride	Eve, MO	Soybean Oil Extraction	Mineral oil scrubber and thermal oxidizer	0.125 gal/ton soybeans (without RTO); 0.115 gal/ton soybeans (wrth RTO)	6/13/2008	Noted in ADM's Oct 2010 Permit to Construct from MO DNR	Noted in ADM's Oct 2010 Permit to Construct from MO DNR



23 July 2012

Mr. Cedric Wayne Black,
Director, Agribusiness Environmental Office
PERDUE FARMS, INC.
P.O. Box 460
Lewiston-Woodville, NC 27849

Re: Proposed 1500 tons/day Soybean Crush Plant
Bainbridge, Pennsylvania

Dear Wayne:

We have proposed the lowest achievable emission rate technology for the solvent loss control points in our equipment supply and process design proposal for the solvent extraction process. The following summarizes the lowest achievable emission rate technology we have proposed by control point in typical order of solvent loss magnitude:

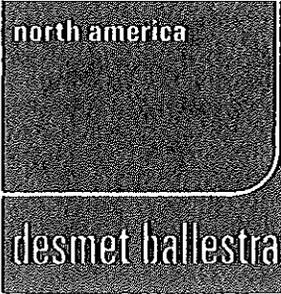
A. Fugitive Solvent Emissions from the Solvent Extraction Process

The plant will include automation to maintain the atmospheric vessels under a slight vacuum, minimizing the potential for solvent vapor to leak out to the atmosphere.

The plant will include mechanical seals on all rotating shafts penetrating the extractor, spent flake conveyor, and process pumps to minimize the potential for solvent liquid or vapor to leak out to the atmosphere.

The plant will include automation to prevent excessive pressure and resultant fugitive emissions during upset conditions.

The plant will include solvent vapor detection at critical process points to alert personnel to a solvent leak to the surrounding atmosphere.



B. Residual Liquid Solvent exiting in Soybean Meal

The proposed plant will include a Desmet Ballestra patented Dimax™ Desolventizer Toaster. This apparatus will be designed with; 4 deep trays for live steam stripping of the solvent from the meal; rotary valves on each of these 4 deep trays to minimize stripping steam bypass; countercurrent trays with 7-10% open area for uniform stripping steam injection; aerodynamic stirrers for uniform stripping steam injection; and a steam drying flash tray after the solvent stripping for final vapor recovery. Residual solvent in the soybean meal will typically be reduced to less than 300 ppm as measured by AOCS test method no. Ba 13-87.

The plant will include automation to prevent excessive residual solvent in the soybean meal during upset conditions.

C. Solvent Vapor exiting the Process Vent

The proposed plant will include a Desmet Ballestra Chilled Vent Condenser and Mineral Oil Scrubbing System in series. The chilled vent condenser condenses solvent from the process vent stream and the mineral oil scrubber absorbs solvent vapor from the process vent stream. The combination of these two technologies will remove solvent vapor from the process air stream. Solvent remaining in the effluent air from the process vent will be reduced to less than 20 percent of the lower explosive limit as measured by fixed head gas monitor.

The proposed plant will include a Desmet Ballestra Extractor Feed Conveyor and a vapor tight process system which will minimize ingress of air into the process. The air stream exiting the process vent will be reduced to less than 500 acfm as measured by fixed air flow meter after the mineral oil scrubbing system.

D. Residual Liquid Solvent exiting in Crude Soybean Oil

The proposed plant will include a Desmet Ballestra Sieve Tray Oil Stripper and Vacuum Oil Dryer in series. The oil stripper apparatus operates under vacuum with countercurrent stripping steam. The sieve tray design provides maximum oil/steam contact to optimize stripping of the solvent from the oil. The follow-on vacuum oil dryer further reduces the solvent in the oil. Residual solvent in the crude soybean oil will typically be reduced to less than 100 ppm as measured by AOCS test method no. Ca 3b-87.

The plant will include automation to prevent excessive residual solvent in the crude soybean oil during upset conditions.

E. Residual Liquid Solvent exiting in Process Discharge Water

The proposed plant will include a Desmet Ballestra Plug Flow Water Stripper. The water stripper apparatus is plug flow with 2 live steam stripping zones and automated temperature control. Residual solvent in the process discharge water will typically be reduced to less than 15 ppm as measured by gas chromatograph.

Sincerely,

DESMET BALLESTRA



**Timothy G. Kemper,
Global Technical Director, Solvent Extraction**



ATTACHMENT I

ALTERNATIVE SITING ANALYSIS

As required by 25 Pa. Code §127.205(5), Perdue conducted an analysis of alternative sites, sizes, production processes, and environmental control techniques for the Soybean Facility. For the project, alternative sites were considered along with the proposed site. The benefits of the proposed site significantly outweigh any environmental or social costs imposed on the state as a result of the location of the Soybean Facility.

The primary advantage for the site is the fact that the adjacent Lancaster County Solid Waste Management Authority (LCSWMA) Resource Recovery Facility (RRF) can supply the necessary steam and process water to the Soybean Facility without any increase in the RRF's air emission levels. The RRF incinerates municipal waste to produce steam/generate electricity. Perdue plans to purchase steam (which is produced in excess by the RRF) and process water from LCSWMA and, after use at the Soybean Facility, Perdue will return the steam condensate, used process water, and plant washdown water back to LCSWMA for reuse at the RRF. By utilizing the excess steam produced by the RRF, the Soybean Facility will not require its own dedicated boilers, thus effectively eliminating Perdue's reliance on fossil fuel combustion for steam production, and, therefore, greatly reducing the Soybean Facility's overall air emissions and carbon footprint.

The alternative sites that were considered did not have an existing source of steam, and, as a result, Perdue would have to construct and operate boilers at those sites. Perdue estimates that boilers with a total heat input capacity of approximately 62 million BTUs per hour (MMBTU/hr) would be required to generate the necessary quantity of steam for the Soybean Facility. Assuming natural gas-fired boilers and based on EPA AP-42 emission factors, the potential emissions from such boilers would be:

Pollutant	Potential Emissions (tons/year)
PM	2.02
SO _x	0.16
CO	22.36
NO _x	13.31
VOC	1.46
CO ₂ -e (CO ₂ equivalent)	32,014

As shown in the above table, operation of the boilers would create greater environmental impacts from a regional air quality standpoint.

From a land use perspective, the proposed site offers many advantageous features. The Soybean Facility is a permitted use of the site within the Industrial Zone in Conoy Township, Lancaster County; therefore, the proposed facility meets the land use requirements for the site. No wetlands exist within the limits of

the property, so no wetlands would be impacted by the facility. The site does not impact the floodplain of the Susquehanna River or any other stream, thus greatly reducing any concerns associated with potential flooding of the facility. Also, the site would require minimal tree removal for construction of the facility, and the areas of the site to be developed do not have steep slopes (generally less than 10% slopes), thereby reducing environmental impacts from erosion and runoff.

From a logistical standpoint, the majority of the soybeans processed at the facility will come from within a 50-mile radius of the proposed site, and most of the soybean meal, soybean hulls, and soybean oil produced will be distributed within the same 50-mile radius, thus supporting many local farming operations within south-central Pennsylvania and providing economic benefits to the region. The location of the Soybean Facility will eliminate the need to transport soybeans out of the region to processing facilities in Ohio and will also eliminate the need to ship soybean oil, meal, or hulls back to the region to be used in feed or biofuels applications. The ability to originate raw soybeans locally and also utilize the end products locally will provide a direct economic benefit to soybean producers and feed manufacturers by reducing transportation and shipping costs.

The Soybean Facility will create approximately 35 permanent new jobs and bring economic benefit to the community, both during construction and during operation. The increase in permanent jobs would result in more money spent locally. Positive effects on the community such as jobs for local residents and purchases of locally produced goods and services create additional income streams for the area. In addition, local and state tax revenues would increase.

The project size was selected based on Perdue's knowledge and evaluation of the current and future needs for a soybean processing facility in the south-central region of Pennsylvania. The capacity of the facility, in terms of tons of soybeans processed per year, was determined based on this evaluation. The proposed capacity of the Soybean Facility will accommodate the current soybean market in the region, while still allowing for expected market expansion.

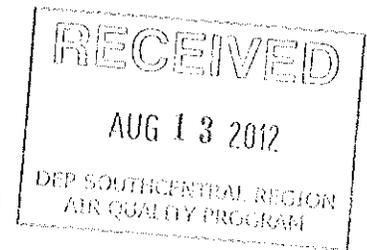
In general, the production process for soybean oil and feed is well standardized. One of the few production process variations that does exist is the method by which the solvent is evaporated from the soybean flakes (desolventizing of the flakes). Conventional desolventizing and flash desolventizing are the two ways in which the flakes can be desolventized. Flakes that are flash desolventized are typically used for human foods, while conventionally desolventized flakes are used primarily in animal feeds. Conventional desolventizing has been utilized in the United States for over 70 years. Flash desolventizing accounts for less than five (5) percent by volume of the annual soybeans processed in the United States. A facility that uses flash desolventizing requires different equipment and is far less efficient in energy consumption and solvent recovery than a facility that uses conventional desolventizing. Solvent emissions are considerably lower for a conventional desolventizing process than for a similar-sized flash desolventizing process (U.S. EPA, AP-42, Section 9.11.1). The Perdue Soybean Facility will employ conventional desolventizing; therefore, solvent emissions from the process will be minimized.

As shown in the attached Lowest Achievable Emission Rate (LAER) Evaluation and the attached Best Available Technology (BAT) Evaluation, the various air emission control techniques/technologies demonstrate that the air emissions will be reduced to levels that satisfy LAER and BAT requirements.

Based on the above-described factors, the benefits of the proposed Soybean Facility significantly outweigh any environmental and social costs imposed as a result of the facility's location and construction. Without the need for boilers for steam production, the Soybean Facility will produce soybean oil and feed with significantly less air emissions than a facility with boilers located at an alternative site in Pennsylvania.

ATTACHMENT J – BEST AVAILABLE TECHNOLOGY (BAT) EVALUATION

ATTACHMENT J
BEST AVAILABLE TECHNOLOGY (BAT) EVALUATION



Perdue has conducted this Best Available Technology (BAT) Evaluation as required by 25 Pa. Code §127.12(a)(5). The scope of this BAT Evaluation is limited to the soybean oil extraction operations (Phase 2) air emission sources and associated air pollution control equipment that are the subject of this Plan Approval Application.

BAT for the Following Sources of Particulate Matter (PM):

- 202 - Bean Conditioning
- 203 - Flaking Rolls
- 205A - Meal Dryer
- 205B - Meal Cooler

There are several potential alternatives for the control of PM emissions from exhaust streams. Although they can be applied to a wide range of PM control scenarios, wet scrubbers typically require that high pressure drops be maintained across the unit, and, therefore, energy requirements for such units are also high. For example, the pressure drop in a low pressure drop wet scrubber can be as high as 10 inches of water, while the pressure drop in a medium pressure drop scrubber typically ranges from 10 to 30 inches of water and above 30 inches of water in a high pressure drop scrubber (Reference: Ohio EPA's Operation and Maintenance (O&M) Guidelines for Air Pollution Control Equipment, Section 9.0, Wet Scrubbers, February 1993). In comparison, Perdue's proposed cyclones for Sources 202, 203, 205A, and 205B are designed to operate with a typical pressure drop in the range of 4 to 8 inches of water. In addition, the proper handling and/or disposal of scrubbing liquid adds another level of environmental complexity to the operation of the control device. Although scrubbing liquids could potentially be recycled/reused, wet scrubbers are not a demonstrated, proven control technique for these sources at soybean processing facilities. Given the relatively high energy costs, the additional considerations of handling and/or disposing of scrubbing liquid, and the fact that wet scrubbers are not a demonstrated, proven control technique for these sources at soybean processing facilities, Perdue did not further consider the use of a wet scrubber to control PM emissions from Sources 202, 203, 205A, and 205B.

Electrostatic precipitators are commonly employed for gas cleaning when the gas flow rate is relatively high. For example, smaller electrostatic precipitators typically handle gas flow rates in the 100,000 to 200,000 CFM range (Reference: Ohio EPA's Operation and Maintenance (O&M) Guidelines for Air Pollution Control Equipment, Section 5.0, Electrostatic Precipitators, February 1993). Such electrostatic precipitator units are routinely used for fly ash removal from power plant flue gases and for collection of particles and acid mists in the chemical and metallurgical process industries. The design flow rates for Sources 202, 203, 205A, and 205B are 3,000 CFM, 12,500 CFM, 19,500 CFM, and 19,500 CFM, respectively, substantially less than the gas flow rates typically handled by electrostatic precipitators. If gas flow rate is too low, electrostatic precipitator performance may suffer from poor gas flow distribution or from particle dropout in the ductwork. Furthermore, the use of high-voltage current to remove explosive grain/dust particles from a source located in an environment with potential fugitive flammable hexane vapors creates a risk of fire and/or explosion. For these reasons, Perdue did not further consider the use of an electrostatic precipitator to control PM emissions from Sources 202, 203, 205A, and 205B.

Baghouses are commonly used to control dry, non-sticky PM emissions. If baghouses are used to control PM emissions from Sources 202, 203, 205A, and 205B, there may be bag failures and excursions of high PM emissions as a result of the elevated moisture content of the exhaust streams from these sources. Since the exhaust gas from each source is at or close to saturation conditions, condensation inside of a baghouse could blind the filter media and cause cementation. In order to utilize a baghouse for PM control of a moisture-laden exhaust gas stream such as these, the gas stream must be heated to raise its temperature above the dew point temperature. The addition of heat to baghouses operating in an area with potential fugitive emissions of solvents creates a risk of fire and/or explosion.

Due to the technical feasibility and safety concerns with the control technologies discussed above and the fact that cyclones are demonstrated, proven control technologies for these sources at other soybean processing facilities, Perdue has concluded that properly designed cyclones are BAT for PM control for Sources 202, 203, 205A, and 205B, which have high moisture and/or oily exhaust gas streams. See attached cyclones information that follows this BAT Evaluation.

BAT for the Following Sources of PM:

- 201 - Soybean Preparation Process
- 206 - Meal Screening and Grinding
- 207 - Mill Feed (Hull) Grinding
- 210 - Meal Loadout Area

There are several potential alternatives for the control of PM emissions from Sources 201, 206, 207, and 210. Generally, a properly designed baghouse can readily achieve a control efficiency of greater than 99% for particle sizes ranging from submicrometer (10^{-6} meter) to several hundred micrometers (Reference: Ohio EPA's Operation and Maintenance (O&M) Guidelines for Air Pollution Control Equipment, Section 4.0, Fabric Filters, February 1993). Because of their high efficiencies, baghouses are usually considered BAT for the control of PM from dry, non-sticky exhaust streams. Other PM control technologies include cyclones, wet scrubbers, and electrostatic precipitators.

Although cyclones are used to remove PM in certain processes with larger particle size material and/or moist exhaust streams, their removal efficiencies are typically less than that of baghouses. Since these sources have relatively dry, non-sticky exhaust streams, Perdue did not further consider the use of a cyclone to control PM emissions from these sources. Depending on particle size, wet scrubbers and electrostatic precipitators typically can achieve control efficiencies that approach baghouse control efficiencies.

Although they can be applied to a wide range of PM control scenarios, wet scrubbers typically require that high pressure drops be maintained across the unit, and, therefore, energy requirements for such units are also high. For example, the pressure drop for a low pressure drop wet scrubber can be as high as 10 inches of water, while the pressure drop in a medium pressure drop scrubber typically ranges from 10 to 30 inches of water and above 30 inches of water in a high pressure drop scrubber (Reference: Ohio EPA's Operation and Maintenance (O&M) Guidelines for Air Pollution Control Equipment, Section 9.0, Wet Scrubbers, February 1993). Perdue is proposing Airlanco baghouses to control PM emissions from the above sources. The baghouses are each designed to operate with a typical pressure drop in the range of 2 to 3 inches of water. In addition, the proper handling and/or disposal of scrubbing liquid adds another level of environmental complexity to the operation of the control device. Although scrubbing

liquids could potentially be recycled/reused, wet scrubbers typically have low efficiencies on submicron particles and lower overall efficiencies (80% to <99%) in comparison to baghouses controlling dry, non-sticky exhaust streams. Given the relatively high energy costs, the additional considerations of handling and/or disposing of scrubbing liquid, and the fact that wet scrubbers are not typically as efficient as baghouses for controlling these sources, Perdue did not further consider the use of a wet scrubber to control PM emissions from Sources 201, 206, 207, and 210.

Electrostatic precipitators are commonly employed for gas cleaning when the gas flow rate is relatively high. For example, smaller electrostatic precipitators typically handle gas flow rates in the 100,000 to 200,000 CFM range (Reference: Ohio EPA's Operation and Maintenance (O&M) Guidelines for Air Pollution Control Equipment, Section 5.0, Electrostatic Precipitators, February 1993). Such electrostatic precipitator units are routinely used for fly ash removal from power plant flue gases and for collection of particles and acid mists in the chemical and metallurgical process industries. The design flow rate for each of the proposed Airlanco baghouses for Sources 201, 206, 207, and 210 ranges from 7,000 CFM to 30,000 CFM, substantially less than the gas flow rates typically handled by electrostatic precipitators. If gas flow rate is too low, electrostatic precipitator performance may suffer from poor gas flow distribution or from particle dropout in the ductwork. Given the gas flow rate concern, the fact that electrostatic precipitators are not typically as efficient (95% to 99%) as baghouses, and the concern that the use of high-voltage current to remove explosive grain/dust particles from a source located in an environment with potential fugitive flammable hexane vapors creates a risk of fire and/or explosion, Perdue did not further consider the use of an electrostatic precipitator to control PM emissions from these sources.

Perdue is proposing to install Airlanco baghouses to control the PM emissions from Sources 201, 206, 207, and 210. Each of the proposed baghouses will meet the 25 Pa. Code §123.13(c)(1)(i) emission limitation of 0.04 grain per dry standard cubic foot (gr/dscf). Furthermore, each baghouse is guaranteed by the manufacturer to not exceed 0.01 gr/dscf and to have a 99.9% or better control efficiency. Given the above considerations and the manufacturer guaranteed emission level and control efficiency, Perdue has concluded that the use of the proposed baghouses is BAT for these sources. See attached baghouses information that follows this BAT Evaluation.

BAT for the Solvent Extraction Process:

As per 25 Pa. Code §127.205(7), Perdue is requesting that the BAT requirements for the control of volatile organic compound (VOC) emissions from the solvent extraction process be satisfied by the attached Lowest Achievable Emission Rate (LAER) Evaluation.

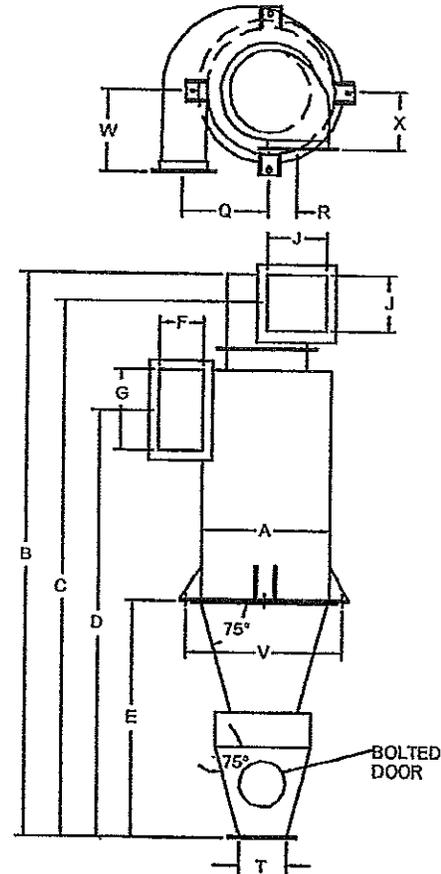
BAT – CYCLONES INFORMATION

Bean Conditioning Cyclone
Model HE-24

HE CYCLONES
HIGH EFFICIENCY CYCLONES
SINGLE

NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. INLET VELOCITIES 3750 FEET PER MINUTE.
3. CYCLONE SHOWN IS CLOCKWISE ROTATION. COUNTERCLOCKWISE IS AVAILABLE.
4. MOUNTING PAD HOLE IS 9/16 x 1" SLOT.
5. CONE AND SURGE HOPPER ANGLES ARE CONSTANT. IF DISCHARGE DIA. IS DIFFERENT THAN STANDARD, HEIGHT WILL CHANGE.

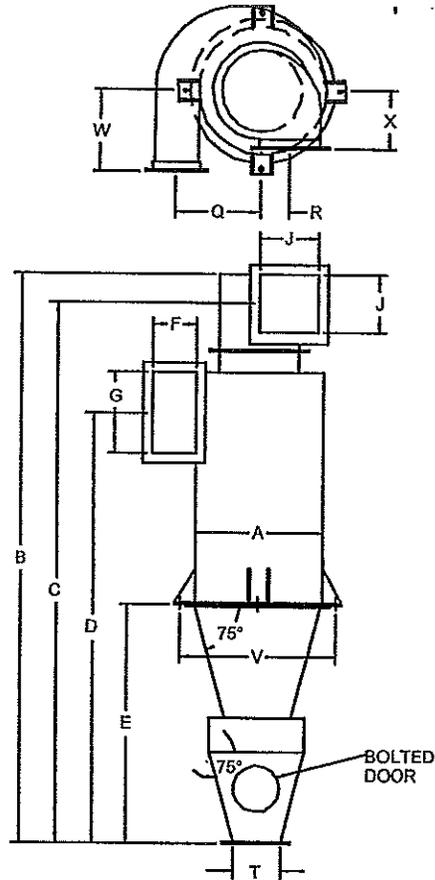


MODEL	A	B	C	D	E	F	G	J	Q	R	T	V	W	X	CFM			WEIGHT
															MIN	OPT	MAX	
HE-14	14	60 7/8	57 5/8	43 3/8	22 7/8	4 3/16	9	6 1/2	9 3/32	3 1/4	8	19	10	7 1/2	915	980	1,045	300
HE-16	16	70 1/2	68 3/4	51 1/2	27 1/2	5 1/2	10	7 1/2	10 3/4	3 3/4	8	21	11	8	1,335	1,430	1,530	300
HE-18	18	78 3/16	74 15/16	58 3/16	32 3/16	6	12	8 1/2	12	4 1/4	8	23	12	9	1,750	1,875	2,000	300
HE-20	20	88 13/16	84 1/16	66 5/16	36 13/16	6 1/2	13	9 1/2	13 1/4	4 3/4	8	25	13	9 1/2	2,055	2,200	2,345	400
HE-22	22	98 1/2	93 1/2	74 1/2	41 1/2	7 1/2	14	10	14 3/4	5	8	27	14	10	2,550	2,735	2,915	400
HE-24	24	107 11/16	101 15/16	81 3/16	46 3/16	8	16	11 1/2	16	6 3/4	8	29	15	11	3,110	3,335	3,555	500
HE-26	26	117 13/16	111 13/16	90 5/16	50 13/16	9	17	12	17 1/2	6	8	31	16	11 1/2	3,720	3,985	4,250	600
HE-28	28	124 5/8	118 1/8	95 5/8	53 5/8	9	18	13	18 1/2	6 1/2	10	33	17	12	3,940	4,220	4,500	600
HE-30	30	133 5/16	126 5/16	102 5/16	58 5/16	10	20	14	20	7	10	37	18	13	4,860	5,210	5,555	700
HE-32	32	142 15/16	135 7/16	110 7/16	62 15/16	11	21	15	21 1/2	7 1/2	10	39	19	13 1/2	5,615	6,015	6,415	800
HE-34	34	150 5/8	142 5/8	118 5/8	67 5/8	11	22	16	22 1/2	8	10	41	20	14	5,980	6,300	6,720	800
HE-36	36	161 5/16	152 13/16	125 13/16	72 5/16	12	23	17	24	8 1/2	10	43	21	14 1/2	6,710	7,190	7,655	900
HE-38	38	169 15/16	160 15/16	132 7/16	76 15/16	13	25	18	25 1/2	9	10	45	22	15 1/2	7,900	8,455	9,030	1,000
HE-40	40	179 1/8	169 7/8	140 5/8	81 5/8	13	26	18.5	26 1/2	9 1/4	10	47	23	16	8,215	8,800	9,390	1,100
HE-42	42	180 3/16	180 11/16	150 11/16	88 3/16	14	27	19	28	9 1/2	10	49	24	16 1/2	9,190	9,845	10,500	1,200
HE-44	44	199 13/16	189 5/16	157 5/16	92 13/16	15	29	21	29 1/2	10 1/2	10	51	25	17 1/2	10,575	11,330	12,085	1,300
HE-46	46	210 7/16	199 7/16	166 7/16	97 7/16	15	30	22	30 1/2	11	10	53	26	18	10,940	11,720	12,500	1,400
HE-48	48	216 1/8	204 5/8	170 5/8	102 1/8	16	31	23	32	11 1/2	10	55	27	18 1/2	12,055	12,915	13,780	1,500
HE-50	50	227 13/16	215 13/16	180 13/16	106 13/16	17	32	24	33 1/2	12	10	57	28	19	13,220	14,165	15,110	1,600
HE-52	52	239 1/2	227	190 1/2	111 1/2	17	34	25	34 1/2	12 1/2	10	59	29	20	14,050	15,050	16,055	1,800
HE-54	54	245 3/16	232 3/16	194 11/16	116 3/16	18	35	26	36	13	10	61	30	20 1/2	15,915	16,495	17,500	1,900
HE-56	56	256 13/16	243 5/16	204 13/16	120 13/16	19	36	27	37 1/2	13 1/2	10	63	31	21	16,625	17,815	19,000	2,000
HE-58	58	265 7/16	251 7/16	210 7/16	125 7/16	19	38	28	38 1/2	14	10	65	32	22	17,550	18,800	20,055	2,100
HE-60	60	276	262	220 1/2	132	20	39	28	40	14	10	67	33	22 1/2	18,960	20,315	21,665	2,200

Flaking Rolls Cyclone
Model HE-48

HE CYCLONES
HIGH EFFICIENCY CYCLONES
SINGLE

- NOTES:
 1. ALL DIMENSIONS ARE IN INCHES.
 2. INLET VELOCITIES 3750 FEET PER MINUTE.
 3. CYCLONE SHOWN IS CLOCKWISE ROTATION.
 COUNTERCLOCKWISE IS AVAILABLE.
 4. MOUNTING PAD HOLE IS 9/16 x 1" SLOT.
 5. CONE AND SURGE HOPPER ANGLES ARE CONSTANT.
 IF DISCHARGE DIA. IS DIFFERENT THAN STANDARD,
 HEIGHT WILL CHANGE.



MODEL	A	B	C	D	E	F	G	J	Q	R	T	V	W	X	CFM			WEIGHT
															MIN	OPT	MAX	
HE-14	14	60 7/8	57 5/8	43 3/8	22 7/8	4 3/16	9	6 1/2	9 3/32	3 1/4	8	19	10	7 1/2	915	980	1,045	300
HE-16	16	70 1/2	66 3/4	51 1/2	27 1/2	5 1/2	10	7 1/2	10 3/4	3 3/4	8	21	11	8	1,335	1,430	1,530	300
HE-18	18	79 3/16	74 15/16	58 3/16	32 3/16	5	12	8 1/2	12	4 1/4	8	23	12	9	1,760	1,875	2,000	300
HE-20	20	88 13/16	84 1/16	66 5/16	38 13/16	6 1/2	13	9 1/2	13 1/4	4 3/4	8	25	13	9 1/2	2,055	2,200	2,345	400
HE-22	22	98 1/2	93 1/2	74 1/2	41 1/2	7 1/2	14	10	14 3/4	5	8	27	14	10	2,550	2,735	2,915	400
HE-24	24	107 11/16	101 15/16	81 3/16	46 3/16	8	16	11 1/2	16	5 3/4	8	29	15	11	3,110	3,335	3,555	500
HE-26	26	117 13/16	111 13/16	90 5/16	50 13/16	9	17	12	17 1/2	6	8	31	16	11 1/2	3,720	3,985	4,250	600
HE-28	28	124 5/8	118 1/8	95 5/8	53 5/8	9	18	13	18 1/2	6 1/2	10	33	17	12	3,940	4,220	4,500	600
HE-30	30	133 5/16	126 5/16	102 5/16	58 5/16	10	20	14	20	7	10	37	18	13	4,660	5,210	5,555	700
HE-32	32	142 15/16	135 7/16	110 7/16	62 15/16	11	21	15	21 1/2	7 1/2	10	39	19	13 1/2	5,615	6,015	6,415	800
HE-34	34	150 5/8	142 5/8	116 5/8	67 5/8	11	22	16	22 1/2	8	10	41	20	14	5,880	6,300	6,720	900
HE-36	36	161 5/16	152 13/16	125 13/16	72 5/16	12	23	17	24	8 1/2	10	43	21	14 1/2	6,710	7,190	7,665	900
HE-38	38	169 15/16	160 15/16	132 7/16	76 15/16	13	25	18	25 1/2	9	10	45	22	15 1/2	7,900	8,465	9,030	1,000
HE-40	40	179 1/8	169 7/8	140 5/8	81 5/8	13	26	18.5	26 1/2	9 1/4	10	47	23	16	8,215	8,800	9,390	1,100
HE-42	42	190 3/16	180 11/16	150 11/16	86 3/16	14	27	19	28	9 1/2	10	49	24	16 1/2	9,190	9,845	10,500	1,200
HE-44	44	199 13/16	189 5/16	157 5/16	92 13/16	15	29	21	29 1/2	10 1/2	10	51	25	17 1/2	10,575	11,330	12,085	1,300
HE-46	46	210 7/16	199 7/16	165 7/16	97 7/16	15	30	22	30 1/2	11	10	53	26	18	10,940	11,720	12,500	1,400
HE-48	48	216 1/8	204 5/8	170 5/8	102 1/8	16	31	23	32	11 1/2	10	55	27	18 1/2	12,055	12,915	13,780	1,500
HE-50	50	227 13/16	215 13/16	180 13/16	106 13/16	17	32	24	33 1/2	12	10	57	28	19	13,220	14,165	15,110	1,600
HE-52	52	239 1/2	227	190 1/2	111 1/2	17	34	25	34 1/2	12 1/2	10	59	29	20	14,050	15,050	16,055	1,800
HE-54	54	245 3/16	232 3/16	194 11/16	116 3/16	18	35	26	36	13	10	61	30	20 1/2	15,315	16,405	17,500	1,900
HE-56	56	256 13/16	243 5/16	204 13/16	120 13/16	19	36	27	37 1/2	13 1/2	10	63	31	21	16,625	17,815	19,000	2,000
HE-58	58	265 7/16	251 7/16	210 7/16	125 7/16	19	38	28	38 1/2	14	10	65	32	22	17,550	18,800	20,055	2,100
HE-60	60	276	262	220 1/2	132	20	39	28	40	14	10	67	33	22 1/2	18,950	20,315	21,665	2,200

3/28/2005

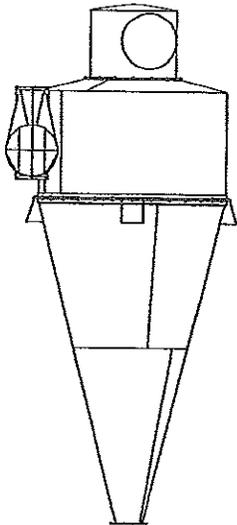


CK CYCLONE COLLECTORS

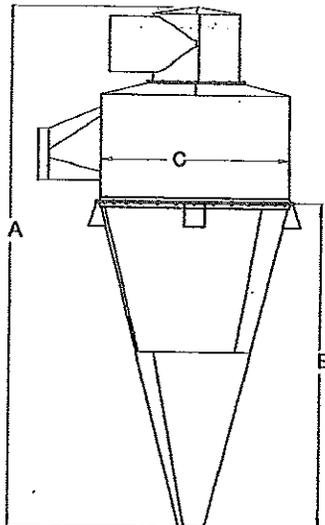
KICE INDUSTRIES, INC. / 5500 Mill Heights Drive / Wichita, KS 67219

www.kice.com / sales@kice.com

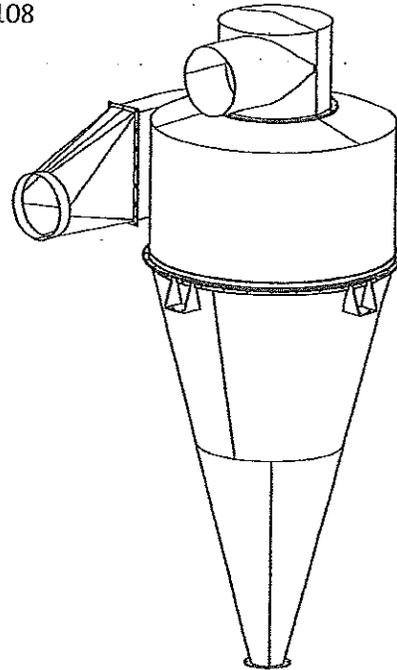
Meal Dryer Cyclone & Meal Cooler Cyclone Model CK-108



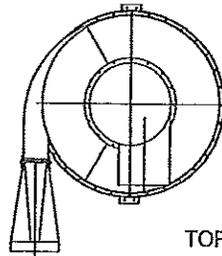
FRONT VIEW



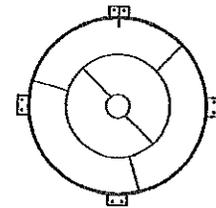
SIDE VIEW



MODEL #	CFM	A	B	C	EST. WEIGHT
CK 18	500	52 11/16	27 1/4	18	129
CK 24	900	70 1/8	40 3/4	24	184
CK 30	1450	89 5/16	54 1/2	30	264
CK 36	2000	107 3/4	68 1/2	36	355
CK 42	2500	127 1/8	82 1/2	42	456
CK 45	2900	137 1/8	89 1/2	45	521
CK 48	3300	143 3/8	89 1/2	48	577
CK 54	4100	162 3/4	103 1/2	54	722
CK 60	5000	169 1/8	104 7/16	60	840
CK 66	6000	186	116 1/2	66	1000
CK 72	7100	199 3/8	124 7/16	72	1215
CK 78	9300	215 3/4	136 1/2	78	1396
CK 84	11000	232 5/8	148 1/2	84	1587
CK 90	13500	248 5/8	160 1/2	90	1798
CK 96	15000	261 7/16	168 1/2	96	2790
CK 102	17200	278 1/16	180 1/2	102	3111
CK 108	19500	294 1/16	192 1/2	108	3413
CK 114	22000	307 9/16	201 1/2	114	3708
CK 120	25000	323 15/16	213 1/2	120	4068
CK 126	30000	342 11/16	225 1/2	126	4572
CK 132	35000	358 15/16	237 1/2	132	4986
CK 138	40000	375 5/16	248 1/2	138	5407
CK 144	45000	391 11/16	260 1/2	144	5847



TOP



BOTTOM

NOTES:

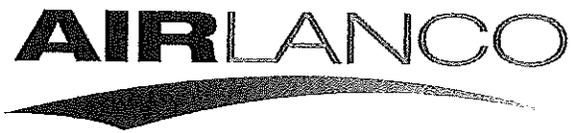
DIMENSIONS SHOWN MAY VARY
DEPENDING ON JOB REQUIREMENTS

OPTIONAL SUPPORT FEET SHOWN.

OPTIONAL INSPECTION DOOR.

FOOTPRINT DIMENSIONS UPON
REQUEST.

BAT – BAGHOUSE INFORMATION



6/7/2012

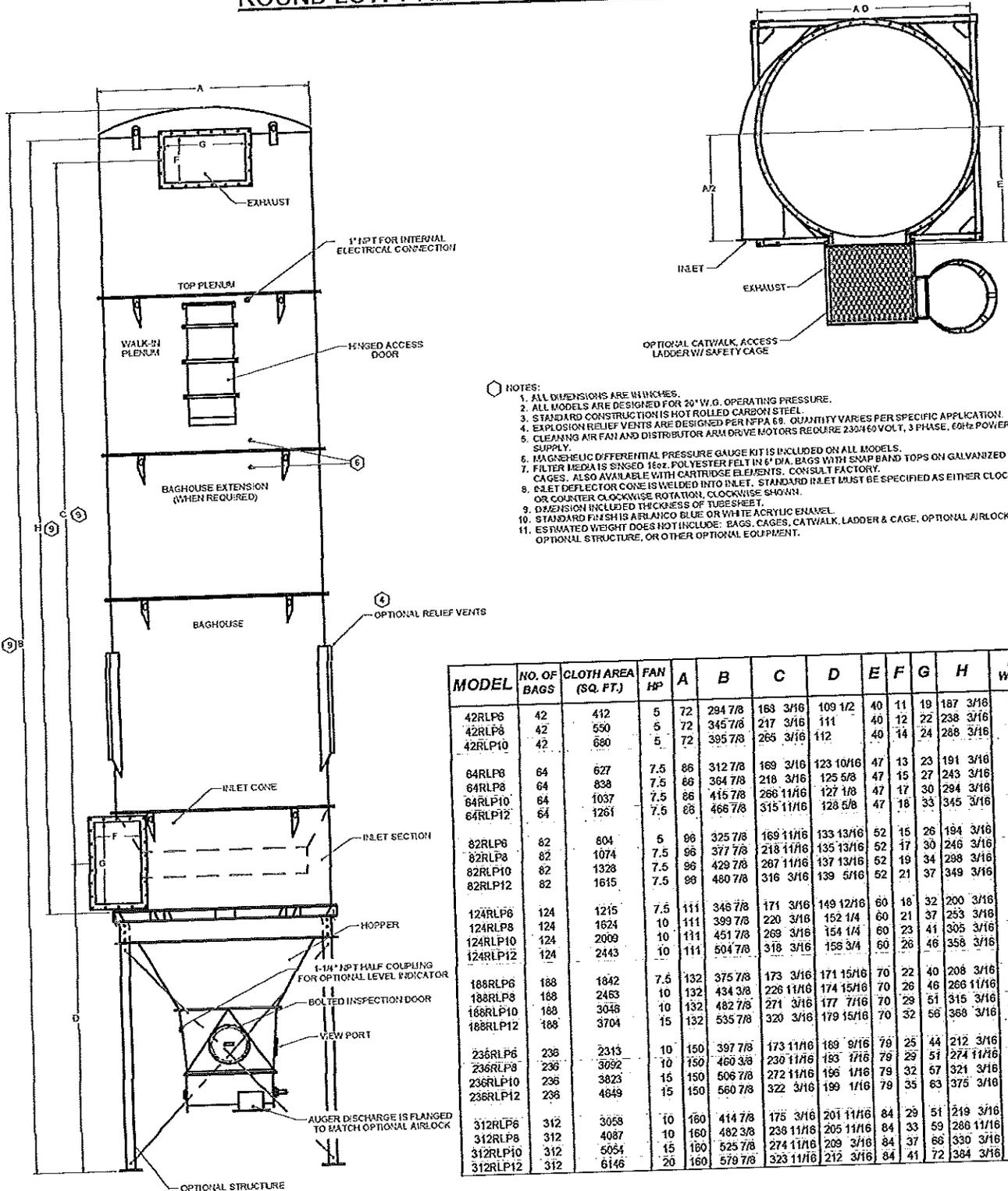
REF: 16 OZ POLYESTER WITH MICRO-DENIER CAP

AIRLANCO AIR QUALITY ASSURANCE

Based on 2 micron and larger dust particles, AIRLANCO guarantees their baghouse (fabric filters) when properly applied and maintained, to have a 99.9% or better mass efficiency rating on the dust laden incoming gas stream. As a general statement, emissions will not exceed .01 grains of dry soil particulate matter per dry standard cubic foot of air.

Nathan Huning
Senior Sales Engineer

RPL FILTER SERIES 60 ROUND LOW-PRESSURE TOP PLENUM REMOVAL FILTER



- NOTES:
1. ALL DIMENSIONS ARE IN INCHES.
 2. ALL MODELS ARE DESIGNED FOR 20" W.G. OPERATING PRESSURE.
 3. STANDARD CONSTRUCTION IS HOT ROLLED CARBON STEEL.
 4. EXPLOSION RELIEF VENTS ARE DESIGNED PER NFPA 69. QUANTITY VARIES PER SPECIFIC APPLICATION.
 5. CLEANING AIR FAN AND DISTRIBUTOR ARM DRIVE MOTORS REQUIRE 230/460 VOLT, 3 PHASE, 60Hz POWER SUPPLY.
 6. MAGNETIC DIFFERENTIAL PRESSURE GAUGE KIT IS INCLUDED ON ALL MODELS.
 7. FILTER MEDIA IS SINGED 16oz. POLYESTER FELT IN 6' DIA. BAGS WITH SNAP BAND TOPS ON GALVANIZED STEEL CAGES. ALSO AVAILABLE WITH CARTRIDGE ELEMENTS. CONSULT FACTORY.
 8. INLET DEFLECTOR CONE IS WELDED INTO INLET. STANDARD INLET MUST BE SPECIFIED AS EITHER CLOCKWISE OR COUNTER CLOCKWISE ROTATION. CLOCKWISE SHOWN.
 9. DIMENSION INCLUDED THICKNESS OF TUBESHEET.
 10. STANDARD FINISH IS AIRLANCO BLUE OR WHITE ACRYLIC ENAMEL.
 11. ESTIMATED WEIGHT DOES NOT INCLUDE: BAGS, CAGES, CATWALK, LADDER & CAGE, OPTIONAL AIRLOCK, OPTIONAL STRUCTURE, OR OTHER OPTIONAL EQUIPMENT.

MODEL	NO. OF BAGS	CLOTH AREA (SQ. FT.)	FAN HP	A	B	C	D	E	F	G	H	EST. WEIGHT
42RLP6	42	412	5	72	294 7/8	163 3/16	109 1/2	40	11	19	187 3/16	5,000
42RLP8	42	550	5	72	345 7/8	217 3/16	111	40	12	22	238 3/16	6,300
42RLP10	42	680	5	72	395 7/8	265 3/16	112	40	14	24	288 3/16	5,700
64RLP6	64	627	7.5	86	312 7/8	169 3/16	123 10/16	47	13	23	191 3/16	6,000
64RLP8	64	838	7.5	86	364 7/8	218 3/16	125 5/8	47	15	27	243 3/16	6,400
64RLP10	64	1037	7.5	86	415 7/8	266 11/16	127 1/8	47	17	30	294 3/16	6,900
64RLP12	64	1261	7.5	88	466 7/8	315 11/16	128 5/8	47	18	33	345 3/16	7,400
82RLP6	82	804	6	96	325 7/8	169 11/16	133 13/16	52	15	26	194 3/16	6,700
82RLP8	82	1074	7.5	96	377 7/8	218 11/16	135 13/16	52	17	30	246 3/16	7,200
82RLP10	82	1328	7.5	96	429 7/8	267 11/16	137 13/16	52	19	34	298 3/16	7,800
82RLP12	82	1615	7.5	98	480 7/8	316 3/16	139 5/16	52	21	37	349 3/16	8,300
124RLP6	124	1215	7.5	111	348 7/8	171 3/16	149 12/16	60	18	32	200 3/16	7,900
124RLP8	124	1624	10	111	399 7/8	220 3/16	152 1/4	60	21	37	253 3/16	8,500
124RLP10	124	2009	10	111	451 7/8	269 3/16	154 1/4	60	23	41	305 3/16	9,200
124RLP12	124	2443	10	111	504 7/8	318 3/16	156 3/4	60	26	46	358 3/16	9,800
188RLP6	188	1842	7.5	132	375 7/8	173 3/16	171 15/16	70	22	40	208 3/16	9,900
188RLP8	188	2463	10	132	434 3/8	226 11/16	174 15/16	70	26	46	266 11/16	10,600
188RLP10	188	3048	10	132	482 7/8	271 3/16	177 7/16	70	29	51	315 3/16	11,400
188RLP12	188	3704	15	132	535 7/8	320 3/16	179 15/16	70	32	56	368 3/16	12,200
236RLP6	236	2313	10	150	397 7/8	173 11/16	189 9/16	79	25	44	212 3/16	11,600
236RLP8	236	3092	10	150	460 3/8	230 11/16	193 1/16	79	29	51	274 11/16	12,400
236RLP10	236	3823	15	150	506 7/8	272 11/16	196 1/16	79	32	57	321 3/16	13,300
236RLP12	236	4849	15	150	560 7/8	322 3/16	199 1/16	79	35	63	375 3/16	14,300
312RLP6	312	3058	10	160	414 7/8	175 3/16	201 11/16	84	29	51	219 3/16	12,800
312RLP8	312	4087	10	160	482 3/8	238 11/16	205 11/16	84	33	59	286 11/16	13,700
312RLP10	312	5054	15	160	525 7/8	274 11/16	209 3/16	84	37	66	330 3/16	14,700
312RLP12	312	6146	20	160	579 7/8	323 11/16	212 3/16	84	41	72	384 3/16	15,700

ATTACHMENT K – COMPLIANCE ASSURANCE MONITORING (CAM) PLANS



**COMPLIANCE ASSURANCE MONITORING (CAM) PLAN
FOR
"SOYBEAN PREPARATION PROCESS"**

PERDUE GRAIN & OILSEED, LLC

BACKGROUND

A. Pollutant-Specific Emission Unit

Description:

Five (5) fabric filters (baghouses) are used to control the particulate matter (PM) emissions from the Soybean Preparation Process. The Soybean Preparation Process consists of the following equipment: bean cleaner, whole bean tank, cracked bean tank, three (3) cracking rolls, six (6) primary dehulling tables, and two (2) secondary dehulling tables.

Source:

Soybean Preparation Process (Source ID 201)

Control Devices:

Five (5) Airlanco 236/158RLP8 Fabric Filter Baghouses (Control Device IDs C201A through E)

Facility Name:

Perdue Grain & Oilseed, LLC – Soybean Processing Facility, Conoy Township, Lancaster County

B. Applicable Regulations, Emission Limits, and Monitoring Requirements

Regulations:

Pennsylvania regulations

Emission Limits:

- ≤ 0.04 grain of PM per dry standard cubic foot, per Pennsylvania regulations – 25 Pa. Code §123.13(c)(1)(i)
- $< 20\%$ opacity for a period or periods aggregating more than 3 minutes in any 1 hour, per Pennsylvania regulations – 25 Pa. Code §123.41(1)
- $< 60\%$ opacity at any time, per Pennsylvania regulations – 25 Pa. Code §123.41(2)

Monitoring Requirements:

Install instrumentation to monitor the differential pressure across the baghouse and visual observation of the baghouse exhaust opacity.

C. Control Technology

A fabric filter (baghouse) is used to remove PM emissions.

MONITORING APPROACH

The main elements of the monitoring approach are as follows:

1. Maintain proper pressure drop through the baghouse. A gauge will be installed to measure the difference in pressure between the inlet and the outlet of the baghouse. To assure proper operation of the unit, facility personnel will observe the pressure differential monthly during source operation and record the information.
2. Routinely check for presence of visible emissions. Once per month, the discharge from the baghouse stack will be observed. The absence or presence of visible emissions will be recorded.

The following table shows the performance criteria for each performance indicator.

Table of Performance Criteria for Each Performance Indicator

CRITERIA	INDICATOR #1	INDICATOR #2
Indicator	Maintain proper pressure drop through the baghouse.	Presence of visible emissions.
Measurement Technique	A gauge is installed to measure the pressure differential across the baghouse.	Visual observations.
Indicator Range	Target is to assure that the pressure drop is within the range of 1 to 6 inches water column. If readings outside that range are observed, an inspection will be initiated and, if necessary, corrective action will be undertaken as expeditiously as practicable.	The acceptable range will be no visible emissions equal to or greater than 20% opacity. The observation of visible emissions equal to or greater than 20% opacity will be considered an excursion, triggering an inspection and corrective action, as necessary.
Data Representativeness	The pressure drop is determined by measuring the difference in pressure between the inlet and outlet of the baghouse.	Observations will be made of the exhaust air at the point of exit from the baghouse fan during source and baghouse operation.
Verification of Operational Status	Not Applicable (NA)	Not Applicable (NA)
QA/QC Practices & Criteria	The pressure gauge will be calibrated annually.	Personnel that are familiar with the normal condition of the stack exhaust will perform the observations.
Monitoring Frequency	Pressure is measured during operation of the baghouse.	Observations of the opacity of the baghouse exhaust gases will be performed once per month.
Data Collection Procedures	Pressure drop measurements will be observed and recorded once per month.	Observations are performed and recorded once per month.
Averaging Period	None	None

JUSTIFICATION FOR MONITORING APPROACH

A. Background

The pollutant specific emissions unit (PSEU) is the Soybean Preparation Process. Five (5) fabric filter baghouses are used to remove PM emissions from the exhaust gases.

B. Rationale for Selection of Performance Indicators

Pressure drop across the baghouse is measured and significant changes from normal readings may be indicative of performance problems. For example, decreases in pressure drop may be a sign that one or more fabric filter bags have developed holes or tears or have become loose. An increase in pressure drop may be indicative of ineffective bag cleaning or blinding of the bags with fine particulate matter.

Visible emissions from the baghouse stack may be the best indicator of control device performance. During normal operation of the source, visible emissions should be nearly non-existent. Experienced facility personnel know and understand the normal appearance of the exhaust stream from the baghouse stack. If an increase of visible emissions occurs, it will be an indicator of subpar baghouse performance. The cause could be one of many, but worn, torn, or loose bags are possible causes. It should be noted that the effects of a slightly torn bag will be more readily detected by a check of visible emissions than by monitoring pressure drop. In many cases, the change in pressure drop will be minor, but the change in visible emissions would be more evident.

To provide a reasonable assurance of compliance with emission limitations or standards, operating ranges for the indicators were developed based on the rationale described below.

C. Rationale for Selection of Indicator Ranges

Based on operation of similar baghouse units at other Perdue soybean processing facilities, it has been determined that the pressure drop across the baghouse may be as low as 1.0 inches of water column (w.c.) for a period of time when the filter bags are new or clean. On occasion, the pressure may reach as high as 6.0 inches w.c. Therefore, the indicator range for proper performance will be designated as between 1.0 and 6.0 inches w.c. If the pressure differential falls below 1.0 inches w.c. or exceeds 6.0 inches w.c., vacuum, it does not necessarily signify that an emission exceedance is occurring. However, such a deviation outside of the above indicator range will be deemed an excursion for the purpose of triggering an inspection of the unit to determine the cause of the abnormal pressure drop. Following the inspection, corrective action will be initiated, if deemed appropriate.

Regarding visible emissions, the indicator range will be the presence of visible stack emissions equal to or greater than 20% opacity. Any observed visible emissions above that level will be considered an excursion and trigger an inspection of the unit and the initiation of corrective action, as deemed necessary.

**COMPLIANCE ASSURANCE MONITORING (CAM) PLAN
FOR
“MEAL DRYER”**

PERDUE GRAIN & OILSEED, LLC

BACKGROUND

A. Pollutant-Specific Emission Unit

Description:

A cyclone is used to control the particulate matter (PM) emissions from the Meal Dryer.

Source:

Meal Dryer (Source ID 205A)

Control Devices:

Kice CK-108 Cyclone (Control Device ID C205A)

Facility Name:

Perdue Grain & Oilseed, LLC – Soybean Processing Facility, Conoy Township, Lancaster County

B. Applicable Regulations, Emission Limits, and Monitoring Requirements

Regulations:

Pennsylvania regulations

Emission Limits:

- ≤ 0.04 grain of PM per dry standard cubic foot, per Pennsylvania regulations – 25 Pa. Code §123.13(c)(1)(i)
- $< 20\%$ opacity for a period or periods aggregating more than 3 minutes in any 1 hour, per Pennsylvania regulations – 25 Pa. Code §123.41(1)
- $< 60\%$ opacity at any time, per Pennsylvania regulations – 25 Pa. Code §123.41(2)

Monitoring Requirements:

Install instrumentation to monitor the differential pressure across the cyclone and visual observation of the cyclone exhaust opacity.

C. Control Technology

A cyclone is used to remove PM emissions.

MONITORING APPROACH

The main elements of the monitoring approach are as follows:

1. Maintain proper pressure drop through the cyclone. A gauge will be installed to measure the difference in pressure between the inlet and the outlet of the cyclone. To assure proper operation of the unit, facility personnel will observe the pressure differential monthly during source operation and record the information.
2. Routinely check for presence of visible emissions. Once per month, the discharge from the cyclone stack will be observed. The absence or presence of visible emissions will be recorded.

The following table shows the performance criteria for each performance indicator.

Table of Performance Criteria for Each Performance Indicator

CRITERIA	INDICATOR #1	INDICATOR #2
Indicator	Maintain proper pressure drop through the cyclone.	Presence of visible emissions.
Measurement Technique	A gauge is installed to measure the pressure differential across the cyclone.	Visual observations.
Indicator Range	Target is to assure that the pressure drop is within the range of 2 to 6 inches water column. If readings outside that range are observed, an inspection will be initiated and, if necessary, corrective action will be undertaken as expeditiously as practicable.	The acceptable range will be no visible emissions equal to or greater than 20% opacity. The observation of visible emissions equal to or greater than 20% opacity will be considered an excursion, triggering an inspection and corrective action, as necessary.
Data Representativeness	The pressure drop is determined by measuring the difference in pressure between the inlet and outlet of the cyclone.	Observations will be made of the exhaust air at the point of exit from the cyclone during source and cyclone operation.
Verification of Operational Status	Not Applicable (NA)	Not Applicable (NA)
QA/QC Practices & Criteria	The pressure gauge will be calibrated annually.	Personnel that are familiar with the normal condition of the stack exhaust will perform the observations.
Monitoring Frequency	Pressure is measured during operation of the cyclone.	Observations of the opacity of the cyclone exhaust gases will be performed once per month.
Data Collection Procedures	Pressure drop measurements will be observed and recorded once per month.	Observations are performed and recorded once per month.
Averaging Period	None	None

JUSTIFICATION FOR MONITORING APPROACH

A. Background

The pollutant specific emissions unit (PSEU) is the Meal Dryer. A cyclone is used to remove PM emissions from the exhaust gases.

B. Rationale for Selection of Performance Indicators

Pressure drop across the cyclone is measured and significant changes from normal readings may be indicative of performance problems. For example, abnormal pressure drop readings may be a sign of internal cyclone damage such as an eroded cylinder and/or cone, weld cracks, or a fan issue if inlet/outlet air velocities are too high or too low.

Visible emissions from the cyclone stack may be the best indicator of control device performance. During normal operation of the source, visible emissions should be minimal. Experienced facility personnel know and understand the normal appearance of the exhaust stream from the cyclone stack. If an increase of visible emissions occurs, it will be an indicator of subpar cyclone performance.

To provide a reasonable assurance of compliance with emission limitations or standards, operating ranges for the indicators were developed based on the rationale described below.

C. Rationale for Selection of Indicator Ranges

Based on operation of similar cyclone units at other Perdue soybean processing facilities, it has been determined that the pressure drop across the cyclone may be as low as 2.0 inches of water column (w.c.). On occasion, the pressure may reach as high as 6.0 inches w.c. Therefore, the indicator range for proper performance will be designated as between 2.0 and 6.0 inches w.c. If the pressure differential falls below 2.0 inches w.c. or exceeds 6.0 inches w.c., vacuum, it does not necessarily signify that an emission exceedance is occurring. However, such a deviation outside of the above indicator range will be deemed an excursion for the purpose of triggering an inspection of the unit to determine the cause of the abnormal pressure drop. Following the inspection, corrective action will be initiated, if deemed appropriate.

Regarding visible emissions, the indicator range will be the presence of visible stack emissions equal to or greater than 20% opacity. Any observed visible emissions above that level will be considered an excursion and trigger an inspection of the unit and the initiation of corrective action, as deemed necessary.

COMPLIANCE ASSURANCE MONITORING (CAM) PLAN
FOR
“MEAL COOLER”

PERDUE GRAIN & OILSEED, LLC

BACKGROUND

A. Pollutant-Specific Emission Unit

Description:

A cyclone is used to control the particulate matter (PM) emissions from the Meal Cooler.

Source:

Meal Cooler (Source ID 205B)

Control Devices:

Kice CK-108 Cyclone (Control Device ID C205B)

Facility Name:

Perdue Grain & Oilseed, LLC – Soybean Processing Facility, Conoy Township, Lancaster County

B. Applicable Regulations, Emission Limits, and Monitoring Requirements

Regulations:

Pennsylvania regulations

Emission Limits:

- ≤ 0.04 grain of PM per dry standard cubic foot, per Pennsylvania regulations – 25 Pa. Code §123.13(c)(1)(i)
- < 20% opacity for a period or periods aggregating more than 3 minutes in any 1 hour, per Pennsylvania regulations – 25 Pa. Code §123.41(1)
- < 60% opacity at any time, per Pennsylvania regulations – 25 Pa. Code §123.41(2)

Monitoring Requirements:

Install instrumentation to monitor the differential pressure across the cyclone and visual observation of the cyclone exhaust opacity.

C. Control Technology

A cyclone is used to remove PM emissions.

MONITORING APPROACH

The main elements of the monitoring approach are as follows:

1. Maintain proper pressure drop through the cyclone. A gauge will be installed to measure the difference in pressure between the inlet and the outlet of the cyclone. To assure proper operation of the unit, facility personnel will observe the pressure differential monthly during source operation and record the information.
2. Routinely check for presence of visible emissions. Once per month, the discharge from the cyclone stack will be observed. The absence or presence of visible emissions will be recorded.

The following table shows the performance criteria for each performance indicator.

Table of Performance Criteria for Each Performance Indicator

CRITERIA	INDICATOR #1	INDICATOR #2
Indicator	Maintain proper pressure drop through the cyclone.	Presence of visible emissions.
Measurement Technique	A gauge is installed to measure the pressure differential across the cyclone.	Visual observations.
Indicator Range	Target is to assure that the pressure drop is within the range of 2 to 6 inches water column. If readings outside that range are observed, an inspection will be initiated and, if necessary, corrective action will be undertaken as expeditiously as practicable.	The acceptable range will be no visible emissions equal to or greater than 20% opacity. The observation of visible emissions equal to or greater than 20% opacity will be considered an excursion, triggering an inspection and corrective action, as necessary.
Data Representativeness	The pressure drop is determined by measuring the difference in pressure between the inlet and outlet of the cyclone.	Observations will be made of the exhaust air at the point of exit from the cyclone during source and cyclone operation.
Verification of Operational Status	Not Applicable (NA)	Not Applicable (NA)
QA/QC Practices & Criteria	The pressure gauge will be calibrated annually.	Personnel that are familiar with the normal condition of the stack exhaust will perform the observations.
Monitoring Frequency	Pressure is measured during operation of the cyclone.	Observations of the opacity of the cyclone exhaust gases will be performed once per month.
Data Collection Procedures	Pressure drop measurements will be observed and recorded once per month.	Observations are performed and recorded once per month.
Averaging Period	None	None

JUSTIFICATION FOR MONITORING APPROACH

A. Background

The pollutant specific emissions unit (PSEU) is the Meal Cooler. A cyclone is used to remove PM emissions from the exhaust gases.

B. Rationale for Selection of Performance Indicators

Pressure drop across the cyclone is measured and significant changes from normal readings may be indicative of performance problems. For example, abnormal pressure drop readings may be a sign of internal cyclone damage such as an eroded cylinder and/or cone, weld cracks, or a fan issue if inlet/outlet air velocities are too high or too low.

Visible emissions from the cyclone stack may be the best indicator of control device performance. During normal operation of the source, visible emissions should be minimal. Experienced facility personnel know and understand the normal appearance of the exhaust stream from the cyclone stack. If an increase of visible emissions occurs, it will be an indicator of subpar cyclone performance.

To provide a reasonable assurance of compliance with emission limitations or standards, operating ranges for the indicators were developed based on the rationale described below.

C. Rationale for Selection of Indicator Ranges

Based on operation of similar cyclone units at other Perdue soybean processing facilities, it has been determined that the pressure drop across the cyclone may be as low as 2.0 inches of water column (w.c.). On occasion, the pressure may reach as high as 6.0 inches w.c. Therefore, the indicator range for proper performance will be designated as between 2.0 and 6.0 inches w.c. If the pressure differential falls below 2.0 inches w.c. or exceeds 6.0 inches w.c., vacuum, it does not necessarily signify that an emission exceedance is occurring. However, such a deviation outside of the above indicator range will be deemed an excursion for the purpose of triggering an inspection of the unit to determine the cause of the abnormal pressure drop. Following the inspection, corrective action will be initiated, if deemed appropriate.

Regarding visible emissions, the indicator range will be the presence of visible stack emissions equal to or greater than 20% opacity. Any observed visible emissions above that level will be considered an excursion and trigger an inspection of the unit and the initiation of corrective action, as deemed necessary.

COMPLIANCE ASSURANCE MONITORING (CAM) PLAN
FOR
“MEAL SCREENING AND GRINDING”

PERDUE GRAIN & OILSEED, LLC

BACKGROUND

A. Pollutant-Specific Emission Unit

Description:

A fabric filter (baghouse) is used to control the particulate matter (PM) emissions from the Meal Screening and Grinding operation. The Meal Screening and Grinding operation consists of the following equipment: screener and two (2) meal grinder hammermills.

Source:

Meal Screening and Grinding (Source ID 206)

Control Devices:

Airanco 188RLP8 Fabric Filter Baghouse (Control Device ID C206)

Facility Name:

Perdue Grain & Oilseed, LLC – Soybean Processing Facility, Conoy Township, Lancaster County

B. Applicable Regulations, Emission Limits, and Monitoring Requirements

Regulations:

Pennsylvania regulations

Emission Limits:

- ≤ 0.04 grain of PM per dry standard cubic foot, per Pennsylvania regulations – 25 Pa. Code §123.13(c)(1)(i)
- < 20% opacity for a period or periods aggregating more than 3 minutes in any 1 hour, per Pennsylvania regulations – 25 Pa. Code §123.41(1)
- < 60% opacity at any time, per Pennsylvania regulations – 25 Pa. Code §123.41(2)

Monitoring Requirements:

Install instrumentation to monitor the differential pressure across the baghouse and visual observation of the baghouse exhaust opacity.

C. Control Technology

A fabric filter (baghouse) is used to remove PM emissions.

MONITORING APPROACH

The main elements of the monitoring approach are as follows:

1. Maintain proper pressure drop through the baghouse. A gauge will be installed to measure the difference in pressure between the inlet and the outlet of the baghouse. To assure proper operation of the unit, facility personnel will observe the pressure differential monthly during source operation and record the information.
2. Routinely check for presence of visible emissions. Once per month, the discharge from the baghouse stack will be observed. The absence or presence of visible emissions will be recorded.

The following table shows the performance criteria for each performance indicator.

Table of Performance Criteria for Each Performance Indicator

CRITERIA	INDICATOR #1	INDICATOR #2
Indicator	Maintain proper pressure drop through the baghouse.	Presence of visible emissions.
Measurement Technique	A gauge is installed to measure the pressure differential across the baghouse.	Visual observations.
Indicator Range	Target is to assure that the pressure drop is within the range of 1 to 6 inches water column. If readings outside that range are observed, an inspection will be initiated and, if necessary, corrective action will be undertaken as expeditiously as practicable.	The acceptable range will be no visible emissions equal to or greater than 20% opacity. The observation of visible emissions equal to or greater than 20% opacity will be considered an excursion, triggering an inspection and corrective action, as necessary.
Data Representativeness	The pressure drop is determined by measuring the difference in pressure between the inlet and outlet of the baghouse.	Observations will be made of the exhaust air at the point of exit from the baghouse fan during source and baghouse operation.
Verification of Operational Status	Not Applicable (NA)	Not Applicable (NA)
QA/QC Practices & Criteria	The pressure gauge will be calibrated annually.	Personnel that are familiar with the normal condition of the stack exhaust will perform the observations.
Monitoring Frequency	Pressure is measured during operation of the baghouse.	Observations of the opacity of the baghouse exhaust gases will be performed once per month.
Data Collection Procedures	Pressure drop measurements will be observed and recorded once per month.	Observations are performed and recorded once per month.
Averaging Period	None	None

JUSTIFICATION FOR MONITORING APPROACH

A. Background

The pollutant specific emissions unit (PSEU) is the Meal Screening and Grinding operation. A fabric filter baghouse is used to remove PM emissions from the exhaust gases.

B. Rationale for Selection of Performance Indicators

Pressure drop across the baghouse is measured and significant changes from normal readings may be indicative of performance problems. For example, decreases in pressure drop may be a sign that one or more fabric filter bags have developed holes or tears or have become loose. An increase in pressure drop may be indicative of ineffective bag cleaning or blinding of the bags with fine particulate matter.

Visible emissions from the baghouse stack may be the best indicator of control device performance. During normal operation of the source, visible emissions should be nearly non-existent. Experienced facility personnel know and understand the normal appearance of the exhaust stream from the baghouse stack. If an increase of visible emissions occurs, it will be an indicator of subpar baghouse performance. The cause could be one of many, but worn, torn, or loose bags are possible causes. It should be noted that the effects of a slightly torn bag will be more readily detected by a check of visible emissions than by monitoring pressure drop. In many cases, the change in pressure drop will be minor, but the change in visible emissions would be more evident.

To provide a reasonable assurance of compliance with emission limitations or standards, operating ranges for the indicators were developed based on the rationale described below.

C. Rationale for Selection of Indicator Ranges

Based on operation of similar baghouse units at other Perdue soybean processing facilities, it has been determined that the pressure drop across the baghouse may be as low as 1.0 inches of water column (w.c.) for a period of time when the filter bags are new or clean. On occasion, the pressure may reach as high as 6.0 inches w.c. Therefore, the indicator range for proper performance will be designated as between 1.0 and 6.0 inches w.c. If the pressure differential falls below 1.0 inches w.c. or exceeds 6.0 inches w.c., vacuum, it does not necessarily signify that an emission exceedance is occurring. However, such a deviation outside of the above indicator range will be deemed an excursion for the purpose of triggering an inspection of the unit to determine the cause of the abnormal pressure drop. Following the inspection, corrective action will be initiated, if deemed appropriate.

Regarding visible emissions, the indicator range will be the presence of visible stack emissions equal to or greater than 20% opacity. Any observed visible emissions above that level will be considered an excursion and trigger an inspection of the unit and the initiation of corrective action, as deemed necessary.

ATTACHMENT L – COUNTY AND MUNICIPAL NOTIFICATIONS



Perdue AgriBusiness Inc.
 Environmental Services
 P.O. Box 460
 Lewiston Woodville, NC 27849
 www.perdue.com®

Office (252)348-4364

CERTIFIED MAIL NO. 7010 3090 0000 6840 9531

Lancaster County Government Center
 Office of the County Commissioners
 150 North Queen Street
 7th Floor, Suite 715
 Lancaster, PA 17603

August 10, 2012

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Postage	\$ 1.30	
Certified Fee	2.95	
Return Receipt Fee (Endorsement Required)	2.35	
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$ 6.60	

LANCASTER COUNTY GOVERNMENT CENTER
 OFFICE OF THE COUNTY COMMISSIONERS
 150 NORTH QUEEN STREET
 7TH FLOOR, SUITE 715
 LANCASTER, PA 17603

RECEIVED
 AUG 13 2012
 DEP SOUTHCENTRAL REGION
 AIR QUALITY PROGRAM

RE: Perdue Grain & Oilseed, LLC – Soybean Processing Facility
 Notification: PA DEP Air Quality Plan Approval Application (Phase 2)

Dear Commissioners:

Perdue Grain & Oilseed, LLC (Perdue) is submitting a Plan Approval Application to the Pennsylvania Department of Environmental Protection (DEP) Air Quality Program for its proposed Soybean Processing Facility to be located at 1897 River Road in Conoy Township, Lancaster County. This Plan Approval Application addresses Phase 2 of the larger, overall project. Specifically, Phase 2 addresses the installation and operation of the soybean oil extraction portion of the overall facility. The soybean oil extraction operation will allow Perdue to prepare soybeans for oil extraction, produce soybean oil and soybean meal/mill feed, and ship soybean oil and soybean meal/mill feed off site via truck. The air emission sources that comprise the soybean oil extraction portion of the overall facility include:

- Soybean preparation process (soybean cleaning/cracking/dehulling)
- Soybean conditioning
- Soybean flaking rolls
- Oil extractor/desolventizer-toaster extraction process
- Solvent recovery system
- Solvent storage tanks (two (2) 20,000 gallons capacity, each)
- Meal dryer
- Meal cooler
- Meal screening and grinding process
- Mill feed (hull) grinding process
- Meal/mill feed storage bin tanks (four (4) storage bin tanks)
- Meal/mill feed loadout tank
- Meal loadout area
- Seed silo tanks (three (3) storage bin tanks)
- Facility roadway fugitive particulate matter emissions



Perdue has submitted an Air Quality Plan Approval Application to DEP for Phase 1 of the larger, overall project. Phase 1 addressed the installation and operation of the grain elevator equipment. A separate notification letter was sent to Lancaster County and Conoy Township when Perdue submitted the Phase 1 Plan Approval Application to DEP.

Acts 67, 68, and 127, which amended the Municipalities Planning Code, direct state agencies to consider comprehensive plans and zoning ordinances when reviewing applications for permitting of facilities or infrastructure, and specify that state agencies may rely upon comprehensive plans and zoning ordinances under certain conditions as described in Sections 619.2 and 1105 of the Municipalities Planning Code. Enclosed is a General Information Form (GIF) that is being submitted with the Plan Approval Application. DEP invites you to review the GIF and comment on the accuracy of answers provided with regard to the land use aspects of this project; please be specific in any comment on the GIF and focus on the relationship of the project to zoning ordinances. If you wish to submit comments on the land use aspects of this project to DEP, you must respond within 30 days to the DEP regional office referenced below in this letter. If there are no land use comments received by the end of the comment period, DEP will assume that there are no substantive land use conflicts and proceed with its normal application review process. For more information about this land use review process, visit DEP's website at www.state.pa.us, Keyword: "DEP Land Use Reviews".

Section 1905-A of the Administrative Code, 71 P.S. Section 510-5, commonly referred to as Act 14, and Pennsylvania Code Title 25 (Environmental Protection - Air Resources) Section 127.43a also require Perdue to notify Lancaster County and Conoy Township of the submission of the Plan Approval Application and advise them of the opportunity to comment on the application. Comments must be submitted to DEP within 30 days of receipt of this notification and should be sent to:

Thomas J. Hanlon, P.E.
Environmental Engineering Manager
PA DEP – Southcentral Regional Office
Air Quality Program
909 Elmerton Avenue
Harrisburg, PA 17110-8200

Phone: 717-705-4862

Should you have any questions pertaining to this matter, please contact me at 252-348-4326.

Sincerely,



C. Wayne Black
Director Perdue AgriBusiness Environmental

CC:/ Honorable Senator Mike Folmer
Honorable Representative Dave Hickernell

Enclosure



Perdue AgriBusiness Inc.
 Environmental Services
 P.O. Box 460
 Lewiston Woodville, NC 27849
 www.perdue.com®

Office (252)348-4364

CERTIFIED MAIL NO. 7010 3090 0000 6840 9548

Conoy Township Board of Supervisors
 Conoy Township Municipal Building
 211 Falmouth Road
 Bainbridge, PA 17502

August 10, 2012

RE: Perdue Grain & Oilseed, LLC – Soybean Processing Facility
 Notification: PA DEP Air Quality Plan Approval Application (Phase 2)

Dear Board of Supervisors:

Perdue Grain & Oilseed, LLC (Perdue) is submitting a Plan Approval Application to the Pennsylvania Department of Environmental Protection (DEP) Air Quality Program for its proposed Soybean Processing Facility to be located at 1897 River Road in Conoy Township, Lancaster County. This Plan Approval Application addresses Phase 2 of the larger, overall project. Specifically, Phase 2 addresses the installation and operation of the soybean oil extraction portion of the overall facility. The soybean oil extraction operation will allow Perdue to prepare soybeans for oil extraction, produce soybean oil and soybean meal/mill feed, and ship soybean oil and soybean meal/mill feed offsite via truck. The air emission sources that comprise the soybean oil extraction portion of the overall facility include:

- Soybean preparation process (soybean cleaning/cracking/dehulling)
- Soybean conditioning
- Soybean flaking rolls
- Oil extractor/desolventizer-toaster extraction process
- Solvent recovery system
- Solvent storage tanks (two (2) 20,000 gallons capacity, each)
- Meal dryer
- Meal cooler
- Meal screening and grinding process
- Mill feed (hull) grinding process
- Meal/mill feed storage bin tanks (four (4) storage bin tanks)
- Meal/mill feed loadout tank
- Meal loadout area
- Seed silo tanks (three (3) storage bin tanks)
- Facility roadway fugitive particulate matter emissions



U.S. Postal Service		CERTIFIED MAIL RECEIPT	
<i>(Domestic Mail Only, No Insurance Coverage Provided)</i>			
For delivery information visit our website at www.usps.com			
OFFICIAL USE			
Postage	\$	1.30	Postmark PA 17502
Certified Fee		2.95	
Return Receipt Fee (Endorsement Required)		2.35	
Restricted Delivery Fee (Endorsement Required)			
Total Postage & Fees	\$	6.60	

7010 3090 0000 6840 9548

CONOY TOWNSHIP BOARD OF SUPERVISORS
 CONOY TOWNSHIP MUNICIPAL BUILDING
 211 FALMOUTH ROAD
 BAINBRIDGE, PA 17502

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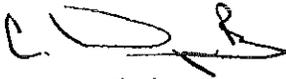
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Should you have any questions pertaining to this matter, please contact me at 252-348-4326.

Sincerely,



C. Wayne Black
Director Perdue AgriBusiness Environmental

CC:/ Honorable Senator Mike Folmer
Honorable Representative Dave Hickernell

Enclosure

ATTACHMENT M – GENERAL INFORMATION FORM (GIF)


GENERAL INFORMATION FORM – AUTHORIZATION APPLICATION

Before completing this General Information Form (GIF), read the step-by-step instructions provided in this application package. This version of the General Information Form (GIF) must be completed and returned with any program-specific application being submitted to the Department.

Related ID#s (If Known)		DEP USE ONLY	
Client ID#	296620	APS ID#	
Site ID#	762909	Auth ID#	
Facility ID#	753880	Date Received & General Notes	

CLIENT INFORMATION

DEP Client ID#	Client Type / Code		
296620	LLC		
Organization Name or Registered Fictitious Name	Employer ID# (EIN)	Dun & Bradstreet ID#	
Perdue Grain & Oilseed, LLC	20-5172625		
Individual Last Name	First Name	MI	Suffix SSN
Additional Individual Last Name	First Name	MI	Suffix SSN
Mailing Address Line 1	Mailing Address Line 2		
PO Box 1537			
Address Last Line – City	State	ZIP+4	Country
Salisbury	MD	21802-1537	USA
Client Contact Last Name	First Name	MI	Suffix
Heller	Peter		
Client Contact Title	Phone	Ext	
Consultant	410-708-3197		
Email Address	FAX		
peter.heller@perdue.com	410-543-3495		

SITE INFORMATION

DEP Site ID#	Site Name		
762909	Perdue Grain & Oilseed, LLC - Soybean Processing Facility		
EPA ID#	Estimated Number of Employees to be Present at Site	35 (approx.)	
Description of Site	Soybean processing facility		
County Name	Municipality	City	Boro Twp State
Lancaster	Conoy	<input type="checkbox"/>	<input type="checkbox"/> <input checked="" type="checkbox"/> PA
County Name	Municipality	City	Boro Twp State
		<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
Site Location Line 1	Site Location Line 2		
1897 River Road			
Site Location Last Line – City	State	ZIP+4	
Marietta	PA	17547	
Detailed Written Directions to Site	From PA-283 E, exit onto PA-743 S/Hershey Rd. toward Elizabethtown. Turn left onto N Market St. Turn right onto W Bainbridge St. Turn left onto PA-441 S/River Rd. Travel 3 miles, and the site will be on the right.		
Site Contact Last Name	First Name	MI	Suffix
Black	Wayne		
Site Contact Title	Site Contact Firm		
Director - AgriBusiness Environmental	Perdue Grain & Oilseed, LLC		
Mailing Address Line 1	Mailing Address Line 2		
PO Box 460			

Mailing Address Last Line – City Lewiston-Woodville		State NC	ZIP+4 27849
Phone 252-348-4326	Ext	FAX 252-348-4355	Email Address wayne.black@perdue.com
NAICS Codes (Two- & Three-Digit Codes – List All That Apply) 31, 311			6-Digit Code (Optional) 311222
Client to Site Relationship OWNOP			

FACILITY INFORMATION

Modification of Existing Facility	Yes	No
1. Will this project modify an existing facility, system, or activity?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Will this project involve an addition to an existing facility, system, or activity? <i>If "Yes", check all relevant facility types and provide DEP facility identification numbers below.</i>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Note: Project consists of two phases. The air quality plan approval application was submitted to the Department for Phase 1 of the project and is currently pending; therefore, the proposed single facility (comprised of Phase 1 and Phase 2) does not yet exist.

Facility Type	DEP Fac ID#	Facility Type	DEP Fac ID#
<input type="checkbox"/> Air Emission Plant	_____	<input type="checkbox"/> Industrial Minerals Mining Operation	_____
<input type="checkbox"/> Beneficial Use (water)	_____	<input type="checkbox"/> Laboratory Location	_____
<input type="checkbox"/> Blasting Operation	_____	<input type="checkbox"/> Land Recycling Cleanup Location	_____
<input type="checkbox"/> Captive Hazardous Waste Operation	_____	<input type="checkbox"/> MineDrainageTrmt/LandRecyProjLocation	_____
<input type="checkbox"/> Coal Ash Beneficial Use Operation	_____	<input type="checkbox"/> Municipal Waste Operation	_____
<input type="checkbox"/> Coal Mining Operation	_____	<input type="checkbox"/> Oil & Gas Encroachment Location	_____
<input type="checkbox"/> Coal Pillar Location	_____	<input type="checkbox"/> Oil & Gas Location	_____
<input type="checkbox"/> Commercial Hazardous Waste Operation	_____	<input type="checkbox"/> Oil & Gas Water Poll Control Facility	_____
<input type="checkbox"/> Dam Location	_____	<input type="checkbox"/> Public Water Supply System	_____
<input type="checkbox"/> Deep Mine Safety Operation -Anthracite	_____	<input type="checkbox"/> Radiation Facility	_____
<input type="checkbox"/> Deep Mine Safety Operation -Bituminous	_____	<input type="checkbox"/> Residual Waste Operation	_____
<input type="checkbox"/> Deep Mine Safety Operation -Ind Minerals	_____	<input type="checkbox"/> Storage Tank Location	_____
<input type="checkbox"/> Encroachment Location (water, wetland)	_____	<input type="checkbox"/> Water Pollution Control Facility	_____
<input type="checkbox"/> Erosion & Sediment Control Facility	_____	<input type="checkbox"/> Water Resource	_____
<input type="checkbox"/> Explosive Storage Location	_____	<input type="checkbox"/> Other:	_____

Latitude/Longitude Point of Origin	Latitude			Longitude		
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
Proposed Facility	40	04	15.45	76	38	27.42
Horizontal Accuracy Measure	Feet		--or--	Meters		
Horizontal Reference Datum Code	<input type="checkbox"/> North American Datum of 1927 <input type="checkbox"/> North American Datum of 1983 <input type="checkbox"/> World Geodetic System of 1984					
Horizontal Collection Method Code	_____					
Reference Point Code	_____					
Altitude	Feet		--or--	Meters		
Altitude Datum Name	<input type="checkbox"/> The National Geodetic Vertical Datum of 1929 <input type="checkbox"/> The North American Vertical Datum of 1988 (NAVD88)					
Altitude (Vertical) Location Datum Collection Method Code	_____					
Geometric Type Code	_____					
Data Collection Date	_____					
Source Map Scale Number	Inch(es)		=	Feet		
	--or--		=	Meters		
	Centimeter(s)					

PROJECT INFORMATION

Project Name Soybean Processing Facility			
Project Description Construction of a soybean processing facility to produce soybean oil and soybean meal.			
Project Consultant Last Name Schmelzle	First Name John	MI P	Suffix

Project Consultant Title Project Manager			Consulting Firm RETTEW	
Mailing Address Line 1 5031 Richard Lane			Mailing Address Line 2 Suite 111	
Address Last Line – City Mechanicsburg			State PA	ZIP+4 17055
Phone 717-697-3551	Ext 3305	FAX 717-697-6953	Email Address jschmelzle@rettew.com	
Time Schedules March 2013	Project Milestone (Optional) Begin construction of the preparation/extraction portion of facility			
December 2013	Complete construction and start-up of the preparation/extraction portion of facility			

1. Have you informed the surrounding community and addressed any concerns prior to submitting the application to the Department? Yes No

Perdue hosted an open-house at the Bainbridge Fire Company on April 26, 2012 to inform the residents of Conoy Township about the project.

2. Is your project funded by state or federal grants? Yes No

Note: If "Yes", specify what aspect of the project is related to the grant and provide the grant source, contact person and grant expiration date.
 Aspect of Project Related to Grant: The grant funding will be utilized for the grain elevator and the site development work for the overall facility.
 Grant Source: Commonwealth of Pennsylvania Redevelopment Assistance Capital Program
 Grant Contact Person: Richard Dreher, Office of the Budget, Verizon Tower, 7th Floor, 303 Walnut Street, Harrisburg, PA 17101, Phone: 717-787-7342
 Grant Expiration Date: Not Applicable

3. Is this application for an authorization on Appendix A of the Land Use Policy? (For referenced list, see Appendix A of the Land Use Policy attached to GIF instructions) Yes No

Note: If "No" to Question 3, the application is not subject to the Land Use Policy.
 If "Yes" to Question 3, the application is subject to this policy and the Applicant should answer the additional questions in the Land Use Information section.

LAND USE INFORMATION

Note: Applicants are encouraged to submit copies of local land use approvals or other evidence of compliance with local comprehensive plans and zoning ordinances.

1. Is there an adopted county or multi-county comprehensive plan? Yes No

2. Is there an adopted municipal or multi-municipal comprehensive plan? Yes No

3. Is there an adopted county-wide zoning ordinance, municipal zoning ordinance or joint municipal zoning ordinance? Yes No

Note: If the Applicant answers "No" to either Questions 1, 2 or 3, the provisions of the PA MPC are not applicable and the Applicant does not need to respond to questions 4 and 5 below.
 If the Applicant answers "Yes" to questions 1, 2 and 3, the Applicant should respond to questions 4 and 5 below.

4. Does the proposed project meet the provisions of the zoning ordinance or does the proposed project have zoning approval? If zoning approval has been received, attach documentation. Yes No

A height variance for the facility's extraction building has been obtained.

5. Have you attached Municipal and County Land Use Letters for the project? Yes No

COORDINATION INFORMATION

Note: The PA Historical and Museum Commission must be notified of proposed projects in accordance with DEP Technical Guidance Document 012-0700-001 and the accompanying Cultural Resource Notice Form.

If the activity will be a mining project (i.e., mining of coal or industrial minerals, coal refuse disposal and/or the operation of a coal or industrial minerals preparation/processing facility), respond to questions 1.0 through 2.5 below.

If the activity will not be a mining project, skip questions 1.0 through 2.5 and begin with question 3.0.

1.0	Is this a coal mining project? If "Yes", respond to 1.1-1.6. If "No", skip to Question 2.0.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
1.1	Will this coal mining project involve coal preparation/ processing activities in which the total amount of coal prepared/processed will be equal to or greater than 200 tons/day?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
1.2	Will this coal mining project involve coal preparation/ processing activities in which the total amount of coal prepared/processed will be greater than 50,000 tons/year?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
1.3	Will this coal mining project involve coal preparation/ processing activities in which thermal coal dryers or pneumatic coal cleaners will be used?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
1.4	For this coal mining project, will sewage treatment facilities be constructed and treated waste water discharged to surface waters?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
1.5	Will this coal mining project involve the construction of a permanent impoundment meeting one or more of the following criteria: (1) a contributory drainage area exceeding 100 acres; (2) a depth of water measured by the upstream toe of the dam at maximum storage elevation exceeding 15 feet; (3) an impounding capacity at maximum storage elevation exceeding 50 acre-feet?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
1.6	Will this coal mining project involve underground coal mining to be conducted within 500 feet of an oil or gas well?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
2.0	Is this a non-coal (industrial minerals) mining project? If "Yes", respond to 2.1-2.6. If "No", skip to Question 3.0.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
2.1	Will this non-coal (industrial minerals) mining project involve the crushing and screening of non-coal minerals other than sand and gravel?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
2.2	Will this non-coal (industrial minerals) mining project involve the crushing and/or screening of sand and gravel with the exception of wet sand and gravel operations (screening only) and dry sand and gravel operations with a capacity of less than 150 tons/hour of unconsolidated materials?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
2.3	Will this non-coal (industrial minerals) mining project involve the construction, operation and/or modification of a portable non-metallic (i.e., non-coal) minerals processing plant under the authority of the General Permit for Portable Non-metallic Mineral Processing Plants (i.e., BAQ-PGPA/GP-3)?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
2.4	For this non-coal (industrial minerals) mining project, will sewage treatment facilities be constructed and treated waste water discharged to surface waters?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
2.5	Will this non-coal (industrial minerals) mining project involve the construction of a permanent impoundment meeting one or more of the following criteria: (1) a contributory drainage area exceeding 100 acres; (2) a depth of water measured by the upstream toe of the dam at maximum storage elevation exceeding 15 feet; (3) an impounding capacity at maximum storage elevation exceeding 50 acre-feet?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No

3.0	Will your project, activity, or authorization have anything to do with a well related to oil or gas production, have construction within 200 feet of, affect an oil or gas well, involve the waste from such a well, or string power lines above an oil or gas well? If "Yes", respond to 3.1-3.3. If "No", skip to Question 4.0.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
3.1	Does the oil- or gas-related project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a watercourse, floodway or body of water (including wetlands)?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
3.2	Will the oil- or gas-related project involve discharge of industrial wastewater or stormwater to a dry swale, surface water, ground water or an existing sanitary sewer system or storm water system? If "Yes", discuss in <i>Project Description</i> .	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
3.3	Will the oil- or gas-related project involve the construction and operation of industrial waste treatment facilities?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
4.0	Will the project involve a construction activity that results in earth disturbance? If "Yes", specify the total disturbed acreage. 4.0.1 Total Disturbed Acreage 36 (approx.)	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
5.0	Does the project involve any of the following? If "Yes", respond to 5.1-5.3. If "No", skip to Question 6.0.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
5.1	Water Obstruction and Encroachment Projects – Does the project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a watercourse, floodway or body of water?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
5.2	Wetland Impacts – Does the project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a wetland?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
5.3	Floodplain Projects by the commonwealth, a Political Subdivision of the commonwealth or a Public Utility – Does the project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a floodplain?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
6.0	Will the project involve discharge of stormwater or wastewater from an industrial activity to a dry swale, surface water, ground water or an existing sanitary sewer system or separate storm water system?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
7.0	Will the project involve the construction and operation of industrial waste treatment facilities?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
8.0	Will the project involve construction of sewage treatment facilities, sanitary sewers, or sewage pumping stations? If "Yes", indicate estimated proposed flow (gal/day). Also, discuss the sanitary sewer pipe sizes and the number of pumping stations/treatment facilities/name of downstream sewage facilities in the <i>Project Description</i> , where applicable. 8.0.1 Estimated Proposed Flow (gal/day) 35 employees x 20 gpd = 700 gpd + 50 gpd (visitors) = 750 gpd. On-lot sewage disposal system.	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
9.0	Will the project involve the subdivision of land, or the generation of 800 gpd or more of sewage on an existing parcel of land or the generation of an additional 400 gpd of sewage on an already-developed parcel, or the generation of 800 gpd or more of industrial wastewater that would be discharged to an existing sanitary sewer system? 9.0.1 Was Act 537 sewage facilities planning submitted and approved by DEP? If "Yes" attach the approval letter. Approval required prior to 105/NPDES approval. <i>No planning required; see attached DEP letter.</i>	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
10.0	Is this project for the beneficial use of biosolids for land application within Pennsylvania? If "Yes" indicate how much (i.e. gallons or dry tons per year). 10.0.1 Gallons Per Year (residential septage) _____ 10.0.2 Dry Tons Per Year (biosolids) _____	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No

11.0	Does the project involve construction, modification or removal of a dam? If "Yes", identify the dam.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
11.0.1	Dam Name				
12.0	Will the project interfere with the flow from, or otherwise impact, a dam? If "Yes", identify the dam.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
12.0.1	Dam Name				
13.0	Will the project involve operations (excluding during the construction period) that produce air emissions (i.e., NOX, VOC, etc.)? If "Yes", identify each type of emission followed by the amount of that emission.	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
13.0.1	Enter all types & amounts of emissions; separate each set with semicolons.	See Plan Approval Application for types and amounts of air emissions.			
14.0	Does the project include the construction or modification of a drinking water supply to serve 15 or more connections or 25 or more people, at least 60 days out of the year? If "Yes", check all proposed sub-facilities.	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
14.0.1	Number of Persons Served	35			
14.0.2	Number of Employee/Guests	35			
14.0.3	Number of Connections	One (1) domestic well			
14.0.4	Sub-Fac: Distribution System	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
14.0.5	Sub-Fac: Water Treatment Plant	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
14.0.6	Sub-Fac: Source	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
14.0.7	Sub-Fac: Pump Station	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
14.0.8	Sub Fac: Transmission Main	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
14.0.9	Sub-Fac: Storage Facility	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
15.0	Will your project include infiltration of storm water or waste water to ground water within one-half mile of a public water supply well, spring or infiltration gallery?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
16.0	Is your project to be served by an existing public water supply? If "Yes", indicate name of supplier and attach letter from supplier stating that it will serve the project.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
16.0.1	Supplier's Name				
16.0.2	Letter of Approval from Supplier is Attached	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
17.0	Will this project involve a new or increased drinking water withdrawal from a stream or other water body? If "Yes", should reference both Water Supply and Watershed Management.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
17.0.1	Stream Name				
18.0	Will the construction or operation of this project involve treatment, storage, reuse, or disposal of waste? If "Yes", indicate what type (i.e., hazardous, municipal (including infectious & chemotherapeutic), residual) and the amount to be treated, stored, re-used or disposed.	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
18.0.1	Type & Amount	General municipal trash: 1-2 tons/month maximum with approximately 30% recycled. Sticks/pods from scalpels (crop residue): 37.5 tons/month			
19.0	Will your project involve the removal of coal, minerals, etc. as part of any earth disturbance activities?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
20.0	Does your project involve installation of a field constructed underground storage tank? If "Yes", list each Substance & its Capacity. Note: Applicant may need a Storage Tank Site Specific Installation Permit.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
20.0.1	Enter all substances & capacity of each; separate each set with semicolons.				
21.0	Does your project involve installation of an aboveground storage tank greater than 21,000 gallons capacity at an existing facility? If "Yes", list each Substance & its Capacity. Note: Applicant may need a Storage Tank Site Specific Installation Permit.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
21.0.1	Enter all substances & capacity of each; separate each set with semicolons.				

22.0 Does your project involve installation of a tank greater than 1,100 gallons which will contain a highly hazardous substance as defined in DEP's Regulated Substances List, 2570-BK-DEP2724? If "Yes", list each Substance & its Capacity. **Note:** Applicant may need a Storage Tank Site Specific Installation Permit. Yes No

22.0.1 Enter all substances & capacity of each; separate each set with semicolons.

23.0 Does your project involve installation of a storage tank at a new facility with a total AST capacity greater than 21,000 gallons? If "Yes", list each Substance & its Capacity. **Note:** Applicant may need a Storage Tank Site Specific Installation Permit. Yes No

23.0.1 Enter all substances & capacity of each; separate each set with semicolons. Two (2) 20,000 gallon hexane storage tanks.

24.0 Will the intended activity involve the use of a radiation source? Yes No

CERTIFICATION

I certify that I have the authority to submit this application on behalf of the applicant named herein and that the information provided in this application is true and correct to the best of my knowledge and information.

Type or Print Name C. Wayne Black



Signature

Director - AgriBusiness Environmental

Title

8-13-2012

Date



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION
WATER MANAGEMENT PROGRAM

RECEIVED

APR 12 2012

RETTEW ASSOCIATES

April 10, 2012

Rettew Associates
Attention: Michael Braas
950 East Main Street, Suite 220
Schuylkill Haven, PA 17972

Re: Planning Requirement for Land Development
Perdue Grain & Oilseed, LLC
DEP Code: A3-36920-155-2
Conoy Township, Lancaster County

Ladies and Gentlemen:

This letter is in reference to your application for Sewage Facilities Planning Modules for Perdue Grain & Oilseed LLC – Soybean Processing Facility. This project is located at 1897 River Road in Conoy Township, Lancaster County.

This project does not meet the definition of a subdivision under the Pennsylvania Sewage Facilities Act. Therefore, no planning modules are required to be submitted to the Regional Office of the Department of Environmental Protection.

Note: As long as flows are less than 800 gallons per day, planning is not required. However, note that this does not guarantee that suitable conditions exist on-site for on-lot sewage disposal. A commercial holding tank may be a viable option if flows stay below 800 gpd.

If you have any questions, please call me at 717.299.7601.

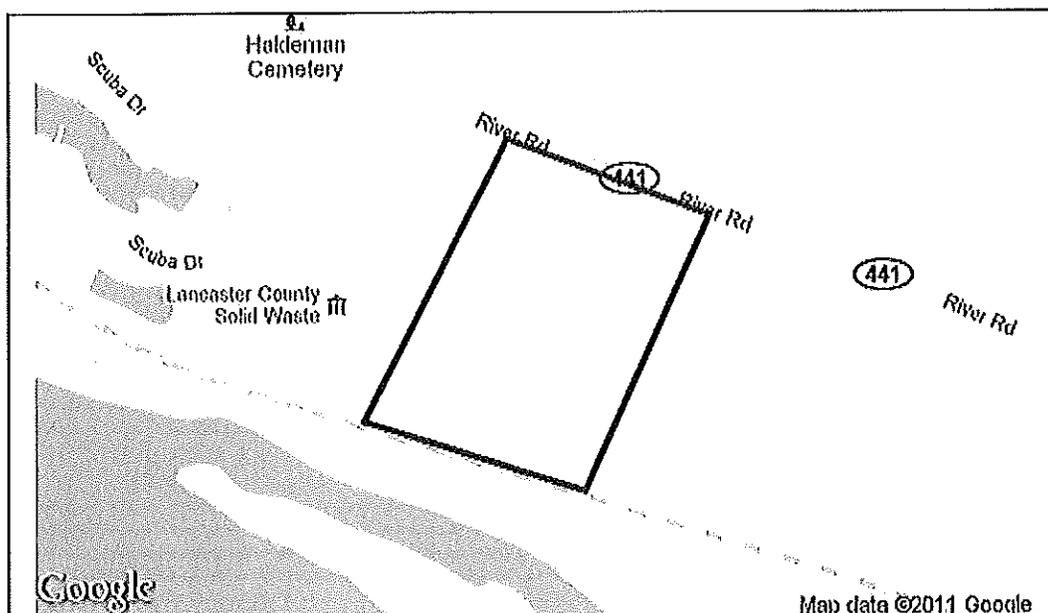
Sincerely,

Deirdre T. Lehman
Sewage Planning Specialist 2
Water Management Program

cc: Lancaster County Planning Commission
Marvin Stoner, SEO
Conoy Township
Perdue Grain & Oilseed, LLC
Pl. File
Tim Wagner
T

1. PROJECT INFORMATION

Project Name: **Perdue Bean Crushing Facility**
 Date of review: **11/29/2011 4:21:39 PM**
 Project Category: **Agriculture/Farming,Other**
 Project Area: **55.9 acres**
 County: **Lancaster Township/Municipality: Conoy**
 Quadrangle Name: **YORK HAVEN ~ ZIP Code: 17502**
 Decimal Degrees: **40.072850 N, -76.638919 W**
 Degrees Minutes Seconds: **40° 4' 22.3" N, -76° 38' 20.1" W**



2. SEARCH RESULTS

Agency	Results	Response
PA Game Commission	Potential Impact	FURTHER REVIEW IS REQUIRED, See Agency Response
PA Department of Conservation and Natural Resources	No Known Impact	No Further Review Required
PA Fish and Boat Commission	Potential Impact	FURTHER REVIEW IS REQUIRED, See Agency Response
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

As summarized above, Pennsylvania Natural Diversity Inventory (PNDI) records indicate there may be potential impacts to threatened and endangered and/or special concern species and resources within the project area. If the response above indicates "No Further Review Required" no additional communication with the respective agency is required. If the response is "Further Review Required" or "See Agency Response," refer to the appropriate agency comments below. Please see the DEP Information Section of this receipt if a PA Department of Environmental Protection Permit is required.

Note that regardless of PNDI search results, projects requiring a Chapter 105 DEP individual permit or GP 5, 6, 7, 8, 9 or 11 in certain counties (Adams, Berks, Bucks, Carbon, Chester, Cumberland, Delaware, Lancaster, Lebanon, Lehigh, Monroe, Montgomery, Northampton, Schuylkill and York) must comply with the bog turtle habitat screening requirements of the PASPGP.

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for one year** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE: Further review of this project is necessary to resolve the potential impacts(s). Please send project information to this agency for review (see WHAT TO SEND).

PGC Species: (Note: The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer species than what is listed below.)

Scientific Name: Sensitive Species**

Common Name:

Current Status: Threatened

Proposed Status: Threatened

PA Department of Conservation and Natural Resources

RESPONSE: No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Fish and Boat Commission

RESPONSE: Further review of this project is necessary to resolve the potential impacts(s). Please send project information to this agency for review (see WHAT TO SEND).

PFBC Species: (Note: The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer species than what is listed below.)

Scientific Name: *Lampsilis cariosa*

Common Name: Yellow Lampmussel
Current Status: Special Concern Species*
Proposed Status: Special Concern Species*

U.S. Fish and Wildlife Service

RESPONSE: No impacts to federally listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

* Special Concern Species or Resource - Plant or animal species classified as rare, tentatively undetermined or candidate as well as other taxa of conservation concern, significant natural communities, special concern populations (plants or animals) and unique geologic features.

** Sensitive Species - Species identified by the jurisdictional agency as collectible, having economic value, or being susceptible to decline as a result of visitation.

WHAT TO SEND TO JURISDICTIONAL AGENCIES

If project information was requested by one or more of the agencies above, send the following information to the agency(s) seeking this information (see AGENCY CONTACT INFORMATION).

Check-list of *Minimum Materials to be submitted:*

- ___ **SIGNED** copy of this Project Environmental Review Receipt
- ___ Project narrative with a description of the overall project, the work to be performed, current physical characteristics of the site and acreage to be impacted.
- ___ Project location information (name of USGS Quadrangle, Township/Municipality, and County)
- ___ USGS 7.5-minute Quadrangle with project boundary clearly indicated, and quad name on the map

The inclusion of the following information may expedite the review process.

- ___ A basic site plan (particularly showing the relationship of the project to the physical features such as wetlands, streams, ponds, rock outcrops, etc.)
- ___ Color photos keyed to the basic site plan (i.e. showing on the site plan where and in what direction each photo was taken and the date of the photos)
- ___ Information about the presence and location of wetlands in the project area, and how this was determined (e.g., by a qualified wetlands biologist), if wetlands are present in the project area, provide project plans showing the location of all project features, as well as wetlands and streams
- ___ The DEP permit(s) required for this project

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. For cases where a "Potential Impact" to threatened and endangered species has been identified before the application has been submitted to DEP, the application

should not be submitted until the impact has been resolved. For cases where "Potential Impact" to special concern species and resources has been identified before the application has been submitted, the application should be submitted to DEP along with the PNDI receipt, a completed PNDI form and a USGS 7.5 minute quadrangle map with the project boundaries delineated on the map. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. DEP and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <http://www.naturalheritage.state.pa.us>.

5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources
 Bureau of Forestry, Ecological Services Section
 400 Market Street, PO Box 8552, Harrisburg, PA.
 17105-8552
 Fax:(717) 772-0271

U.S. Fish and Wildlife Service
 Endangered Species Section
 315 South Allen Street, Suite 322, State College, PA.
 16801-4851
 NO Faxes Please.

PA Fish and Boat Commission
 Division of Environmental Services
 450 Robinson Lane, Bellefonte, PA. 16823-7437
 NO Faxes Please

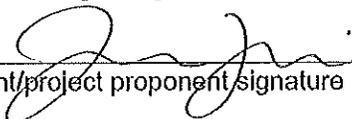
PA Game Commission
 Bureau of Wildlife Habitat Management
 Division of Environmental Planning and Habitat Protection
 2001 Elmerton Avenue, Harrisburg, PA. 17110-9797
 Fax:(717) 787-6957

7. PROJECT CONTACT INFORMATION

Name: Jocelyn L. Robinson
 Company/Business Name: REITEN Associates, Inc.
 Address: 3020 Columbia Avenue
 City, State, Zip: Lancaster, PA 17603
 Phone: (717) 394-3721 Fax: (717) 394-1063
 Email: jrobinson@reiten.com

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.


 applicant/project proponent signature

11/27/2011
 date



Division of Environmental
Planning and Habitat
Protection
717-783-5957

COMMONWEALTH OF PENNSYLVANIA
Pennsylvania Game Commission
2001 ELMERTON AVENUE
HARRISBURG, PA 17110-9797

*"To manage all wild birds, mammals and their habitats
for current and future generations."*

ADMINISTRATIVE BUREAUS:

ADMINISTRATION.....	717-787-5670
HUMAN RESOURCES.....	717-787-7836
FISCAL MANAGEMENT.....	717-787-7314
CONTRACTS AND	
PROCUREMENT.....	717-787-6594
LICENSING.....	717-787-2084
OFFICE SERVICES.....	717-787-2116
WILDLIFE MANAGEMENT.....	717-787-5529
INFORMATION & EDUCATION.....	717-787-6286
WILDLIFE PROTECTION.....	717-783-6526
WILDLIFE HABITAT	
MANAGEMENT.....	717-787-6818
REAL ESTATE DIVISION.....	717-787-6568
AUTOMATED TECHNOLOGY	
SERVICES.....	717-787-4076

www.pgc.state.pa.us

February 28, 2012

PNDI Number(s): 20111129327617

Ms. Jocelyn L. Robinson
RETTEW Associates, Inc.
302 Columbia Avenue
Lancaster, Pennsylvania 17603

Re: Perdue Bean Crushing Facility
Conoy Township, Lancaster County, Pennsylvania

Dear Ms. Robinson,

Thank you for submitting the Pennsylvania Natural Diversity Inventory (PNDI) Environmental Review Receipt Number 20111129327617 for review. The Pennsylvania Game Commission (PGC) screened this project for potential impacts to species and resources of concern under PGC responsibility, which includes birds and mammals only.

No Impact Anticipated

PNDI records indicate species or resources of concern are located in the vicinity of the project. However, based on the information you submitted concerning the nature of the project, the immediate location, and our detailed resource information, the PGC has determined that no impact is likely. Therefore, no further coordination with the PGC will be necessary for this project at this time.

This response represents the most up-to-date summary of the PNDI data files and is valid for one (1) year from the date of this letter. An absence of recorded information does not necessarily imply actual conditions on site. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered.

Should the proposed work continue beyond the period covered by this letter, please resubmit the project to this agency as an "Update" (including an updated PNDI receipt, project narrative and accurate map). If the proposed work has not changed and no additional information concerning listed species is found, the project will be cleared for PNDI requirements under this agency for an additional year.

This finding applies to impacts to birds and mammals only. To complete your review of state and federally-listed threatened and endangered species and species of special concern, please be sure that the U.S. Fish and Wildlife Service, the PA Department of Conservation and Natural

Resources, and/or the PA Fish and Boat Commission have been contacted regarding this project as directed by the online PNDI ER Tool found at www.naturalheritage.state.pa.us.

Sincerely,



Olivia A. Mowery
Environmental Planner
Division of Environmental Planning & Habitat Protection
Bureau of Wildlife Habitat Management
Phone: 717-787-4250, Extension 3128
Fax: 717-787-6957
E-mail: OMowery@pa.gov

A PNHP Partner



Pennsylvania Natural Heritage Program

OAM/oam

cc: File



established 1866

Pennsylvania Fish & Boat Commission

Division of Environmental Services
 Natural Diversity Section
 450 Robinson Lane
 Bellefonte, PA 16823-9620
 (814) 359-5237 Fax: (814) 359-5175

December 27, 2011

NO HARD COPY TO FOLLOW

IN REPLY REFER TO
 SIR # 37740

THOMAS EBY
 RETTEV / ASSOCIATES
 3020 COLUMBIA AVE
 LANCASTER, PA 17603

RE: Species Impact Review (SIR) - Rare, Candidate, Threatened and Endangered Species
 PERDUE GRAIN AND OILSEED, BEAN CRUSHING FACILITY
 PNDI Search Number (if available): 20111129327617
 CONOY Township, LANCASTER County, Pennsylvania

This responds to your inquiry about a Pennsylvania Natural Diversity Inventory (PNDI) Internet Database search "potential conflict" or a threatened and endangered species impact review. These projects are screened for potential conflicts with rare, candidate, threatened or endangered species under Pennsylvania Fish & Boat Commission jurisdiction (fish, reptiles, amphibians, aquatic invertebrates only) using the Pennsylvania Natural Diversity Inventory (PNDI) database and our own files. These species of special concern are listed under the Endangered Species Act of 1973, the Wild Resource Conservation Act, and the Pennsylvania Fish & Boat Code (Chapter 75), or the Wildlife Code. The absence of recorded information from our files does not necessarily imply actual conditions on site. Future field investigations could alter this determination. The information contained in our files is routinely updated. A Species Impact Review is valid for one year only.

X NO ADVERSE IMPACTS EXPECTED FROM THE PROPOSED PROJECT

 Except for occasional transient species, rare, candidate, threatened or endangered species under our jurisdiction are not known to exist in the vicinity of the project area. Therefore, no biological assessment or further consultation regarding rare species is needed with the Commission. Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered.

X An element occurrence of a rare, candidate, threatened, or endangered species under our jurisdiction is known from the vicinity of the proposed project. However, given the nature of the proposed project, the immediate location, or the current status of the nearby element occurrence(s), no adverse impacts are expected to the species of special concern.

If you have any questions regarding this review, please contact the biologist indicated below:

<u> </u>	Chris Urban	814-359-5113	<u>X</u>	Kathy Gipe	814-359-5186
<u> </u>	Nevin Welte	412-586-2334	<u> </u>	Bob Morgan	814-359-5129

Thank you in advance for your cooperation and attention to this important matter of species conservation and habitat protection.

SIGNATURE:

Christopher A. Urban
 Chief, Natural Diversity Section

DATE: December 27, 2011

Our Mission:

www.fish.state.pa.us

To protect, conserve and enhance the Commonwealth's aquatic resources and provide fishing and boating opportunities.

ATTACHMENT N – CULTURAL RESOURCE NOTICE



CULTURAL RESOURCE NOTICE

Read the instructions before completing this form.

DEP USE ONLY
Date Received

RECEIVED

AUG 13 2012

DEP SOUTH CENTRAL REGION
AIR QUALITY PROGRAM

SECTION A. APPLICANT IDENTIFIER	
Applicant Name	Perdue Grain & Oilseed, LLC (Contact Name: Wayne Black)
Street Address	PO Box 1537
City	Salisbury State MD Zip 21802-1537
Telephone Number	252-209-1540
Project Title	Soybean Processing Facility
SECTION B. LOCATION OF PROJECT	
Municipality	Conoy Township County Name Lancaster DEP County Code 36
SECTION C. PERMITS OR APPROVALS	
Name of Specific DEP Permit or Approval Requested:	Air Quality Plan Approval
Anticipated federal permits:	
<input type="checkbox"/> Surface Mining	<input type="checkbox"/> 404 Water Quality Permit
<input type="checkbox"/> Army Corps of Engineers	<input type="checkbox"/> Federal Energy Regulatory Commission
<input type="checkbox"/> 401 Water Quality Certification	<input checked="" type="checkbox"/> Other: NPDES
SECTION D. GOVERNMENT FUNDING SOURCES	
<input checked="" type="checkbox"/> State: (Name) <u>Redevelopment Assistance Capital Program</u>	<input type="checkbox"/> Local: (Name) _____
<input type="checkbox"/> Federal: (Name) _____	<input type="checkbox"/> Other: (Name) _____
SECTION E. RESPONSIBLE DEP REGIONAL, CENTRAL, DISTRICT MINING or OIL & GAS MGMT OFFICE	
DEP Regional Office Responsible for Review of Permit Application	<input type="checkbox"/> Central Office (Harrisburg)
<input type="checkbox"/> Southeast Regional Office (Norristown)	<input type="checkbox"/> Northeast Regional Office (Wilkes-Barre)
<input checked="" type="checkbox"/> Southcentral Regional Office (Harrisburg)	<input type="checkbox"/> Northcentral Regional Office (Williamsport)
<input type="checkbox"/> Southwest Regional Office (Pittsburgh)	<input type="checkbox"/> Northwest Regional Office (Meadville)
<input type="checkbox"/> District Mining Office: _____	<input type="checkbox"/> Oil & Gas Office: _____
SECTION F. RESPONSIBLE COUNTY CONSERVATION DISTRICT, if applicable.	
County Conservation District	Telephone Number, if known
Lancaster County Conservation District	717-299-5361
SECTION G. CONSULTANT	
Consultant, if applicable	RETTEW (Contact Name: John Schmelzle)
Street Address	5031 Richard Lane, Suite 111
City	Mechanicsburg State PA Zip 17055
Telephone Number	717-697-3551

SECTION H. PROJECT BOUNDARIES AND DESCRIPTION

REQUIRED

Indicate the total acres in the property under review. Of this acreage, indicate the total acres of earth disturbance for the proposed activity.

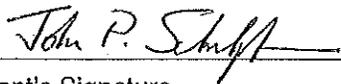
Total acres: 57.102; Disturbed acres: 36 (approx.)

Attach a 7.5' U.S.G.S. Map indicating the defined boundary of the proposed activity.
Attach photographs of any building over 50 years old. Indicate what is to be done to all buildings in the project area.
Attach a narrative description of the proposed activity.
Attach the return receipt of delivery of this notice to the Pennsylvania Historical and Museum Commission.

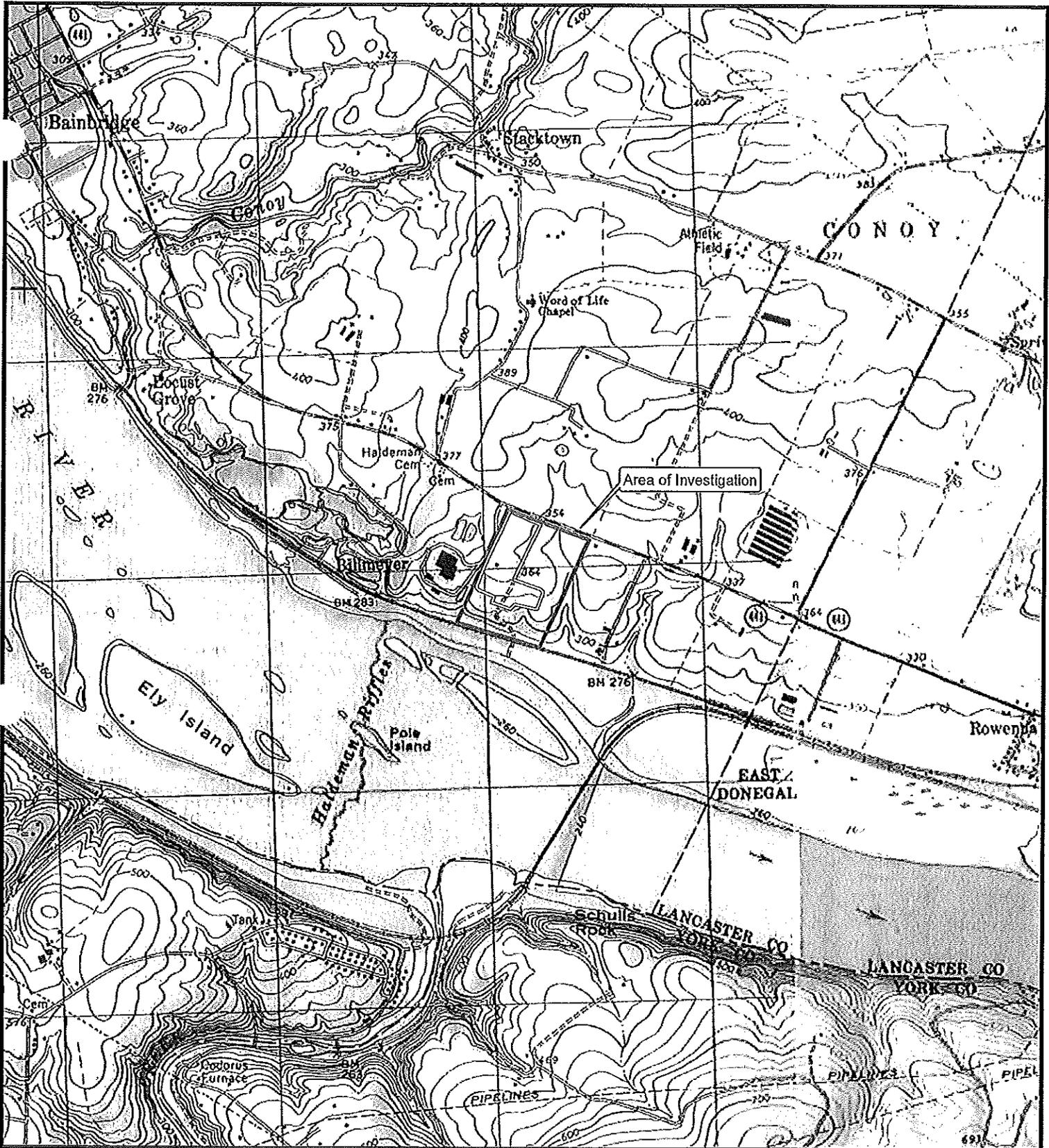
REQUESTED

Attach photographs of any building over 40 years old.
Attach site map, if available.

SECTION I. SIGNATURE BLOCK

 Applicant's Signature	June 29, 2012 Date of Submission of Notice to PHMC
--	---

ATTACHMENT: USGS MAP

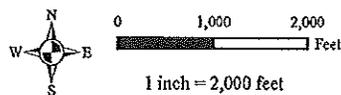


-  Project Area
-  Area of Investigation (AOI)

Perdue Grain & Oilseed, LLC
 Perdue Bean Crushing Facility
 Figure 1 - Topographic Basemap
 Conoy Township, Lancaster County, PA
 Project No: 0911010001

Conoy Township, Lancaster County, PA
 York Haven, PA USGS 7.5' Topographic Quadrangle

Basemap: U.S. Geological Survey, "NGS_TopoUS_2D", (National Geographic Society, 2010), <http://services.arcgisonline.com/v93/>, retrieved on 12/5/2011.



RETTEW
 SU

ATTACHMENT: SITE MAP



PERDUE

1 INCH = 222 FEET

0 225 450 Feet

N

	Area of Investigation (AOI)
	Field Collected Wetland (Vernal Pools)
	Floodplain
	Center (10 ft Marsh)
	Right-of-Way
	Soil Type
	Point Location and Direction
	Culvert
	Stream

Perdue Grain & Oilseed, LLC
 Perdue Bean Crushing Facility
 Figure 2 - Area of Investigation Map
 Conoy Township, Lehigh County, PA
 Project No. 071110001

ATTACHMENT: NARRATIVE DESCRIPTION

NARRATIVE DESCRIPTION

Perdue Grain & Oilseed, LLC (Perdue) plans to construct and operate a soybean processing facility (Soybean Facility) at 1897 River Road, Conoy Township, Lancaster County. The Soybean Facility will receive soybeans from local and regional farms by truck and process the soybeans into soybean feed and soybean oil, both of which will be shipped off site by truck. The Soybean Facility will operate 24-hours-per-day, will be staffed in three shifts, and will employ approximately 35 people.

The proposed site of the Soybean Facility is adjacent to the Lancaster County Solid Waste Management Authority (LCSWMA) Resource Recovery Facility (RRF). The RRF incinerates municipal waste to produce steam/generate electricity. Perdue plans to purchase steam (which is produced in excess by the RRF) and process water from LCSWMA and, after use at the Soybean Facility, Perdue will send the steam condensate, used process water, and plant washdown water back to LCSWMA for reuse at the RRF.

The total site area is 57.102 acres, and the proposed disturbed area of the site will be approximately 36 acres. The site is currently leased for agricultural crop production, and portions of the site are also used for the storage of lawn equipment by the current owner. The site is improved with a 2,800-square foot, single-story wood frame barn. The current owner installed a metal roof on the barn, poured a 12-foot by 15-foot concrete slab in the southern portion, and installed three (3) bay doors. The barn has an electrical box on the northeast exterior corner, which has been disconnected. There is no source of heat for the barn. It is proposed that the barn will be razed as part of the project. A second structure, located in the southeastern portion of the site, is a 324-square foot abandoned pump house. This steel structure was constructed in the 1940s to supply water from the Susquehanna River for irrigation but may not have been used. The building currently contains a 10-inch diameter steel pipe that runs underground to the east and west. It is anticipated that the pump house will not be disturbed as part of the project. Existing access to the site is provided via a gravel driveway intersecting River Road.

ATTACHMENT: BUILDING PHOTOS

BUILDING PHOTOS

Photo of barn:



Photo of pump house:

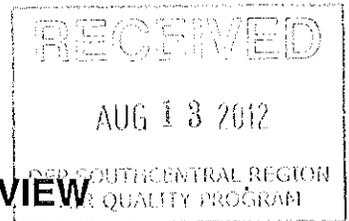


SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> ■ Complete items 1, 2, and 3. Also complete Item 4 if Restricted Delivery is desired. ■ Print your name and address on the reverse so that we can return the card to you. ■ Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> Agent <input checked="" type="checkbox"/> Addressee</p> <p>B. Received by (<i>Printed Name</i>) C. Date of Delivery JUL 02 2012</p>
<p>1. Article Addressed to:</p> <p>PA Historical & Museum Commission Bureau of Historic Preservation 400 North Street 2nd Floor Harrisburg PA 17120</p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p> <p>3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (<i>Extra Fee</i>) <input type="checkbox"/> Yes</p>
<p>2. Article Number 7011 2970 0002 0577 4767 (<i>Transfer from service label</i>)</p>	

**ATTACHMENT O – AIR POLLUTION CONTROL ACT COMPLIANCE REVIEW SUPPLEMENTAL
FORM**



COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 BUREAU OF AIR QUALITY



**AIR POLLUTION CONTROL ACT COMPLIANCE REVIEW
 SUPPLEMENTAL FORM**

Fully and accurately provide the following information, as specified. Attach additional sheets as necessary.

Date of Submission of Original Compliance Review Form 06/27/2012

Type of Supplemental Compliance Review Form Submittal (check all that apply)

- Original Filing Amended Filing
 No Changes Date of Last Compliance Review Form Filing

Type of Submittal

- New Plan Approval New Operating Permit Renewal of Operating Permit
 Extension of Plan Approval Change of Ownership Periodic Submission
 Other _____ (every six months)

SECTION A. GENERAL APPLICANT INFORMATION

1. Name of Applicant/Permittee/("Applicant") (non-corporations attach documentation of legal name)

Perdue Grain & Oilseed, LLC

Address P.O. Box 1537
Salisbury, MD 21802-1537
 Telephone 410-708-3197
 Taxpayer ID# 20-5172625
 Permit, Plan Approval or Application ID# Not applicable

2. Identify the form of management under which the applicant conducts its business.

- Individual Fictitious Name Association
 Municipality Partnership Syndicate
 Proprietorship Limited Partnership
 Public corporation Government Agency
 Private Corporation Joint Venture
 Municipal Authority Other Type of Business (specify) Limited Liability Company

3. Describe the type(s) of business activities performed.

*** Supplemental ***

List only those changes since the date of the last original submission.

SECTION B. GENERAL INFORMATION REGARDING "APPLICANT"

If applicant is a corporation or a division or other unit of a corporation, provide the names, principal places of business, state of incorporation, and taxpayer ID numbers of all domestic and foreign parent corporations (including the ultimate parent corporation), and all domestic and foreign subsidiary corporations of the ultimate parent corporation with operations in Pennsylvania. Please include all corporate divisions or units, (whether incorporated or unincorporated) and privately held corporations. (A diagram of corporate relationships may be provided to illustrate corporate relationships.) Attach additional sheets as necessary.

*** Supplemental ***

List only those changes since the date of the last original submission.

Unit Name	Principal Places of Business	State of Incorporation	Taxpayer ID	Relationship to Applicant

SECTION C. INFORMATION REGARDING APPLICANT & ITS "RELATED PARTIES"

1. **Pennsylvania Facilities.** List the name and location (mailing address, municipality, county), telephone number, and relationship to applicant (parent, subsidiary or general partner) of all Related Parties' places of business, and facilities in Pennsylvania. Attach additional sheets as necessary.

*** Supplemental ***

List only those changes since the date of the last original submission.

Unit Name	Street Business	County and Municipality	Telephone No.	Relationship to Applicant

4. Plan Approvals or Operating Permits. List all plan approvals or operating permits issued by the Department or an approved local air pollution control agency under the APCA to the applicant or related parties that are currently in effect or have been in effect at any time five years prior to the date on which this form is notarized. This list shall include the plan approval and operating permit numbers, locations, issuance and expiration dates. Attach additional sheets as necessary.

*** Supplemental ***

List only those changes since the date of the last original submission.

Source	Plan Approval Operating Permit Number	Location	Issuance Date	Expiration Date

SECTION D. COMPLIANCE BACKGROUND

Note: Copies of specific documents, if applicable, must be made available to the Department upon its request.)

1. Documented Conduct. List all documented conduct of violations or enforcement actions identified by the Department pursuant to the APCA, regulations, terms and conditions of an operating permit or plan approval or order by applicant or any related party, using the following format grouped by source and location in reverse chronological order. Attach additional sheets as necessary. See the definition of "documented conduct" for further clarification. Unless specifically directed by the Department, deviations which have been previously reported to the Department in writing, relating to monitoring and reporting, need not be reported.

*** Supplemental ***

List only those changes since the date of the last original submission.

Date	Location	Plan Approval/ Operating Permit#	Nature of Documented Conduct	Type of Department Action	Status Litigation; Existing/Continuing; or corrected/Date	Dollar Amount Penalty

CONTINUING OBLIGATION: Applicant is under a continuing obligation to update this form using the Compliance Review Supplemental Form if any additional documented conduct occurs or related parties develop between the date of submission and Department action on its application

2. Incidents of Deviation. List all incidents of deviations of the APCA, regulations, terms and conditions of an operating permit or plan approval or order by applicant or any related party, using the following format grouped by source and location in reverse chronological order. This list must include items both currently known and unknown to the Department. Attach additional sheets as necessary. See the definition of "deviations" for further clarification.

* * * Supplemental * * *

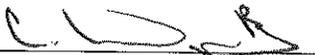
List only those changes since the date of the last original submission.

Date	Location	Plan Approval/ Operating Permit#	Nature of Deviation	Incident Status: Existing/Continuing; or Corrected Date

CONTINUING OBLIGATION: Applicant is under a continuing obligation to update this form using the Compliance Review Supplemental Form if any additional documented conduct occur or related parties develop between the date of submission and Department action on its application

VERIFICATION STATEMENT

Subject to the penalties of Title 18 Pa.C.S. Section 4904 and 35 P.S. Section 4009(b)(2), I verify under penalty of law that I am authorized to make this verification on behalf of the Applicant/Permittee. I further verify that the information contained in this Compliance Review Supplemental Form is true and complete to the best of my belief formed after reasonable inquiry. I further verify that reasonable procedures are in place to ensure that "documented conduct" and "deviations" as defined in 25 Pa Code Section 121.1 are identified and included in the information set forth in this Compliance Review Supplemental Form.


Signature

8-13-2012
Date

C. Wayne Black

Name (Print or Type)

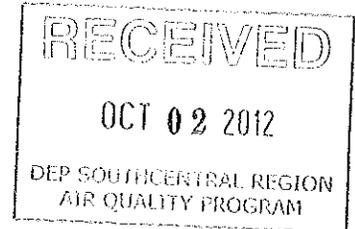
Director - AgriBusiness Environmental

Title

Morgan, Lewis & Bockius LLP
17 North Second Street
Suite 1420
Harrisburg, PA 17101-1601
Tel: 717.237.5000
Fax: 717.237.5001
www.morganlewis.com

Morgan Lewis
COUNSELORS AT LAW

Maxine M. Woelfling
Of Counsel
717.237.5065
mwoelfling@morganlewis.com



October 1, 2012

Thomas Hanlon, P.E.
Chief, Facilities Permitting Section
Air Quality Program
Department of Environmental Protection
Southcentral Region Office
909 Elmerton Avenue
Harrisburg, PA 17110-8200

Re: Major Facility Plan Approval Application
PA 36-05158A
Perdue Grain and Oilseed LLC

Dear Mr. Hanlon:

This Firm represents Perdue Grain and Oilseed LLC ("Perdue") in connection with the environmental permitting relating to its proposed soybean storage and processing facilities in Conoy Township, Lancaster County. The General Information Form ("GIF") that is part of the air quality plan approval application requests certain information concerning the proposed project's compliance with local comprehensive plans and zoning ordinances. To supplement the information in the GIF for PA 36-05158A provided by Perdue, I am enclosing correspondence between Matthew J. Creme, Jr., Conoy Township's Solicitor, and Mark Stanley, Perdue's land use counsel.

Sincerely,

A handwritten signature in cursive script that reads "Maxine M. Woelfling".

Maxine M. Woelfling

MMW/sp
Enclosure

c: Mark Stanley, Esquire
Matthew J. Creme, Jr., Esquire
David P. Zambito, Esquire
Craig Lambeth, Esquire
John Schmelzle, Rettew Associates

Almaty Beijing Boston Brussels Chicago Dallas Frankfurt Harrisburg Houston Irvine London Los Angeles Miami
Moscow New York Palo Alto Paris Philadelphia Pittsburgh Princeton San Francisco Tokyo Washington Wilmington

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AIR QUALITY PROGRAM

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**Certified Civil Trial Specialist
By National Board of Trial Advocacy*

ROBERT S. CRONIN, JR.
MANDY LLOYD HEINZ
ANGEL E. TORRES
C. EDWARD BROWNE
D. LYNNE FERGUSON
NATHAN E. SAXTON

MEMO

TO: Perdue Grain and Oilseed, LLC
FROM: Conoy Township
DATE: July 6, 2012
RE: Perdue Grain and Oilseed, LLC

The municipality of Conoy Township states that it has adopted a municipal comprehensive plan in June of 2009.

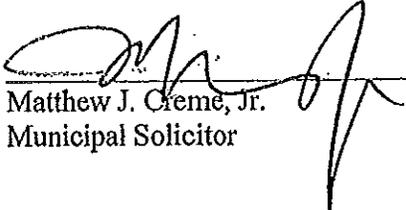
The municipality of Conoy Township states that it has adopted a municipal zoning ordinance in August of 1992.

The municipality of Conoy Township states that its zoning ordinance is generally consistent with its municipal comprehensive plan and the county comprehensive plan.

The above referenced proposed project meets the provisions of the local zoning ordinance.

The project has received the zoning approval as required under the local zoning ordinance.

No other action under the local zoning ordinance is required for the proposed project to proceed.


Matthew J. Creme, Jr.
Municipal Solicitor

NIKOLAUS & HOHENADEL, LLP
ATTORNEYS AT LAW

SEP 19 2012

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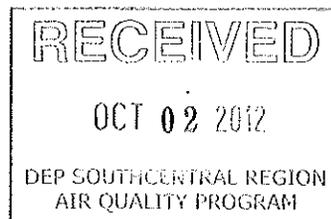
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NATHAN E. SAXTON

September 18, 2012

Mark Stanley, Esquire
Hartman Underhill and Brubaker, LLP
221 E. Chestnut Street
Lancaster, PA 17602



Dear Mark:

By letter dated August 20, 2012 Conoy Township Board of Supervisors was requested to comment regarding the DEP Air Quality Plan Approval Application (Phase 2) of Perdue Grain & Oilseed, LLC for a Soybean Processing Facility proposed for Conoy Township. I am enclosing the Township's memorandum dated July 6, 2012 responding to the Phase 1 request for comments. Nothing has changed regarding the scope and nature of the proposed facility and therefore the comments of the Township made in that July 6, 2012 memo still apply to the same extent as at the time the memorandum issued.

Very truly yours,

A handwritten signature in black ink, appearing to be "MJC", written over a horizontal line.

Matthew J. Creme, Jr.

MJC, Jr./nec
Enclosure

Wetzel, Brian

From: John Schmelzle <jschmelzle@rettew.com>
Sent: Monday, August 20, 2012 9:32 AM
To: Hanlon, Thomas; Wetzel, Brian
Cc: 'Black, Wayne (Wayne.Black@perdue.com)'; 'peter.heller@perdue.com'; James Baumgartner
Subject: Perdue-Phase 2 Plan Approval Application-Certified Mail Receipts
Attachments: Plan Approval II Certified Receipts.pdf

Importance: High

Follow Up Flag: Follow up
Flag Status: Flagged

Tom, Brian,

Please find attached to this email a copy of the certified mail return receipts from Lancaster County and Conoy Township for the Perdue Phase 2 Plan Approval Application (Auth. 938531, Permit 36-05158A). Please let me know if you have any questions regarding the municipal notification receipts.

Thank you,
John

RETTEW

We answer to you.

An Engineering News-Record Top 200 Design Firm

John P. Schmelzle
Project Manager
5031 Richard Lane, Suite 111
Mechanicsburg, PA 17055
Office: 717.697.3551 x3305
Fax: 717.697.6953
www.rettew.com

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

CONOY TOWNSHIP BOARD OF SUPERVISORS
 CONOY TOWNSHIP MUNICIPAL BUILDING
 211 FALMOUTH ROAD
 BAINBRIDGE, PA 17502

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent Addresssee
Anna J. Alexander

B. Received by (Printed Name) Date of Delivery
Anna J. Alexander 8/13-12

D. Is delivery address different from item 1? Yes No
 If YES, enter delivery address below:

3. Service Type Express Mail
 Certified Mail Return Receipt for Merchandise
 Registered C.O.D.
 Insured Mail

4. Restricted Delivery? (Extra Fee) Yes

2. Article Number 7010 3090 0000 6840 9548
 (Transfer from service label)
 Domestic Return Receipt 102595-02-M-1540

PS Form 3811, February 2004

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

LANCASTER COUNTY GOVERNMENT CENTER
 OFFICE OF THE COUNTY COMMISSIONERS
 150 NORTH QUEEN STREET
 7TH FLOOR, SUITE 715
 LANCASTER, PA 17603

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent Addresssee
Patricia J. ...

B. Received by (Printed Name) Date of Delivery
Patricia J. ... 8/13/12

D. Is delivery address different from item 1? Yes No
 If YES, enter delivery address below:
AUG 13 2012

3. Service Type Express Mail
 Certified Mail Return Receipt for Merchandise
 Registered C.O.D.
 Insured Mail

4. Restricted Delivery? (Extra Fee) Yes

2. Article Number 7010 3090 0000 6840 9531
 (Transfer from service label)
 Domestic Return Receipt 102595-02-M-1540

PS Form 3811, February 2004

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

A. Signature Agent Addresssee
[Signature]

B. Received by (Printed Name) Date of Delivery
[Signature] 8/13/12

D. Is delivery address different from item 1? Yes No
 If YES, enter delivery address below:

Wetzel, Brian

From: Black, Wayne <Wayne.Black@perdue.com>
Sent: Monday, November 05, 2012 1:25 PM
To: Wetzel, Brian
Subject: Hexane MSDS
Attachments: HEXANE MSDS.PDF

Importance: High

Brian,

Please find attached per our discussion, let me know if I can assist you further.

Regards,

C. Wayne Black
Director - Agribusiness Environmental
Perdue Agribusiness, Inc. / Perdue Farms Incorporated
252-348-4326 (Office)
252-348-4355 (Fax)

This communication, including attachments, may contain confidential, privileged, copyrighted or other legally protected information. If you are not the intended recipient, you are hereby notified that any use, disclosure, dissemination, distribution, or copying of this communication, or any of its contents, is strictly prohibited. If you have received this communication in error, please immediately re-send this communication to the sender and delete the original message and any copy of it, including all attachments, from your computer system.



Hexane

Material Safety Data Sheet

CITGO Petroleum Corporation
1701 Golf Road, Suite 1-1101
Rolling Meadows, IL 60008-4295

MSDS No. 19041
Revision Date 8/22/2012

IMPORTANT: This MSDS is prepared in accordance with 29 CFR 1910.1200. Read this MSDS before transporting, handling, storing or disposing of this product and forward this information to employees, customers and users of this product.

Hazard Rankings		
	HMIS	NFPA
Health Hazard	* 2	2
Fire Hazard	3	3
Reactivity	0	0

* = Chronic Health Hazard

Emergency Overview			
Physical State	Liquid.		
Color	Transparent, colorless.	Odor	Characteristic hydrocarbon solvent odor.
DANGER:			
EXTREMELY FLAMMABLE LIQUID AND VAPOR, VAPOR MAY CAUSE FLASH FIRE.			
Vapor may travel considerable distance to source of ignition and flash back.			
Harmful or fatal if swallowed - can enter lungs and cause damage.			
Breathing high concentrations can cause irregular heartbeats which may be fatal.			
May be harmful if inhaled or absorbed through the skin.			
Can cause eye, skin or respiratory tract irritation.			
Overexposure can cause central nervous system (CNS) depression and/or other target organ effects.			
Harmful to aquatic organisms.			

Protective Equipment
Minimum Recommended See Section 8 for Details


SECTION 1. PRODUCT IDENTIFICATION

Trade Name	Hexane	Technical Contact	(847) 734-7699 (8am - 4pm CT M-F)
Product Number	19041	Medical Emergency	(832) 486-4700
CAS Number	64742-49-0	CHEMTREC Emergency (United States Only)	(800) 424-9300
Product Family	Petroleum hydrocarbon solvent		
Synonyms	Commercial Hexane; C6-rich Solvent; CITGO® Material Code: 19041		

SECTION 2. COMPOSITION

This product may be composed, in whole or in part, of any of the following refinery streams:

Naphtha, petroleum, hydrotreated light [CAS No.: 64742-49-0]

This product contains the following components:

Component Name(s)	CAS Registry No.	Concentration (%)
-------------------	------------------	-------------------

Hexane

<p>OSHA Hazard Classification is indicated by an "X" in the box adjacent to the hazard title. If no "X" is present, the product does not exhibit the hazard as defined in the OSHA Hazard Communication Standard (29 CFR 1910.1200).</p>							
OSHA Health Hazard Classification				OSHA Physical Hazard Classification			
Irritant	<input checked="" type="checkbox"/>	Sensitizer	<input type="checkbox"/>	Combustible	<input type="checkbox"/>	Explosive	<input type="checkbox"/>
Toxic	<input type="checkbox"/>	Highly Toxic	<input type="checkbox"/>	Flammable	<input checked="" type="checkbox"/>	Oxidizer	<input type="checkbox"/>
Corrosive	<input type="checkbox"/>	Carcinogenic	<input type="checkbox"/>	Compressed Gas	<input type="checkbox"/>	Organic Peroxide	<input type="checkbox"/>
						Pyrophoric	<input type="checkbox"/>
						Water-reactive	<input type="checkbox"/>
						Unstable	<input type="checkbox"/>

SECTION 4. FIRST AID MEASURES

Take proper precautions to ensure your own health and safety before attempting rescue or providing first aid. For more specific information, refer to Exposure Controls and Personal Protection in Section 8 of this MSDS.

Inhalation	Immediately move victim to fresh air. If victim is not breathing, immediately begin rescue breathing. If heart has stopped, immediately begin cardiopulmonary resuscitation (CPR). If breathing is difficult, 100 percent humidified oxygen should be administered by a qualified individual. Seek medical attention immediately.
Eye Contact	Flush eyes with cool, clean, low-pressure water for at least 15 minutes. Hold eyelids apart to ensure complete irrigation of the eye and eyelid tissue. If easily accomplished, check for and remove contact lenses. If contact lenses cannot be removed, seek immediate medical attention. Do not use eye ointment. Seek medical attention.
Skin Contact	Remove contaminated shoes and clothing. Flush affected area with large amounts of water. If skin surface is damaged, apply a clean dressing and seek medical attention. Do not use ointments. If skin surface is not damaged, clean affected area thoroughly with mild soap and water. Seek medical attention if tissue appears damaged or if pain or irritation persists.
Ingestion	Do not induce vomiting. If spontaneous vomiting is about to occur, place victim's head below knees. If victim is drowsy or unconscious, place on the left side with head down. Never give anything by mouth to a person who is not fully conscious. Do not leave victim unattended. Seek medical attention immediately.
Notes to Physician	<p>INHALATION: Inhalation overexposure can produce toxic effects. Monitor for respiratory distress. If cough or difficulty in breathing develops, evaluate for upper respiratory tract inflammation, bronchitis, and pneumonitis. Administer supplemental oxygen with assisted ventilation, as required.</p> <p>This material (or a component) sensitizes the heart to the effects of sympathomimetic amines. Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in individuals exposed to this material. Administration of sympathomimetic drugs should be avoided.</p> <p>INGESTION: If ingested, this material presents a significant aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended. Consider activated charcoal and/or gastric lavage. If patient is obtunded, protect the airway by cuffed endotracheal intubation or by placement of the body in a Trendelenburg and left lateral decubitus position.</p>

SECTION 5. FIRE FIGHTING MEASURES

NFPA Flammability Classification	NFPA Class-IB flammable liquid.
Flash Point	Closed cup: -18°C (0°F). (Tagliabue (ASTM D-56))
Lower Flammable Limit	AP 1 %
Upper Flammable Limit	AP 7.4 %

Hexane

SECTION 7. HANDLING AND STORAGE

Handling

A spill or leak can cause an immediate fire or explosion hazard. Keep containers closed and do not handle or store near heat, sparks, or any other potential ignition sources. Avoid contact with oxidizing agents. Do NOT breathe vapor. Use only with adequate ventilation and personal protection. Never siphon by mouth. Avoid contact with eyes, skin, and clothing. Prevent contact with food and tobacco products. Do NOT take internally.

When performing repairs and maintenance on contaminated equipment, keep unnecessary persons away from the area. Eliminate all potential ignition sources. Drain and purge equipment, as necessary, to remove material residues. Follow proper entry procedures, including compliance with 29 CFR 1910.146 prior to entering confined spaces such as tanks or pits. Use gloves constructed of impervious materials and protective clothing if direct contact is anticipated. Use appropriate respiratory protection when concentrations exceed any established occupational exposure level (See Section 8) Promptly remove contaminated clothing. Wash exposed skin thoroughly with soap and water after handling.

Non-equilibrium conditions may increase the fire hazard associated with this product. A static electrical charge can accumulate when this material is flowing through pipes, nozzles or filters and when it is agitated. A static spark discharge can ignite accumulated vapors particularly during dry weather conditions. Always bond receiving containers to the fill pipe before and during loading. Always confirm that receiving container is properly grounded. Bonding and grounding alone may be inadequate to eliminate fire and explosion hazards associated with electrostatic charges. Carefully review operations that may increase the risks associated with static electricity such as tank and container filling, tank cleaning, sampling, gauging, loading, filtering, mixing, agitation, etc. In addition to bonding and grounding, efforts to mitigate the hazards of an electrostatic discharge may include, but are not limited to, ventilation, inerting and/or reduction of transfer velocities. Dissipation of electrostatic charges may be improved with the use of conductivity additives when used with other mitigation efforts, including bonding and grounding. Always keep nozzle in contact with the container throughout the loading process.

Do NOT fill any portable container in or on a vehicle. Do NOT use compressed air for filling, discharging or other handling operations. Product container is NOT designed for elevated pressure. Do NOT pressurize, cut, weld, braze solder, drill, or grind on containers. Do NOT expose product containers to flames, sparks, heat or other potential ignition sources. Empty containers may contain material residues which can ignite with explosive force. Observe label precautions.

Storage

Keep container tightly closed. Store in a cool, dry, well-ventilated area. Store only in approved containers. Do not store with oxidizing agents. Do not store at elevated temperatures or in direct sunlight. Protect containers against physical damage. Head spaces in tanks and other containers may contain a mixture of air and vapor in the flammable range. Vapor may be ignited by static discharge. Storage area must meet OSHA requirements and applicable fire codes. Additional information regarding the design and control of hazards associated with the handling and storage of flammable and combustible liquids may be found in professional and industrial documents including, but not limited to, the National Fire Protection Association (NFPA) publications NFPA 30 ("Flammable and Combustible Liquid Code"), NFPA 77 ("Recommended Practice on Static Electricity") and the American Petroleum Institute (API) Recommended Practice 2003, ("Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents").

Consult appropriate federal, state and local authorities before reusing, reconditioning, reclaiming, recycling or disposing of empty containers or waste residues of this product.

Hexane

Cyclohexane

ACGIH (United States).
TWA: 100 ppm 8 hour(s).
OSHA (United States).
TWA: 300 ppm 8 hour(s).

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES (TYPICAL)

Physical State	Liquid.	Color	Transparent, colorless.	Odor	Characteristic hydrocarbon solvent odor.
Specific Gravity	0.68 (Water = 1)	pH	Not Applicable.	Vapor Density	AP 3 (Air = 1)
Boiling Range	66 to 70°C (151 to 158°F)		Melting/Freezing Point	Not available.	
Vapor Pressure	18.7 kPa (140 mm Hg) (at 20°C)		Volatility	675 g/l VOC (w/v)	
Solubility in Water	Very slightly soluble in cold water. (<0.1 % w/w)		Viscosity (cSt @ 40°C)	AP 0.5	
Flash Point	Closed cup: -18°C (0°F). (Tagliabue (ASTM D-56))				
Additional Properties	Conductivity = <5 picosiemens/meter (unadditized)				

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability	Stable.	Hazardous Polymerization	Not expected to occur.
Conditions to Avoid	Keep away from heat, flame and other potential ignition sources. Keep away from strong oxidizing conditions and agents.		
Materials Incompatibility	Strong acids, alkalies, and oxidizers such as liquid chlorine and oxygen.		
Hazardous Decomposition Products	No additional hazardous decomposition products were identified other than the combustion products identified in Section 5 of this MSDS.		

SECTION 11. TOXICOLOGICAL INFORMATION

For other health-related information, refer to the Emergency Overview on Page 1 and the Hazards Identification in Section 3 of this MSDS.

Toxicity Data	<p>n-Hexane: This material contains n-hexane. Long-term or repeated exposure to n-hexane can cause permanent peripheral nerve damage. Initial symptoms are numbness of the fingers and toes. Also, motor weakness can occur in the digits, but may also involve muscles of the arms, thighs and forearms. The onset of these symptoms may be delayed for several months to a year after the beginning of exposure. Co-exposure to methylethyl ketone or methyl isobutyl ketone increases the neurotoxic properties of n-hexane. In laboratory studies, prolonged exposure to elevated concentrations of n-hexane was associated with decreased sperm count and degenerative changes in the testicles of rats.</p> <p>Heptane, all isomers n-Heptane was not mutagenic in the Salmonella/microsome (Ames) assay and is not considered to be carcinogenic.</p> <p>Cyclohexane ORAL (LD50): Acute: 12705 mg/kg [Rat]. 813 mg/kg [Mouse].</p>
---------------	--

Hexane



Emergency Response
Guide No. 128

MARPOL III Status Not a DOT "Marine
Pollutant" per 49 CFR
171.8.

SECTION 15. REGULATORY INFORMATION

TSCA Inventory	This product and/or its components are listed on the Toxic Substances Control Act (TSCA) inventory.
SARA 302/304 Emergency Planning and Notification	The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to Subparts 302 and 304 to submit emergency planning and notification information based on Threshold Planning Quantities (TPQs) and Reportable Quantities (RQs) for "Extremely Hazardous Substances" listed in 40 CFR 302.4 and 40 CFR 355. No components were identified.
SARA 311/312 Hazard Identification	The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to this subpart to submit aggregate information on chemicals by "Hazard Category" as defined in 40 CFR 370.2. This material would be classified under the following hazard categories: Fire, Acute (Immediate) Health Hazard, Chronic (Delayed) Health Hazard
SARA 313 Toxic Chemical Notification and Release Reporting	This product contains the following components in concentrations above <i>de minimis</i> levels that are listed as toxic chemicals in 40 CFR Part 372 pursuant to the requirements of Section 313 of SARA: n-Hexane [CAS No.: 110-54-3] Concentration: <60% Cyclohexane [CAS No.: 110-82-7] Concentration: <2%
CERCLA	The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center concerning release of quantities of "hazardous substances" equal to or greater than the reportable quantities (RQ's) listed in 40 CFR 302.4. As defined by CERCLA, the term "hazardous substance" does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically designated in 40 CFR 302.4. Chemical substances present in this product or refinery stream that may be subject to this statute are: n-Hexane [CAS No.: 110-54-3] RQ = 5000 lbs. (2268 kg) Concentration: 60% Cyclohexane [CAS No.: 110-82-7] RQ = 1000 lbs. (453.6 kg) Concentration: <2% Benzene [CAS No.: 71-43-2] RQ = 10 lbs. (4.536 kg) Concentration: <0.05%
Clean Water Act (CWA)	This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802.
California Proposition 65	This material may contain the following components which are known to the State of California to cause cancer, birth defects or other reproductive harm, and may be subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5): Toluene: <0.01% Benzene: <0.001% Ethylbenzene: <0.001% Naphthalene: <0.001%
New Jersey Right-to-Know Label	For New Jersey R-T-K labeling requirements, refer to components listed in Section 2.



Product Description : CITGO'S Hexane is a low-boiling aliphatic solvent consisting primarily of C6 saturated hydrocarbons. Hexane is a clear, colorless, flammable liquid miscible with most common organic solvents and has a light aliphatic odor. CITGO's Hexane is hydrotreated to reduce aromatics and olefins and meets the definition of non-photochemically reactive as defined by 66/3 Rule requirements. Hexane meets 21 CFR 175.105 requirements and ASTM D1836 specifications. Please see the MSDS for safety/regulatory information.

Property Description	Units	Specifications	Typical Properties	*ASTM Test Method
ACIDITY OF RESIDUE			NEUTRAL	D-1093
ANILINE POINT	DEGF	140 MIN	148	D-611
API GRAVITY (60/60 F)	DEG API		76.6	D-287
AROMATIC CONTENT	WT%	0.10 MAX	NIL	GC
BENZENE CONTENT	WT%	0.05 MAX	< 0.001	GC
COLOR, SAYBOLT		+28 MIN	+30	D-156
CORROSION, 3 HRS @ 122 F		1 (B) MAX	1 (A)	D-130
CYCLOPARAFFINS	VOL%		18	GC
DENSITY @ 60 F (15.6 C)	LB/GAL		5.66	D-287
DISTILLATION RANGE	DEGC	6.0 MAX	3.9	D-1078
DISTILLATION, IBP	DEGC	65.0 MIN	66.1	D-1078
DISTILLATION, 50%	DEGC		67.1	D-1078
DISTILLATION, DP	DEGC	71.0 MAX	70.0	D-1078
DOCTOR TEST			NEGATIVE	D-235
EVAPORATION RATE(nBUAC=1)			8.1	D-3539
FLASH POINT (TCC)	DEGF		< 0	D-56
KAURI-BUTANOL VALUE (KB)			29	D-1133
MCPENT	VOL%		16.8	GC
N-HEXANE	VOL%		48.3	GC
NONVOLATILE RESIDUE	g/100 ml	0.001 MAX	< 0.001	D-1353
OLEFINS	PPM	25 MAX	6	D-1159
PARAFFINS	VOL%		82	GC
REFR. INDEX (TYPICAL@25C)			1.3788	D-1218
SOLUBILITY PARAMETER	(cal/cc) ^{1/2}		7.3	
SPECIFIC GRAVITY (60/60 F)		0.665-0.685	0.679	D-287(cal'd)
SULFUR CONTENT	PPM	2.0 MAX	< 1	D-5453
TOTAL NON-AROMATICS	WT%			GC
VAPOR PRESSURE @ 20 C	TORR		140	D-5191
VISCOSITY @ 20 C	cSt		0.50	D-445
WATER	PPM			D-6304

* American Society for Testing and Materials

9/29/2008



pennsylvania

DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY PROGRAM

August 23, 2012

Mr. Wayne Black
Perdue Grain & Oilseed, LLC
PO Box 460
Lewiston Woodville, NC 27849

Re: Completeness Determination
Plan Approval Application No. 36-05158A
Conoy Township, Lancaster County

Dear Mr. Black:

On August 13, 2012, the Department of Environmental Protection (DEP) received the above referenced application. We have determined that the application contains the necessary documents and is administratively complete.

If you have additional questions about your application, please contact me at 717.705.4875.

Sincerely,

Brian Wetzel
Air Quality Permitting

cc: SCRO, 36-05158A
Permits
EPA