



North Carolina Department of Environment and Natural Resources  
Division of Air Quality

Beverly Eaves Perdue  
Governor

B. Keith Overcash, P.E.  
Director

Dee Freeman  
Secretary

December 15, 2009

Mr. Joseph Peanasky  
Plant Superintendent  
Cargill, Incorporated  
1400 South Blount Street  
Raleigh, North Carolina 27603

Dear Mr. Peanasky

SUBJECT: **Air Quality Permit No. 03840T33**  
**Facility ID: 05/092/00208**  
**Cargill, Incorporated**  
**Raleigh, North Carolina**  
**Wake County**  
**Fee Class: Title V**

PROPOSED

In accordance with your request for the renewal of your Title V permit received February 14, 2008, we are forwarding herewith Air Quality Permit No. **03840T33** to Cargill, Incorporated, Raleigh, North Carolina authorizing the construction and operation, of the emission sources and associated air pollution control devices specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 2Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. **The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.**

**As the designated responsible official it is your responsibility to review, understand, and abide by all of the terms and conditions of the attached permit. It is also your responsibility to ensure that any person who operates any emission source and associated air pollution control device subject to any term or condition of the attached permit reviews, understands, and abides by the condition(s) of the attached permit that are applicable to that particular emission source.**

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with **both** the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Please note that this permit will be stayed in its entirety upon receipt of the request for a hearing. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.

Permitting Section  
1641 Mail Service Center, Raleigh, North Carolina 27699-1641  
2728 Capital Blvd., Raleigh, NC 27604  
Phone: 919-715-6237 \ FAX: 919-733-5317 \ Internet: [www.daq.state.nc.us](http://www.daq.state.nc.us)

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Mr. Joseph Peanasky

December 15, 2009

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You may request modification of your Air Quality Permit through informal means pursuant to NCGS 150B-22. This request must be submitted in writing to the Director and must identify the specific provisions or issues for which the modification is sought. Please note that this Air Quality Permit will become final and binding regardless of a request for informal modification unless a request for a hearing is also made under NCGS 150B-23.

**The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to the emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction unless the Permittee has fulfilled the requirements of GS 143-215-108A(b) and received written approval from the Director of the Division of Air Quality to commence construction. Failure to receive an Air Quality Permit or written approval prior to commencing construction is a violation of GS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in GS 143-215.114A and 143-215.114B.**

This Air Quality Permit shall be effective from December 15, 2009 until November 30, 2014, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein. **Please note the attached summary table, which outlines the changes made to the permit.** Should you have any questions concerning this matter, please contact David Putney, P.E., by email at david.putney@ncdenr.gov or by telephone at (919) 733-2051.

Sincerely yours,

**PROPOSED**

Donald R. van der Vaart, Ph.D., P.E.  
Chief

Enclosure

c: Gregg Worley, EPA Region 4  
Raleigh Regional Office  
Central Files

The following table describes the modifications in Permit No. 03840T33 as part of the modification process.

Old Page(s)	New Page(s)	Condition/Item	Description of Change(s)
Global	Global	N/A	<ul style="list-style-type: none"> <li>Update format to current shell version (e.g. remove Part II of the permit, change testing rule reference to 2D .2601, and update Section 3 General Conditions);</li> <li>Change the issuance/effective dates of the permit;</li> <li>Change the application number and complete date;</li> <li>Change permit revision number to T33;</li> <li>Modify source and control device descriptions to include capacities, filter areas and diameters; and</li> <li>Update the monitoring associated with 2D .0521 [i.e. add “(Method 9) for 12 minutes”]</li> </ul>
3 - 4	3 - 4	Equipment List	<ul style="list-style-type: none"> <li>Remove asterisk language for multiple sources pursuant to public comment/EPA review;</li> <li>Add emergency water pumps ES-P1 and ES-P2;</li> <li>Correct the storage capacities of soybean storage bins SSB1 - SSB9 and add the storage capacities of hexane tanks ES-9A and ES-9B;</li> <li>Add CAM designation to emission source ID No. column for sources subject to 2D .0614; and</li> <li>Correct/enhance the descriptions of ES-9A, ES-9B, ES-3/-4 (the screens are not controls), and CD-9 (the minimum required oil injection rate is increased from 8 gpm to 10 gpm)</li> </ul>
4 - 6; 8 - 10; 11 - 14; 16 - 18; 21 - 23; & 23 - 24	5 - 8	2.1 A	<ul style="list-style-type: none"> <li>Modify this section to include sources ES-1, ES-5, ES-6, ES-7, ES-8, ES-10-1, ES-10-2, ES-13, ES-14, ES-15A/-15B, ES-16, ES-19, ES-20, ES-22, ES-24, ES-25, and SSB1 - SSB9 (i.e. combine Sections 2.1 A, C, E, G and I of Permit 03840T32);</li> <li>Correct storage capacities of SSB1 – SSB9; and</li> <li>Modify the limits/standards summary table to show the applicability of 2D .0614</li> </ul>
13 & 17	7	2.1 A.2	Modify 2D .0521 MRR requirements for sources ES-16 & ES-20 to remove requirement to establish “normal” (i.e. in 2.1 E.2.c and 2.1 G.2.c of Permit No. 03840T32)
N/A	8	2.1 A.3	Add 2D .0614 MRR requirements for sources ES-5, ES-8, ES-13, ES-22, and ES-25
6 - 8	9 - 11	2.1 B	Reorder the rules within this subsection and modify source/control descriptions to show the mesh screens as part of the grain dryers (i.e. not separate “controls”)
8	11	2.1 B.4.b	Add a permit condition to specifically state that NSPS DD requires no monitoring or reporting for ES-3
8 - 10	12	2.1 C	Modify this section to include the MRR requirements for sources ES-P1 and ES-P2

The following table describes the modifications in Permit No. 03840T33 as part of the modification process.

Old Page(s)	New Page(s)	Condition/Item	Description of Change(s)
10 – 11; 14 – 16 & 18 - 21	13 – 16	2.1 D	Modify this section to remove source ES-9 (since all applicable rules for that source are addressed in Section 2.2 A of 03840T33) and instead include sources ES-17 and ES-26 (i.e. addressed in 2.1 F and H of 03840T32)
14	13	2.1 D.1.a	Correct the PM allowable emission limit for ES-17 from 0.346 lb/10 <sup>6</sup> Btu to 0.342 lb/10 <sup>6</sup> Btu
14 & 18	13	2.1 D.2.c	Correct the regulatory basis by removing the reference to 2D .0501(c)(4)(A) (found in 2.1 F.2.c and H.2.c of 03840T32) since this rule no longer exists
15 & 19	14	2.1 D.2.d	Correct the regulatory basis by removing the reference to 2Q .0508(bb) (found in 2.1 F.2.d and H.2.d of 03840T32) since this rule no longer exists
20 - 21	15 – 16	2.1 D.4.a-f	Modify this 2Q .0317 (PSD avoidance) section to: <ul style="list-style-type: none"> <li>Expand the descriptions of the equation variables in 2.1 D.4.c and d and correct the units cited therein;</li> <li>Remove the “extra” paragraph (i.e. the 1st paragraph 2.1 H.4.c of 03840T32); and</li> <li>Reword the MRR requirements for clarity and to remove the reporting requirements for fuel oil sulfur content and consumption rates</li> </ul>
21	16	2.1 D.5.c	Add an equation for calculating NO <sub>x</sub> emissions from combustion of vegetable oil
21	16	2.1 D.5.d + e	Reword the rule 2Q .0317 (PSD avoidance) MRR requirements for clarity
11 - 24	N/A	2.1 E – J (03840T32)	Remove these permit sections since the associated sources are addressed in other sections of the permit
24 - 26	17 – 34	2.2 A	Reorganize and expand section to include requirements associated with rules 2D .0530, .0958, .1100, .1111, and .1806, and 2Q .0317, .0705, and .0711
24 & 27 - 28	17 - 28	2.2 A.1	Remove the requirements of 2D .1806 and add the requirements of consent decree 05-2037-JRM-FLN (found in 2.4 A.1 of Permit 03840T32)
27	17	2.2 A.1.a	Modify language to show that the solvent loss ratio is no longer “interim” and remove the Permittee’s option of adjusting the interim solvent loss ratio (found in 2.4 A.1.a.ii of 03840T32)
27 - 28	17	2.2 A.1.b and 2.2 A.1.c.i	Clarify that the amount of oilseeds “processed” (as used in the adjusted solvent loss ratio) refers to the amount of oilseeds processed <i>through ES-9</i>
28	18	2.2 A.1.f	Reword the reporting requirements for clarity

The following table describes the modifications in Permit No. 03840T33 as part of the modification process.

Old Page(s)	New Page(s)	Condition/Item	Description of Change(s)
24 – 25 & 25 - 26	18 – 19	2.2 A.2	Remove 2Q .0317 restriction on n-hexane use to avoid applicability of the NC toxics (since the facility is now subject to that program) and add the requirements of rule 2D .0958 (found in 2.2 B.1 of Permit 03840T32)
25	19 - 20	2.2 A.3	Add the requirements of 2D .1100 and remove the requirements of 2Q .0705
27	20 - 33	2.2 A.4	Add specific language for 2D .1111 (i.e. to replace the MACT GGGG placeholder language found in 2.3 A.1 of Permit 03840T32) with applicability date of 10/13/09
24	34	2.2 A.5	Add the requirements of rule 2D .1806 (found in 2.2 A.1 of Permit 03840T32)
26	34	2.2 A.6	Add requirements of 2Q .0317 to avoid PSD (found in 2.2 C.1 of 03840T32) after modifying the language to: <ul style="list-style-type: none"> <li>Remove the 234,829 gallons per 12-consecutive month period limit for VOC-containing materials;</li> <li>Clarify the MMR requirements of 2.1 A.6.b - d; and</li> <li>Reduce the VOC emission limit from 661 to 656 tons per 12-consecutive month period (to account for potential VOC emissions from combustion sources)</li> </ul>
25	34	2.2 A.7	Add a condition to reflect the fact that the last MACT toxics demonstration has been completed pursuant to 2Q .0705 and include the requirements of 2Q .0711
25 – 26	N/A	2.2 B (03840T32)	Remove this section since the requirements of 2D .0958 are now included in Section 2.2 A.2 of Permit 03840T33
26	N/A	2.2 C (03840T32)	Remove this permit section since the requirements of 2Q .0317 (to avoid 2D .0530) are now included in Section 2.2 A.6 of 03840T33
27	N/A	2.3 A (03840T32)	Remove this permit section since the requirements of 2D .1111 (MACT GGGG) are now included in Section 2.2 A.4 of Permit 03840T33
27 - 28	N/A	2.4 A (03840T32)	Remove this permit section since the requirements of consent decree 05-2037-JRM-FLN are now included in Section 2.2 A.1 of Permit 03840T33
29 - 35	35 - 42	Section 3	Update general conditions to version 2.22.1

Condition/Item numbers in the table are as they appear in Permit No. 03840T33, unless otherwise noted.

State of North Carolina,  
Department of Environment,  
and Natural Resources

Division of Air Quality



## AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
03840T33	03840T32	December 15, 2009	November 30, 2014

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (15A NCAC), Subchapters 2D and 2Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 2Q, the Permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete Air Quality Permit Application to the permitting authority and received an Air Quality Permit, except as provided in this permit.

**Permittee:** Cargill, Incorporated  
**Facility ID:** 05/092/00208

**Facility Site Location:** 1400 South Blount Street  
**City, County, State, Zip:** Raleigh, North Carolina 27603

**Mailing Address:** 1400 South Blount Street  
**City, State, Zip:** Raleigh, North Carolina 27603

**Application Number:** 9200208.08A  
**Complete Application Date:** February 14, 2008  
**Primary SIC Code:** 2075

**Division of Air Quality,  
Regional Office Address:** Raleigh Regional Office  
3800 Barrett Drive, Suite 101  
Raleigh, North Carolina 27609

Permit issued this the 15<sup>th</sup> day of December, 2009

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Donald R. van der Vaart, Ph.D., P.E., Chief  
By Authority of the Environmental Management Commission

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# PROPOSED

## SECTION 1 - PERMITTED EMISSION SOURCE(S) AND ASSOCIATED AIR POLLUTION CONTROL DEVICE(S) AND APPURTENANCES

The following table contains a summary of all permitted emission sources and associated air pollution control devices and appurtenances:

<b>Emission Source ID No.</b>	<b>Emission Source Description</b>	<b>Control Device ID No.</b>	<b>Control Device Description</b>
ES-1	Truck grain receiving hopper	BF-1160	One bagfilter (1,160 square feet of filter area)
ES-3 <b>NSPS DD</b>	Natural gas/No. 2 fuel oil-fired Berico column-type grain dryer system (24 million Btu per hour maximum heat input rate, 120 tons per hour whole soybeans processing capacity) equipped with mesh screens with perforations that are 0.094 inches or less in diameter	C-3	One simple cyclone (54 inches in diameter, for recycle air only (approximately 4% of air throughput))
ES-4	Natural gas/No. 2 fuel oil-fired Shanzer column-type grain dryer system (27 million Btu per hour maximum heat input rate, 90 tons per hour whole soybeans processing capacity) equipped with mesh screens with perforations that are 0.094 inches or less in diameter	N/A	N/A
ES-5 <b>CAM</b>	Soybean aspiration system	821	One bagfilter (5,918 square feet of filter area)
ES-6	Ground pod transfer system	15	One bagfilter (160 square feet of filter area)
ES-7	Hull transfer and storage system		
ES-8 <b>CAM</b>	Soybean conditioning and flaking process	825	One simple cyclone (96 inches in diameter)
ES-9 <b>MACT GGGG</b>	Hexane solvent, soybean oil extraction process	CD-9	One packed column mineral oil scrubber (ceramic saddle, 10 gallons per minute minimum mineral oil injection rate)
ES-9A <b>MACT GGGG</b>	Hexane Underground Storage Tank #1 (25,000 gallon capacity)		
ES-9B <b>MACT GGGG</b>	Hexane Underground Storage Tank #2 (25,000 gallon capacity)		
ES-10-1	Whole soybean cleaning aspiration system	818A, 819 and 820	One bagfilter (2,820 square feet of filter area) in series with one simple cyclone (48 inches in diameter) in series with one simple cyclone (56 inches in diameter)
ES-10-2	Whole soybean pod grinding system		
ES-13 <b>CAM</b>	Soybean meal screening and grinding process	831	One bagfilter (1,462 square feet of filter area)
ES-14	Railcar meal loading system	BF-320	One bagfilter (510 square feet of filter area)
ES-15A	Meal storage system	15A-C	One bagfilter (208 square feet of filter area)
ES-24	Clay storage tank		
ES-15B	Meal storage tank	15B-C	One bagfilter (85 square feet of filter area)

<b>Emission Source ID No.</b>	<b>Emission Source Description</b>	<b>Control Device ID No.</b>	<b>Control Device Description</b>
ES-16	Truck and rail meal and hull loadout enclosure	BF-1750	One bagfilter (1,750 square feet of filter area)
ES-17	Natural gas/No. 6 fuel oil/Vegetable oil-fired boiler (46.5 million Btu per hour maximum heat input rate)	N/A	N/A
ES-19	Railroad soybean receiving hopper/Dust tank	S232RF10 and CK-96	One bagfilter (2,960 square feet of filter area) in series with one simple cyclone (96 inches in diameter)
ES-20	Auxiliary truck soybean receiving and loadout enclosure	BF-448	One bagfilter (448 square feet of filter area)
ES-22 <b>CAM</b>	Secondary dehulling system	BF-1987	One bagfilter (2,437 square feet of filter area)
ES-25 <b>CAM</b>	Steam-heated soybean meal dryer/cooler	25-A, 25-B, 25-C, and 25-D	Four simple cyclones installed in parallel (96 inches in diameter, each)
ES-26	Natural gas/No. 2 fuel oil/No. 6 fuel oil/Vegetable fuel oil-fired boiler (75.3 million Btu per hour maximum heat input rate)	N/A	N/A
SSB1	Soybean storage bin (211,000 bushel capacity)	C-SSB1	One bagfilter (67 square feet of filter area)
SSB2	Soybean storage bin (211,000 bushel capacity)	C-SSB2	One bagfilter (67 square feet of filter area)
SSB3	Soybean storage bin (211,000 bushel capacity)	C-SSB3	One bagfilter (67 square feet of filter area)
SSB4	Soybean storage bin (211,000 bushel capacity)	C-SSB4	One bagfilter (67 square feet of filter area)
SSB5	Soybean storage bin (211,000 bushel capacity)	C-SSB5	One bagfilter (67 square feet of filter area)
SSB6	Soybean storage bin (211,000 bushel capacity)	C-SSB6	One bagfilter (67 square feet of filter area)
SSB7	Soybean storage bin (211,000 bushel capacity)	C-SSB7	One bagfilter (67 square feet of filter area)
SSB8	Soybean storage bin (508,000 bushel capacity)	C-SSB8	One bagfilter (67 square feet of filter area)
SSB9	Soybean storage bin (508,000 bushel capacity)	C-SSB9	One bagfilter (67 square feet of filter area)
ES-P1 <b>MACT ZZZZ</b>	One diesel-fired emergency water pump (230 horsepower maximum rated power output)	N/A	N/A
ES-P2 <b>MACT ZZZZ</b>	One diesel-fired emergency water pump (230 horsepower maximum rated power output)	N/A	N/A

## **SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS**

### **2.1 - Emission Source(s) and Control Devices(s) Specific Limitations and Conditions**

The emission source(s) and associated air pollution control device(s) and appurtenances listed below are subject to the following specific terms, conditions, and limitations, including the testing, monitoring, recordkeeping, and reporting requirements as specified herein:

#### **A. Soybean storage, transfer, and processing operations, consisting of:**

**Truck grain receiving hopper (ID No. ES-1) with one associated bagfilter (1,160 square feet of filter area; ID No. BF-1160);**

**Soybean aspiration system (ID No. ES-5) with one associated bagfilter (5,918 square feet of filter area; ID No. 821);**

**Ground pod transfer system (ID No. ES-6) with one associated bagfilter (160 square feet of filter area; ID No. 15);**

**Hull transfer and storage system (ID No. ES-7) with one associated bagfilter (160 square feet of filter area; ID No. 15);**

**One soybean conditioning and flaking process (ID No. ES-8) with one associated simple cyclone (96 inches in diameter; ID No. 825);**

**Whole soybean cleaning aspiration system (ID No. ES-10-1) and whole soybean pod grinding system (ID No. ES-10-2) associated with one simple cyclone (48 inches in diameter; ID No. 820) in series with one simple cyclone (56 inches in diameter; ID No. 819) in series with one bagfilter (2,820 square feet of filter area; ID No. 818A);**

**Soybean meal screening and grinding process (ID No. ES-13) with one associated bagfilter (1,462 square feet of filter area; ID No. 831);**

**Railcar meal loading system (ID No. ES-14) and one associated bagfilter (510 square feet of filter area; ID No. BF-320);**

**Meal storage system (ID No. ES-15A) and clay storage tank (ID No. ES-24) with one associated bagfilter (208 square feet of filter area; ID No. 15A-C);**

**Meal storage tank (ID No. ES-15B) with one associated bagfilter (85 square feet of filter area; ID No. 15B-C);**

**Truck and rail meal and hull loadout enclosure (ID No. ES-16) with one associated bagfilter (1,750 square feet of filter area; ID No. BF-1750);**

**Railroad soybean receiving hopper/dust tank (ID No. ES-19) with one associated simple cyclone (96 inches in diameter; ID No. CK-96) in series with one bagfilter (2,960 square feet of filter area; ID No. S232RF10);**

**Auxiliary truck soybean receiving and loadout enclosure (ID No. ES-20) with one associated bagfilter (448 square feet of filter area; ID No. BF-448);**

**Secondary dehulling system (ID No. ES-22) with associated bagfilter (2,437 square feet of filter area; ID No. BF-1987);**

**Steam-heated soybean meal dryer/cooler (ID No. ES-25) with four associated simple cyclones installed in parallel (96 inches in diameter, each; ID Nos. 25-A, 25-B, 25-C and 25-D); and**

**Nine soybean storage bins (seven bins with 211,000 bushels capacity, each; ID Nos. ES-SSB1 through ES-SSB7, and two bins with 508,000 bushels capacity, each; ID Nos. ES-SSB8 and ES-SSB9) each with one associated bagfilter (67 square feet of filter area, each; ID Nos. C-SSB1 through C-SSB9)**

The following provides a summary of limits and/or standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	$E = 4.10P^{0.67}$ If $P \leq 30$ , or $E = 55.0P^{0.11} - 40$ If $P > 30$ Where: E = allowable emission rate in lbs per hr P = process weight in tons per hour	15A NCAC 2D .0515
	Compliance Assurance Monitoring ES-5, ES-8, ES-13, ES-22 and ES-25 only	15A NCAC 2D .0614
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Volatile Organic Compounds	See Section 2.2 A.1	15A NCAC 2D .0530 [consent decree 05-2037-JRM-FLN]
	See Section 2.2 A.6	15A NCAC 2Q .0317 to avoid 15A NCAC 2D .0530
Toxic Air Pollutants	State-Enforceable Only See Sections 2.2 A.3 and 2.2 A.7	15A NCAC 2D .1100 and 15A NCAC 2Q .0705/2Q .0711
Hazardous Air Pollutants	See Section 2.2 A.4	15A NCAC 2D .1111 [40 CFR Part 63, Subpart GGGG]
Odorous emissions	State-Enforceable Only See Section 2.2 A.5	15A NCAC 2D .1806

**1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES**

- a. Emissions of particulate matter from the sources listed in Section 2.1 A, above, (**ID Nos. ES-1, ES-5, ES-6, ES-7, ES-8, ES-10-1, ES-10-2, ES-13, ES-14, ES-15A, ES-15B, ES-16, ES-19, ES-20, ES-22, ES-24, ES-25, and SSB1 through SSB9**) shall not exceed an allowable emission rate as calculated by the following equations: [15A NCAC 2D .0515(a)]

For process rates less than or equal to 30 tons per hour:  $E = 4.10 \times P^{0.67}$

Where: E = allowable emission rate in pounds per hour  
P = process weight in tons per hour

For process rates greater than 30 tons per hour:  $E = 55.0 \times P^{0.11} - 40$

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

**Testing** [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 A.1.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

**Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f)]

- c. Particulate matter emissions from the sources listed in Section 2.1 A, above, (**ID Nos. ES-1, ES-5, ES-6, ES-7, ES-8, ES-10-1, ES-10-2, ES-13, ES-14, ES-15A, ES-15B, ES-16, ES-19, ES-20, ES-22, ES-24, ES-25, and SSB1 through SSB9**) shall be controlled by their associated bagfilters (**ID Nos. BF-1160, 821, 15, 818A, 831, BF-320, 15A-C, 15B-C, BF-1750, S232RF10, BF-448, BF-1987, C-SSB1, C-SSB2, C-SSB3, C-SSB4, C-SSB5, C-SSB6, C-SSB7, C-SSB8, and C-SSB9**) and cyclones (**ID Nos. 825, 819, 820, CK-96, 25-A, 25-B, 25-C, and 25-D**) as listed in Section 2.1 A, above. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer’s inspection and maintenance recommendations, or if there is no manufacturer’s inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:

- i. A monthly visual inspection of the system ductwork and material collection units for leaks; and
- ii. An annual (for each 12 month period following the initial inspection) internal inspection of the bagfilters for structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork, bagfilters, and cyclones are not inspected and maintained.

- d. The results of inspection and maintenance shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
  - i. The date and time of each recorded action;
  - ii. The results of each inspection;
  - iii. The results of any maintenance performed on the bagfilter or cyclone; and
  - iv. Any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on the bagfilter within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from the sources listed in Section 2.1 A, above, (**ID Nos. ES-1, ES-5, ES-6, ES-7, ES-8, ES-10-1, ES-10-2, ES-13, ES-14, ES-15A, ES-15B, ES-16, ES-19, ES-20, ES-22, ES-24, ES-25, and SSB1 through SSB9**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521(d)]

**Testing** [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 A.2.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

**Monitoring** [15A NCAC 2Q .0508(f)]

- c. To assure compliance, once a month the Permittee shall observe the emission points of these sources for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from this source are observed to be above normal, the Permittee shall either:
  - i. Take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
  - ii. Demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .2601 (Method 9) for 12 minutes is below the limit given in Section 2.1 A.2.a, above.

If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

**Recordkeeping** [15A NCAC 2Q .0508(f)]

- d. The results of the monitoring shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
  - i. The date and time of each recorded action;
  - ii. The results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
  - iii. The results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year

for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

### 3. 15A NCAC 2D .0614: COMPLIANCE ASSURANCE MONITORING

- a. For sources **ES-5, ES-8, ES-13, ES-22, and ES-25** and the associated bagfilters (**ID Nos. 821, 831, and BF-1987**) and cyclones (**ID Nos. 825, 25-A, 25-B, 25-C, and 25-D**), the Permittee shall comply with 40 CFR Part 64 pursuant to 15A NCAC 2D .0614 to assure that the listed sources comply with the emission limits of 15A NCAC 2D .0515 and 15A NCAC 2D .0521.
- b. To assure compliance particulate matter and visible emissions from sources **ES-5, ES-8, ES-13, ES-22, and ES-25** shall be controlled by the associated bagfilters (**ID Nos. 821, 831 and BF-1987**) and cyclones (**ID Nos. 825, 25-A, 25-B, 25-C, and 25-D**) as listed in Section 2.1 A, above.

#### **Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f)]

- c. To assure compliance the Permittee shall:
  - i. **For sources ES-8 and ES-25:**
    - (A) Conduct daily monitoring of the opacity of the visible emissions emitted from these sources through the associated cyclone(s) (**ID Nos. 825, 25-A, 25-B, 25-C, and 25-D**). The observer shall be familiar with Method 22 (Appendix A of 40 CFR 60) and follow Method 22-like procedures. If visible emissions from a cyclone with opacity greater than or equal to “normal” (as established pursuant to Section 2.1 A.2.c, above) for that cyclone are observed then an excursion has occurred for the associated source; and
    - (B) Perform the monitoring and recordkeeping requirements found in Sections 2.1 A.1.c and d, above for the associated cyclone(s) (**ID Nos. 825, 25-A, 25-B, 25-C, and 25-D**).
  - ii. **For sources ES-5, ES-13, and ES-22:**
    - (A) Conduct daily monitoring of the differential pressure drops across the associated bagfilters (**ID Nos. 821, 831, and BF-1987**) via a differential pressure gauge. The Permittee shall install, maintain, operate and calibrate the differential pressure drop gauge as recommended by the equipment manufacturer. If a differential pressure drop across a bagfilter less than 0.5 inches of water column (unless the occurrence is less than 120 operational hours from installation of a new filter) or greater than 10 inches of water column is observed then an excursion has occurred; and
    - (B) Perform the monitoring and recordkeeping requirements found in Sections 2.1 A.1.c and d, above for the associated bagfilters (**ID Nos. 821, 831, and BF-1987**).
  - iii. In the event of an excursion the Permittee shall take appropriate action to correct the excursion as soon as practicable. If a source, bagfilter, or cyclone listed in Section 2.1 A.3.a, above, operates under conditions qualifying as an excursion for more than 5% of that device’s operational time during a consecutive 6-month period, then the Permittee shall develop a Quality Improvement Plan in accordance with 40 CFR §64.8.
  - iv. The results of monitoring, inspections, maintenance, calibrations and corrections conducted pursuant to Sections 2.1 A.3.c.i, ii, and iii, above, shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
    - (A) The date and time of each recorded action;
    - (B) The results of the differential pressure drop and visible emissions monitoring, noting any excursions along with any corrective actions taken to correct a differential pressure drop or reduce visible emissions;
    - (C) The results of any inspections or maintenance performed on the bagfilters, cyclones, and/or differential pressure drop gauges; and
    - (D) Any variance from manufacturer’s recommendations, if any, and corrections made.
    - (E) The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0614 if this monitoring and recordkeeping is not conducted.

#### **Reporting** [15A NCAC 2Q .0508(f)]

- d. The Permittee shall submit a summary report of the monitoring postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year

for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

PROPOSED

**B. Column-type grain dryers including:**

Natural gas/No. 2 fuel oil-fired Berico column-type grain dryer system (24 million Btu per hour maximum heat input rate, 120 tons per hour whole soybeans processing capacity; ID No. ES-3) equipped with mesh screens with perforations that are 0.094 inches or less in diameter in series with a simple cyclone (54 inches in diameter, for recycle air only (approximately 4% of air throughput) ID No. C-3); and

Natural gas/No. 2 fuel oil-fired Shanzer column-type grain dryer system (27 million Btu per hour maximum heat input rate, 90 tons per hour whole soybeans processing capacity; ID No. ES-4) equipped with mesh screens with perforations that are 0.094 inches or less in diameter

The following provides a summary of limits and/or standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	$E = 4.10P^{0.67}$ If $P \leq 30$ , or $E = 55.0P^{0.11} - 40$ If $P > 30$ Where: E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
	<b>Grain dryer (ID No. ES-3) only:</b> Recordkeeping only	15A NCAC 2D .0524 [40 CFR Part 60 Subpart DD]
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Odorous emissions	State-Enforceable Only See Section 2.2 A.5	15A NCAC 2D .1806

**1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES**

- a. Emissions of particulate matter from the Berico column-type grain dryer (ID No. ES-3) and the Shanzer column-type grain dryer (ID No. ES-4) shall not exceed an allowable emission rate as calculated by the following equations: [15A NCAC 2D .0515(a)]

For process rates less than or equal to 30 tons per hour:

$$E = 4.10 \times P^{0.67}$$

Where: E = allowable emission rate in pounds per hour  
P = process weight in tons per hour

For process rates greater than 30 tons per hour:

$$E = 55.0 \times P^{0.11} - 40$$

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

**Testing** [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 B.1.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

**Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f)]

- c. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer on the mesh screens and the cyclone (ID No. C-3) associated with the Berico column-type grain dryer (ID No. ES-3) and the Shanzer column-type grain dryer (ID No. ES-4). In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
  - i. A monthly visual inspection of the system ductwork and material collection units for leaks; and

- ii. The mesh screens shall be cleaned of collected material as frequently as needed to ensure design performance and integrity of the source.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork, cyclone, and mesh screens are not inspected and maintained.

- d. The results of inspection and maintenance shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
  - i. The date and time of each recorded action;
  - ii. The results of each inspection;
  - iii. The results of any maintenance performed on the cyclone and mesh screens; and
  - iv. Any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on the cyclone and mesh screens within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**2. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**

- a. Emissions of sulfur dioxide from the grain dryers (**ID Nos. ES-3 and ES-4**) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

**Testing** [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 B.2.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]

- c. No monitoring, recordkeeping or reporting is required for sulfur dioxide emissions from the combustion of natural gas and No. 2 fuel oil in these sources.

**3. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from the grain dryers (**ID Nos. ES-3 and ES-4**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521(d)]

**Testing** [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 B.3.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

**Monitoring** [15A NCAC 2Q .0508(f)]

- c. To assure compliance, once a month the Permittee shall observe the emission points of this source for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from this source are observed to be above normal, the Permittee shall either:
  - i. Take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
  - ii. Demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .2601 (Method 9) for 12 minutes is below the limit given in Section 2.1 B.3.a, above.

If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

**Recordkeeping** [15A NCAC 2Q .0508(f)]

- d. The results of the monitoring shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
  - i. The date and time of each recorded action;
  - ii. The results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
  - iii. The results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**4. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS  
[40 CFR PART 60, SUBPART DD]**

- a. **Recordkeeping** [15A NCAC 2Q .0508(f)]

For the Berico column-type grain dryer (**ID No. ES-3**), the Permittee shall comply with the recordkeeping requirements in §60.7(b) of the General Provisions (40 CFR 60, Subpart A) by maintaining readily accessible records of start-up, shutdown, and malfunction periods. All records shall be kept for the life of the source.

**Monitoring/Reporting** [15A NCAC 2Q .0508(f)]

- b. No monitoring or reporting is required for emissions from the Berico column-type grain dryer (**ID No. ES-3**).

PROPOSED

**C. Two diesel-fired emergency water pumps (230 horsepower maximum rated power output, each; ID Nos. ES-P1 and ES-P2)**

The following provides a summary of limits and/or standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Hazardous Air Pollutants	Maximum Achievable Control Technology No applicable requirements	15A NCAC 2D .1111 [40 CFR Part 63 Subpart ZZZZ]
Odorous emissions	State-Enforceable Only See Section 2.2 A.5	15A NCAC 2D .1806

**1. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**

- a. Emissions of sulfur dioxide from the emergency water pumps (ID Nos. ES-P1 and ES-P2) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

**Testing** [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 C.1.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]

- c. No monitoring, recordkeeping or reporting is required for sulfur dioxide emissions from combustion of diesel fuel oil in the diesel-fired emergency water pumps (ID Nos. ES-P1 and ES-P2).

**2. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from the diesel-fired emergency water pumps (ID Nos. ES-P1 and ES-P2) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521(d)]

**Testing** [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 C.2.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]

- c. No monitoring, recordkeeping, or reporting is required for visible emissions from the diesel-fired emergency water pumps (ID Nos. ES-P1 and ES-P2).

**3. 15A NCAC 2D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY**

**Applicability** [15A NCAC 2D .1111 and 40 CFR §63.6585]

- a. The diesel-fired emergency RICE (ID Nos. ES-P1 and ES-P2) are subject to Environmental Management Commission Standard 15A NCAC 2D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR Part 63, Subpart ZZZZ "National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines."

**Monitoring/Recordkeeping/Reporting** [40 CFR §63.6590]

- b. The diesel-fired emergency RICE (ID Nos. ES-P1 and ES-P2) are considered existing sources, pursuant to §63.6590(a)(1)(ii), for the purposes of Subpart ZZZZ. Therefore, pursuant to §63.6590(b)(3), these emergency RICE are not required to meet the requirements of 40 CFR Part 63, Subparts ZZZZ or A "General Provisions" (i.e. initial notifications are not required for these emergency RICE).

**D. One natural gas/No. 6 fuel oil/vegetable oil-fired boiler (46.5 million Btu per hour maximum heat input rate; ID No. ES-17); and**

**One natural gas/No. 2 fuel oil/No. 6 fuel oil/vegetable oil-fired boiler (75.3 million Btu per hour maximum heat input rate; ID No. ES-26)**

The following provides a summary of limits and/or standards for the emission source(s) described above:

Regulated Pollutants	Limits/Standards	Applicable Regulation
Particulate matter	<b>ES-17:</b> 0.342 pound per million Btu <b>ES-26:</b> 0.314 pound per million Btu	15A NCAC 2D .0503
Sulfur dioxide	2.3 pounds per million Btu	15A NCAC 2D .0516
Visible emissions	20% opacity	15A NCAC 2D .0521
Odorous emissions	State-Enforceable Only See Section 2.2 A.5	15A NCAC 2D .1806
Sulfur dioxide and Nitrogen oxides	<b>ES-26 only:</b> Less than 40 tons per 12-consecutive month period, each, while burning natural gas, No. 2 fuel oil, or No. 6 fuel oil	15A NCAC 2Q .0317 to avoid 15A NCAC 2D .0530
Nitrogen oxides	<b>ES-26 only:</b> Less than 40 tons per 12-consecutive month period while burning vegetable oil	

**1. 15A NCAC 2D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS**

- a. Emissions of particulate matter from the combustion of natural gas, No. 6 fuel oil, and/or vegetable oil that are discharged from boiler **ES-17** into the atmosphere shall not exceed **0.342 pounds per million Btu heat input**. [15A NCAC 2D .0503(a)]
- b. Emissions of particulate matter from the combustion of natural gas, No. 2 fuel oil, No. 6 fuel oil, and/or vegetable oil that are discharged from boiler **ES-26** into the atmosphere shall not exceed **0.314 pounds per million Btu heat input**. [15A NCAC 2D .0503(a)]  
**Testing** [15A NCAC 2D .2601]
- c. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Sections 2.1 D.1.a or b, above, as applicable, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503.  
**Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]
- d. No monitoring, recordkeeping, or reporting is required for particulate emissions from the firing of No. 6 fuel oil, No. 2 fuel oil, natural gas, or vegetable oil in boilers **ES-17 and ES-26**.

**2. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**

- a. Emissions of sulfur dioxide from boilers **ES-17 and ES-26** shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]  
**Testing** [15A NCAC 2D .2601]
- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 D.2.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.  
**Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f)]
- c. No monitoring or recordkeeping is required for sulfur dioxide emissions from the combustion of natural gas, vegetable oil, or No. 2 fuel oil in boilers **ES-17 and ES-26**.
- d. The maximum sulfur content of any No. 6 fuel oil received and burned in boilers **ES-17 and ES-26** shall not exceed 2.1 percent by weight. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516 if the sulfur content of the fuel oil exceeds this limit.

- e. To assure compliance, the Permittee shall monitor the sulfur content of the No. 6 fuel oil by using fuel oil supplier certification per shipment received. The results of the fuel oil supplier certifications shall be recorded in a log (written or electronic format) on a quarterly basis and include the following information:
  - i. The name of the fuel oil supplier;
  - ii. The maximum sulfur content of the fuel oil received during the quarter;
  - iii. The method used to determine the maximum sulfur content of the fuel oil; and
  - iv. A certified statement signed by the responsible official that the records of fuel oil supplier certification submitted represent all of the No. 6 fuel oil fired during the period.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516 if the sulfur content of the No. 6 fuel oil is not monitored and recorded.

**Reporting** [15A NCAC 2Q .0508(f)]

- f. The Permittee shall submit a summary report of the No. 6 fuel oil supplier certifications postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**3. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS**

- a. Visible emissions from boilers **ES-17 and ES-26** shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521(d)]

**Testing** [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 D.3.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

**Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f)]

- c. No monitoring or recordkeeping is required for visible emissions from the combustion of natural gas, No. 2 fuel oil and/or vegetable oil in boilers **ES-17 and ES-26**.
- d. To assure compliance, while firing No. 6 fuel oil in boilers **ES-17 or ES-26**, once a day the Permittee shall observe the emission points of each source (i.e. boilers **ES-17 and/or ES-26**) that is firing No. 6 fuel oil for any visible emissions above normal. The daily observation must be made for each day of the calendar year period to ensure compliance with this requirement. The Permittee shall be allowed three (3) days of absent observations per semi-annual period. If visible emissions from this source are observed to be above normal, the Permittee shall either:
  - i. Take appropriate action to correct the above-normal emissions within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
  - ii. Demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .2601 (Method 9) for 12 minutes is below the limit given in Section 2.1 D.3.a, above.

If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

- e. The results of the monitoring shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
  - i. The date and time of each recorded action;
  - ii. The results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
  - iii. The results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- f. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**4. 15A NCAC 2Q .0317: AVOIDANCE CONDITIONS to avoid  
15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. In order to avoid applicability of 15A NCAC 2D .0530(g) for major sources and major modifications, the Permittee shall discharge into the atmosphere less than 40 tons of sulfur dioxide (SO<sub>2</sub>) per 12-consecutive month period and less than 40 tons of nitrogen oxides (NO<sub>x</sub>) per 12-consecutive month period from the firing of natural gas, No. 2 fuel oil, and/or No. 6 fuel oil in this boiler (**ID No. ES-26**). [15A NCAC 2D .0530]

**Testing** [15A NCAC 2D .2601]

- b. If emissions testing is required, the Permittee shall perform such testing in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 D.4.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

**Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f)]

- c. Each month the Permittee must calculate the emissions of sulfur dioxide from the firing of natural gas, No. 2 fuel oil, and/or No. 6 fuel oil in boiler **ES-26** for the previous month and for the 12-consecutive month period ending with the previous month according to the following formula:

$$X = \left[ \left[ Y \times \left( \frac{0.6 \text{ lbs SO}_2}{10^6 \text{ ft}^3} \right) \right] + \left[ Z_1 \times S_1 \times \left( \frac{142 \text{ lbs SO}_2}{1,000 \text{ gallons}} \right) \right] + \left[ Z_2 \times S_2 \times \left( \frac{157 \text{ lbs SO}_2}{1,000 \text{ gallons}} \right) \right] \right] \div 2,000 \left( \frac{\text{lbs}}{\text{ton}} \right)$$

Where: X = Total sulfur dioxide emissions in units of tons

Y = Total amount of natural gas fired in boiler **ES-26** in units of million cubic feet (e.g. if 3,000,000 cubic feet of natural gas were burned in boiler **ES-26** then Y = 3)

Z<sub>1</sub> = Total amount of No. 2 fuel oil fired in boiler **ES-26** in units of thousand gallons (e.g. if 2,000 gallons of No. 2 fuel oil were burned in boiler **ES-26** then Z<sub>1</sub> = 2)

S<sub>1</sub> = The weight percent sulfur in the No. 2 fuel oil fired in boiler **ES-26** (e.g. if the No. 2 fuel oil fired in boiler **ES-26** is 0.5% sulfur by weight, then S<sub>1</sub> = 0.5)

Z<sub>2</sub> = Total amount of No. 6 fuel oil fired in boiler **ES-26** in units of thousand gallons (e.g. if 5,000 gallons of No. 6 fuel oil were burned in boiler **ES-26** then Z<sub>2</sub> = 5)

S<sub>2</sub> = The weight percent sulfur in the No. 6 fuel oil fired in boiler **ES-26** (e.g. if the No. 6 fuel oil fired in boiler **ES-26** is 1.5% sulfur by weight, then S<sub>2</sub> = 1.5)

- d. Each month the Permittee must calculate the emissions of nitrogen oxide emissions from the firing of natural gas, No. 2 fuel oil, and No. 6 fuel oil in boiler **ES-26** for the previous month and for the 12-consecutive month period ending with the previous month according to the following formula:

$$A = \left[ \left[ B \times \left( \frac{100 \text{ lbs NO}_x}{10^6 \text{ ft}^3} \right) \right] + \left[ C_1 \times \left( \frac{24 \text{ lbs NO}_x}{1,000 \text{ gallons}} \right) \right] + \left[ C_2 \times \left( \frac{47 \text{ lbs NO}_x}{1,000 \text{ gallons}} \right) \right] \right] \div 2,000 \left( \frac{\text{lbs}}{\text{ton}} \right)$$

Where: A = Total nitrogen oxides emissions in units of tons

B = Total amount of natural gas fired in boiler **ES-26** in units of million cubic feet (e.g. if 3,000,000 cubic feet of natural gas were burned in boiler **ES-26** then B = 3)

C<sub>1</sub> = Total amount of No. 2 fuel oil fired in boiler **ES-26** in units of thousand gallons (e.g. if 2,000 gallons of No. 2 fuel oil were burned in boiler **ES-26** then C<sub>1</sub> = 2)

C<sub>2</sub> = Total amount of No. 6 fuel oil fired in boiler **ES-26** in units of thousand gallons (e.g. if 5,000 gallons of No. 6 fuel oil were burned in boiler **ES-26** then C<sub>2</sub> = 5)

- e. The Permittee shall keep records of the calculations required under Sections 2.1 D.4.c and d, above, and the sulfur content of the fuel oil fired in boiler **ES-26** (including the fuel oil supplier certifications of the No. 6 fuel oil required by Section 2.1 D.2.e, above) in a log (written or in electronic format) maintained on site and made

available to an authorized representative upon request. If this monitoring and recordkeeping is not performed, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if this monitoring and recordkeeping is not performed or if the sulfur dioxide or nitrogen oxides emissions exceed the limits in Section 2.1 D.4.a, above.

**Reporting** [15A NCAC 2Q .0508(f)]

- f. The Permittee shall submit a summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and on or before July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified. In addition, the report shall contain the sulfur dioxide and nitrogen oxide emissions from the firing of natural gas, No. 2 fuel oil, and No. 6 fuel oil in boiler **ES-26** for each of the previous 17 months and for each of the 12-consecutive month periods ending during the reporting period.

**5. 15A NCAC 2Q .0317: AVOIDANCE CONDITIONS for  
15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. In order to avoid applicability of 15A NCAC 2D .0530(g) for major sources and major modifications, the Permittee shall discharge into the atmosphere less than 40 tons of nitrogen oxides (NO<sub>x</sub>) per 12-consecutive month period from the combustion of vegetable oil in boiler **ES-26**. To ensure compliance with this emission limit, the Permittee shall not combust more than 3,253,800 gallons of vegetable oil in boiler **ES-26** per 12-consecutive month period. [15A NCAC 2D .0530]

**Testing** [15A NCAC 2D .2601]

- b. If emissions testing is required, the Permittee shall perform such testing in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 D.5.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.
- c. Each month the Permittee must calculate the emissions of nitrogen oxide emissions from the firing of vegetable oil in boiler **ES-26** for the previous month and for the 12-consecutive month period ending with the previous month according to the following formula:

$$A = \left[ B \times \left( \frac{0.19 \text{ lbs } NO_x}{10^6 \text{ Btu}} \right) \times \left[ \frac{0.129 (10^6 \text{ Btu})}{\text{gallon}} \right] \right] \div 2,000 \left( \frac{\text{lbs}}{\text{ton}} \right)$$

Where: A = Total nitrogen oxides emissions in units of tons

B = Total amount of vegetable oil fired in boiler **ES-26** in units of gallons (e.g. if 2,000 gallons of vegetable oil were burned in boiler **ES-26** then B = 2,000)

**Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f)]

- d. The Permittee shall keep records of the calculations required under Section 2.1 D.5.c, above, in a log (written or in electronic format) maintained on site and made available to an authorized representative upon request.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if this monitoring and recordkeeping is not performed or if the nitrogen oxides emissions exceed the limits in Section 2.1 D.5.a, above.

**Reporting** [15A NCAC 2Q .0508(f)]

- e. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and on or before July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified. In addition, the report shall contain the following:
- i. The nitrogen oxide emissions from vegetable oil combustion in boiler **ES-26** for each of the previous 17 months and for each of the 12-consecutive month periods ending during the reporting period; and
  - ii. The quantities of vegetable fuel oil fired in boiler **ES-26** for each of the previous 17 months and for each of the 12-consecutive month periods ending during the reporting period.

## 2.2 - Multiple Emission Source(s) Specific Limitations and Conditions

### A. Facility-wide affected sources

The above emission sources are subject to this multiple emission source limit.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Volatile Organic Compounds	Consent Decree 05-2037-JMR-FLN Adjusted Solvent Loss Ratio $\leq 0.19$	15A NCAC 2D .0530
	Work Practice Standards	15A NCAC 2D .0958
	Less than 656 tons of volatile organic compounds per 12-consecutive month period	15A NCAC 2Q .0317 to avoid 15A NCAC 2D .0530
Hazardous Air Pollutants	Maximum Achievable Control Technology Adjusted Solvent Loss Ratio $\leq 0.20$	15A NCAC 2D .1111 [40 CFR Part 63, Subpart GGGG]
Odororous emissions	State-Enforceable Only Odorous emissions must be controlled	15A NCAC 2D .1806
Toxic Air Pollutants	State-Enforceable Only TPERs and modeled emission rates	15A NCAC 2D .1100 and 15A NCAC 2Q .0705/2Q .0711

#### 1. 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION pursuant to Consent Decree 05-2037-JRM-FLN

**Emission Standard** [15A NCAC 2D .0530(g)]

- a. i. The hexane solvent, soybean oil extraction process (**ID No. ES-9**) shall operate at an adjusted solvent loss ratio not to exceed 0.19 gallons of solvent per ton of oilseed processed, on a rolling average of the 12 most recent operating months.
- ii. The first determination of compliance with this limit shall be based on the first 12-months of operating data collected after February of 2009.

**Definitions**

**Adjusted solvent loss ratio** means the ratio of gallons of extraction solvent lost from a source, after adjusting for malfunctions as allowed under Section 2.2 A.1.c.iii of this permit, below, to the tons of oilseeds processed in the hexane solvent, soybean oil extraction process (ID No. ES-9) on an as received basis.

**As received** means the oilseed chemical and physical characteristics as initially received by the Permittee and prior to any oilseed handling or processing.

**Extraction solvent** means an organic chemical medium used to remove oil from an oilseed.

**Malfunction period** means a period of time between the beginning and end of a process malfunction and the time reasonably necessary for a source to correct the malfunction for which you choose to operate the source under a malfunction period.

**Operating month** means any calendar month in which a source processes any quantity of oilseed, excluding any entire calendar month in which the source operated under a malfunction period.

**Solvent loss ratio** means the ratio of gallons of extraction solvent lost from a source to the tons of oilseeds processed in that source on an as received basis.

**Monitoring** [15A NCAC 2Q .0508(f)]

- c. Beginning in March of 2009, by the end of each calendar month following an operating month the Permittee shall:
  - i. Determine the tons of oilseeds processed in the hexane solvent, soybean oil extraction process (ID No. ES-9) during that operating month on an as received basis;
  - ii. Determine the gallons of extraction solvent lost from the facility during that operating month;
  - iii. Determine the gallons of extraction solvent lost from the facility during that operating month that occurred under any malfunction periods. The Permittee may adjust solvent loss for malfunctions only if:

- (1) The malfunction results in a shutdown of the solvent extraction process (ID No. ES-9); and
- (2) Cumulative solvent losses during malfunction periods do not exceed 4,000 gallons in a 12-operating month rolling period; and

iv. Calculate the resulting adjusted solvent loss ratio for that operating month.

If the monitoring described in Sections 2.2 A.1.c.i through iv of this permit, above, is not performed, then the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0530.

- d. Beginning in March 2010, by the end of each calendar month following an operating month the Permittee shall calculate the rolling average of the adjusted solvent loss ratio for the 12 most recent operating months. If this monitoring is not performed, or if the calculated rolling average of the adjusted solvent loss ratio for the 12 most recent operating months is above the limit in Section 2.2 A.1.a.i of this permit, above, then the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0530.

**Recordkeeping** [15A NCAC 2Q .0508(f)]

- e. Beginning in March of 2009, the results of the monitoring shall be maintained in a log (in written or electronic format) on-site in the form of Table 1 “Extraction Solvent Loss Recordkeeping Table” attached to this permit and made available to an authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if these records are not maintained.

**Reporting** [15A NCAC 2Q .0508(f)]

- f. Beginning in July of 2010 the Permittee shall submit a semiannual summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified. In addition, the report shall contain the adjusted solvent loss ratio for each of the previous 17 calendar months and for each 12 most recent operating months period ending during the reporting period.

**2. 15A NCAC 2D .0958: WORK PRACTICES FOR SOURCES OF VOLATILE ORGANIC COMPOUNDS**

- a. Pursuant to 15A NCAC 2D .0958, for all sources that use volatile organic compounds (VOC) as solvents, carriers, material processing media, or industrial chemical reactants, or in similar uses that mix, blend, or manufacture volatile organic compounds, or emit volatile organic compounds as a product of chemical reactions, and whose emissions of VOC are greater than 15 pounds per day; the Permittee shall:
  - i. Store all material, including waste material, containing volatile organic compounds in tanks or in containers covered with a tightly fitting lid that is free of cracks, holes, or other defects, when not in use,
  - ii. Clean up spills of volatile organic compounds as soon as possible following proper safety procedures,
  - iii. Store wipe rags containing volatile organic compounds in closed containers,
  - iv. Not clean sponges, fabric, wood, paper products, and other absorbent materials with VOC,
  - v. Transfer solvents containing volatile organic compounds used to clean supply lines and other coating equipment into closable containers and close such containers immediately after each use, or transfer such solvents to closed tanks, or to a treatment facility regulated under section 402 of the Clean Water Act,
  - vi. Clean mixing, blending, and manufacturing vats and containers containing volatile organic compounds by adding cleaning solvent and close the vat or container before agitating the cleaning solvent. The spent cleaning solvent shall then be transferred into a closed container, a closed tank or a treatment facility regulated under section 402 of the Clean Water Act. [15A NCAC 2D .0958(c)]
- b. When cleaning parts with a solvent containing a volatile organic compound, the Permittee shall:
  - i. Flush parts in the freeboard area,
  - ii. Take precautions to reduce the pooling of solvent on and in the parts,
  - iii. Tilt or rotate parts to drain solvent and allow a minimum of 15 seconds for drying or until all dripping has stopped, whichever is longer,
  - iv. Not fill cleaning machines above the fill line,
  - v. Not agitate solvent to the point of causing splashing. [15A NCAC 2D .0958(d)]

**Monitoring** [15A NCAC 2Q .0508(f)]

- c. To assure compliance with paragraphs (a) and (b) above, the Permittee shall, at a minimum, perform a visual inspection once per month of all operations and processes utilizing volatile organic compounds. The inspections shall be conducted during normal operations. If the required inspections are not conducted the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0958.

**Recordkeeping** [15A NCAC 2Q .0508(f)]

- d. The results of the inspections shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the following:
  - i. The date and time of each inspection; and
  - ii. The results of each inspection noting whether or not noncompliant conditions were observed.

If the required records are not maintained the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0958.

**Reporting** [15A NCAC 2Q .0508(f)]

- e. The Permittee shall submit a semiannual summary report of the observations by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**STATE-ENFORCEABLE ONLY**

**3. 15A NCAC 2D .1100: CONTROL OF TOXIC AIR POLLUTANTS**

- a. **TOXIC AIR POLLUTANT EMISSIONS LIMITATION AND REQUIREMENT** - Pursuant to 15A NCAC 02D .1100 and in accordance with the approved application for an air toxic compliance demonstration, dated August 25, 2009, the following permit limit shall not be exceeded:

EMISSION SOURCE(S)	TOXIC AIR POLLUTANT(S)	EMISSION LIMIT(S)
Meal drying vents (4 vents)	n-hexane	74.6 pounds per day for each vent
Fugitive vents (3 vents)		53.3 pounds per day for each vent
Final extraction vent (1 vent)		74.6 pounds per day
Meal drying vents (4 vents)	hexane isomers other than n-hexane	15.5 pounds per hour for each vent
Fugitive vents (3 vents)		11.1 pounds per hour for each vent
Final extraction vent (1 vent)		15.5 pounds per hour

- b. **Operational restrictions:** To ensure compliance with the limits in Section 2.2 A.3.a, above, the following operational restrictions shall apply:
  - i. No operational restrictions apply for emissions of hexane isomers other than n-hexane from the sources listed in Section 2.2 A.3.a, above.
  - ii. The concentration of n-hexane in the extraction solvent(s) utilized at the facility shall not exceed 20 percent, by weight.
- c. **Monitoring:** To ensure compliance with the limits in Section 2.2 A.3.a, above, the Permittee shall monitor the n-hexane content (in weight percent) of each incoming delivery of extraction solvent. If each delivery of extraction solvent contains less than or equal to 20 percent (by weight) n-hexane, then compliance is demonstrated.
- d. **Recordkeeping:** The results of the monitoring shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The monitoring results shall be added to the log within one month after the associated extraction solvent delivery. The log shall record the following:

- i. The date and time of each extraction solvent delivery;
  - ii. The n-hexane content (in weight percent) of each extraction solvent delivery; and
  - iii. The results of any calculations of the weighted average of the extraction solvents stored on-site.
- e. **Reporting:** within 30 days after each calendar year quarter a summary of the monitoring and recordkeeping shall be reported to the Regional Supervisor, DAQ. All instances of deviations from the requirements of this permit must be clearly identified.

#### 4. 15A NCAC 2D .1111 MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

**Applicability** [15A NCAC 2D .1111 and 40 CFR §63.2832]

- a. The Permittee owns and operates an affected source as defined below in Section 2.2 A.4.b of this permit. Therefore, the Permittee shall comply with the applicable requirements of 15A NCAC 2D .1111 “Maximum Achievable Control Technology” and 40 CFR Part 63, Subparts GGGG “National Emission Standards for Hazardous Air Pollutant: Solvent Extraction for Vegetable Oil Production” and A “General Provisions.” The Permittee has a compliance date of October 13, 2009 for 40 CFR Part 63, Subpart GGGG.

**Definitions and Nomenclature** [40 CFR §63.2872]

- b. For the purpose of this permit condition, the definitions and nomenclature cited in 40 CFR §63.2872 shall apply. Some of the definitions and nomenclature cited in 40 CFR §63.2872 are reproduced below for ease of reference, after modification to make them site-specific, if applicable:

*Accounting month* means a time interval defined by a business firm during which corporate economic and financial factors are determined on a consistent and regular basis. An accounting month will consist of approximately 4 to 5 calendar weeks and each accounting month will be of approximate equal duration. An accounting month may not correspond exactly to a calendar month, but 12 accounting months will correspond exactly to a calendar year.

*Actual solvent loss* means the gallons of solvent lost from an affected source during 12 operating months as determined in accordance with Section 2.2 A.4.f.ii(A) of this permit.

*Affected source* means a vegetable oil production process, as defined below in Section 2.2 A.4.b, at this facility that processes a listed oilseed, as defined below in Section 2.2 A.4.b.

*As received* is the basis upon which all soybean measurements must be determined and refers to the soybean chemical and physical characteristics as initially received at the facility and prior to any handling and processing.

*Compliance date* means the date on which monthly compliance recordkeeping begins.

*Compliance ratio* means a ratio of the actual HAP loss during the previous 12 operating months to the allowable HAP loss as determined in accordance with Section 2.2 A.4.f.ii(D) of this permit. Time periods during which no soybean is processed or during which the affected sources operate in an initial startup period or in a malfunction period, as described below in Section 2.2 A.4.b, are excluded from this calculation.

*Conventional desolventizer* means a desolventizer toaster that operates with indirect and direct-contact steam to remove solvent from the extracted meal. Oilseeds processed in a conventional desolventizer produce crude vegetable oil and crude meal products, such as animal feed.

*Exempt period* means a period of time during which a source only processes agricultural products that are not listed as an oilseed at 40 CFR §63.2832(a)(2) and below in Section 2.2 A.4.b. The listed oilseeds include corn germ, cottonseed, flax, peanut, rapeseed, safflower, soybean, and sunflower.

*Extraction solvent* means an organic chemical medium used to remove oil from an oilseed. Typically, the extraction solvent is a commercial grade of hexane isomers which have an approximate HAP content of 64 percent by volume.

*Hazardous air pollutant (HAP)* means any substance or mixture of substances listed as a hazardous air pollutant under section 112(b) of the Clean Air Act, as of April 12, 2001.

*Initial startup date* means the first calendar day that a new, reconstructed or significantly modified source processes any listed oilseed.

*Initial startup period* means a period of time from the initial startup date of a new, reconstructed or significantly modified source, for which the Permittee chooses to operate the source under an initial startup period subject to

the compliance requirements in Section 2.2 A.4.d.iii(B) or iv(B) of this permit. The initial startup period following initial startup of a new or reconstructed source may not exceed 6 calendar months. The initial startup period following a significant modification may not exceed 3 calendar months. During an initial startup period, a source complies with the standards of 15A NCAC 2D .1111 and 40 CFR Part 63, Subpart GGGG by minimizing HAP emissions to the extent practical. Therefore, extraction solvent and oilseed inventory information recorded during the initial startup period is excluded from use in any compliance ratio determinations.

*Listed oilseed* means an oilseed listed at 40 CFR §63.2832(a)(2). The listed oilseeds include corn germ, cottonseed, flax, peanut, rapeseed, safflower, soybean, and sunflower.

*Malfunction* means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

*Malfunction period* means a period of time between the beginning and end of a process malfunction and the time reasonably necessary for a source to correct the malfunction for which the Permittee chooses to operate the source under a malfunction period subject to the compliance requirements in Section 2.2 A.4.d.v(B) of this permit. This period may include the duration of an unscheduled process shutdown, continued operation during a malfunction, or the subsequent process startup after a shutdown resulting from a malfunction. During a malfunction period, a source complies with the standards of 15A NCAC 2D .1111 and 40 CFR Part 63, Subpart GGGG by minimizing HAP emissions to the extent practical. Therefore, extraction solvent and oilseed inventory information recorded during a malfunction period is excluded from use in any compliance ratio determinations.

*Nonoperating period* means any period of time in which a source processes no agricultural product. This operating status does not apply during any period in which the source operates under an initial startup period or under a malfunction period as described above in Section 2.2 A.4.b.

*Normal operating period* means any period of time in which a source processes a listed oilseed that is not categorized as an initial startup period or a malfunction period as described above in Section 2.2 A.4.b. At the beginning and ending dates of a normal operating period, solvent and oilseed inventory information is recorded and included in the compliance ratio determination.

*Oilseed solvent loss factor* means a ratio expressed as gallons of solvent loss per ton of oilseed processed. The solvent loss factors are presented in Table 1 of 40 CFR §63.2840 and are used to determine the allowable HAP loss. The oilseed solvent loss factor for soybean processing facilities is 0.2 gallons per ton.

*Operating month* means any calendar or accounting month in which a source processes any quantity of listed oilseed, excluding any entire calendar or accounting month in which the source operated under an initial startup period or a malfunction period as described above in Section 2.2 A.4.b. An operating month may include time intervals characterized by several types of operating status. However, an operating month must have at least one normal operating period.

*Reconstruction* means the replacement of components of an affected or a previously nonaffected source to such an extent that the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and it is technologically and economically feasible for the reconstructed source to meet the relevant standards in 40 CFR Part 63, Subpart GGGG.

*Significant modification* means the addition of new equipment or the modification of existing equipment that significantly affects solvent losses from a vegetable oil production process. Examples of significant modifications include replacement of or major changes to solvent recovery equipment such as extractors, desolventizer-toasters/dryer-coolers, flash desolventizers, and distillation equipment associated with the mineral oil system, and equipment affecting desolventizing efficiency and steady-state operation of a vegetable oil production process such as flaking mills, oilseed heating and conditioning equipment, and cracking mills. The fixed capital cost of new components in a significant modification would be a significant percentage of the fixed capital cost of building a comparable new vegetable oil production process but would not constitute reconstruction as defined above in Section 2.2 A.4.b.

*Solvent extraction* means the removal of vegetable oil from a listed oilseed using an organic extraction solvent in a direct-contact system.

*Solvent working capacity* means the volume of extraction solvent normally retained in solvent recovery equipment. Examples include components such as the solvent extractor, desolventizer-toaster, solvent storage and working tanks, mineral oil absorption system, condensers, and oil/solvent distillation system.

*Specialty desolventizer* means a desolventizer that removes excess solvent from soybean meal using vacuum conditions, energy from superheated solvent vapors, or reduced operating conditions (e.g., temperature) as compared to the typical operation of a conventional desolventizer. Soybeans processed in a specialty desolventizer result in high-protein vegetable meal products for human and animal consumption, such as calf milk replacement products and meat extender products.

*Vegetable oil production process* means the equipment comprising a continuous process for producing crude vegetable oil and meal products, including specialty soybean products, in which oil is removed from listed oilseeds through direct contact with an organic solvent. Process equipment typically includes the following components: oilseed preparation operations (including conditioning, drying, dehulling, and cracking); solvent extractors; desolventizer-toasters; meal dryers, coolers, and/or conveyor systems; oil distillation units; solvent evaporators, condensers, and/or recovery system (also referred to as a mineral oil absorption system); vessels storing solvent-laden materials; and crude meal packaging and storage vessels. A vegetable oil production process does not include vegetable oil refining operations (including operations such as bleaching, hydrogenation, and deodorizing) and operations that engage in additional chemical treatment of crude soybean meals produced in specialty desolventizer units (including operations such as soybean isolate production).

**Emission Requirements** [15A NCAC 2Q .0508(f) and 40 CFR §2840]

- c. To assure compliance with 15A NCAC 2D .1111 and 40 CFR Part 63, Subpart GGGG, the Permittee must comply with the emission requirements of either Section 2.2 A.4.c.i **OR** Section 2.2 A.4.c.ii of this permit. The Permittee may change compliance options for a source if the Permittee submits a notice to the DAQ Regional Supervisor at least 60 days prior to changing compliance options. If a source changes from the low-HAP solvent option to the compliance ratio determination option, the Permittee must determine the compliance ratio for the most recent 12 operating months beginning with the first month after changing compliance options.
- i. **Compliance Ratio option.** For all vegetable oil production processes subject to 15A NCAC 2D .1111 and 40 CFR Part 63, Subpart GGGG, once the affected source has processed soybeans for 12 operating months, the Permittee must demonstrate compliance with the compliance ratio, as determined in accordance with Section 2.2 A.4.f.ii(D) of this permit. For each operating month, the Permittee must calculate the compliance ratio by the end of each calendar month following an operating month. If the value of the compliance ratio for this facility is less than or equal to 1.00, the Permittee was in compliance with the emission requirements for the previous operating month. If the value of the compliance ratio is greater than 1.00, the source is deviating from compliance with the emission requirements for the previous operating month.
  - ii. **Low-HAP solvent option.** For all vegetable oil production processes subject to 15A NCAC 2D .1111 and 40 CFR Part 63, Subpart GGGG, the Permittee must exclusively use solvent where the volume fraction of each HAP comprises 1 percent or less by volume of the solvent (low-HAP solvent) in each delivery, and meet the requirements in Sections 2.2 A.4.c.ii(A) through (D) of this permit. The vegetable oil production processes are not subject to any requirements of Section 2.2 A.4 of this permit or 40 CFR §§63.2850 through 63.2870 except as specifically referenced in Sections 2.2 A.4.c.ii(A) through (D).
    - (A) The Permittee shall determine the HAP content of each delivery of solvent in accordance with the specifications in Section 2.2 A.4.f.i(D)(2) of this permit.
    - (B) The Permittee shall maintain documentation of the HAP content determination for each delivery of the solvent at the facility at all times.
    - (C) The Permittee must submit an initial notification for new and reconstructed sources in accordance with Section 2.2 A.4.e.i of this permit.
    - (D) The Permittee must submit an annual compliance certification in accordance with Section 2.2 A.4.e.iii of this permit. The certification should only include the information required under Sections 2.2 A.4.e.iii(A) and (B) of this permit and a certification indicating whether the source complied with all of the requirements in Section 2.2 A.4.c.ii of this permit.
  - iii. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 and 40 CFR Part 63, Subpart GGGG if the requirements of Section 2.2 A.4.c.i **OR** Section 2.2 A.4.c.ii of this permit are not met or if the compliance ratio for this facility is greater than 1.00.

**Compliance Requirements** [15A NCAC 2Q .0508(f) and 40 CFR §§63.2850, .2851, and .2852]

d. For any source using the method of Section 2.2 A.4.c.i of this permit to comply with 15A NCAC 2D .1111 and 40 CFR Part 63, Subpart GGGG, the Permittee shall comply with the requirements of Sections 2.2 A.4.d.i through v of this permit, as applicable. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 and 40 CFR Part 63, Subpart GGGG if the Permittee does not comply with the applicable requirements of Sections 2.2 A.4.d.i through v of this permit.

i. General requirements. The Permittee shall:

(A) Develop and implement a written plan for demonstrating compliance (Compliance Plan) that provides the detailed procedures that the Permittee shall follow to monitor, record and report data necessary for demonstrating compliance with 40 CFR Part 63, Subpart GGGG. The Compliance Plan is incorporated into this Title V permit by reference and shall include:

- (1) The name and address of the owner or operator.
- (2) The physical address of the vegetable oil production process.
- (3) A detailed description of all methods of measurement the Permittee will use to determine the solvent losses, HAP content of solvent, and the tons of soybean processed.
- (4) When each measurement will be made.
- (5) Examples of each calculation the Permittee will use to determine the compliance status. Include examples of how data measured with one parameter will be converted to other terms for use in compliance determination.
- (6) Example logs of how data will be recorded.
- (7) A plan to ensure that the data continue to meet compliance demonstration needs.

The DAQ Regional Supervisor may require the Permittee to make reasonable revisions to the Compliance Plan if the procedures contained therein lack detail; are inconsistent; or do not accurately determine solvent loss, HAP content of the solvent, or the tons of soybean processed. The Permittee shall maintain the Compliance Plan on-site and readily available for inspection by authorized personnel as long as the associated sources are operational.

(B) Develop a written startup, shutdown and malfunction (SSM) plan for this facility in accordance with 40 CFR §63.6(e)(3). The Permittee must maintain the SSM Plan on-site and readily available for inspection by authorized personnel as long as the associated sources are operational. The SSM Plan shall:

- (1) Provide the detailed procedures for operating and maintaining the affected sources to minimize emissions during a qualifying SSM event for which the Permittee chooses to follow the compliance requirements for a malfunction period in accordance with Section 2.2 A.4.d.v(B) of this permit, or chooses to follow the compliance requirements for an initial startup period in accordance with Section 2.2 A.4.d.iii(B) or iv(B) of this permit.
- (2) 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.

(C) Comply with the applicable notification requirements found in Section 2.2 A.4.e of this permit.

(D) Comply with the applicable monitoring requirements found in Section 2.2 A.4.f of this permit.

(E) Comply with the applicable recordkeeping requirements found in Section 2.2 A.4.g of this permit.

(F) Comply with the applicable reporting requirements found in Section 2.2 A.4.h of this permit.

(G) Comply with the notification, reporting, and recordkeeping requirements of 40 CFR Part 63, Subpart A "General Provisions" for performance testing if a control device that destroys solvent is added.

ii. For **existing sources under normal operation**, the Permittee must meet all applicable requirements listed in Section 2.2 A.4.d.i of this permit and Table 1 in Section 2.2 A.4.i of this permit for sources under normal operation, and the schedules for demonstrating compliance for existing sources under normal operation listed in Table 2 in Section 2.2 A.4.i of this permit.

- iii. For **new sources, including a source that is categorized as new due to reconstruction**, the Permittee must meet the requirements of Section 2.2 A.4.d.iii(A) or (B) of this permit. The Permittee must choose which compliance option to utilize within 15 days of the startup date.
- (A) **Normal operation.** Upon startup of a new source, the Permittee must meet all of the requirements listed in Section 2.2 A.4.d.i of this permit and Table 1 in Section 2.2 A.4.i of this permit for sources under normal operation, and the schedules for demonstrating compliance for new sources under normal operation in Table 2 in Section 2.2 A.4.i of this permit.
- (B) **Initial startup period.** For up to 6 calendar months after the startup date of a new source, the Permittee must meet all of the requirements listed in Section 2.2 A.4.d.i of this permit and Table 1 in Section 2.2 A.4.i of this permit for sources operating under an initial startup period, and the schedules for demonstrating compliance for new sources operating under an initial startup period in Table 2 in Section 2.2 A.4.i of this permit. After a maximum of 6 calendar months, the new source must then meet all of the requirements listed in Table 1 in Section 2.2 A.4.i of this permit for sources under normal operation.
- iv. For **existing or new sources that have been significantly modified**, the Permittee must meet the requirements of Section 2.2 A.4.d.iv(A) or (B) of this permit. The Permittee must choose which compliance option to utilize within 15 days of the startup date.
- (A) **Normal operation.** Upon startup of a significantly modified existing or new source, the Permittee must meet all of the requirements listed in Section 2.2 A.4.d.i of this permit and Table 1 in Section 2.2 A.4.i of this permit for sources under normal operation, and the schedules for demonstrating compliance for an existing or new source that has been significantly modified in Table 2 in Section 2.2 A.4.i of this permit.
- (B) **Initial startup period.** For up to 3 calendar months after the startup date of a significantly modified existing or new source, the Permittee must meet all of the requirements listed in Section 2.2 A.4.d.i of this permit and Table 1 in Section 2.2 A.4.i of this permit for sources operating under an initial startup period, and the schedules for demonstrating compliance for a significantly modified existing or new source operating under an initial startup period in Table 2 in Section 2.2 A.4.i of this permit. After a maximum of 3 calendar months, the new or existing source must meet all of the requirements listed in Table 1 in Section 2.2 A.4.i of this permit for sources operating under normal operation.
- v. For **existing or new sources experiencing a malfunction**, the Permittee must meet the requirements of Section 2.2 A.4.d.v(A) or (B) of this permit. The Permittee must choose which compliance option to utilize within 15 days of the beginning date of the malfunction.

The compliance option in Section 2.2 A.4.d.v(B) only applies if the source experiences an unscheduled shutdown as a result of the malfunction, continues to operate during the malfunction (including the period reasonably necessary to correct the malfunction), or starts up after a shutdown resulting from the malfunction. Routine or scheduled process startups and shutdowns resulting from, but not limited to, market demands, maintenance activities, and switching types of oilseed processed, are not startups or shutdowns resulting from a malfunction and, therefore, do not qualify for this provision.

- (A) **Normal operation.** The source must meet all of the requirements listed in Section 2.2 A.4.d.i of this permit and one of the following options:
- (1) Existing source normal operation requirements in Section 2.2 A.4.d.ii of this permit.
  - (2) New source normal operation requirements in Section 2.2 A.4.d.iii(A) of this permit.
  - (3) Normal operation requirements for sources that have been significantly modified in Section 2.2 A.4.d.iv(A) of this permit.
- (B) **Malfunction period.** Throughout the malfunction period, the Permittee must meet all of the requirements listed in Section 2.2 A.4.d.i of this permit and Table 1 in Section 2.2 A.4.i of this permit for sources operating during a malfunction period. At the end of the malfunction period, the source must then meet all of the requirements listed in Table 1 in Section 2.2 A.4.i of this permit for sources under normal operation.

**Notification Requirements** [15A NCAC 2Q .0508(f) and 40 CFR §63.2860]

- e. For any source using the method of Section 2.2 A.4.c.i of this permit to comply with 15A NCAC 2D .1111 and 40 CFR Part 63, Subpart GGGG, the Permittee shall comply with the applicable notification requirements of Sections 2.2 A.4.e.i through iii of this permit. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111

and 40 CFR Part 63, Subpart GGGG if the Permittee does not comply with the applicable requirements of Sections 2.2 A.4.e.i through iii of this permit.

- i. For **new and reconstructed sources**: The Permittee must submit a series of notifications to the DAQ Regional Supervisor for new or reconstructed sources before, during, and after source construction per the schedule listed in 40 CFR §63.9. The information requirements for the notifications are the same as those listed in 40 CFR Part 63, Subpart A “General Provisions” with the following exceptions:
  - (A) The initial notification (application for approval of construction) does not require the specific HAP emission data required in 40 CFR §§63.5(d)(1)(ii)(H) and (iii), (d)(2) and (d)(3)(ii). The application for approval of construction would include, instead, a brief description of the source including the nominal operating capacity, and type of desolventizer(s) used.
  - (B) The notification of actual startup date must also include whether the Permittee has elected to operate under an initial startup period subject to Section 2.2 A.4.d.iii(B) of this permit, above, and provide an estimate and justification for the anticipated duration of the initial startup period.
- ii. For **significant modifications to existing or new sources**: The Permittee must submit two notifications to the DAQ Regional Supervisor for significant modifications to existing or new sources, including:
  - (A) Initial notification. The Permittee must submit an initial notification to the DAQ Regional Supervisor at least 30 days prior to initial startup of the significantly modified source. The initial notification must demonstrate that the proposed changes qualify as a significant modification. The initial notification must include the following items:
    - (1) The expected startup date of the modified source.
    - (2) A description of the significant modification including a list of the equipment that will be replaced or modified. If the significant modification involves changes other than adding or replacing extractors, desolventizer toasters, and meal dryer-coolers, then the Permittee must also include the fixed capital cost of the new components, expressed as a percentage of the fixed capital cost to build a comparable new vegetable oil production process; supporting documentation for the cost estimate; and documentation that the proposed changes will significantly affect solvent losses.
  - (B) Notification of actual startup. The Permittee must submit a notification of actual startup date within 15 days after initial startup of the modified source. The notification must include the following items:
    - (1) The initial startup date of the modified source.
    - (2) An indication whether the Permittee has elected to operate under an initial startup period subject to the requirements of Section 2.2 A.4.d.iv(B) of this permit, above.
    - (3) The anticipated duration of any initial startup period.
    - (4) A justification for the anticipated duration of any initial startup period.
- iii. For any **existing, new, or reconstructed source**: The Permittee must submit a notification of compliance status to the DAQ Regional Supervisor for any existing, new, or reconstructed source, no later than 60 days after determining the associated initial 12 operating months compliance ratio.

For an existing source, this is generally no later than 50 calendar months after the effective date of 40 CFR Part 63, Subpart GGGG for this facility (36 calendar months for compliance, 12 operating months to record data, and 2 calendar months to complete the report). For a new or reconstructed source, this is generally no later than 20 calendar months after initial startup of the new or reconstructed source (6 calendar months for the initial startup period, 12 operating months to record data, and 2 calendar months to complete the report). The notification of compliance status must contain the following items:

  - (A) The name and address of the owner or operator.
  - (B) The physical address of the vegetable oil production process.
  - (C) Each listed oilseed type processed during the previous 12 operating months.
  - (D) Each HAP identified as being present in concentrations greater than 1 percent by volume in each delivery of solvent received during the 12 operating months period used for the initial compliance determination in accordance with Section 2.2 A.4.f.i(D)(2) of this permit, below.

- (E) A statement designating the source as a major source of HAP or a demonstration that the source qualifies as an area source.
- (F) A compliance certification indicating whether the source complied with all of the applicable requirements of Section 2.2 A.4 of this permit and 40 CFR Part 63, Subpart GGGG throughout the 12 operating months used for the initial source compliance determination. This certification must include a certification of the following items:
  - (1) Whether the Compliance Plan (as described in Section 2.2 A.4.d.i(A) of this permit) and SSM plan (as described in Section 2.2 A.4.d.i(B) of this permit) are complete and available on-site for inspection by authorized personnel.
  - (2) Whether the Permittee is following the procedures described in the Compliance Plan.
  - (3) Whether the compliance ratio is less than or equal to 1.00.

**Monitoring Requirements** [15A NCAC 2Q .0508(f) and 40 CFR §63.2862]

- f. For any source using the method of Section 2.2 A.4.c.i of this permit to comply with 15A NCAC 2D .1111 and 40 CFR Part 63, Subpart GGGG, the Permittee shall comply with the applicable monitoring requirements of Sections 2.2 A.4.f.i and ii of this permit. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 and 40 CFR Part 63, Subpart GGGG if the Permittee does not comply with the applicable requirements of Sections 2.2 A.4.f.i and ii of this permit.
  - i. For any period after the compliance date during which this facility processes any soybeans, by the end of each calendar month following an operating month the Permittee must monitor the following:
    - (A) The dates that define each operating status period of the affected source during a calendar month including the beginning date of each calendar month and the date of any change in the source operating status. If a source maintains the same operating status during an entire calendar month, these dates are the beginning and ending dates of the calendar month.
    - (B) The operating status of the affected source (e.g. a normal operation period, a nonoperating period, an initial startup period, a malfunction period, or an exempt period) for each recorded time interval. Each operating status is described in Section 2.2 A.4.f.i(B)(1) through (5) of this permit.
      - (1) If during a recorded time interval an affected source processes any amount of listed oilseed, as defined in Section 2.2 A.4.b of this permit, and the source is not operating under an initial startup operating period subject to the compliance requirements of Section 2.2 A.4.d.iii(B) or iv(B) or operating under a malfunction period subject to the compliance requirements of Section 2.2 A.4.d.v(B), then the operating status of that source is a **normal operating period**.
      - (2) If during a recorded time interval an affected source does not process any amount of listed oilseed, as defined in Section 2.2 A.4.b of this permit, and the source is not operating under an initial startup operating period subject to the compliance requirements of Section 2.2 A.4.d.iii(B) or iv(B) or operating under a malfunction period subject to the compliance requirements of Section 2.2 A.4.d.v(B), then the operating status of that source is a **nonoperating period**.
      - (3) If during a recorded time interval the Permittee chooses to operate an affected source under an initial startup operating period subject to the compliance requirements of Section 2.2 A.4.d.iii(B) or iv(B), then the operating status of that source is a **initial startup period**.
      - (4) If during a recorded time interval the Permittee chooses to operate an affected source under a malfunction period subject to the compliance requirements of Section 2.2 A.4.d.v(B), then the operating status of that source is a **malfunction period**.
      - (5) If during a recorded time interval a source processes only agricultural products that are not defined as a listed oilseed in Section 2.2 A.4.b of this permit, then the operating status of that source is an **exempt period**.
    - (C) The extraction solvent inventory of this facility in accordance with the procedures described in the Compliance Plan, including:
      - (1) The gallons of extraction solvent in the inventory on the beginning and ending dates of each normal operating period.

- (2) The gallons of all extraction solvent received [i.e. purchased or recovered from vegetable oil brought to the facility from an offsite source] in each shipment during each calendar month.
- (3) All extraction solvent inventory adjustments, additions or subtractions. The Permittee must document the reason for the adjustment and justify the quantity of the adjustment. Valid reasons for extraction solvent inventory adjustment include, but are not limited to:
  - (a) Extraction solvent destroyed in a control device such as a catalytic incinerator, boiler, or flare.
  - (b) Changes in extraction solvent working capacity, as defined in Section 2.2 A.4.b, resulting from process modifications.
- (4) The total solvent loss for each calendar month, regardless of the source operating status.
- (5) The actual solvent loss in gallons for each operating month (MASL), determined as follows:

$$\text{Monthly Actual Solvent Loss (gallons)} = \text{MASL} = \sum_{i=1}^n (\text{SOLV}_B - \text{SOLV}_E + \text{SOLV}_R \pm \text{SOLV}_A)_i$$

Where:  $\text{SOLV}_B$  = Gallons of extraction solvent in the inventory at the beginning of normal operating period “i” as determined in Section 2.2 A.4.f.i(C)(1) of this permit.

$\text{SOLV}_E$  = Gallons of extraction solvent in the inventory at the end of normal operating period “i” as determined in Section 2.2 A.4.f.i(C)(1) of this permit.

$\text{SOLV}_R$  = Gallons of extraction solvent received between the beginning and ending inventory dates of normal operating period “i” as determined in Section 2.2 A.4.f.i(C)(2) of this permit.

$\text{SOLV}_A$  = Gallons of extraction solvent added or removed from the extraction solvent inventory, as determined in Section 2.2 A.4.f.i(C)(3) of this permit, during normal operating period “i”.

$n$  = Number of normal operating periods in the operating month.

- (D) The weighted average volume fraction of HAP in the extraction solvent in accordance with the procedures described in the Compliance Plan, including:

- (1) The gallons of extraction solvent received [i.e. purchased or recovered from vegetable oil brought to the facility from an offsite source] in each delivery.
- (2) The volume fraction of each HAP exceeding 1 percent by volume in each delivery of extraction solvent, as determined via Method 311 found in appendix A of 40 CFR Part 63, an approved alternative method, or any other reasonable means of determining HAP content (e.g. material safety data sheets or a legal and binding certificate of analysis provided by the solvent provider).

The Permittee is not required to perform testing to determine HAP content of extraction solvent received unless requested by DAQ. If testing is required, and the test results differ from those obtained by other means, the test results shall govern any resulting compliance determinations.

- (3) The weighted average volume fraction of HAP in the extraction solvent received [i.e. purchased or recovered from vegetable oil brought to the facility from an offsite source] since the end of the last operating month, determined as follows:

$$\text{Monthly weighted average HAP content of extraction solvent (volume fraction)} = \frac{\sum_{i=1}^n [\text{Received}_i \times \text{Content}_i]}{\text{Total Received}}$$

Where:  $\text{Received}_i$  = Gallons of extraction solvent received in delivery “i” as determined in Section 2.2 A.4.f.i(D)(1) of this permit.

$\text{Content}_i$  = The volume fraction of HAP in extraction solvent delivery “i” as determined in Section 2.2 A.4.f.i(D)(2) of this permit.

$\text{Total Received}$  = Total gallons of extraction solvent received [i.e. purchased or recovered from vegetable oil brought to the facility from an offsite source] since the end of the previous operating month.

n = Number of extraction solvent deliveries since the end of the previous operating month.

(E) The listed oilseed (i.e. soybean) inventory of this facility in accordance with the procedures described in the Compliance Plan, including:

- (1) The soybean inventory on the beginning and ending dates of each normal operating period.
- (2) The tons of soybean received in each shipment.
- (3) All soybean inventory adjustments, additions or subtractions. The Permittee must document the reason for the adjustment and justify the quantity of the adjustment. Valid reasons for soybean inventory adjustment include, but are not limited to:
  - (a) Soybeans that mold or otherwise become unsuitable for processing (e.g. due to process malfunction, fire, or natural disaster).
  - (b) Soybeans that are sold and removed from the facility prior to processing or after processing through operations prior to solvent extraction (e.g. screening, dehulling, cracking, drying, and conditioning) but prior to processing through the solvent extraction operation.
  - (c) Periodic physical measurements of inventory that results in a small (typically less than 1 percent) inventory correction.
- (4) The tons of soybean processed within each operating month (MSP), determined as follows:

$$\text{Monthly quantity of soybean processed (tons)} = MSP = \sum_{i=1}^n [SEED_B - SEED_E + SEED_R \pm SEED_A]_i$$

Where: SEED<sub>B</sub> = Tons of soybean in the inventory at the beginning of normal operating period “i” as determined in accordance with Section 2.2 A.4.f.i(E)(1) of this permit.

SEED<sub>E</sub> = Tons of soybean in the inventory at the end of normal operating period “i” as determined in accordance with Section 2.2 A.4.f.i(E)(1) of this permit.

SEED<sub>R</sub> = Tons of soybean received during normal operating period “i” as determined in accordance with Section 2.2 A.4.f.i(E)(2) of this permit.

SEED<sub>A</sub> = Tons of soybean added or removed from the oilseed inventory during normal operating period “i” as determined in accordance with Section 2.2 A.4.f.i(E)(3) of this permit.

n = Number of normal operating periods in the operating month.

ii. After this facility has processed soybeans for 12 operating months after the compliance date and is not operating during an initial startup period as described in Section 2.2 A.4.d.iii(B) or iv(B) of this permit, above, or a malfunction period as described in Section 2.2 A.4.d.v(B) of this permit, above, the Permittee must perform the following monitoring by the end of each calendar month following an operating month:

(A) The Permittee shall determine the 12 operating months rolling sum of the monthly actual solvent loss in gallons (MASL) in accordance with the procedures described in the Compliance Plan. This 12 operating months rolling sum is calculated as follows:

$$12 \text{ operating months rolling sum of MASL (gallons)} = \sum_{i=1}^{12} MASL_i$$

Where: MASL<sub>i</sub> = The monthly actual solvent loss in gallons (MASL) in operating month “i” calculated in accordance with Section 2.2 A.4.f.i(C)(5) of this permit, above.

(B) The Permittee shall determine the weighted average volume fraction of HAP in extraction solvent received for the previous 12 operating months in accordance with the procedures described in the Compliance Plan and calculated as follows:

$$\text{12-month weighted average of HAP in extraction solvent received (volume fraction)} = f = \frac{\sum_{i=1}^{12} [Received_i \times Content_i]}{Total Received}$$

- Where: Received<sub>i</sub> = Gallons of extraction solvent received [i.e. purchased or recovered from oil brought to the facility from an offsite source] in operating month “i”.
- Content<sub>i</sub> = Average volume fraction of HAP in extraction solvent received [i.e. purchased or recovered from vegetable oil brought to the facility from an offsite source] in operating month “i” as determined in accordance with Section 2.2 A.4.f.i(D)(3) of this permit.
- Total Received = Total gallons of extraction solvent received [i.e. purchased or recovered from vegetable oil brought to the facility from an offsite source] during the previous 12 operating months.

- (C) The Permittee shall determine the 12 operating months rolling sum of the monthly amounts of soybeans processed (MSP) in accordance with the procedures described in the Compliance Plan. This 12 operating months rolling sum is calculated as follows:

$$12 \text{ operating months rolling sum of MSP (tons)} = \sum_{i=1}^{12} MSP_i$$

- Where: MSP<sub>i</sub> = The monthly amounts of soybeans processed (MSP) in operating month “i” calculated in accordance with Section 2.2 A.4.f.i(E)(4) of this permit.

- (D) The Permittee shall determine the compliance ratio for this facility in accordance with Section 2.2 A.4.f.ii(D)(6) of this permit. When calculating the compliance ratio, the Permittee must comply with the conditions and exclusions of Sections 2.2 A.4.f.ii(D)(1) through (6) of this permit.

- (1) If a source processes any quantity of soybeans in a calendar month and the source is not operating under an initial startup period subject to the compliance requirements of Section 2.2 A.4.d.iii(B) or iv(B) of this permit, or under a malfunction period subject to the compliance requirements of Section 2.2 A.4.d.v(B) of this permit, then the Permittee must categorize the month as an operating month, as defined in Section 2.2 A.4.b of this permit.
- (2) The 12-month compliance ratio may include operating months occurring prior to a source shutdown and operating months that follow after the source resumes operation.
- (3) If a source shuts down and processes no soybeans for an entire calendar month, then the month must be categorized as a non-operating month, as defined in Section 2.2 A.4.b of this permit, above. Exclude any non-operating months from the compliance ratio determination.
- (4) If a source is subject to the compliance requirements of Section 2.2 A.4.d.iii(B) or iv(B) of this permit for an initial startup period, exclude from the compliance ratio determination any solvent and oilseed information recorded for the initial startup period.
- (5) If a source is subject to the compliance requirements of Section 2.2 A.4.d.v(B) of this permit for a malfunction period, exclude from the compliance ratio determination any solvent and oilseed information recorded for the malfunction period.
- (6) Compliance Ratio = 
$$\frac{f * \text{Actual Solvent Loss}}{0.64 * [(\text{Soybean}) * (0.2)]}$$

- Where: f = The weighted average volume fraction of HAP in solvent received during the previous 12 operating months, as determined in accordance with Section 2.2 A.4.f.ii(B) of this permit, dimensionless.
- 0.64 = The average volume fraction of HAP in solvent in the baseline performance data, dimensionless.
- Actual Solvent Loss = Gallons of actual solvent loss during the previous 12 operating months, as determined in accordance with Section 2.2 A.4.f.ii(A) of this permit.
- Soybean = Tons of soybeans processed during the previous 12 operating months, as determined in accordance with Section 2.2 A.4.f.ii(C) of this permit.
- 0.2 = The solvent loss factor (gallons per ton) for new or existing conventional soybean processing facilities, as listed in Table 1 of 40 CFR §63.2840.

- (E) The Permittee shall make a determination of whether the affected source is in compliance with all of the requirements of Section 2.2 A.4 of this permit and 40 CFR Part 63, Subpart GGGG.

**Recordkeeping Requirements** [15A NCAC 2Q .0508(f) and 40 CFR §§63.2862 and .2863]

- g. To assure compliance with 15A NCAC 2D .1111 and 40 CFR Part 63, Subpart GGGG, the Permittee shall comply with the applicable recordkeeping requirements of Sections 2.2 A.4.g.i through iii of this permit. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 and 40 CFR Part 63, Subpart GGGG if the Permittee does not comply with the applicable requirements of Sections 2.2 A.4.g.i through iii of this permit.
- i. The Permittee must maintain records of the monitoring performed in accordance with Sections 2.2 A.4.f.i and ii of this permit, in a suitable form and readily available for review by authorized personnel in accordance with 40 CFR §63.10(b)(1). The Permittee must generate records of the monitoring associated with an operating month by the end of the calendar month following that operating month. The Permittee must keep each record for a minimum of 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee must keep each record on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee may keep the records off-site for the remaining 3 years.
- ii. If the Permittee makes any revisions to the Compliance Plan, then the Permittee shall keep all previous versions of the Compliance Plan and make them readily available for inspection by authorized personnel for at least 5 years after each revision.
- iii. For each SSM event subject to the requirements of an initial startup period as described in Section 2.2 A.4.d.iii(B) or iv(B) of this permit or a malfunction period as described in Section 2.2 A.4.d.v(B) of this permit, record the items in Sections 2.2 A.4.g.iii(A) through (C) of this permit, below, by the end of the calendar month following each month in which the initial startup period or malfunction period occurred:
- (A) A description and date of the SSM event, its duration, and reason it qualifies as an initial startup or malfunction.
- (B) An estimate of the solvent loss in gallons for the duration of the initial startup or malfunction period with supporting documentation.
- (C) A checklist or other mechanism to indicate whether the SSM plan was followed during the initial startup or malfunction period.

**Reporting requirements** [15A NCAC 2Q .0508(f) and 40 CFR §63.2861]

- h. To assure compliance with 15A NCAC 2D .1111 and 40 CFR Part 63, Subpart GGGG, the Permittee shall comply with the applicable reporting requirements of Sections 2.2 A.4.h.i through v of this permit. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 and 40 CFR Part 63, Subpart GGGG if the Permittee does not comply with the applicable requirements of Sections 2.2 A.4.h.i through v of this permit.
- i. **Annual compliance certifications.** The Permittee must submit the first annual compliance certification 12 calendar months after submittal of the notification of compliance status. The Permittee must submit each subsequent annual compliance certification 12 calendar months after submittal of the previous annual compliance certification. The annual compliance certification must provide the compliance status for each operating month during the 12 calendar months period ending 60 days prior to the date on which the report is due and include the following information:
- (A) The name and address of the owner or operator.
- (B) The physical address of the vegetable oil production process.
- (C) Each listed oilseed type processed during the 12 calendar months period covered by the report.
- (D) Each HAP identified, in accordance with Section 2.2 A.4.f.i(D)(2) of this permit, as being present in concentrations greater than 1 percent by volume in each delivery of solvent received during the 12 calendar months period covered by the report.
- (E) A statement designating the source as a major source of HAP or a demonstration that the source qualifies as an area source.

- (F) A compliance certification to indicate whether the source was in compliance for each compliance determination made during the 12 calendar months period covered by the report. For each such compliance determination, the Permittee must include a certification of the following items:
- (1) Whether the Permittee is following the procedures described in the Compliance Plan.
  - (2) Whether the compliance ratio is less than or equal to 1.00.
- ii. **Deviation notification report.** The Permittee must submit a deviation report for each compliance determination made in which the compliance ratio exceeds 1.00, as determined in accordance with Section 2.2 A.4.f.ii(D) of this permit, by the end of the month following the calendar month in which the Permittee determined the deviation. The deviation notification report must include the following items:
- (A) The name and address of the owner or operator.
  - (B) The physical address of the vegetable oil production process.
  - (C) Each listed oilseed type processed during the 12 operating months period for which the Permittee determined the deviation.
  - (D) The compliance ratio comprising the deviation. The Permittee may reduce the frequency of submittal of the deviation notification report if the DAQ Regional Supervisor does not object as provided in 40 CFR §63.10(e)(3)(iii).
- iii. **Periodic startup, shutdown, and malfunction report.** If the Permittee chooses to operate a source under an initial startup period subject to the compliance requirements of Section 2.2 A.4.d.iii(B) or iv(B) of this permit or a malfunction period subject to the compliance requirements of Section 2.2 A.4.d.v(B) of this permit, the Permittee must submit a periodic SSM report by the end of the calendar month following each month in which the initial startup period or malfunction period occurred. The periodic SSM report must include:
- (A) The name, title, and signature of the responsible official who is certifying that the report accurately states that all actions taken during the initial startup or malfunction period were consistent with the SSM plan.
  - (B) A description of events occurring during the time period, the date and duration of the events, and reason the time interval qualifies as an initial startup period or malfunction period.
  - (C) An estimate of the solvent loss during the initial startup or malfunction period with supporting documentation.
- iv. **Immediate SSM reports.** If the Permittee handles a SSM during an initial startup period subject to Section 2.2 A.4.d.iii(B) or iv(B) of this permit or a malfunction period subject to Section 2.2 A.4.d.v(B) of this permit differently from procedures in the SSM plan and the relevant emission requirements in Section 2.2 A.4.c of this permit are exceeded, then the Permittee must submit an immediate SSM report to the DAQ Regional Supervisor. Immediate SSM reports consist of a telephone call or facsimile transmission within 2 working days after starting actions inconsistent with the SSM plan, followed by a letter within 7 working days after the end of the event. The letter must include each of the following items:
- (A) The name, title, and signature of the responsible official who is certifying the accuracy of the report, an explanation of the event, and the reasons for not following the SSM plan.
  - (B) A description and date of the SSM event, its duration, and reason it qualifies as a SSM event.
  - (C) An estimate of the solvent loss for the duration of the SSM event with supporting documentation.
- v. **Semiannual summary reports.** The Permittee shall submit a semiannual summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified. In addition, the report shall contain the compliance ratio for each 12 operating months period ending during the reporting period calculated in accordance with Section 2.2 A.4.f.ii(D)(6) of this permit. The first semiannual summary report for this facility is due on or before January 30, 2010.

**Compliance Summary Tables** [15A NCAC 2Q .0508(f) and 40 CFR §§63.2850]

- i. To assure compliance with 15A NCAC 2D .1111 and 40 CFR Part 63, Subpart GGGG, the Permittee shall comply with the applicable requirements in Tables 1 and 2 of 40 CFR §63.2850 (reproduced below for ease of reference) as referenced in Sections 2.2 A.4.d.ii through v of this permit.

**Table 1 of 40 CFR §63.2850 “Requirements for Compliance with HAP Emission Standards”**

<b>Is the Permittee required to?</b>	<b>For periods of normal operation?</b>	<b>For initial startup periods subject to Section 2.2 A.4.d.iii(B) or iv(B) of this permit?</b>	<b>For malfunction periods subject to Section 2.2 A.4.d.v(B) of this permit?</b>
(a) Operate and maintain the source in accordance with the SSM plan as described in Section 2.2 A.4.d.i(B) of this permit?	No, the source is not subject to the SSM plan, but rather to the limits of this emission standard.	Yes, throughout the entire initial startup period.	Yes, throughout the entire malfunction period.
(b) Determine and record the extraction solvent loss from the source?	Yes, as described in Section 2.2 A.4.f.i(C) of this permit.	Yes, as described in Section 2.2 A.4.g.iii of this permit.	Yes, as described in Section 2.2 A.4.g.iii of this permit.
(c) Record the volume fraction of HAP present at greater than 1 percent by volume and gallons of extraction solvent in shipment received?	Yes.	Yes.	Yes.
(d) Determine and record the tons of soybean processed by the source?	Yes, as described in Section 2.2 A.4.f.i(E) of this permit.	No.	No.
(e) Determine the weighted-average volume fraction of HAP in extraction solvent received as described in Section 2.2 A.4.f.i(D) of this permit by the end of the following calendar month?	Yes.	No. Except for solvent received by a new or reconstructed source commencing operation under an initial startup period, the HAP volume fraction in any solvent received during an initial startup period is included in the weighted average HAP determination for the next operating month.	No, the HAP volume fraction in any solvent received during a malfunction period is included in the weighted average HAP determination for the next operating month.
(f) Determine and record the actual solvent loss, weighted average volume fraction HAP, tons of soybean processed and compliance ratio for each 12 month period as described in Section 2.2 A.4.f.ii of this permit by the end of the following calendar month?	Yes.	No, these requirements are not applicable, because the source is not required to determine the compliance ratio with data recorded for an initial startup period.	No, these requirements are not applicable, because the source is not required to determine the compliance ratio for data recorded for a malfunction period.

Is the Permittee required to?	For periods of normal operation?	For initial startup periods subject to Section 2.2 A.4.d.iii(B) or iv(B) of this permit?	For malfunction periods subject to Section 2.2 A.4.d.v(B) of this permit?
(g) Submit a Notification of Compliance Status or Annual Compliance Certification as appropriate?	Yes, as described in Sections 2.2 A.4.e.iii and 2.2 A.4.h.i, respectively, of this permit.	No. However, the Permittee may be required to submit an annual compliance certification for previous operating months, if the deadline for the annual compliance certification happens to occur during an initial startup period.	No. However, the Permittee may be required to submit an annual compliance certification for previous operating months, if the deadline for the annual compliance certification happens to occur during a malfunction period.
(h) Submit a Deviation Notification Report by the end of the calendar month following the month in which the Permittee determined that the compliance ratio exceeds 1.00 as described in Section 2.2 A.4.h.ii of this permit?	Yes.	No, these requirements are not applicable because the source is not required to determine the compliance ratio with data recorded for an initial startup period.	No, these requirements are not applicable because the source is not required to determine the compliance ratio with data recorded for a malfunction period.
(i) Submit a periodic SSM Report as described in Section 2.2 A.4.h.iii of this permit?	No, a SSM activity is not categorized as normal operation.	Yes.	Yes.
(j) Submit an immediate SSM Report as described in Section 2.2 A.4.h.iv of this permit?	No, a SSM activity is not categorized as normal operation.	Yes, only if the source does not follow the SSM plan.	Yes, only if the source does not follow the SSM plan.

**Table 2 of 40 CFR §63.2850 “Schedules for Demonstrating Compliance Under Various Source Operating Modes”**

If the source is...	And operating under...	Then the record keeping schedule...	The compliance ratio must be determined by the end of the calendar month following...	Base the first compliance ratio on information recorded...
(a) Existing	Normal operation	Begins on the compliance date.	The first 12 months after the compliance date.	During the first 12 operating months after the compliance date.
(b) New	(1) Normal operation	Begins on the startup date of the new source.	The first 12 operating months after the startup date of the new source.	During the first 12 operating months after the startup date of the new source.
	(2) An initial startup period	Begins on the startup date of the new source.	The first 12 operating months after termination of the initial startup period, which can last for up to 6 months.	During the first 12 operating months after the initial startup period, which can last for up to 6 months.

If the source is...	And operating under...	Then the record keeping schedule...	The compliance ratio must be determined by the end of the calendar month following...	Base the first compliance ratio on information recorded...
(c) New or existing that has been significantly modified	(1) Normal operation	Resumes on the startup date of the modified source.	The first operating month after the startup date of the modified source.	During the previous 11 operating months prior to the significant modification and the first operating month following the initial startup date of the source.
	(2) An initial startup period	Resumes on the startup date of the modified source.	The first operating month after termination of the initial startup period, which can last up to 3 months.	During the 11 operating months before the significant modification and the first operating month after the initial startup period.

PROPOSED

**STATE-ENFORCEABLE ONLY**

**5. 15A NCAC 2D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS**

- a. The Permittee shall not operate the facility without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility’s boundary.

**6. 15A NCAC 2Q .0317: AVOIDANCE CONDITIONS to avoid  
15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. In order to avoid applicability of 15A NCAC 2D .0530(g) for major sources and major modifications, the facility shall discharge into the atmosphere less than 656 tons of total volatile organic compounds (VOC) from the use of VOC-containing materials [other than the fuels fired in the boilers (ID Nos. ES-17 and ES-26) or emergency water pumps (ID Nos. ES-P1 and ES-P2)] per 12-consecutive month period. [15A NCAC 2D .0530]

**Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f)]

- b. Each month the Permittee must calculate the VOC emissions for the previous month and for the 12-consecutive month period ending with the previous month from the facility-wide use of VOC-containing materials [other than the fuels fired in the boilers (ID Nos. ES-17 and ES-26) or emergency water pumps (ID Nos. ES-P1 and ES-P2)]. VOC emissions shall be determined by multiplying the total amount of each type of VOC-containing material consumed by the VOC content of the material.
- c. The Permittee shall keep records of the calculations required under Sections 2.2 A.6.b, above, in a log (written or in electronic format) maintained on site and made available to an authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if this monitoring and recordkeeping is not performed or if the VOC emissions exceed the limit in Section 2.2 A.6.a, above.

**Reporting** [15A NCAC 2Q .0508(f)]

- d. The Permittee shall submit a semiannual summary report of monitoring and recordkeeping activities within 30 days after each six month period, due and postmarked on or before January 30 of each calendar year for the preceding six-month period and July 30 of each calendar year for the preceding six-month period. All instances of deviations from the requirements of this permit must be clearly identified. In addition, the report shall contain the monthly VOC emissions for each of the previous 17 months and the total VOC emissions for each of the 12-consecutive month periods ending during the reporting period.

PROPOSED

**STATE-ENFORCEABLE ONLY**

**7. 15A NCAC 2Q .0705: EXISTING FACILITIES AND SIC CALLS**

- a. As of **December 15, 2009** the Permittee has demonstrated on a facility-wide basis that emissions of toxic air pollutants (TAPs) emitted from all sources at the facility (excluding those sources exempt pursuant to 15A NCAC 2Q .0702 "Exemptions") are either below the associated TAP permitting emission rates (TPER) listed in 15A NCAC 2Q .0711 - "Emission Rates Requiring a Permit" or are in compliance with 15A NCAC 2D .1100 "Control of Toxic Air Pollutants" as described in Section 2.2 A.3 of this permit, above.
- b. The facility shall be operated and maintained in such a manner that any new, existing or increased actual emissions of any TAP listed in 15A NCAC 2Q .0711 or in this permit from all sources at the facility (excluding those sources exempt under 15A NCAC 2Q .0702 "Exemptions"), including fugitive emissions and emission sources not otherwise required to have a permit, will not exceed its respective TPER listed in 15A NCAC 2Q .0711 without first obtaining an air permit to construct or operate.
- c. PRIOR to exceeding any of the TPERs listed in 15A NCAC 2Q .0711, the Permittee shall be responsible for obtaining an air quality permit to emit TAPs and for demonstrating compliance with the requirements of 15A NCAC 2D .1100 "Control of Toxic Air Pollutants".
- d. The Permittee shall maintain at the facility records of operational information sufficient for demonstrating to the Division of Air Quality staff that actual TAPs, other than n-hexane and hexane isomers other than n-hexane, are less than the rates listed in 15A NCAC 2Q .0711.
- e. The TPER table listed below is provided to assist the Permittee in determining when an air permit is required pursuant to 15A NCAC 2Q .0711 and may not represent all TAPs being emitted from the facility. This table will be updated at such time as the permit is either modified or renewed.

Toxic Air Pollutant	TPER		
	(lb/yr)	(lb/day)	(lb/hr)
According to the application all TAPs other than n-hexane and hexane isomers other than n-hexane are emitted from sources exempted from the North Carolina toxics program pursuant to 15A NCAC 2Q .0702			

**SECTION 3 - GENERAL CONDITIONS (version 2.22.1)**

This section describes terms and conditions applicable to this Title V facility.

**A. General Provisions** [NCGS 143-215 and 15A NCAC 2Q .0508(i)(16)]

1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 2D and 2Q.
2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.

**B. Permit Availability** [15A NCAC 2Q .0507(k) and .0508(i)(9)(B)]

The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environment and Natural Resources upon request.

**C. Severability Clause** [15A NCAC 2Q .0508(i)(2)]

In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.

**D. Submissions** [15A NCAC 2Q .0507(e) and 2Q .0508(i)(16)]

Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

Supervisor, Stationary Source Compliance  
North Carolina Division of Air Quality  
1641 Mail Service Center  
Raleigh, NC 27699-1641

**E. Duty to Comply** [15A NCAC 2Q .0508(i)(2)]

The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

**F. Circumvention - STATE ENFORCEABLE ONLY**

The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no emission source may be operated without the concurrent operation of its associated air pollution control device(s) and appurtenances.

**G. Permit Modifications**

1. Administrative Permit Amendments [15A NCAC 2Q .0514]

The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 2Q .0514.

2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 2Q .0524 and 2Q .0505]

The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 2Q.0524 and 2Q .0505.

3. Minor Permit Modifications [15A NCAC 2Q .0515]

The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 2Q .0515.

4. Significant Permit Modifications [15A NCAC 2Q .0516]

The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 2Q .0516.

5. Reopening for Cause [15A NCAC 2Q .0517]

The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 2Q .0517.

**H. Changes Not Requiring Permit Modifications**

1. Reporting Requirements

Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:

- a. changes in the information submitted in the application;
- b. changes that modify equipment or processes; or
- c. changes in the quantity or quality of materials processed.

If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.

2. Section 502(b)(10) Changes [15A NCAC 2Q .0523(a)]

a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.

b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:

- i. the changes are not a modification under Title I of the Federal Clean Air Act;
- ii. the changes do not cause the allowable emissions under the permit to be exceeded;
- iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
- iv. the Permittee shall attach the notice to the relevant permit.

c. The written notification shall include:

- i. a description of the change;
- ii. the date on which the change will occur;
- iii. any change in emissions; and
- iv. any permit term or condition that is no longer applicable as a result of the change.

d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.

3. Off Permit Changes [15A NCAC 2Q .0523(b)]

The Permittee may make changes in the operation or emissions without revising the permit if:

- a. the change affects only insignificant activities and the activities remain insignificant after the change; or
- b. the change is not covered under any applicable requirement.

4. Emissions Trading [15A NCAC 2Q .0523(c)]

To the extent that emissions trading is allowed under 15A NCAC 2D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 2Q .0523(c).

**I.A. Reporting Requirements for Excess Emissions and Permit Deviations**

[15A NCAC 2D .0535(f) and 2Q .0508(f)(2)]

“Excess Emissions” - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 2D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 2Q .0700. (*Note: Definitions of excess emissions under 2D .1110 and 2D .1111 shall apply where defined by rule.*)

“Deviations” - for the purposes of this condition, any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions as well as excess emissions as defined above lasting less than four hours.

**Excess Emissions**

1. If a source is required to report excess emissions under NSPS (15A NCAC 2D .0524), NESHAPS (15A NCAC 2D .1110 or .1111), or the operating permit provides for periodic (e.g., quarterly) reporting of excess emissions, reporting shall be performed as prescribed therein.
2. If the source is not subject to NSPS (15A NCAC 2D .0524), NESHAPS (15A NCAC 2D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 2D .0535 as follows:
  - a. Pursuant to 15A NCAC 2D .0535, if excess emissions last for more than four hours resulting from a malfunction, a breakdown of process or control equipment, or any other abnormal condition, the owner or operator shall:
    - i. notify the Regional Supervisor or Director of any such occurrence by 9:00 a.m. Eastern Time of the Division's next business day of becoming aware of the occurrence and provide:
      - name and location of the facility;
      - nature and cause of the malfunction or breakdown;
      - time when the malfunction or breakdown is first observed;
      - expected duration; and
      - estimated rate of emissions;
    - ii. notify the Regional Supervisor or Director immediately when corrective measures have been accomplished; and
    - iii. submit to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC 2D .0535(f)(3).

**Permit Deviations**

3. Pursuant to 15A NCAC 2Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) as follows:
  - a. Notify the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 2D .0535 quarterly. A written report to the Regional Supervisor shall include the probable cause of such deviation and any corrective actions or preventative actions taken. The responsible official shall certify all deviations from permit requirements.

**I.B. Other Requirements under 15A NCAC 2D .0535**

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 2D .0535, including 15A NCAC 2D .0535(c) as follows:

1. Any excess emissions that do not occur during start-up and shut-down shall be considered a violation of the appropriate rule unless the owner or operator of the sources demonstrates to the Director, that the excess emissions are a result of a malfunction. The Director shall consider, along with any other pertinent information, the criteria contained in 15A NCAC 2D .0535(c)(1) through (7).
2. 15A NCAC 2D .0535(g). Excess emissions during start-up and shut-down shall be considered a violation of the appropriate rule if the owner or operator cannot demonstrate that excess emissions are unavoidable.

**J. Emergency Provisions [40 CFR 70.6(g)]**

The Permittee shall be subject to the following provisions with respect to emergencies:

1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in

emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.

2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
  - a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
  - b. the permitted facility was at the time being properly operated;
  - c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
  - d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

K. **Permit Renewal** [15A NCAC 2Q .0508(e) and 2Q .0513(b)]

This permit is issued for a fixed term of five years for facilities subject to Title IV requirements and for a term not to exceed five years in the case of all other facilities. This permit shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete renewal application is submitted at least nine months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 2Q .0512(b)(1), this permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of this permit shall remain in effect until the renewal permit has been issued or denied.

L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 2Q .0508(i)(4)]

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

M. **Duty to Provide Information (submittal of information)** [15A NCAC 2Q .0508(i)(9)]

1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in **writing** to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

N. **Duty to Supplement** [15A NCAC 2Q .0507(f)]

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the DAQ. The Permittee shall also provide additional information as necessary to address any requirement that becomes applicable to the facility after the date a complete permit application was submitted but prior to the release of the draft permit.

O. **Retention of Records** [15A NCAC 2Q .0508(f) and 2Q .0508 (l)]

The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

P. **Compliance Certification** [15A NCAC 2Q .0508(n)]

The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street, Atlanta, GA 30303) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions limitations, standards,

or work practices. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. The compliance certification shall comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:

1. the identification of each term or condition of the permit that is the basis of the certification;
2. the compliance status (with the terms and conditions of the permit for the period covered by the certification);
3. whether compliance was continuous or intermittent; and
4. the method(s) used for determining the compliance status of the source during the certification period.

Q. **Certification by Responsible Official** [15A NCAC 2Q .0520]

A responsible official shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

R. **Permit Shield for Applicable Requirements** [15A NCAC 2Q .0512]

1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
  - a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;
  - b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
  - c. the applicable requirements under Title IV; or
  - d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.
3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 2Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 2Q .0515.

S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 2Q .0519]

The Director may terminate, modify, or revoke and reissue this permit if:

1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;
4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
5. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

T. **Insignificant Activities** [15A NCAC 2Q .0503]

Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

U. **Property Rights** [15A NCAC 2Q .0508(i)(8)]

This permit does not convey any property rights in either real or personal property or any exclusive privileges.

V. **Inspection and Entry** [15A NCAC 2Q .0508(l) and NCGS 143-215.3(a)(2)]

1. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the DAQ, or an authorized representative, to perform the following:
  - a. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;

- b. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
- c. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
- d. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.

Nothing in this condition shall limit the ability of the EPA to inspect or enter the premises of the Permittee under Section 114 or other provisions of the Federal Clean Air Act.

- 2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

**W. Annual Fee Payment [15A NCAC 2Q .0508(i)(10)]**

- 1. The Permittee shall pay all fees in accordance with 15A NCAC 2Q .0200.
- 2. Payment of fees may be by check or money order made payable to the N.C. Department of Environment and Natural Resources. Annual permit fee payments shall refer to the permit number.
- 3. If, within 30 days after being billed, the Permittee fails to pay an annual fee, the Director may initiate action to terminate the permit under 15A NCAC 2Q .0519.

**X. Annual Emission Inventory Requirements [15A NCAC 2Q .0207]**

The Permittee shall report by June 30 of each year the actual emissions of each air pollutant listed in 15A NCAC 2Q .0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility.

**Y. Confidential Information [15A NCAC 2Q .0107 and 2Q .0508(i)(9)]**

Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 2Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 2Q .0107.

**Z. Construction and Operation Permits [15A NCAC 2Q .0100 and .0300]**

A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of 15A NCAC 2Q .0100 and .0300.

**AA. Standard Application Form and Required Information [15A NCAC 2Q .0505 and .0507]**

The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 2Q .0505 and .0507.

**BB. Financial Responsibility and Compliance History [15A NCAC 2Q .0507(d)(3)]**

The DAQ may require an applicant to submit a statement of financial qualifications and/or a statement of substantial compliance history.

**CC. Refrigerant Requirements (Stratospheric Ozone and Climate Protection) [15A NCAC 2Q .0501(e)]**

- 1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.
- 2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
- 3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.

**DD. Prevention of Accidental Releases - Section 112(r) [15A NCAC 2Q .0508(h)]**

If the Permittee is required to develop and register a Risk Management Plan with EPA pursuant to Section 112(r) of the Clean Air Act, then the Permittee is required to register this plan in accordance with 40 CFR Part 68.

EE. **Prevention of Accidental Releases General Duty Clause - Section 112(r)(1) -**  
FEDERALLY-ENFORCEABLE ONLY

Although a risk management plan may not be required, if the Permittee produces, processes, handles, or stores any amount of a listed hazardous substance, the Permittee has a general duty to take such steps as are necessary to prevent the accidental release of such substance and to minimize the consequences of any release.

FF. **Title IV Allowances** [15A NCAC 2Q .0508(i)(1)]

This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.

GG. **Air Pollution Emergency Episode** [15A NCAC 2D .0300]

Should the Director of the DAQ declare an Air Pollution Emergency Episode, the Permittee will be required to operate in accordance with the Permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in 15A NCAC 2D .0300.

HH. **Registration of Air Pollution Sources** [15A NCAC 2D .0200]

The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 2D .0202(b).

II. **Ambient Air Quality Standards** [15A NCAC 2D .0501(e)]

In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 2D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

JJ. **General Emissions Testing and Reporting Requirements** [15A NCAC 2Q .0508(i)(16)]

If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ in support of a permit application or to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 2D .2600 and follow the procedures outlined below:

1. The Permittee shall submit a completed Protocol Submittal Form to the DAQ Regional Supervisor at least 45 days prior to the scheduled test date. A copy of the Protocol Submittal Form may be obtained from the Regional Supervisor.
2. The Permittee shall notify the Regional Supervisor of the specific test dates at least 15 days prior to testing in order to afford the DAQ the opportunity to have an observer on-site during the sampling program.
3. During all sampling periods, the Permittee shall operate the emission source(s) under maximum normal operating conditions or alternative operating conditions as deemed appropriate by the Regional Supervisor or his delegate.
4. The Permittee shall submit **two** copies of the test report to the DAQ. The test report shall contain at a minimum the following information:
  - a. a description of the training and air testing experience of the person directing the test;
  - b. a certification of the test results by sampling team leader and facility representative;
  - c. a summary of emissions results and text detailing the objectives of the testing program, the applicable state and federal regulations, and conclusions about the testing and compliance status of the emission source(s);
  - d. a detailed description of the tested emission source(s) and sampling location(s) process flow diagrams, engineering drawings, and sampling location schematics should be included as necessary;
  - e. all field, analytical, and calibration data necessary to verify that the testing was performed as specified in the applicable test methods;
  - f. example calculations for at least one test run using equations in the applicable test methods and all test results including intermediate parameter calculations; and
  - g. documentation of facility operating conditions during all testing periods and an explanation relating these operating conditions to maximum normal operation. If necessary, provide historical process data to verify maximum normal operation.
5. The testing requirement(s) shall be considered satisfied only upon written approval of the test results by the DAQ.
6. The DAQ will review emission test results with respect exclusively to the specified testing objectives as proposed by the Permittee and approved by the DAQ.

**KK. Reopening for Cause** [15A NCAC 2Q .0517]

1. A permit shall be reopened and revised under the following circumstances:
  - a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
  - b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
  - c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
  - d. the Director or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 2Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 2Q .0507, .0521, or .0522 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 2Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.
4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

**LL. Reporting Requirements for Non-Operating Equipment** [15A NCAC 2Q .0508(i)(16)]

The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. During operation the monitoring recordkeeping and reporting requirements as prescribed by the permit shall be implemented within the monitoring period.

**MM. Fugitive Dust Control Requirement** [15A NCAC 2D .0540] - STATE ENFORCEABLE ONLY

As required by 15A NCAC 2D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 2D .0540(f).

"Fugitive dust emissions" means particulate matter from process operations that does not pass through a process stack or vent and that is generated within plant property boundaries from activities such as: unloading and loading areas, process areas stockpiles, stock pile working, plant parking lots, and plant roads (including access roads and haul roads).

1. For modifications made pursuant to 15A NCAC 2Q .0501(c)(2), the Permittee shall file a Title V Air Quality Permit Application for the air emission source(s) and associated air pollution control device(s) on or before 12 months after commencing operation.
2. For modifications made pursuant to 15A NCAC 2Q .0501(d)(2), the Permittee shall not begin operation of the air emission source(s) and associated air pollution control device(s) until a Title V Air Quality Permit Application is filed and a construction and operation permit following the procedures of Section .0500 (except for Rule .0504 of this Section) is obtained.
3. For modifications made pursuant to 502(b)(10), in accordance with 15A NCAC 2Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (EPA - Air Planning Branch, 61 Forsyth St., Atlanta, GA 30303) in writing at least seven days before the change is made. The written notification shall include:
  - a. a description of the change at the facility;
  - b. the date on which the change will occur;
  - c. any change in emissions; and
  - d. any permit term or condition that is no longer applicable as a result of the change.

In addition to this notification requirement, with the next significant modification or Air Quality Permit renewal, the Permittee shall submit a page "E5" of the application forms signed by the responsible official verifying that the application for the 502(b)(10) change/modification, is true, accurate, and complete. Further note that modifications made pursuant to 502(b)(10) do not relieve the Permittee from satisfying preconstruction requirements.

**List of Acronyms**

<b>AOS</b>	Alternate Operating Scenario
<b>BACT</b>	Best Available Control Technology
<b>Btu</b>	British thermal unit
<b>CEM</b>	Continuous Emission Monitor
<b>CFR</b>	Code of Federal Regulations
<b>CAA</b>	Clean Air Act
<b>DAQ</b>	Division of Air Quality
<b>DENR</b>	Department of Environment and Natural Resources
<b>EMC</b>	Environmental Management Commission
<b>EPA</b>	Environmental Protection Agency
<b>FR</b>	Federal Register
<b>GACT</b>	Generally Available Control Technology
<b>HAP</b>	Hazardous Air Pollutant
<b>MACT</b>	Maximum Achievable Control Technology
<b>NCAC</b>	North Carolina Administrative Code
<b>NCGS</b>	North Carolina General Statutes
<b>NESHAPS</b>	National Emission Standards for Hazardous Air Pollutants
<b>NO<sub>x</sub></b>	Nitrogen Oxides
<b>NSPS</b>	New Source Performance Standard
<b>OAH</b>	Office of Administrative Hearings
<b>PM</b>	Particulate Matter
<b>PM<sub>10</sub></b>	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
<b>POS</b>	Primary Operating Scenario
<b>PSD</b>	Prevention of Significant Deterioration
<b>SIC</b>	Standard Industrial Classification
<b>SIP</b>	State Implementation Plan
<b>SO<sub>2</sub></b>	Sulfur Dioxide
<b>tpy</b>	Tons Per Year
<b>VOC</b>	Volatile Organic Compound

**Insignificant Activities under 15A NCAC 2Q .0503(8)**

<b>Emission Source ID No.</b>	<b>Emission Source Description</b>	<b>Control Device ID No.</b>	<b>Control Device Description</b>
IES-1	One propane storage tank (250 gallon capacity)	N/A	N/A
IES-2	Bench aspiration testing of grain products	N/A	N/A
IES-3	Process condensers (totally enclosed)	N/A	N/A
IES-4	One No. 2 or No. 6 fuel oil above ground storage tank (25,000 gallon capacity)	N/A	N/A
IES-4A	One No. 2 or No. 6 fuel oil above ground storage tank (25,000 gallon capacity)	N/A	N/A
IES-7	One soybean oil above ground storage tank (134,000 gallon capacity)	N/A	N/A
IES-8	One soybean oil above ground storage tank (134,000 gallon capacity)	N/A	N/A
IES-9	One soybean oil above ground storage tank (382,000 gallon capacity)	N/A	N/A

1. Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement.
2. When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 2D .1100 "Control of Toxic Air Pollutants" or 2Q .0711 "Emission Rates Requiring a Permit".

PROPOSED

ATTACHMENT 3 to Permit No. 03840T33

The following table may be used for the recordkeeping described in condition 2.2 A.1.e of this permit.

**Table 1 “Extraction Solvent Loss Recordkeeping Table”**

Date	Oilseeds Processed in the Soybean Oil Extraction Process (ID No. ES-9) (tons)		Solvent Loss (gallons)		Malfunction Period Solvent Loss (gallons)		Adjusted Solvent Loss (gallons)		Adjusted Solvent Loss Ratio (gallons/ton)	
	Month (A)	12-Month (B)	Month (C)	12-Month (D)	Month (E)	12-Month (F)	Month (G = C - E)	12-Month (H = D - F)	Month (G/A)	12-Month (H/B)

PROPOSED

- Notes: Date refers to the subject operating month (e.g. August 2007)
- The data for the oilseeds processed is on an “as received” basis (i.e. before any processing of the oilseeds)
- The data in the columns labeled “Month” are the values for the subject operating month
- The data in the columns labeled “12-Month” are the rolling average values for the 12 most recent operating months
- The Permittee may adjust solvent loss for malfunctions only if:
- (1) The malfunction results in a shutdown of the solvent extraction system; and
  - (2) The cumulative solvent losses during malfunction periods do not exceed 4,000 gallons in a 12-operating month rolling period