

**AIR POLLUTION CONTROL**



*Shelby County  
Health Department*



**Public Health**  
Prevent. Promote. Protect.

**PERMIT TO OPERATE  
TITLE V - MAJOR SOURCE**

**PERMIT NUMBER: 00045-01TV**

**CARGILL, INC.  
2330 Buoy Street  
Memphis, Tennessee 38113**

**INITIAL ISSUANCE DATE: July 16, 2001      RENEWAL DATE: November 01, 2016**

**EXPIRATION DATE:                      November 01, 2021**

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This permit fulfills the requirements of Title V of the Federal Clean Air Act (42 U.S.C. 7661a-7661e) and the federal regulations promulgated in 40 CFR Part 70. This permit is issued in accordance with City of Memphis Code Section 16-77, which adopts by reference Rule 1200-3-9.02(11) of the Tennessee Air Pollution Control Regulations. The permittee has been granted permission to operate an air contaminant source in accordance with the emission limitations, monitoring, record-keeping, reporting, and all other requirements set forth herein.

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A permit condition may be appealed by filing a petition for reconsideration within thirty (30) days after the mailing date of the permit.

This permit may be subject to revocation, suspension, modification or amendment by the Technical Secretary for cause including the evidence of non-compliance with any of the above, or for an misrepresentation made in the application(s), supporting data entered therein or attached thereto, or an subsequent submittal or supporting data, or for any alterations affecting the emissions from this source.

  
**Robert Rogers, P. E., Technical Manager  
Pollution Control Section**


*Issuance of this permit shall not relieve any owner or operator of the responsibility to comply fully with any other requirements of local, State, or Federal law.*

**NON TRANSFERABLE**

**POST OR FILE AT INSTALLATION ADDRESS**

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## SECTION I – FACILITY INFORMATION

**Facility Name:** Cargill, Inc.  
**Facility Address:** 2330 Buoy Street  
Memphis, Tennessee 38113

**Mailing Address:** 2330 Buoy Street  
Memphis, Tennessee 38113

**Facility Owner:** Same  
**Owner Address:** Same

**Responsible Official, Title:** Keith Grieser, Facility Manager  
**Mailing Address:** Same  
**Telephone:** (901) 775-5800

**Environmental Contact(s):** Mark Blouin, EHS Manager  
**Mailing Address:** Same  
**Telephone:** (901) 775-7085

**Billing Contact:** Mark Blouin, EHS Manager  
**Mailing Address:** Same  
**Telephone:** (901) 775-7085

**Owner's Registered Agent:** CT Corporation Systems  
530 Gay Street  
Knoxville, Tennessee 37902

**Facility's Primary Activity:** Extraction of corn oil from oilseed and refining of imported vegetable oil

**NAICS Code:** 31122 (Oils Manufacturing)  
311221 (Corn Oil Extraction)  
311225 (Oils Refining)

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## SECTION II – APPLICATION/PERMIT INFORMATION

<u>Application Dated</u>	<u>Application Received</u>	<u>Application Description</u>
January 20, 2006	January 24, 2006	<i>Title V Operating Permit Renewal Application</i>
January 24, 2003	January 28, 2003	<i>Rollover of 0045-14PC - Addition of baghouse for improved process aspiration</i>
March 10, 2003	March 11, 2003	<i>Rollover of 0045-13PC - Addition of baghouse for improved process aspiration</i>
January 27, 2004	January 28, 2003	<i>Rollover of 0045-15PC - Germ scale/ rail baghouse replacement</i>
June 6, 2005	June 8, 2005	<i>Rollover of 0045-16PC - Meal loadout baghouse modifications</i>
September 19, 2005	September 20, 2005	<i>Rollover of 0045-17PC - SEM storage bin</i>
April 4, 2013	April 5, 2013	<i>Updated Title V Operating Permit Renewal Application</i>
<b><u>Post Corn Milling Closure</u></b>		
June 19, 2015	July 7, 2015	<i>Modification application to limit Boilers 8001 and 8301 to only natural gas</i>
July 13, 2015	July 17, 2015	<i>Responsible official change</i>
January 15, 2016	January 19, 2016	<i>Modification application to remove emission units associated with corn milling operation closure</i>
June 13, 2016	June 13, 2016	<i>Request to remove pelletizing related processes from permit</i>
July 29, 2016	July 29, 2016	<i>Operational flexibility request to allow for other potential oilseed handling and processing in addition to corn germ</i>
July 29, 2016	July 29, 2016	<i>Update of modification application dated June 19, 2015</i>

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**Completeness Determination:** April 5, 2006 (Renewal Application)

**Permit Engineer:** Gregg P. Fortunato

**Renewal**

**Public Notice:** August 29, 2014  
**Public Hearing:** September 18, 2014  
**Public Comments Received:** None

**To EPA for Review:** September 30, 2014  
**EPA Comments:** None

**Initial Title V Operating Permit Issue Date:** July 16, 2001  
**Final Renewed Title V Operating Permit Issue Date:** November 20, 2014

**Post Corn Milling Closure Modifications**

**Surrounding States Notice:** 08/12/2016  
**Public Notice:** 08/12/2016  
**Public Hearing:** None requested  
**Comments Received:** None  
**EPA Notice:** 08/15/2016  
**EPA Comments Received:** None


**Permit Issue Date:** November 01, 2016

**Type of permit:**


- Construction
- Title V Operating
- Renewal
- Modification
  - Administrative
  - Minor
  - Major (*Corn Milling Closure*)
- Emission increase
- Emission same
- Emission decrease

**Facility classification:**

- Major (NSR/PSD)
- Major (Title V)
- NSPS (40 CFR Part 60) (*Subpart DD – Grain Elevators*)
- NESHAP (40 CFR Part 61)

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[x] MACT (40 CFR Part 63) (*Subpart GGGG - Vegetable Oil Production, Subpart DDDDD - Natural Gas-fired Boilers and Subpart ZZZZ - Emergency Engines*)

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## SECTION III – EMISSION UNITS and POINTS

### 1. Emission Groups:

#### Emission Group 1000 (Elevator Department)

Emission Point	Process Description	Process Capture/ Control Type	Pollutants
<u>Emission Unit Group A</u> 1001A, 1017	Marine tower pneumatic unloading	Baghouses	PM/PM <sub>10</sub>
<u>Emission Unit Group B</u> 1002, 1013	Rail unloading	Baghouses	PM/PM <sub>10</sub>
<u>Emission Unit Group C</u> 1003A, 1003B 1004, 1005, 1006, 1007, 1008, 1009, 1010, 1012	Grain conveying and storage	Baghouses	PM/PM <sub>10</sub>
<u>Emission Unit Group D</u> 1014, 1016A, 1016B, 1018, 1025	Oilseed, meal and SEM conveying and storage	Baghouses	PM/PM <sub>10</sub> , VOC, HAP
<u>Emission Unit Group E</u> 1022, 1023, 1026	SEM truck and rail loadout	Baghouses	PM/PM <sub>10</sub> , VOC, HAP

#### Emission Group 8000 (Power Plant)

Emission Point	Process Description	Process Capture/ Control Type	Pollutants
8001/8301 <sup>1</sup>	Natural Gas-Fired Boiler 8001 (Emission Unit 8001) (1976) (70 MMBtu/hr)	None	PM/PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>x</sub> , CO, VOC
8001/8301 <sup>1</sup>	Natural Gas-Fired Boiler 8301 (Emission Unit 8301) (1984) (95 MMBtu/hr)	None	PM/PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>x</sub> , CO, VOC,

<sup>1</sup> Both natural gas fired boilers (Emission Units 8001 and 8301) exhaust through a common stack.

#### Emission Group 10000 (Oilseed Preparation)

Emission Point	Process Description	Process Capture/ Control Type	Pollutants
10007, 10008	Mechanical extraction process (expellers)	Water Scrubbers	PM/PM <sub>10</sub> , VOC, HAP
10009 and 10013	Oilseed conveying and handling (10013 also aspirates oilseed cracking mills)	Baghouses	PM/PM <sub>10</sub> , VOC, HAP
10010	Oilseed conditioning (flakers)	Water Scrubber	PM/PM <sub>10</sub> , VOC, HAP
10011	Meal Conveying	Cyclone	PM/PM <sub>10</sub> , VOC, HAP

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**Emission Group 11000  
(Oil Extraction and Refining)**

<b>Emission Point</b>	<b>Process Description</b>	<b>Process Capture/ Control Type</b>	<b>Pollutants</b>
11000 <sup>1</sup> (conglomerate)	Miscellaneous Points (Imported Oil Refining)	None	HAP and VOC
11001	Miscellaneous Points (Extraction)	Mineral Oil Scrubber	HAP and VOC
11002A, 11002B	SEM Drying	Cyclones	PM/PM <sub>10</sub>
11003	Bleaching clay storage and handling	Baghouse	PM/PM <sub>10</sub>
11004	Precoat storage and handling	Baghouse	PM/PM <sub>10</sub>

<sup>1</sup> Includes all emission points (including fugitive emissions) from imported oil refining operations. HAP/VOC emissions from imported oil refining are calculated assuming 100% of HAP/VOC content in the imported oil is emitted throughout the process.

**Emission Group 12000  
(Emergency Generators and Fire Pump Engines)**


<b>Emission Point</b>	<b>Process Description</b>	<b>Process Capture/ Control Type</b>	<b>Pollutants</b>
12001	400 HP Diesel Emergency Generator	No	PM/PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>x</sub> , CO, VOC
12003	170 HP Diesel Emergency Fire Pump Engine	No	PM/PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>x</sub> , CO, VOC

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2. Emission Points:

<b>Emission Point</b>	<b>Description</b>
<b>Elevator Department (Emission Group 1000)</b>	
1001A	EL Barge Grain Belt Baghouse
1002	EL Rail Receiving Baghouse
1003A	EL Rail Scale Baghouse
1003B	EL Barge Scale Baghouse
1004	EL Grain Aspiration Baghouse
1005	EL Grain Silo Vent Filter No. 1 and 2
1006	EL Grain Silo Vent Filter No. 3
1007	EL Grain Silo Vent Filter No. 4
1008	EL Grain Silo Vent Filter No. 5 and 6
1009	EL Grain Silo Vent Filter No. 7
1010	EL Grain Silo Vent Filter No. 8 and 9
1012	EL Grain Bin Baghouse
1013	EL Oilseed Scale/No. 2 Rail Unload Pit Baghouse
1014	EL Oilseed Bin Baghouse No. 1 and 2
1016A	EL Process Oilseed Bin Baghouse
1016B	EL Oilseed Bin Baghouse No. 1
1017	EL Barge Unload Baghouse
1018	EL Meal Bin Baghouse
1022	EL Meal Loadout Receiver Baghouse
1023	EL Meal Loadout Aspiration Baghouse
1025	EL SEM Storage Bin
1026	EL SEM Truck Loadout
<b>Power Plant (Emission Group 8000)</b>	
8001/8301	Natural Gas-Fired Boiler Exhaust Stack (EU-8001 and 8301 share a common exhaust stack)
<b>Oilseed Preparation (Emission Group 10000)</b>	
10007	GP Expeller Aspiration Scrubber
10008	GP Expeller Cake Aspiration Scrubber
10009	GP Oilseed Receiver Baghouse
10010	GP Flaker Aspiration Scrubber
10011	GP Null Point (Oilseed Conveyance) Cyclone
10013	GP Oilseed Front End Aspiration Baghouse

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<b>Emission Point</b>	<b>Description</b>
	(Oilseed Rate Bin/Cracking Mill Baghouse)

<b>Oil Extraction and Refining (Emission Group 11000)</b>	
11000	EX Miscellaneous Points (Imported Oil Refining)
11001	EX Miscellaneous Points (Oilseed Extraction)
11002A	EX Meal Dryer Cooler Hot Deck Cyclone
11002B	EX Meal Dryer Cooler Cold Deck Cyclone
11003	OR Bleaching Clay Bin Baghouse
11004	OR Precoat Bin Baghouse
<b>Emergency Engines (Emission Group 12000)</b>	
12001	400 HP Diesel Emergency Generator (1980)
12003	170 HP Diesel Emergency Fire Pump Engine (1990)

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## SECTION IV – PERMIT CONDITIONS

### FACILITY-WIDE REQUIREMENTS

#### Reporting Requirements

Condition No.	Description	Frequency	Cite
1	Monitoring report	Semi-annually	City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(e)1.(iii)(I)]
2	Compliance Certification	Annually	City of Memphis Code Section 16-77, [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(e)3.(v)]
<i>Local Only Condition(s)</i>			
3	Emissions Report	Annually	City of Memphis Code Section 16-98

#### Reporting Requirements

1. The facility owner or operator shall submit, semi-annually, a monitoring report consistent with the requirements of City of Memphis Code Section 16-77 [Reference 1200-3-9-.02(11)(e)1.(iii)(I)]. This report shall include all deviations from permit requirements. Each report shall be certified by the responsible official consistent with the requirements of City of Memphis Code Section 16-77 [Reference 1200-3-9-.02(11)(d)4].

The reporting periods for these reports are January 1 through June 30 and July 1 through December 31, every calendar year. These reports shall be due within 60 days of the end of each reporting period.

2. The responsible official shall certify compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices in accordance with City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(e)3(v)]. Specifically, the compliance certification shall include the following:
  - a) The identification of each term or condition of the permit that is the basis of the certification;
  - b) The status of compliance with the terms and conditions of the permit for the period covered by the certification. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify, as possible exceptions to compliance, any periods during which compliance is required in which an excursion or exceedence as defined under City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(b)(30-31)] occurred;

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c) Whether compliance was continuous or intermittent;

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## FACILITY-WIDE REQUIREMENTS

### Reporting Requirements (continued)

- d) The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(e)1(iii)];
- e) Such other facts as the permitting authority may require to determine the compliance status of the source; and
- f) A certification that based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

This certification shall be submitted to the Department and to the USEPA at the following addresses:

Technical Manager  
Shelby County Health Department  
Pollution Control Section  
814 Jefferson Avenue, 4<sup>th</sup> Floor  
Memphis, Tennessee 38105

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Air Enforcement and Toxics Branch  
US EPA Region 4  
61 Forsyth Street, S.W.  
Atlanta, GA 30303

Annual certifications for the consecutive 12-month rolling period from July 1 – June 30, each year, shall be submitted within 60 calendar days of June 30.

### Local Only Condition(s):

3.

he facility owner or operator shall submit a report to the Department, on an annual basis, that establishes the amount of actual emissions of each regulated pollutant, including carbon monoxide (CO), volatile organic compounds (VOCs), nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>) and particulate matter (PM) for the facility according to the provisions in City of Memphis Code Section 16-98. The schedule for the submission of this annual emission report shall be February 28 every year, for the preceding calendar year, unless otherwise specified by the Department.

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## SOURCE SPECIFIC REQUIREMENTS

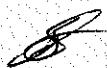
### EMISSION GROUP 1000 (Elevator Department)

#### Emission Limits and Restrictions

Condition No.	Pollutant (Parameter)	Limitation	Cite
1	PM/PM <sub>10</sub>	Throughput limit	Construction Permit No. 0045-12PC
2	PM/PM <sub>10</sub>	Throughput limit (Combined gluten/fiber/SEM loadout)	Construction Permit No. 0045-17PC
3	PM/PM <sub>10</sub>	Throughput limit (Animal Feed Pellet/SEM Truck Loadout)	Construction Permits No. 0045-15PC, 16PC, 17PC
4	PM/PM <sub>10</sub>	Process emission source emission standard	City of Memphis Code Section 16-78 [Reference Rules and Regulations of Tennessee, Rule 1200-3-7-.03]
5	PM/PM <sub>10</sub>	NSPS emission limit (grains/dscf)	40 CFR Part 60, Subpart DD, §60.302(b)(1)
6	PM/PM <sub>10</sub> (Opacity)	General opacity limit	City of Memphis Code Section 16-83 [Reference Rules and Regulations of Tennessee, Rule 1200-3-5-.01(1)]
7	PM/PM <sub>10</sub> (Opacity)	NSPS opacity limit	40 CFR Part 60, Subpart DD, §60.302(b)(2)
8	PM/PM <sub>10</sub> (Opacity)	NSPS opacity limits (fugitive emissions)	40 CFR Part 60, Subpart DD, §60.302(c)(1-4)
9	PM/PM <sub>10</sub>	NSPS barge unloading operating requirements	40 CFR Part 60, Subpart DD, §60.302(d)(1-2)
10	VOC	Emission limits	Consent Decree (2006) – Paragraph 39
<i>Local Only Condition(s)</i>			
11	PM/PM <sub>10</sub>	Emission limits	Operating Permit No. 0045-01P and Construction Permits No. 0045-12PC, 14PC, 15PC, 16PC and 17PC
12	PM/PM <sub>10</sub>	Baghouse/fabric filter operation	Operating Permit No. 0045-01P and Construction Permits No. 0045-14PC, 15PC, 16PC and 17PC

#### Emission Limits and Restrictions

1. Total material throughput for Emission Group 1000 shall not exceed 9,636,000 tons per consecutive 12-month rolling period and 59,784,000 pounds per day.
2. The combined gluten/fiber/Solvent Extracted Meal (SEM) loadout from the facility shall not exceed 881,475 tons per consecutive 12-month rolling period.
3. The loadout from the SEM Truck Loadout System (Emission Point 1026) shall not exceed 270,000 tons per consecutive 12-month rolling period.

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**EMISSION GROUP 1000  
(Elevator Department)**

Emission Limits and Restrictions (continued)

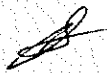
4. The maximum hourly emission rate (E) of particulate emissions (PM/PM<sub>10</sub>) from each Emission Point within Emission Group 1000 shall not exceed the following:
- a)  $E = 3.59 \text{ times } P^{0.62}$  for P less than or equal to 30 tons per hour
  - b)  $E = 17.31 \text{ times } P^{0.16}$  for P greater than 30 tons per hour

Where: E is the rate of emissions in pounds per hour (lbs/hr); and  
P is the process weight rate in tons per hour

**Table 1000-1  
(Emission Unit Groups and Emission Points)**

<b>Emission Unit Group</b>	<b>Emission Point (Baghouse/Fabric Filter)</b>	<b>Process Description</b>
1000-A	1001A, 1017	Marine tower pneumatic unloading
1000-B	1002, 1013	Rail unloading
1000-C	1003A, 1003B 1004, 1005, 1006, 1007, 1008, 1009, 1010, 1012	Grain conveying and storage
1000-D	1014, 1016A, 1016B, 1018, 1025	Oilseed, meal and SEM conveying and storage
1000-E	1022, 1023, 1026	SEM truck and rail loadout

- 5. PM/PM<sub>10</sub> emissions from each emission point within Emission Unit Groups 1000-A, B and C shall not exceed 0.01 grains/dscf if the associated emission unit is used for the handling and/or storage of "grain" as defined within §60.301(a) and subject to 40 CFR Part 60, Subpart DD.
- 6. Visible emissions from all emission points within Emission Group 1000 shall not exceed twenty percent (20%) in opacity for more than five (5) minutes in any one (1) hour period or more than twenty (20) minutes in any twenty-four (24) hour period. [EPA Method 9]
- 7. Visible emissions from each emission point within EUG 1000-A, B and C shall not exceed zero percent (0%) in opacity if the associated emission unit is used for the handling and/or storage of "grain" as defined within §60.301(a) and subject to 40 CFR Part 60, Subpart DD.

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**EMISSION GROUP 1000  
(Elevator Department)**

Emission Limits and Restrictions (continued)

8. Visible fugitive emissions from the following grain operations subject to the provisions of 40 CFR Part 60, Subpart DD shall not exceed:
  - a) 5% in opacity from any individual truck unloading station, railcar unloading station, or railcar loading station;
  - b) 0% in opacity from any grain handling operation;
  - c) 10% in opacity from any truck loading station; and
  - d) 20% in opacity from any barge or ship loading station
  
9. Barge or ship grain unloading stations subject to the provisions of 40 CFR Part 60, Subpart DD shall operate as follows:
  - a) The unloading leg shall be enclosed from the top (including the receiving hopper) to the center line of the bottom pulley and ventilation to a control device shall be maintained on both sides of the leg and the grain receiving hopper; and
  - b) The total rate of air ventilated shall be at least 40 actual cubic feet per bushel of grain handling capacity
  
10. VOC emissions shall not exceed those listed in the following table:

**Table 1000-2  
(VOC Emission Limits)**

<b>Emission Point</b>	<b>Pounds per hour (lbs/hr)</b>	<b>Tons per consecutive 12-month rolling</b>	<b>Comment(s)</b>
1018	0.48	2.10	Downstream after extraction
1022	0.49	2.16	
1023	2.74	12.01	
1025	1.12	4.93	
1026	6.86	30.03	

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**EMISSION GROUP 1000  
(Elevator Department)**

Emission Limits and Restrictions (continued)


Local Only Condition(s):

11. PM/PM<sub>10</sub> emissions shall not exceed those listed in the following table:

**Table 1000-3  
(PM/PM<sub>10</sub> Emission Limits)**

<b>Emission Point</b>	<b>Pounds per hour (lbs/hr)</b>	<b>Tons per consecutive 12-month rolling</b>
1001A	0.21	0.94
1002	0.21	0.94
1003A	0.17	0.75
1003B	0.21	0.94
1004	0.81	3.52
1005	0.01	0.02
1006	0.01	0.02
1007	0.01	0.02
1008	0.01	0.02
1009	0.01	0.02
1010	0.01	0.02
1012	0.09	0.38
1013	0.63	2.76
1014	0.03	0.13
1016A	0.24	1.04
1016B	0.13	0.56
1017	0.56	2.44
1018	0.15	0.66
1022	0.25	1.08
1023	0.86	3.76
1025	0.35	1.54
1026	2.14	9.38

12. Each baghouse/fabric filter within Emission Group 1000 shall be maintained in service and in good operating condition whenever the associated processes are in operation to minimize emissions of PM/PM<sub>10</sub>.

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**EMISSION GROUP 1000  
(Elevator Department)**

**Monitoring, Testing and Recordkeeping Requirements**


Condition No.	Pollutant (Parameter)	Description	Frequency	Cite
1	PM/PM <sub>10</sub> , SO <sub>2</sub> , VOC	Throughput records	Monthly and 12-month rolling	City of Memphis Code Section 16-85 [Reference Rules and Regulations of Tennessee, Rule 1200-3-10-.04(2)]
2	PM/PM <sub>10</sub> (Opacity)	Visual emission observations	As specified in Table 1000-4	
3	PM/PM <sub>10</sub>	Baghouse/fabric filter operating parameters	Weekly	
<i>Local Only Condition(s)</i>				
4	PM/PM <sub>10</sub>	Baghouse/fabric filter maintenance records	As necessary	Operating Permit No. 0045-01P

Monitoring, Testing and Recordkeeping Requirements

1. The facility owner or operator shall maintain the following monthly and consecutive 12-month rolling period throughput records for Emission Group 1000:
  - a) Total throughput (Unloaded and loaded);
  - b) Unloaded grain and oilseed by truck, rail and barge;
  - c) Loaded out grain and SEM by truck, rail and barge;
  - d) Loaded out SEM from the SEM Truck Loadout System (Emission Point 1026) (Constructed under Permit No. 0045-17PC)
  
2. The facility owner or operator shall perform and record visual observations of emission points within Emission Group 1000, as follows:

**Table 1000-4  
(Visible Emission Monitoring)**

Emission Point(s)	Observation Method	Frequency
1001A through 1026 <i>(Includes all emission points within EUG 1000 A, B, C, D and E)</i>	Qualitative observation	Monthly
	Method 9	Each occurrence of visible emissions
1001A, 1002, 1003A, 1003B, 1004, 1005, 1006, 1007, 1008, 1009, 1010, 1012, 1013, and 1017 <i>(Includes all emission points within EUG 1000 A, B and C)</i>	Method 9	Once every 6-months (Semi-annually) <b>NOTE:</b> Only applicable if the associated emission unit is used for the handling and/or storage of "grain" as defined within §60.301(a) and subject to 40 CFR Part 60, Subpart DD.

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**EMISSION GROUP 1000  
(Elevator Department)**

Monitoring, Testing and Recordkeeping Requirements (continued)

- a) A visual observation shall be made monthly (if the process is in operation) and recorded for each emission point referenced in the above table. The observation is to determine the presence of visual emissions in accordance with the procedure in Appendix C of this permit;
  - b) If any monthly visual observation indicates the presence of emissions, then a visual determination of opacity shall be made and recorded within 48 hours of discovery. All opacity determinations shall be made in accordance with the provisions of EPA Method 9;
  - c) The requirements of paragraph b) are waived if it is determined that an equipment malfunction has occurred, repairs are completed and documented within 48 hours, and a subsequent visual observation indicates no visible emissions;
  - d) A visual determination of opacity, in accordance with the provisions of EPA Method 9, shall be made at least once every 6 months for Emission Points 1001A, 1002, 1003A, 1003B, 1004, 1005, 1006, 1007, 1008, 1009, 1010, 1012, 1013, and 1017 to demonstrate compliance with the 0% opacity standard [Reference 40 CFR Part 60, Subpart DD, §60.302(b)(2)], if applicable (See Note in Table 1000-4); and
  - e) The facility owner or operator shall maintain records of all visual observations and visual determinations of opacity. Records of the occurrence of all malfunctions discovered during the monthly visual observations shall also be maintained.
3. Pressure drop across each baghouse/fabric filter within Emission Group 1000 shall be monitored and recorded on a weekly basis.

Normal pressure drop range for determination of good operating conditions for these baghouses/fabric filters is  $>0$  and  $\leq 10$  inches of water column. Should monitoring indicate a pressure drop out of the normal range, the facility owner or operator shall perform and document an inspection of the baghouse/fabric filter and initiate repairs, as necessary. These records shall be maintained on site.

**Local Only Condition(s):**

4. The facility owner or operator shall maintain records of maintenance performed on emission control equipment.

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**EMISSION GROUP 1000  
(Elevator Department)**

**Reporting Requirements**

Condition No.	Description	Reporting Frequency	Cite
1	Semi-annual monitoring report	Semi-annually	City of Memphis Code Section 16-85 [Reference Rules and Regulations of Tennessee, Rule 1200-3-10-.04(2)]

Reporting Requirements

1. The facility owner or operator shall submit the following records to the Department, on a semi-annual basis, for the previous consecutive 12-month rolling period. These records shall be submitted as part of the semi-annual monitoring report required under Section IV, Facility-Wide Requirements, Reporting Requirements, Condition No. 1.
  - Throughput records (Monthly and consecutive 12-month rolling period):
    - a) Total material throughput (Unloaded and loaded);
    - b) Unloaded grain, Oilseed and SEM by truck, rail and barge;
    - c) Loaded out grain and SEM by truck, rail and barge; and
    - d) Loaded out SEM from the SEM Truck Loadout system
  - Visible emission inspection reports (Monthly and semi-annually):
    - e) Monthly visible emission observation records and subsequent EPA Method 9 visual determinations of opacity, if necessary, as required within Table 1000-4 for each emission point within Emission Group 1000;
    - f) Semi-annual EPA Method 9 visual determinations of opacity, as required within Table 1000-4, for each emission point within EUG 1000-A, B and C; and
  - Baghouse/fabric filter operating parameter monitoring records (Weekly):
    - g) Baghouse/fabric filter pressure drop

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**EMISSION GROUP 8000  
(Power Plant)**

**Emission Limits and Restrictions**


Condition No.	Pollutant (Parameter)	Limitation	Cite
1	PM/PM <sub>10</sub> , NO <sub>x</sub> , CO, SO <sub>2</sub> , VOC	Fuel use limitation (Natural Gas Only)	Source request within modification application dated June 19, 2015; and City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(e)1(i)]
2	PM/PM <sub>10</sub> , NO <sub>x</sub> , CO, SO <sub>2</sub> , VOC	Fuel burning equipment heat input limits	Source request within modification application dated June 19, 2015 (Boilers de-rated upon conversion to natural gas only) ; and City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(e)1(i)]
3	PM/PM <sub>10</sub> , NO <sub>x</sub> , CO, SO <sub>2</sub> , VOC	Emission Limits	Source request within modification application dated June 19, 2015; and City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(e)1(i)]
4	PM/PM <sub>10</sub> (Opacity)	General opacity limit	City of Memphis Code Section 16-83 [Reference Rules and Regulations of Tennessee, Rule 1200-3-5-.01(1)]
5	PM/PM <sub>10</sub>	Non-process emission source emission standard (lbs/MMBtu)	City of Memphis Code Section 16-79 [Reference Rules and Regulations of Tennessee, Rule 1200-3-6-.02(2)]
6	SO <sub>2</sub>	SO <sub>2</sub> emission limit (lbs/MMBtu)	City of Memphis Code Section 16-82 [Reference Rules and Regulations of Tennessee, Rule 1200-3-14-.02(2)(a)]
7	PM/PM <sub>10</sub> , NO <sub>x</sub> , CO, SO <sub>2</sub> , VOC	Boiler operation and maintenance requirement	40 CFR Part 63, Subpart DDDDD [§63.7500(a)(1) and (3)]

Emission Limits and Restrictions

1. Each boiler within Emission Group 8000 (Emission Units 8001 and 8301) shall be limited to the use of only natural gas.
2. The maximum heat input rate for each boiler within Emission Group 8000 shall not exceed the following:

**Table 8000-1  
(Heat Input Rate Limits)**

Emission Unit	Heat Input Rate Limit
8001	70 MMBtu/hr
8301	95 MMBtu/hr

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**EMISSION GROUP 8000  
(Power Plant)**

Emission Limits and Restrictions (continued)

3. Hourly (lbs/hr) and consecutive 12-month rolling (tons/12-mos) emissions rates from Emission Units 8001 and 8301 shall not exceed those listed in the following table:

**Table 8000-2  
(Emission Limits)<sup>1</sup>**

Pollutant	Emission Unit 8001		Emission Unit 8301	
	lbs/hr	tons/12-mos	lbs/hr	tons/12-mos
PM/PM <sub>10</sub>	0.53	2.33	0.72	3.16
NO <sub>x</sub>	7.00	30.66	9.50	41.61
CO	5.88	25.75	7.98	34.95
SO <sub>2</sub>	0.04	0.18	0.06	0.25
VOC	0.39	1.69	0.52	2.29

<sup>1</sup> Based on EPA's Compilation of Air Pollutant Emission Factors, AP-421.69, 5<sup>th</sup> Edition, Section 1.4 and 1,000 Btu/ft<sup>3</sup> of natural gas.

4. Visible emissions from each boiler within Emission Group 8000 shall not exceed twenty percent (20%) in opacity (6 minute average) except for one six-minute period per one (1) hour or more than twenty four (24) minutes in any twenty four (24) hour period. [EPA Method 9]
5. The maximum emission rate (E) of particulate emissions (PM/PM<sub>10</sub>) from Emission Units 8001 and 8301 shall not exceed:

$$E = 0.600(10/Q)^{0.5566}$$

Where: E is allowable particulate emissions in lb per million Btu.  
Q is total installation heat input in million Btu per hour.

6. SO<sub>2</sub> emissions from Emission Units 8001 and 8301 shall not exceed 0.50 lbs/MMBtu (one hour average).

40 CFR Part 63, Subpart DDDDD Requirement(s):

7. Emission Units 8001 and 8301 at all times must be operated and maintained, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Technical Manager that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [Ref. §63.7500(a)(1) and

**EMISSION GROUP 8000  
(Power Plant)**

Emission Limits and Restrictions (continued)

3. Hourly (lbs/hr) and consecutive 12-month rolling (tons/12-mos) emissions rates from Emission Units 8001 and 8301 shall not exceed those listed in the following table:

**Table 8000-2  
(Emission Limits)<sup>1</sup>**

Pollutant	Emission Unit 8001		Emission Unit 8301	
	lbs/hr	tons/12-mos	lbs/hr	tons/12-mos
PM/PM <sub>10</sub>	0.72	3.16	0.53	2.33
NO <sub>x</sub>	9.50	41.61	7.00	30.66
CO	7.98	34.95	5.88	25.75
SO <sub>2</sub>	0.06	0.25	0.04	0.18
VOC	0.52	2.29	0.39	1.69

<sup>1</sup> Based on EPA's Compilation of Air Pollutant Emission Factors, AP-421.69, 5<sup>th</sup> Edition, Section 1.4 and 1,000 Btu/ft<sup>3</sup> of natural gas.

4. Visible emissions from each boiler within Emission Group 8000 shall not exceed twenty percent (20%) in opacity (6 minute average) except for one six-minute period per one (1) hour or more than twenty four (24) minutes in any twenty four (24) hour period. [EPA Method 9]
5. The maximum emission rate (E) of particulate emissions (PM/PM<sub>10</sub>) from Emission Units 8001 and 8301 shall not exceed:


$$E = 0.600(10/Q)^{0.5566}$$

Where: E is allowable particulate emissions in lb per million Btu.  
Q is total installation heat input in million Btu per hour.

6. SO<sub>2</sub> emissions from Emission Units 8001 and 8301 shall not exceed 0.50 lbs/MMBtu (one hour average).

40 CFR Part 63, Subpart DDDDD Requirement(s):

7. Emission Units 8001 and 8301 at all times must be operated and maintained, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Technical Manager that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [Ref. §63.7500(a)(1) and

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**EMISSION GROUP 8000  
(Power Plant)**

**Monitoring, Testing and Recordkeeping Requirements**

Condition No.	Pollutant (Parameter)	Description	Frequency	Cite
1	PM/PM <sub>10</sub> , NO <sub>x</sub> , CO, SO <sub>2</sub> , VOC	Natural gas usage	Monthly and 12-month rolling	City of Memphis Code Section 16-85 [Reference Rules and Regulations of Tennessee, Rule 1200-3-10-.04(2)]
2	PM/PM <sub>10</sub> (Opacity)	Visual emission observations	Monthly	City of Memphis Code Section 16-85 [Reference Rules and Regulations of Tennessee, Rule 1200-3-10-.04(2)]
3	PM/PM <sub>10</sub> , NO <sub>x</sub> , CO, SO <sub>2</sub> , VOC	Boiler tune up	Annually	40 CFR Part 63, Subpart DDDDD [§63.7540(a)(10)]

Monitoring, Testing and Recordkeeping Requirements

1. The facility owner or operator shall maintain monthly and consecutive 12-month rolling records of natural gas consumed at each boiler within Emission Group 8000 (Emission Units 8001 and 8301).
2. The facility owner or operator shall perform and record visual observations of Emission Point 8001/8301, as follows:
  - a) A visual observation shall be made monthly (if the process is in operation). The observation is to determine the presence of visual emissions in accordance with the procedure in Appendix C of this permit;
  - b) If any Monthly visual observation indicates the presence of emissions, then a visual determination of opacity shall be made and recorded within 48 hours of discovery. All opacity determinations shall be made in accordance with the provisions of EPA Method 9;
  - c) The requirements of paragraph b) are waived if it is determined that an equipment malfunction has occurred, repairs are completed and documented within 48 hours, and a subsequent visual observation indicates no visible emissions; and
  - d) The facility owner or operator shall maintain records of all visual observations and visual determinations of opacity. Records of the occurrence of all malfunctions discovered during the monthly visual observations shall also be maintained.

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**EMISSION GROUP 8000  
(Power Plant)**

Monitoring, Testing and Recordkeeping Requirements (continued)

40 CFR Part 63, Subpart DDDDD Requirement(s):

3. The facility owner or operator must conduct an annual tune-up on Emission Units 8001 and 8301 as specified in §63.7540(a)(10)(i - vi) as follows:
  - (i) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown);
  - (ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
  - (iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown);
  - (iv) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO<sub>x</sub> requirement to which the unit is subject;
  - (v) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and
  - (vi) Maintain on-site and submit, if requested by the Technical Manager, a report containing the following information:
    - a) The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;
    - b) A description of any corrective actions taken as a part of the tune-up; and
    - c) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.

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**EMISSION GROUP 8000  
(Power Plant)**

**Reporting Requirements**

Condition No.	Description	Reporting Frequency	Cite
1	Semi-annual monitoring report	Semi-annually	City of Memphis Code Section 16-85 [Reference Rules and Regulations of Tennessee, Rule 1200-3-10-.04(2)]
2	Fuel switching notification	Per event	40 CFR Part 63, Subpart DDDDD [§63.7545(h)]

Reporting Requirements

1. The facility owner or operator shall submit the following records to the Department, on a semi-annual basis, for the previous consecutive 12-month rolling period. These records shall be submitted as part of the semi-annual monitoring report required under Section IV, Facility-Wide Requirements, Reporting Requirements, Condition No. 1.

- Throughput records (Monthly and consecutive 12-month rolling period):

- a) Natural gas usage records; and

- Visible emission inspection reports (Monthly):

- b) Visible emission observation records and subsequent EPA Method 9 visual determinations of opacity, if necessary.

40 CFR Part 63, Subpart DDDDD Requirement(s):

2. If you switch fuels or make a physical change to Emission Units 8001 or 8301 and the fuel switch or physical change results in the applicability of a different subcategory under Subpart DDDDD, you must provide notice of the date upon which you switched fuels or made the physical change within 30 days of the switch/change. The notification must identify:

- a) The name of the owner or operator of the affected source, as defined in §63.7490, the location of the source, the boiler(s) and process heater(s) that have switched fuels, were physically changed, and the date of the notice;

- b) The currently applicable subcategory under this subpart; and

- c) The date upon which the fuel switch or physical change occurred.

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**EMISSION GROUP 10000  
(Oilseed Preparation)**

**Emission Limits and Restrictions**

Condition No.	Pollutant (Parameter)	Limitation	Cite
1	PM/PM <sub>10</sub>	Throughput limit (Oilseed)	Operating Permit No. 0045-05P and Construction Permit No. 0045-12PC
2	PM/PM <sub>10</sub> (Opacity)	General opacity limit	City of Memphis Code Section 16-83 [Reference Rules and Regulations of Tennessee, Rule 1200-3-5-.01(1)]
3	PM/PM <sub>10</sub>	Process emission source emission standard	City of Memphis Code Section 16-78 [Reference Rules and Regulations of Tennessee, Rule 1200-3-7-.03]
4	VOC	Emission limits	Consent Decree (2006)
<i>Local Only Condition(s)</i>			
5	PM/PM <sub>10</sub>	Emission limits	Operating Permit No. 0045-05P and Construction Permit No. 0045-12PC
6	PM/PM <sub>10</sub>	Baghouse/fabric filter operation	Operating Permit No. 0045-05P
7	PM/PM <sub>10</sub> , VOC	Scrubber operation	Operating Permit No. 0045-09P

Emission Limits and Restrictions

1. Emission Group 10000 oilseed throughput shall not exceed 547,500 tons per consecutive 12-month rolling period.
2. Visible emissions from all sources within Emission Group 10000 shall not exceed twenty percent (20%) in opacity for more than five (5) minutes in any one (1) hour period or more than twenty (20) minutes in any twenty-four (24) hour period. [EPA Method 9]
3. The maximum hourly emission rate (E) of particulate emissions (PM/PM<sub>10</sub>) from each emission point within Emission Group 10000 shall not exceed:

$$E = 17.31 \text{ times } P^{0.16}$$

Where: E is the rate of emissions in pounds per hour (lbs/hr); and  
P is the process weight rate in tons per hour

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**EMISSION GROUP 10000  
(Oilseed Preparation)**

Emission Limits and Restrictions (continued)

4. VOC emissions shall not exceed those listed in the following table:

**Table 10000-1  
(VOC Emission Limits)**

Emission Point	Pounds per hour (lbs/hr)	Tons per consecutive 12-month rolling
10007	4.13	18.07
10008	4.13	18.07
10009	0.41	1.80
10010	1.05	4.60
10011	0.77	3.36
10013	0.40	1.73

Local Only Condition(s):

5. PM/PM<sub>10</sub> emissions shall not exceed those listed in the following table:

**Table 10000-2  
(PM/PM<sub>10</sub> Emission Limits)**

Emission Point	Pounds per hour (lbs/hr)	Tons per consecutive 12-month rolling
10007	0.82	3.60
10008	0.47	2.06
10009	0.21	0.90
10010	0.89	3.88
10011	1.39	6.10
10013	0.25	1.08

6. Each baghouse/fabric filter within Emission Group 10000 (Emission Units 10009 and 10013) shall be maintained in service and in good operating condition whenever the associated processes are in operation to minimize emissions of PM/PM<sub>10</sub>.
7. Each scrubber within Emission Group 10000 (Emission Units 10007, 10008 and 10010) shall be maintained in service and in good operating condition whenever the associated processes are in operation to minimize emissions of PM/PM<sub>10</sub> and VOCs.

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**EMISSION GROUP 10000  
(Oilseed Preparation)**

**Monitoring, Testing and Recordkeeping Requirements**

Condition No.	Pollutant (Parameter)	Description	Frequency	Cite
1	PM/PM <sub>10</sub> , SO <sub>2</sub> , VOC	Throughput records	Monthly and 12-month rolling	City of Memphis Code Section 16-85 [Reference Rules and Regulations of Tennessee, Rule 1200-3-10-.04(2)]
2	PM/PM <sub>10</sub> (Opacity)	Visual emission observations	Monthly	
3	PM/PM <sub>10</sub>	Baghouse/fabric filter operating parameters	Weekly	
4	SO <sub>2</sub> , VOC	Scrubber operating parameters	Weekly	
<i>Local Only Condition(s)</i>				
5	PM/PM <sub>10</sub> , SO <sub>2</sub> , VOC	Control device maintenance records	As necessary	Operating Permit No. 0045-09P

Monitoring, Testing and Recordkeeping Requirements:

1. The facility owner or operator shall maintain monthly and consecutive 12-month rolling period oilseed throughput records for Emission Group 10000.
2. The facility owner or operator shall perform and record visual observations of emission points within Emission Group 10000, as follows:

**Table 10000-3  
(Visible Emissions Monitoring)**

Emission Point(s)	EPA Method	Frequency
10007 – 10011 and 10013	NA	Monthly
	Method 9	Each occurrence of visible emissions

- a) A visual observation shall be made monthly (if the process is in operation) and recorded for each emission point referenced in the above table. The observation is to determine the presence of visual emissions in accordance with the procedure in Appendix C of this permit;
- b) If any monthly visual observation indicates the presence of emissions, then a visual determination of opacity shall be made and recorded within 48 hours of discovery. All opacity determinations shall be made in accordance with the provisions of EPA Method 9;
- c) The requirements of paragraph b) are waived if it is determined that an equipment malfunction has occurred, repairs are completed and documented within 48 hours, and a subsequent visual observation indicates no visible emissions; and

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**EMISSION GROUP 10000  
(Oilseed Preparation)**

Monitoring, Testing and Recordkeeping Requirements (continued):

- d) The facility owner or operator shall maintain records of all visual observations and visual determinations of opacity. Records of the occurrence of all malfunctions discovered during the monthly visual observations shall also be maintained.
- 3. Pressure drop across each baghouse/fabric filter in Emission Group 10000 (Emission Units 10009 and 10013) shall be monitored and recorded on a weekly basis.

Normal pressure drop range for determination of good operating conditions for these baghouses/fabric filters is  $>0$  and  $\leq 10$  inches of water column. Should monitoring indicate a pressure drop out of the normal range, the facility owner or operator shall perform and document an inspection of the baghouse/fabric filter and initiate repairs, as necessary. These records shall be maintained on site.

- 4. Scrubber flow rate for each scrubber in Emission Group 10000 shall be monitored and recorded on a weekly basis. Normal operating parameter ranges for determination of good operating conditions for these scrubbers are as follows:

**Table 10000-4  
(Scrubber Operating Parameters)**

Scrubber	Flow Rate (gallons per minute)	Parameter Monitoring Frequency
10007	$\geq 20$ gpm	Weekly
10008	$\geq 20$ gpm	
10010	$\geq 20$ gpm	

Local Only Condition(s):

- 5. The facility owner or operator shall maintain records of maintenance performed on emission control equipment.

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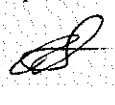
**EMISSION GROUP 10000  
(Oilseed Preparation)**

**Reporting Requirements**

Condition No.	Description	Reporting Frequency	Cite
1	Semi-annual monitoring report	Semi-annually	City of Memphis Code Section 16-85 [Reference Rules and Regulations of Tennessee, Rule 1200-3-10-.04(2)]

Reporting Requirements

1. The facility owner or operator shall submit the following records to the Department, on a semi-annual basis, for the previous consecutive 12-month rolling period. These records shall be submitted as part of the semi-annual monitoring report required under Section IV, Facility-Wide Requirements, Reporting Requirements, Condition No. 1.
  - Throughput records (Monthly and consecutive 12-month rolling period):
    - a) Oilseed;
  - Visible emission inspection reports (Monthly):
    - b) Visible emission observation records and subsequent EPA Method 9 visual determinations of opacity, if necessary;
  - Baghouse/fabric filter operating parameter monitoring records (Weekly):
    - c) Baghouse/fabric filter pressure drop;
  - Scrubber operating parameter monitoring records (Weekly):
    - d) Scrubber flow rate

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**EMISSION GROUP 11000  
(Oil Extraction and Refining)**

**Emission Limits and Restrictions**

Condition No.	Pollutant (Parameter)	Limitation	Cite
1	PM/PM <sub>10</sub> , VOC	Throughput limit (Oilseed)	Construction Permit No. 0045-12PC
2	VOC	Emission limit (Imported oil refining)	Operating Permit No. 0045-11P (Modified monthly average hourly limit to monthly and consecutive 12-month rolling limits)
3	VOC	VOC solvent loss ratio	Consent Decree (2006) – Paragraph 20 and App. F
4	PM/PM <sub>10</sub>	Process emission source emission standard	City of Memphis Code Section 16-78 [Reference Rules and Regulations of Tennessee, Rule 1200-3-7-.03]
5	PM/PM <sub>10</sub> (Opacity)	General opacity limit	City of Memphis Code Section 16-83 [Reference Rules and Regulations of Tennessee, Rule 1200-3-5-.01(1)]
6	HAP	40 CFR 63, Subpart GGGG compliance (general condition)	40 CFR Part 63, Subpart GGGG
7	HAP	Compliance ratio (§63.2840)	
8	HAP	Determination of actual solvent loss (§63.2853)	
9	HAP	Determination of weighted average volume fraction of HAP in the actual solvent loss (§63.2854)	
10	HAP	Determination of quantity of oilseed processed (§63.2855)	
11	HAP	Compliance plan	
12	HAP	Startup/Shutdown/Malfunction (SSM) plan	
13	HAP	Requirements for sources under normal operation (Table 1 of §63.2850)	
<i>Local Only Condition(s)</i>			
14	PM/PM <sub>10</sub>	Emission limits	Operating Permit No. 0045-011P and Construction Permit No. 0045-12PC
15	PM/PM <sub>10</sub>	Baghouse/fabric filter operation	Operating Permit No. 0045-04P
16	VOC	Scrubber operation	Operating Permit No. 0045-04P

Emission Limits and Restrictions

1. Emission Group 11000 oilseed throughput shall not exceed 547,500 tons per consecutive 12-month rolling period.
2. VOC emissions (calculated as hexane loss) from the refining of imported vegetable oil shall not exceed 18.2 tons per month and 214.6 tons per consecutive 12-month rolling period.
3. The VOC solvent loss ratio for the oil extraction process shall not exceed 0.33 gallons VOC

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per ton of oilseed (gal/ton) based on a consecutive 12-month rolling average.

**EMISSION GROUP 11000  
(Oil Extraction and Refining)**

Emission Limits and Restrictions (continued)

4. The maximum hourly emission rate (E) of particulate emissions (PM/PM<sub>10</sub>) from each emission point within Emission Group 11000 shall not exceed:

$$E = 17.31 \text{ times } P^{0.16}$$

Where: E is the rate of emissions in pounds per hour (lbs/hr); and  
P is the process weight rate in tons per hour

5. Visible emissions from all sources within Emission Group 11000 (solvent extraction and refining processes) shall not exceed twenty percent (20%) in opacity for more than five (5) minutes in any one (1) hour period or more than twenty (20) minutes in any twenty-four (24) hour period. [EPA Method 9]

40 CFR Part 63, Subpart GGGG Requirement(s):

6. The facility owner or operator shall comply with all applicable requirements of 40 CFR 63, Subpart GGGG - National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production.
7. For each operating month, the facility owner or operator shall calculate a compliance ratio, which compares the facility's actual HAP loss to allowable HAP loss for the previous 12 operating months as shown in Equation 1. An operating month, as defined in §63.2872, is any calendar month in which a source processes a listed oilseed, excluding any entire calendar month in which the source operated under an initial startup period subject to §63.2850(c)(2) or (d)(2) or a malfunction period subject to §63.2850(e)(2).

$$\text{Compliance Ratio} = \frac{\text{Actual Hap Loss}}{\text{Allowable Hap Loss}} \quad (\text{Eq. 1})$$

Equation 1 of this section can also be expressed as a function of total solvent loss as shown in Equation 2 of this. Equation 2 follows:

$$\text{Compliance Ratio} = \frac{f * \text{Actual Solvent Loss}}{0.64 * \sum_{i=1}^n ((\text{Oilseed})_i * (\text{SLF})_i)} \quad (\text{Eq. 2})$$

Where:

f = The weighted average volume fraction of HAP in solvent received during the previous 12 operating months, as determined in §63.2854, dimensionless.

0.64 = The average volume fraction of HAP in solvent in the baseline performance data, dimensionless.

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**EMISSION GROUP 11000  
(Oil Extraction and Refining)**

Emission Limits and Restrictions (continued)

Actual Solvent Loss = Gallons of actual solvent loss during previous 12 operating months, as determined in §63.2853.

Oilseed = Tons of each oilseed type "i" processed during the previous 12 operating months, as shown in §63.2855.

SLF = The corresponding solvent loss factor (gal/ton) for oilseed "i" listed in Table 1 of §63.2840

*If the compliance ratio is less than or equal to 1.00, the facility was in compliance with the HAP emission requirements for the previous operating month.*

8. By the end of each calendar month following an operating month, the facility owner or operator shall determine the total solvent loss in gallons for the previous operating month. The total solvent loss for an operating month includes all solvent losses that occur during normal operating periods within the operating month. Solvent losses during startup and shutdown periods shall not be excluded in determining solvent losses. If the source has determined solvent losses for 12 or more operating months, then the source shall also determine the 12 operating months rolling sum of actual solvent loss in gallons by summing the monthly actual solvent loss for the previous 12 operating months. The 12 operating months rolling sum of solvent loss is the "actual solvent loss," which is used to calculate the compliance ratio as described in §63.2840.

Actual solvent loss shall be determined in accordance with §63.2853

9. The facility owner or operator shall determine the weighted average volume fraction of HAP in the actual solvent loss accordance with §63.2854.
10. The facility owner or operator shall determine the quantity of oilseed processed in accordance with §63.2855. All oilseed measurements must be determined on an as received basis, as defined in §63.2872.
11. The facility owner or operator shall follow the detailed procedures stated in the written compliance plan (See Appendix D) to monitor and record data necessary for demonstrating compliance with 40 CFR 63, Subpart GGGG. The compliance plan shall be kept on site and readily available for inspection. If the source makes any changes to the plan for demonstrating compliance, then all previous versions of the plan shall be kept and made readily available for inspection for at least 5 years after each revision.

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**EMISSION GROUP 11000  
(Oil Extraction and Refining)**

Emission Limits and Restrictions (continued)

12. The facility owner or operator shall keep a written copy Startup/ Shutdown/ Malfunction (SSM) plan, developed in accordance with 40 CFR §63.6(e)(3), on site and readily available for inspection. The SSM plan shall provide detailed procedures for operating and maintaining the equipment to minimize emissions during a qualifying malfunction period. The SSM plan shall 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.
13. The facility owner or operator must meet all of the requirements listed in Table 1 of §63.2850 for sources under normal operation as follows:

**Table 11000-1  
(Table 1 of §63.2850)**

Are you required to . . .	For periods of normal operation?	For malfunction periods subject to §63.2850(e)(2)?
(a) Operate and maintain your source in accordance with general duty provisions of §63.6(e)?	Yes. Additionally, the HAP emission limits will apply.	Yes, you are required to minimize emissions to the extent practicable throughout the initial startup period. Such measures should be described in the SSM plan.
(b) Determine and record the extraction solvent loss in gallons from your source?	Yes, as described in §63.2853	Yes, as described in §63.2862(e).
(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.
(d) Determine and record the tons of each oilseed type processed by your source?	Yes, as described in §63.2855	No.
(e) Determine the weighted average volume fraction of HAP in extraction solvent received as described in §63.2854 by the end of the following calendar month?	Yes	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, oilseed processed and compliance ratio for each 12 operating month period as described in §63.2840 by the end of the following calendar month?	Yes.	No, these requirements are not applicable because your source is not required to determine the compliance ratio with data recorded for a malfunction period.
(g) Submit a Notification of Compliance Status or Annual Compliance Certification as appropriate?	Yes, as described in §§63.2860(d) and 63.2861(a)	No. However, you 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 the malfunction period.
(h) Submit a Deviation Notification Report by the end of the calendar month following the month in which you determined that the compliance ratio exceeds 1.00 as described in §63.2861(b)?	Yes	No, these requirements are not applicable because your 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 §63.2861(c)?	No, a SSM activity is not categorized as normal operation	Yes.
(j) Submit an Immediate SSM Report as described in §63.2861(d)?	No, a SSM activity is not categorized as normal operation	Yes, only if your source does not follow the SSM plan.

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**EMISSION GROUP 11000  
(Oil Extraction and Refining)**

Emission Limits and Restrictions (continued)


Local Only Condition(s):

14. PM/PM<sub>10</sub> emissions shall not exceed those listed in the following table:

**Table 11000-2  
(PM/PM<sub>10</sub> Emission Limits)**

Emission Point	Pounds per hour (lbs/hr)	Tons per consecutive 12-month rolling
11002A	0.48	2.10
11002B	0.48	2.10
11003	0.03	0.12
11004	0.03	0.12

15. Each baghouse/fabric filter within Emission Group 11000 (Emission Units 11003 and 11004) shall be maintained in service and in good operating condition whenever the associated processes are in operation to minimize emissions of PM/PM<sub>10</sub>.
16. The EX Mineral Oil Scrubber (Emission Unit 11001) shall be maintained in service and in good operating condition whenever the associated processes are in operation to minimize emissions of VOCs.

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**EMISSION GROUP 11000  
(Oil Extraction and Refining)**

**Monitoring, Testing and Recordkeeping Requirements**

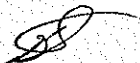
Condition No.	Pollutant (Parameter)	Description	Frequency	Cite
1	PM/PM <sub>10</sub> , VOC, HAP	Oilseed throughput	Monthly and 12-month rolling	City of Memphis Code Section 16-85 [Reference Rules and Regulations of Tennessee, Rule 1200-3-10-.04(2)]
2	PM/PM <sub>10</sub> (Opacity)	Visual emission observations	Monthly	
3	PM/PM <sub>10</sub>	Baghouse/fabric filter operating parameters	Weekly	
<i>Imported Oil Refining</i>				
4	VOC, HAP	Imported oil throughput	Daily	Operating Permit No. 0045-12PC
5	VOC, HAP	Analysis of imported oil for hexane content and calculation of hourly hexane loss	Each load received (hexane content) and daily (hexane loss)	Operating Permit No. 0045-11P
6	VOC, HAP	Imported oil sampling and analysis procedures	Each load received	City of Memphis Code Section 16-85 [Reference Rules and Regulations of Tennessee, Rule 1200-3-10-.04(2)]
<i>Extraction</i>				
7	VOC	Solvent loss rate	Monthly and 12-month rolling	Consent Decree – App. N
8	VOC, HAP	Scrubber operating parameters	Weekly	City of Memphis Code Section 16-85 [Reference Rules and Regulations of Tennessee, Rule 1200-3-10-.04(2)]
9	HAP	Record keeping of solvent inventory, weighted avg. volume fraction of HAP in the extraction solvent, and type of oilseed processed	Various	40 CFR Part 63, Subpart GGGG (§63.2862)
10	HAP	Compliance ratio determination data	Monthly and 12-month rolling	§63.2862 and 2006 Consent Decree
11	HAP	SSM events	Monthly	§63.2862 and 2006 Consent Decree
<i>Local Only Condition(s)</i>				
12	VOC, HAP	Control device maintenance records	As necessary	Operating Permit No. 0045-11P

Monitoring, Testing and Recordkeeping Requirements

1. The facility owner or operator shall maintain monthly and consecutive 12-month rolling period records of Emission Group 11000 oilseed throughput.
2. The facility owner or operator shall perform and record visual observations of emission points within Emission Group 11000, as follows:

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**EMISSION GROUP 11000  
(Oil Extraction and Refining)**

Monitoring, Testing and Recordkeeping Requirements (continued)

**Table 11000-3  
(Visible Emissions Monitoring)**

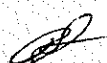
Emission Point(s)	EPA Method	Frequency
11002A, 11002B, 11003A, 11003 and 11004	NA	Monthly
	Method 9	Each occurrence of visible emissions

- a) A visual observation shall be made monthly (if the process is in operation) and recorded for each emission point referenced in the above table. The observation is to determine the presence of visual emissions in accordance with the procedure in Appendix C of this permit.
  - b) If any monthly visual observation indicates the presence of emissions, then a visual determination of opacity shall be made and recorded within 48 hours of discovery. All opacity determinations shall be made in accordance with the provisions of EPA Method 9.
  - c) The requirements of paragraph b) are waived if it is determined that an equipment malfunction has occurred, repairs are completed and documented within 48 hours, and a subsequent visual observation indicates no visible emissions.
  - d) The facility owner or operator shall maintain records of all visual observations and visual determinations of opacity. Records of the occurrence of all malfunctions discovered during the monthly visual observations shall also be maintained.
3. Pressure drop across each baghouse/fabric filter in Emission Group 11000 (Emission Units 11003A, 11003B and 11004) shall be monitored and recorded weekly.

Normal pressure drop range for determination of good operating conditions for these baghouses/fabric filters is >0 and ≤10 inches of water column. Should monitoring indicate a pressure drop out of the normal range, the facility owner or operator shall perform and document an inspection of the baghouse/fabric filter and initiate repairs, as necessary. These records shall be maintained on site.

**Imported Oil Refining:**

4. The facility owner or operator shall maintain daily and records of the quantity of imported oil unloaded into the refining plant.
5. The facility owner or operator shall sample and analyze each load of oil imported to determine the hexane content as received and calculate hexane loss.

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**EMISSION GROUP 11000  
(Oil Extraction and Refining)**

Monitoring, Testing and Recordkeeping Requirements (continued)

6. Sampling and analysis of imported oil shall be performed in accordance with the Cargill imported crude oil hexane sampling and compositing plan dated October 13, 2006 and the following:
  - a) Sample containers used, sample preservation requirements and holding times shall be consistent with the guidelines recommended within applicable EPA SW-846 Test Methods;
  - b) Samples shall be taken in a manner that minimizes turbulence and air entrapment;
  - c) Sample vials shall be filled to capacity and capped;
  - d) All samples taken shall be managed using an appropriate chain-of-custody;
  - e) Samples from each calendar week may be composited by an independent accredited third party laboratory in a manner that will have negligible impact on the volatile content of the samples; and
  - f) The composited sample or each individual sample shall be analyzed by an accredited third party laboratory for hexane content in parts per million (ppm) using EPA SW-846 Method 8260 or equivalent, as approved by the Department.

**Extraction:**

7. The facility owner or operator shall calculate and record the extraction solvent loss rate (gallons VOC per ton of Oilseed) on a monthly basis using the following template:

**Table 11000-4  
(Extraction Solvent Loss Recordkeeping Template)**

Date	Total Crush (Oilseed) Monthly (tons)	Total Crush (Oilseed) 12-Month Rolling (tons)	Solvent Loss Monthly (gallons)	Solvent Loss 12-Month Rolling (gallons)	Malfunction Period Solvent Loss 12-Month Rolling (gallons)	Adjusted Solvent Loss Monthly (gallons)	Solvent Loss Rate 12-Month Rolling (gallons/ton)

8. The EX Mineral Oil Scrubber (Emission Unit 11001) flow rate shall be monitored and recorded on a weekly basis. Normal operating parameter ranges for determination of good operating conditions for this scrubber is as follows:

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**EMISSION GROUP 11000  
(Oil Extraction and Refining)**

Monitoring, Testing and Recordkeeping Requirements (continued)

**Table 11000-5  
(Scrubber Operating Parameters)**

Scrubber	Scrubbing Liquid	Flow Rate (gallons per minute)	Parameter Monitoring Frequency
11001	Mineral Oil	> 5 gpm	Weekly

Should monitoring indicate a parameter out of the normal operating range, the facility owner or operator shall perform maintenance and initiate corrective actions, as necessary. These actions shall be documented and the records maintained on site.

40 CFR Part 63, Subpart GGGG Requirement(s):

9. The facility owner or operator shall record and maintain the following:
- a) For the solvent inventory, record the information in paragraphs (i) through (vii) below in accordance with the compliance plan:
    - (i) Dates that define each operating status period during a calendar month;
    - (ii) The operating status of the source such as normal operation, non-operating, initial startup period, malfunction period, or exempt operation for each recorded time interval;
    - (iii) The gallons of extraction solvent in the inventory on the beginning and ending dates of each normal operating period;
    - (iv) The gallons of all extraction solvent received during each month;
    - (v) The total solvent loss for each calendar day, regardless of the source operating status; and
    - (vi) All extraction solvent inventory adjustments, additions or subtractions. The facility owner or operator shall document the reason for the adjustment and justify the quantity of the adjustment;
    - (vii) The actual solvent loss in gallons for each operating month.
  - b) For the weighted average volume fraction of HAP in the extraction solvent, record the items in paragraphs (i) through (iii) below:

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- (i) The gallons of extraction solvent received in each delivery;  
**EMISSION GROUP 11000**  
**(Oil Extraction and Refining)**

Monitoring, Testing and Recordkeeping Requirements (continued)

- (ii) The volume fraction of each HAP exceeding 1 percent by volume in each delivery of extraction solvent; and
  - (iii) The weighted average volume fraction of HAP in extraction solvent received since the end of the last operating month.
- c) For each type of listed oilseed processed, record the items in paragraphs (i) through (vi) below, in accordance with the compliance plan:
- (i) The dates that define each operating status period. These dates must be the same as the dates entered for the extraction solvent inventory;
  - (ii) The operating status of your source such as normal operation, non-operating, initial startup period, malfunction period, or exempt operation for each recorded time interval. On the log for each type of listed oilseed that is not being processed during a normal operating period, you must record which type of listed oilseed is being processed in addition to source operating status;
  - (iii) The oilseed inventory for the type of listed oilseed being processed on the beginning and ending dates of each normal operating period;
  - (iv) The tons of each type of listed oilseed received at the affected source each normal operating period;
  - (v) All listed oilseed inventory adjustments, additions or subtractions for normal operating periods. You must document the reason for the adjustment and justify the quantity of the adjustment; and
  - (vi) The tons of each type of listed oilseed processed during each operating month.
10. The facility owner or operator shall record and maintain the items below by the end of the calendar month following each operating month:
- a) The 12 operating months rolling sum of the actual solvent loss in gallons;
  - b) The weighted average volume fraction of HAP in extraction solvent received for the previous 12 operating months;

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**EMISSION GROUP 11000  
(Oil Extraction and Refining)**

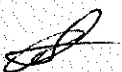
Monitoring, Testing and Recordkeeping Requirements (continued)

- c) The 12 operating months rolling sum of each type of listed oilseed processed at the affected source in tons;
  - d) A determination of the compliance ratio; and
  - e) A statement of whether the source is in compliance with all of the applicable requirements of 40 CFR Part 63, Subpart GGGG.
11. For each SSM event subject to a malfunction period, the facility owner or operator shall record the items 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 a malfunction.
  - b) An estimate of the solvent loss in gallons for the duration of the malfunction period with supporting documentation.
  - c) A checklist or other mechanism to indicate whether the SSM plan was followed during the malfunction period.

Local Only Condition(s):

12. The facility owner or operator shall maintain records of maintenance performed on emission control equipment.

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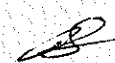
**EMISSION GROUP 11000  
(Oil Extraction and Refining)**

**Reporting Requirements**

Condition No.	Description	Reporting Frequency	Cite
1	Semi-annual monitoring report	Semi-annually	City of Memphis Code Section 16-85 [Reference Rules and Regulations of Tennessee, Rule 1200-3-10-.04(2)]
2	Significant modification notifications.	As necessary	40 CFR Part 63, Subpart GGGG (§63.2860)
3	Annual compliance certifications	Annually	§63.2861
4	Deviation notification report	As necessary	§63.2861
5	Periodic startup, shutdown, and malfunction report	As necessary	§63.2861
6	Immediate SSM reports	As necessary	§63.2861

Reporting Requirements

1. The facility owner or operator shall submit the following records to the Department, on a semi-annual basis, for the previous consecutive 12-month rolling period. These records shall be submitted as part of the semi-annual monitoring report required under Section IV, Facility-Wide Requirements, Reporting Requirements, Condition No. 1.
  - Throughput records (Monthly and consecutive 12-month rolling period):
    - a) Oilseed;
  - Imported Oil (Daily):
    - b) Total imported oil unloaded ;
    - c) Hexane content (each load);
    - d) Hexane loss (daily total);
  - Extraction (Monthly and consecutive 12-month rolling period):
    - e) Solvent loss rate (Including all data required in the “Extraction Solvent Loss Recordkeeping Template” – See Table 11000-4);
  - Visible emission inspection reports (Monthly):
    - f) Visible emission observation records and subsequent EPA Method 9 visual determinations of opacity, if necessary;

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**EMISSION GROUP 11000**  
**(Oil Extraction and Refining)**

Reporting Requirements (continued)

- Baghouse/fabric filter operating parameter monitoring records (Weekly):
  - g) Baghouse/fabric filter pressure drop;
- Scrubber operating parameter monitoring records (Weekly):
  - h) Scrubber flow rate;

40 CFR Part 63, Subpart GGGG Requirement(s):


2. Significant modification notifications: If the source plans to undergo a significant modification, the facility owner or operator shall submit two reports as described in paragraphs below:

Significant modification means the addition of new equipment or the modification of existing equipment that:

- ✓ Significantly affects solvent losses from your vegetable oil production process;
- ✓ The fixed capital cost of the new components represents a significant percentage of the fixed capital cost of building a comparable new vegetable oil production process;
- ✓ The fixed capital cost of the new equipment does not constitute reconstruction as defined in 40 CFR §63.2.

- a) Initial notification. You must submit an initial notification to the agency responsible for these NESHAP 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 items in paragraphs a(i) and (ii) below:

- (i) The expected startup date of the modified source;
- (ii) 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 (conventional and specialty), and meal dryer-coolers, then the source 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

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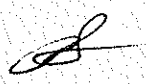
documentation for the cost estimate; and documentation that the proposed changes will significantly affect solvent losses.

**EMISSION GROUP 11000  
(Oil Extraction and Refining)**

Reporting Requirements (continued)

- b) Notification of actual startup. The source must submit a notification of actual startup date within 15 days after initial startup of the modified source. The notification must include the items in paragraphs b(i) through (iii) below:
  - (i) The initial startup date of the modified source;
  - (ii) The anticipated duration of any initial startup period; and
  - (iii) A justification for the anticipated duration of any initial startup period
- 3. Annual Compliance Certifications: The first annual compliance certification is due 12 calendar months after the source submits the initial notification of compliance status. Each subsequent annual compliance certification is due 12 calendar months after the previous annual compliance certification. The annual compliance certification provides 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. Include the information in paragraphs below in the annual certification:
  - a) The name and address of the facility 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 under §63.2854(a) 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. An area source is a source that is not a major source and is not collocated within a plant site with other sources that are individually or collectively a major source; and
  - 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 facility owner or operator must include a certification of the items in paragraphs below:

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- (i) The source is following the procedures described in the plan for demonstrating compliance; and

**EMISSION GROUP 11000  
(Oil Extraction and Refining)**

Reporting Requirements (continued)

- (ii) The compliance ratio is less than or equal to 1.00

4. Deviation notification report: The facility owner or operator shall submit a deviation report for each compliance determination made in which the compliance ratio exceeds 1.00. The facility owner or operator shall submit the deviation report by the end of the month following the calendar month in which the source determined the deviation. The deviation notification report must include the items in paragraphs below:
- a) The name and address of the facility owner or operator;
  - b) The physical address of the vegetable oil production process;
  - c) Each listed oilseed type processed during the 12 operating month period for which the source determined the deviation; and
  - d) The compliance ratio comprising the deviation
5. Periodic startup, shutdown, and malfunction (SSM) report: If the source chooses to operate under a malfunction period, they must submit a periodic SSM report by the end of the calendar month following each month in which the malfunction period occurred. The periodic SSM report must include the items in paragraphs below:
- a) The name, title, and signature of a source's responsible official who is certifying that the report accurately states that all actions taken during the 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 a malfunction period; and
  - c) An estimate of the solvent loss during the malfunction period with supporting documentation
6. Immediate SSM reports: If the source handles a SSM during a malfunction period differently from procedures in the SSM plan and the relevant emission requirements are exceeded, then the source must submit an immediate SSM report. Immediate SSM reports consist of a telephone call or facsimile transmission to the responsible agency 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 the items in paragraphs below:

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**EMISSION GROUP 11000  
(Oil Extraction and Refining)**

**Reporting Requirements (continued)**

- a) The name, title, and signature of a source's 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; and
- c) An estimate of the solvent loss for the duration of the SSM event with supporting documentation

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**EMISSION GROUP 12000  
(Emergency Generator and Fire Pump Engine)**

**Emission Limits and Restrictions**

Condition No.	Pollutant (Parameter)	Limitation	Cite
1	NO <sub>x</sub> , CO, HAP	NESHAP affected sources	40 CFR 63, Subpart ZZZZ
2	NO <sub>x</sub> , CO, HAP	Maintenance requirements	§63.6640 and Table 6
3	NO <sub>x</sub> , CO, HAP	Maintenance requirements	40 CFR Part 63, Subpart ZZZZ (§63.6602 and Table 2c)
4	NO <sub>x</sub> , CO, HAP	Minimization of engine idle at start-up	§63.6602 and Table 2c
5	NO <sub>x</sub> , CO, HAP	Non-emergency operating hours (Allowable use)	§63.6640(f), (f)(2)(i-iii) and (f)(3)
6	NO <sub>x</sub> , CO, HAP	Non-emergency operating hours (Restriction)	§63.6640(f)(3)
7	NO <sub>x</sub> , CO, HAP	Emergency operating hours	§63.6640(f)(1)
8	NO <sub>x</sub> , CO, HAP	Equip engines with non-resettable hour meters	§63.6655
9	SO <sub>2</sub>	Diesel fuel requirement	§63.6604(b)
10	PM/PM <sub>10</sub> (Opacity)	General opacity limit	City of Memphis Code Section 16-83 [Reference Rules and Regulations of Tennessee, Rule 1200-3-5-.01(1)]
<i>Local Only Condition(s)</i>			
11	NO <sub>x</sub>	Prohibited testing days	City of Memphis Code Section 16-59

Emission Limits and Restrictions

- The following emission units (emergency engines) at this facility are subject to and shall comply with the requirements of 40 CFR Part 63, Subpart ZZZZ, "National Emissions Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines".

**12000-1  
(Emission Units)**

Emission Unit No.	Description	Manufacturer	Horsepower	Year Installed
12001	Boiler Diesel Emergency Generator	Detroit Diesel	400	1980
12003	Emergency Diesel Fire Pump	Detroit Diesel	170	1990

- Each emergency engine must be operated and maintained according to the manufacturer's emission-related written instructions or the source may develop a maintenance plan that must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

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**EMISSION GROUP 12000**  
**(Emergency Generator and Fire Pump Engine)**

Emission Limits and Restrictions (continued)

3. The facility shall perform the listed maintenance items on each emergency engine as per the following schedule:
  - a) Change oil and filter every 500 hours of operation or annually, whichever comes first;
  - b) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and
  - c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
4. The facility owner or operator shall minimize emergency engine time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed thirty (30) minutes.
5. Emergency engines can be used for 100 hours per year for the following purposes:
  - a) Maintenance checks;
  - b) Readiness testing;
  - c) Non-emergency situations with up to 50 hours per year of maximum operation limit;
  - d) Emergency demand response for Energy Emergency Alert Level 2 situations; and
  - e) Responding to situations where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
6. The 50 hours of non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
7. There is no time limit on the use of emergency engines in emergency situations.
8. The facility owner or operator shall equip each emergency engine with a non-resettable hour meters to keep records of the hours of operation of each engine
9. Diesel fuel used must meet the requirements of 40 CFR 80.510(b) for non-road diesel fuel.

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**EMISSION GROUP 12000**  
**(Emergency Generator and Fire Pump Engine)**

Emission Limits and Restrictions (continued)

10. Visible emissions from each emergency engine shall not exceed twenty percent (20%) in opacity for more than five (5) minutes in any one (1) hour period or more than twenty (20) minutes in any twenty-four (24) hour period. [EPA Method 9]

Local Only Condition(s):

11. Testing or maintenance operation of each emergency engine is prohibited on days when the local air quality forecast shows pollutant levels are expected to exceed the health-based national ambient air quality standards for ozone or particulate matter. Daily air quality forecasts can be found at [www.midsouthcleanair.org](http://www.midsouthcleanair.org), [www.airnow.org](http://www.airnow.org) or by contacting the Department.

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**EMISSION GROUP 12000  
(Emergency Generators and Fire Pump Engine)**

**Monitoring, Testing and Recordkeeping Requirements**

Condition No.	Pollutant (Parameter)	Description	Frequency	Cite
1	PM/PM <sub>10</sub> , NO <sub>x</sub> , CO, SO <sub>2</sub> , VOC, HAP	Maintenance Records	As necessary	40 CFR Part 63, Subpart ZZZZ [§63.6655(e)]
2	PM/PM <sub>10</sub> , NO <sub>x</sub> , CO, SO <sub>2</sub> , VOC, HAP	Operating hour records	Monthly	City of Memphis Code Section 16-85 [Reference Rules and Regulations of Tennessee, Rule 1200-3-10-.04(2)]
3	PM/PM <sub>10</sub> , NO <sub>x</sub> , CO, SO <sub>2</sub> , VOC, HAP	Emergency operation records	As necessary	[§63.6655(f)]

Monitoring, Testing and Recordkeeping Requirements

1. The facility owner or operator shall maintain records of the maintenance conducted on each emergency engine.
2. The facility owner or operator shall maintain a record of monthly operating hours for each emergency engine as recorded through the non-resettable hour meter.
3. The facility owner or operator shall document how many hours are spent for emergency operation; including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in §63.6640(f)(2)(ii) or (iii) or §63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.

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## **SECTION V – OTHER REQUIREMENTS**

### **USE OF OZONE DEPLETING SUBSTANCES**

1. The permittee shall comply with the standards for labeling of products using ozone depleting substances pursuant to 40 CFR 82 Subpart E:
  - a) All containers containing a class I or class II substance being stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106;
  - b) The placement of the required warning statement must comply with the requirements pursuant to §82.108;
  - c) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110; and
  - d) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
  
2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82 Subpart F, except as provided for motor vehicle air conditioners (MVAC's) in Subpart B:
  - a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156;
  - b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158;
  - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161;
  - d) Persons disposing of small appliances, MVAC's, and MVAC-like appliances must comply with the record keeping requirements pursuant to §82.166. (MVAC-like appliance as defined at §82.152);
  - e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156; and
  - f) Owner or operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.

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3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR 82 Subpart A, Production and Consumption Controls.
4. If the permittee performs a service on motor (fleet) vehicles when this service involves ODS refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR 82 Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the airtight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.
5. The permittee shall be allowed to switch from any ODS to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR 82, Subpart G, Significant New Alternatives Policy Program.

### **OPERATIONAL FLEXIBILITY**

The permittee has requested specific operational flexibility provisions to be included in addition to that provided in the City of Memphis Code, Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(a)(4)].

1. In those cases where the facility owner or operator is required to monitor the operating performance of equipment, as specifically designated in this permit, a minimum value of 90% is allowed for the collection of monitoring data, unless otherwise specified. For example, where the facility owner or operator is required to perform a weekly pressure drop recording for a baghouse emission point to demonstrate compliance with the particulate limits in this permit, a minimum of 47 ( $47 \div 52 = 90.4\%$ ) weeks of data is required.

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## SECTION IV – GENERAL CONDITIONS

### **General Permit Conditions for Title V Operating Permits**

1. Severability: The requirements of this permit issued pursuant to City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)] are severable. A dispute regarding one or more permit requirements in this permit does not invalidate or otherwise excuse a permittee from their duty to comply with the remaining portion of this permit in accordance with City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(e)1(v)].
2. Permit Shield: In accordance with City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(e)6(i)] compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issue, provided:
  - a) Such applicable requirements are included and are specifically identified in this permit; or
  - b) The Technical Manager, in acting on this permit application or revision, determines, in writing, that other requirements specifically identified are not applicable to the source, and this permit includes the determination or a concise summary thereof; and
  - c) The permit shield does not extend to minor permit modifications made pursuant to City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(f)5.(ii)(VI)].
3. Permit Actions for Cause: This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. In accordance with City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(e)1(vi)(III)].
4. Circumvention of Regulations: No person shall use any plan, activity, device or contrivance that the Technical Manager determines will, without resulting in an actual reduction of air contaminants, conceal or appear to minimize the effects of an emission that would otherwise constitute a violation of this permit or any applicable requirement.

Methods considered circumvention of the regulations, as stated in City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.03(2)], include but are not limited to:

- a) Air (or other gases) introduced for dilution purposes only; and

General Permit Conditions (continued)

- b) The staggered installation and operation of a facility to avoid coverage by a standard that applies only to operations larger than a specified size.
5. Creating a Traffic Hazard or Interfering with Public Transportation: No person shall discharge from any source whatsoever such quantities of air contaminant, uncombined water, or other materials which cause or have a tendency to cause a traffic hazard or an interference with normal means of public transportation in accordance with City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.03(3)].
6. Defense for Noncompliance: The need to halt or reduce activity is not a defense for noncompliance. 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. However, nothing in this item shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in assessing penalties for noncompliance if the health, safety or environmental impacts of halting or reducing operations would be more serious than the impacts of continuing operations in accordance with City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(e)1(vi)(II)].
7. Compliance Certification: All compliance certifications submitted to the Department shall include the following in accordance with City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(e)3(v)(III)]:
- a) The identification of each term or condition of this permit that is the basis of the certification;
  - b) The compliance status of each term or condition of this permit during the certification period;
  - c) Whether compliance was continuous or intermittent;
  - d) The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11) (e)1(iii)] [Monitoring and related record keeping and reporting requirements]; and
  - e) Such other facts as the Technical Manager may require for determination of the compliance status of the source.
8. Compliance Certification: All compliance certifications required by this permit shall be submitted to the EPA as well as to the Technical Manager in accordance with City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(e)3(v)(IV)].

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General Permit Conditions (continued)

9. Compliance Certification: Each compliance certification required by this permit shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Federal Act [Permit Requirements and Conditions: Monitoring and Analysis], and any other compliance requirement deemed necessary by the Technical Manager in accordance with City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(e)3(v)(V) and -.02(11)(e)3(vi)].
10. Responsible Official Certification: Any application form, report, or compliance certification submitted pursuant to the requirements of City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)] or this permit shall contain certification by a responsible official of truth, accuracy and completeness. This certification and any other certification required under City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(d)4] shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
11. Enforceability: This permit is issued pursuant to the requirements of Title V of the Federal Act and its implementing Federal regulations promulgated at 40 CFR part 70. As such, the permittee is advised that:
  - a) All terms and conditions in this permit including any provisions designed to limit a source's potential to emit, are enforceable by the Administrator and citizens under the Federal Act in accordance with City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)]; and
  - b) Notwithstanding (a) above, in this permit labeled "local only requirements" the Technical Manager has specifically designated as not being federally enforceable under the Federal Act or under any of its applicable requirements.

Terms and conditions so designated are not subject to the requirements of City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11) subparagraphs (f) {Permit Issuance, Renewal, Reopening and Revision} and (g) {Permit Review by EPA and Affected States}, other than those contained in part 1200-3-9-.02(11)(e)2].

12. Federal Enforcement: SECTION 113(c)(2) of the Federal Act: Any person who knowingly – makes any false material statement, representation, or certification in, or omits material information from, or knowingly alters, conceals, or fails to file or maintain any notice, application, record, report, plan, or other document required pursuant to this Act to be either filed or maintained (whether with respect to the requirements imposed by the Administrator or by a State or the Department); fails to notify or report as required under the Act; or falsifies, tampers with, renders inaccurate, or fails to install any monitoring device or method required to be maintained or followed under this Act shall, upon

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conviction, be punished by a fine pursuant to title 18 of the United States Code, or by imprisonment for not more than 2 years, or both.

General Permit Conditions (continued)

If a conviction of any person under this paragraph is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment shall be doubled with respect to both the fine and imprisonment.

13. Reasonable Measures Required During Startups, Shutdowns, and Malfunctions: In accordance with City of Memphis Code Section 16-87 [Reference Rules and Regulations of Tennessee, Rule 1200-3-20-.02], Air contaminant sources must take all reasonable measures to keep emissions to a minimum during startups, shutdowns, and malfunctions. These measures may include installation and use of alternate control systems, changes in operating methods or procedures, cessation of operation until the process equipment and/or air pollution control equipment is repaired, maintaining sufficient spare parts, use of overtime labor, use of outside consultants and contractors, and other appropriate means. Failures that are caused by poor maintenance, careless operation or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions, and shall be considered in violation of the emission standard exceeded and this rule.
14. Notice Required When a Malfunction Occurs: In accordance with City of Memphis Code Section 16-87 [Reference Rules and Regulations of Tennessee, Rule 1200-3-20-.03], when any air contaminant source malfunctions in such a manner as to cause the emission of air contaminants in excess of the applicable emission standards contained in Division 1200-3 or any permit issued thereto, or of sufficient duration to cause damage to property or public health, the owner or operator of the air contaminant source shall promptly notify the Technical Secretary of such malfunction and provide a statement giving all pertinent facts, including the estimated duration of the malfunction.

Violations of the visible emission standard (excluding visible emissions caused by hazardous air pollutants named in Chapter 1200-3-11), which occur for less than 20 minutes in one day (midnight to midnight) need not be reported.

Prompt notification will be within 24 hours of the malfunction and shall be provided by telephone to the Shelby County Health Department, Pollution Control Section.

The Technical Secretary shall be notified when the malfunction has been corrected. In attainment and unclassified areas if emissions other than from sources designated as significantly impacting on a nonattainment area in excess of the standards will not and do not occur over more than a 24-hour period (or will not recur over more than a 24-hour period) and no damage to property and or public health is anticipated, notification is not required.

Any malfunction that creates an imminent hazard to health must be reported by telephone immediately to the Shelby County Health Department, Pollution Control Section and the Emergency Management Agency.

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General Permit Conditions (continued)

15. Log of Malfunctions, Startups, and Shutdowns: In accordance with City of Memphis Code Section 16-87 [Reference Rules and Regulations of Tennessee, Rule 1200-3-20-.04], a log of all malfunctions, startups, and shutdowns resulting in emissions in excess of the standards in the City of Memphis Air Code, reference 1200-3 of the State of Tennessee Code, or any permit issued thereto must be kept at the facility. This log must record at least the following:
- a) Stack or emission point involved;
  - b) Time of malfunction, startup, or shutdown or when first noticed.
  - c) Type of malfunction and/or reason for shutdown;
  - d) Time startup or shutdown was complete or time the air contaminant source returned to normal operation; and
  - e) The company employee making entry on the log must sign, date and state the time of each log entry.

The information under items (a) and (b) above must be entered into the log by the end of the shift during which the malfunction or startup began. All information shall be entered in the log no later than twenty-four (24) hours after the startup or shutdown is complete, or the malfunction has ceased or has been corrected. Any later discovered corrections can be added in the log as footnotes with the reason given for the change.

16. Retention Period for Records and Supporting Information: Records and supporting information required to be maintained by this permit shall be retained for a period of at least five (5) years from the date of the record in accordance with City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(e)1(iii)(II)II]. Supporting information includes, but is not limited to, all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.
17. Monitoring Records: Records of monitoring information required by this permit shall include the following :
- a) The date, place as defined in this permit, and time of sampling or measurements;
  - b) The date(s) analyses were performed;
  - c) The company or entity that performed the analysis;
  - d) The analytical techniques or methods used;
  - e) The results of such analyses; and

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- f) The operating conditions as existing at the time of sampling or measurement.

General Permit Conditions (continued)

18. Information Requests: In accordance with City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(e)1(vi)(V)], the permittee shall furnish to the Technical Manager, within a reasonable time, any information that the Technical Manager may request in writing to determine whether cause exists for modifying, revoking and reissuing, or termination of this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Technical Manager copies of records required to be kept by this permit. If the permittee claims that such information is confidential, the Technical Manager may review that claim and hold the information in protected status until such time that the Board can hear any contested proceedings regarding confidentiality disputes. If the Administrator (EPA) desires the information, the permittee may mail the information directly to the EPA.
19. Access to Premises, Records, and Inspections: Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Technical Manager or his authorized representative to perform the following for the purposes of determining compliance with the applicable permit requirements in accordance with City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(e)3(ii)]:
- a) Enter upon the permittee's premises at reasonable times where a source subject to City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)] is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
  - b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  - c) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
  - d) As authorized by City of Memphis Code Section 16-85, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

Reasonable times" shall be considered to be customary business hours unless reasonable cause exists to suspect noncompliance with the Act, City of Memphis Code, Division 1200-3, or any permit issued pursuant thereto and the Technical Manager specifically authorizes an inspector to inspect a facility at any other time.

20. Permit Availability and Display: The owner or operator shall maintain this operating permit readily available for inspection by the Technical Manager or his/her designated representative on the operating premises.

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General Permit Conditions (continued)

A person required by regulations to have one or more operating permits shall keep at least one operating permit prominently and conspicuously displayed on the operating premises in accordance with City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(5)].

21. Emergency Orders, Liabilities, and Acid Rain: Nothing in this permit issued pursuant to City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(e)6(iii)] shall alter or affect the following:
- a) The provisions of section 303 of the Federal Act (emergency orders), including the authority of the Administrator under that section. Similarly, the provisions of T.C.A. 68-201-109 (emergency orders) including the authority of the Governor under City of Memphis Code Section 16-59 including the authority of the Health Officer under the section;
  - b) The liability of the owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issue;
  - c) The applicable requirements of the acid rain program, consistent with section 408(a) [Permits and Compliance Plans: Permit Program] of the Federal Act; or
  - d) The ability of EPA and the Department to obtain information from a source pursuant to section 114 [Recordkeeping, Inspection, Monitoring, and Entry] of the Federal Act.
22. Emergency Provisions: In accordance with City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(e)7] an "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology based emission limitation under this 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 preventative maintenance, careless or improper operation, or operator error.

An emergency constitutes an affirmative defense to an enforcement action brought against a source for noncompliance with such technology based emission limitations if the following are met.

- a) The affirmative defense of the emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

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General Permit Conditions (continued)

- i. An emergency occurred and that the permittee can identify the probable cause(s) of the emergency. "Probable" must be supported by a credible investigation into the incident that seeks to identify the causes and results in an explanation supported by generally accepted engineering or scientific principles;
- ii. The permitted facility was at the time being properly operated. In determining whether or not a facility was being properly operated, the Technical Manager shall examine the source's written standard operating procedures that were in effect at the time of the noncompliance and any other code as detailed below that would be relevant to preventing the noncompliance. Adherence to the source's standard operating procedures will be the test of adequate preventative maintenance, careless operation, improper operation or operator error to the extent that such adherence would prevent noncompliance. The source's failure to follow recognized standards of practice to the extent that adherence to such a standard would have prevented noncompliance will disqualify the source from any claim of an emergency and an affirmative defense. The Department will specifically recognize the National Fire Protection Association codes, the codes of the American National Standards Institute, the codes of the American Society of Testing Materials, the codes of the United States Department of Transportation, the codes of the United States Occupational Safety and Health Administration and any State of Tennessee statute or regulation if applicable. Recognition of these codes, statutes, regulations and standards of practice is limited to the test of determining whether or not a facility was operated properly for the purposes of preventing actual (not potential) noncompliance and in no way should it be viewed as the Department's imposition of the standards administered by other agencies, Boards, or organizations;
- iii. During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in this permit; and
- iv. The permittee submitted notice of the emergency to the Technical Manager according to the notification criteria for malfunctions in City of Memphis Code Section 16-87 [Reference Rules and Regulations of Tennessee, Rule 1200-3-20-.03].

For the purposes of this item in City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(e)7(iii)(IV)], "emergency" shall be substituted for "malfunctions(s)" in rule 1200-3-20-.03 to determine the relevant notification

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threshold. The notice shall include a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

General Permit Conditions (continued)

- b) In any enforcement proceeding this permittee seeking to establish the occurrence of an emergency has the burden of proof; and
  - c) These provisions are in addition to any emergency, malfunction or upset requirement contained in this permit, City of Memphis Code, Division 1200-3, or other applicable requirement.
23. Air Pollutant Episode Emissions Reduction Plan: This source may be required to submit an acceptable air pollutant episode emissions reduction plan in accordance with City of Memphis Code Section 16-60 [Reference Rules and Regulations of Tennessee, Rule 1200-3-15] detailing steps that can be taken to relieve a health hazard in the event that the Technical manager declares an air pollution alert, air pollution warning, or air pollution emergency. In the event that this plan is required, the source shall be notified in writing, and shall have thirty days to submit required the plan.
24. Air Pollution Alerts, Warnings, and Emergencies: In the event that the Technical Manager declares an air pollution alert, air pollution warning, or air pollution emergency, this source may be required to cease, curtail, postpone or defer production and allied operations to the extent possible without causing injury to persons or damage to equipment in accordance with City of Memphis Code Section 16-60 [Reference Rules and Regulations of Tennessee, Rule 1200-3-15].
25. Duty to File Accidental Release Plans:  
Pursuant to City of Memphis Code Section 16-91.4 [Reference Rules and Regulations of Tennessee, Rule 1200-3-32-.03]:
- a) Sources which are subject to the provisions of Section 112(r) of the federal Clean Air Act or any federal regulations promulgated thereunder, must file a copy of any plan or submittal required therein with the Technical Manager. If such a source is subject to the permitting requirements of Paragraph 1200-3-9-.02(11) and has failed to timely file their plan with the United States Environmental Protection Agency, the Technical Manager shall place them on a schedule of compliance to develop and file the plan. The schedule of compliance shall be placed on the source's operating permit consistent with the provisions of Subpart 1200-3-9-.02(11)(e)3(iii).
  - b) The Technical Manager is specifically authorized to request information from sources for the purpose of determining whether or not they are subject to Section 112(r) of the federal Clean Air Act or any federal regulations promulgated thereunder.
  - c) Sources that have filed an accidental release plan shall annually certify in writing to the Technical Manager that they are properly following their accidental release plan.

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The annual certification is due in the office of the Technical Manager no later than January 31 of each year. Said certification will be for the preceding calendar year.

General Permit Conditions (continued)

26. Operational Flexibility: In accordance with City of Memphis Code Section 16-77 [1200-3-9-.02(11)(a)4] the owner or operator may make certain changes at their facility that are contrary to or not addressed by this permit. The following changes can be made by the permittee without requiring a permit revision, if the changes are not modifications under Title I of the Federal Act or Division 1200-3 and the changes do not exceed the emissions allowable under this permit (whether expressed therein as a rate of emissions or in the terms of total emissions), provided, that the facility provides the Administrator and Technical Manager with written notification as required below in advance of the proposed changes, which shall be a minimum of 7 days. The Technical Manager may waive the 7-day advance notice in instances where the source demonstrates in writing that an emergency necessitates the change. Emergency shall be demonstrated by the criteria of City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(e)7] (Emergency Provisions) and in no way shall it include changes solely to take advantages of an unforeseen business opportunity. The source, Technical Manager and EPA shall attach each such notice to their copy of the relevant permit.

- a) The owner or operator may make a Section 502(b)(10) [as described above in this condition] change if their written notification contains a brief description of the change within the permitted facility; specifies the date on which the change will occur; declares any change in emissions; and declares any permit term or condition that is no longer applicable as a result of the change.

These permit shield provisions of City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(e)6] shall not apply to Section 502(b)(10) changes; and

- b) The source may make operational flexibility changes that are not addressed or prohibited by this permit without a permit revision subject to the following requirements:
  - i. The change cannot be subject to a requirement of Title IV of the Federal Act or City of Memphis Code Section 16-91.2 [Acid Precipitation Standard];
  - ii. The change cannot be a modification under any provision of Title I of the Federal Act or Division 1200-3;
  - iii. Each change shall meet all applicable requirements and shall not violate any existing permit term or condition;
  - iv. The owner or operator must provide contemporaneous written notice to the Technical Manager and EPA of each such change, except for changes that are below the threshold of insignificant activities and emission levels that are

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specified in City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.04];

General Permit Conditions (continued)

- v. Each change shall be described in the notice including the date, any change in emissions, pollutants emitted, and any applicable requirements that would apply as a result of the change;
  - vi. The change shall not qualify for a permit shield under the provisions of City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(1)(e)6]; and
  - vii. The permittee shall keep a record describing the changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes. The records shall be retained until the changes are incorporated into subsequently issued permits.
27. Construction Permits: In accordance with City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.01(1)(a)], no person shall begin the construction of a new air contaminant source or the modification of an air contaminant source which may result in the discharge of air contaminants without first having applied for and received from the Technical Manager a construction permit for the construction or modification of such air contaminant source, except as specifically exempted in Rule 1200-3-9-.04 or excluded in subparagraph 1200-3-2-.01(1)(aa) or subparagraph 1200-3-2-.01(1)(cc).
28. Construction Permits: In accordance with City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.01(1)(b)], the application for a construction permit shall be made on forms available from the Technical Manager not less than ninety (90) days prior to the estimated starting date of construction.
- Sources identified in Paragraph 1200-3-9-.01(4) shall make application for a construction permit not less than one hundred twenty (120) days prior to the estimated date of construction.
29. New Construction or Modifications: Construction or modification at this source that is subject to the provisions of City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.01] shall be governed by the following:
- a) The permittee shall designate in their construction permit application the route that they desire to follow for the purposes of incorporating the newly constructed or modified sources into their existing operating permit. The Technical Manager shall use that information to prepare the operating permit application submittal deadlines in their construction permit;
  - b) Sources desiring the permit shield shall choose the administrative amendment route of City of Memphis Code Section 16-77 [Reference Rules and Regulations of

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Tennessee, Rule 1200-3-9-.02(11)(f)4] or the significant modification route of City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(f)5(iv)]; and

General Permit Conditions (continued)

- c) Sources desiring expediency instead of the permit shield shall choose the minor permit modification procedure route of City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(f)5(ii)] or group processing of minor modifications under the provisions of City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(f)5(iii)] as applicable to the magnitude of their construction. (Reference City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-03-09-.02(11)(d) 1(i)(V)]).
30. Permit Renewal and Expiration: In accordance with City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(d)1(i)(III)], a timely renewal application is one that is submitted at least 180 days, but no more than 270 days prior to the expiration date of this major source operating permit. In accordance with City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(f)3] permits that are being renewed are subject to the same procedural requirements, including those for public participation, affected State and EPA review, that apply to initial permit issuance. Consistent with the provisions of City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(a)2] permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(f)2] (Requirement for a Permit) and item 1200-3-9-.02(11)(d)1(i)(III)].
31. Permit Application Errors: The owner or operator of this source has a duty to supplement or correct their application upon discovery that their application was incorrect or failed otherwise to address any facts relevant to permitting at the source. The applicant must also provide additional information as necessary to address any requirements that become applicable to the source after the date that it has filed a complete application but prior to the release of a draft permit. City of Memphis Code Section 16-77 [1200-3-9-.02(11)(d)2.]
32. Permit Transference: This permit is not transferable from one person to another person, nor from one air contaminant source to another air contaminant source, nor from one location to another location in accordance with City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.03(6)].
33. Changes Not Requiring Permit Modification: The owner or operator of any air contaminant source to which any of the following changes are made, but would not be a modification requiring a construction permit, must notify the Technical Manager thirty (30) days before the change is commenced.

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City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(7)] defines these changes as:

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General Permit Conditions (continued)

- a) change in air pollution control equipment;
  - b) change in stack height or diameter; and
  - c) change in exit velocity (of more than twenty five (25%) percent) or exit temperature of more than fifteen (15%) percent (absolute temperature basis).
34. New Applicable Requirements: Additional applicable requirements under the Clean Air Act become applicable to a major part 70 source with a remaining permit term of three (3) or more years. Such a permit reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening of the permit is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 70.4(b)(10)(i) or (ii).
35. Emissions Testing: The owner or operator may be required to conduct or have conducted at his expense, tests to determine the emission level of specific air contaminants. Such tests shall be conducted in a manner approved by the Technical Manager. The Department requires a 30-day notice of the scheduling of emissions tests in order that such tests are conducted in the presence of a representative in accordance with City of Memphis Code Section 16-85.
36. Asbestos: Prior to the commencement of a demolition or renovation project involving asbestos, the owner or operator shall comply with the requirements of City of Memphis Code Section 16-81, [Reference Rules and Regulations of Tennessee, Rule 1200-3-11-.02(2)(d)]. No owner or operator of a facility may install or reinstall on a facility component any insulating materials that contain commercial asbestos if the materials are either molded and friable or wet-applied and friable after drying. Disposal of asbestos shall be performed in accordance with City of Memphis Code Section 16-81 [Reference Rules and Regulations of Tennessee, Rule 1200-3-11-.02(2)(j)].
37. Open Burning: The open burning of residential, commercial, institutional, or industrial solid waste is prohibited except as specified in this permit or in City of Memphis Code Section 16-50.
38. Fees: The permittee shall pay fees in accordance with City of Memphis Code Sections 16-93 and 16-94.
39. Property Rights: This permit does not convey any property rights of any sort, or any exclusive privilege in accordance with City of Memphis Code Section 16-77 [Reference Rules and Regulations of Tennessee, Rule 1200-3-9-.02(11)(e)1(vi)(IV)].

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# Appendix A


## Applicable Requirements

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CFR Part	Description	Applicable Req.	Notes
40 CFR 50.1 — 50.18	National Primary and Secondary Ambient Air Quality Standards	Yes	Contains general requirements
40 CFR 52.21	Prevention of Significant Deterioration of Air Quality	Yes	Contains general requirements for PSD sources. This Cargill facility is a major source of VOCs.
40 CFR 60 (Subpart A)	Standards of Performance for New Stationary Sources: General Provisions	Yes	Contains general requirements applicable to the Elevator Department (Emission Group 1000)
40 CFR 60 (Subpart Dc)	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	NA	The two natural gas-fired boilers at this Cargill facility (Emission Units 8001 and 8301) were originally constructed prior to June 9, 1989 and are therefore grandfathered out of the requirements of this rule.
40 CFR 60 (Subpart DD)	Standards of Performance for Grain Elevators	Yes	Contains specific requirements applicable to the Elevator Department (Emission Group 1000)
40 CFR 60 (Subpart IIII)	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	NA	Emergency engines are categorized, but not subject due to installation dates.
40 CFR 63 (Subpart A)	NESHAP: General Provisions	Yes	Contains general requirements
40 CFR 63 (Subpart GGGG)	National Emission Standards for Hazardous Air Pollutant Emissions: Solvent Extraction for Vegetable Oil Production	Yes	Contains specific requirements applicable to the Corn Oil Extraction and Refining Department (Emission Group 11000)
40 CFR 63 (Subpart ZZZZ)	National Emission Standards for Hazardous Air Pollutant Emissions for Reciprocating Internal Combustion Engines	Yes	Contains specific requirements applicable to the Emergency Generator and Fire Pump Engine (Emission Group 12000)
40 CFR 63 (Subpart DDDD)	National Emission Standards for Industrial/Commercial/Institutional Boilers and Process Heaters	Yes	Contains specific requirements applicable to the two natural gas-fired boilers at this Cargill facility (Emission Units 8001 and 8301)
40 CFR 63 (Subpart JJJJJ)	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources	NA	This Cargill facility is a major source of HAPs, therefore, the two natural gas-fired boilers at this facility (Emission Units 8001 and 8301) are subject to 40 CFR Part 63, subpart DDDDD.
40 CFR 70	State Operating Permit Programs	Yes	Contains general requirements for Title V major source operating permits. This Carrier facility is a Title V major source.
40 CFR 82 (Subpart A)	Protection of Stratospheric Ozone — Production and Consumption Controls	Yes	
40 CFR 82 (Subpart B)	Servicing of Motor Vehicle Air Conditioners	Yes	

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CFR Part	Description	Applicable Req.	Notes
40 CFR 82 (Subpart C)	Ban on Nonessential Products Containing Class I Substances and Ban on Nonessential Products Containing or Manufactured with Class II Substances	Yes	This Cargill facility has air conditioners and/or refrigeration units that use ozone depleting substances (ODS). Facility personnel do not maintain, service, repair, and/or dispose of motor vehicle air conditioners. Generic permit language requirements are included in the Title V operating permit for this facility.
40 CFR 82 (Subpart D)	Federal Procurement	Yes	
40 CFR 82 (Subpart E)	The Labeling of Products Using Ozone Depleting Substances	Yes	
40 CFR 82 (Subpart F)	Recycling and Emissions Reduction	Yes	
40 CFR 98	Mandatory Greenhouse Gas Reporting	Yes	Not an applicable requirement; therefore not included in the Title V operating permit.

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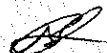
TDEC/Shelby/Memphis	Description	Applicable Req.	Notes
1200-3-2-.01	General Definitions	Yes	Contains general requirements
1200-3-2-.02	Abbreviators	Yes	General applicability
1200-3-3-.01	Primary Air Quality Standard	Yes	Contains general requirements
1200-3-3-.02	Secondary Air Quality Standard	Yes	Contains general requirements
1200-3-3-.03	Tennessee's Ambient Air Quality Standard	Yes	Contains general requirements
1200-3-3-.04	Nondegradation Standard	Yes	Contains general requirements
1200-3-3-.05	Achievement	Yes	Contains general requirements
1200-3-5-.01	General Standards	Yes	Contains specific requirements applicable to facility-wide.
1200-3-5-.02	Exceptions	Yes	Contains general requirements
1200-3-5-.03	Method of Recording	Yes	Contains specific requirements applicable to facility-wide.
1200-3-5-.04	Exemption	Yes	Contains specific requirements applicable to facility-wide.
1200-3-6-.01	General Non-Process Emissions	Yes	Contains general requirements
1200-3-6-.02	Non-Process Particulate Emission Standards	Yes	Contains specific requirements for both natural gas-fired boilers at this Cargill facility (Emission Units 8001 and 8301)
1200-3-7-.01	General Process Particulate Emission Standards	Yes	Contains general requirements
1200-3-7-.03	New Processes	Yes	Contains specific requirements for process emission sources at this Cargill facility beginning operation on or after April 3, 1972.
1200-3-7-.04	Limiting Allowable Emissions	Yes	Contains specific requirements applicable to process emission sources at this Cargill facility.
1200-3-9-.01	Construction Permits	Yes	Contains general requirements

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TDEC/Shelby/Memphis	Description	Applicable Req.	Notes
1200-3-9-.02	Operating Permits	Yes	Contains general requirements
1200-3-9-.03	General Provisions	Yes	Contains general requirements
1200-3-9-.04	Exemptions	Yes	Contains general requirements
1200-3-9-.05	Appeal of Permit Application Denials and Permit Conditions	Yes	Contains general requirements
1200-3-10-.01	Sampling Required to Establish Air Contaminant Emissions Levels	Yes	Contains general requirements
1200-3-10-.02	Monitoring of Source Emissions, Recording and Reporting of Same are Required	Yes	Contains general requirements
1200-3-10-.04	Sampling, Recording and Reporting Required for Major Stationary Sources	Yes	Contains general requirements
1200-3-12.01	General	Yes	Contains general requirements
1200-3-12-.02	Procedures for Ambient Air Sampling and Analysis	Yes	Contains general requirements
1200-3-12-.03	Source Sampling and Analysis	Yes	Contains general requirements
1200-3-14-.01	General Provisions	Yes	Contains general requirements
1200-3-14.02	Non-Process Emission Standards	Yes	Contains specific requirements for both natural gas-fired boilers at this Cargill facility (Emission Units 8001 and 8301)
1200-3-15-.01 and .02	Purpose and Episode Criteria	Yes	Applicable for providing the definition of purpose and terms
1200-3-15-.03	Required Emissions Reduction	Yes	Contains general requirements
1200-3-16-.01	General Provisions	Yes	Contains specific requirements applicable to the Elevator Department (Emission Group 1000)
1200-3-16-.30	Grain Elevators	Yes	Contains specific requirements applicable to the Elevator Department (Emission Group 1000)
1200-3-20-.01	Purpose	Yes	Contains general requirements

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TDEC/ Shelby/Memphis	Description	Applicable Req.	Notes
1200-3-20-.02	Reasonable Measures Required	Yes	Contains general requirements
1200-3-20-.03	Notice Required When Malfunction Occurs	Yes	Contains general requirements
1200-3-20-.04	Logs and Reports	Yes	Contains general requirements
1200-3-20-.05	Copies of Logs Required	Yes	Contains general requirements
1200-3-20-.06	Report Required Upon the Issuance of a Notice of Violation	Yes	Contains general requirements
1200-3-20-.07	Special Reports Required	Yes	Contains general requirements
1200-3-20-.08	Rights Reserved	Yes	Contains general requirements
1200-3-20-.09	Additional Sources Covered	Yes	Contains general requirements
1200-3-24-.01	General Provisions	Yes	Contains general requirements
1200-3-24-.02	Definitions	Yes	Contains general requirements
1200-3-24-.03	Good Engineering Practice Stack Height Standards	Yes	Contains general requirements
1200-3-24-.04	Specific Emission Standards	Yes	Contains general requirements
(3-3)(16-57)	Penalties - Misdemeanor, Civil, and Noncompliance	Yes	Contains general requirements
(3-4)(16-59)	Enforcement - Emergency Powers of Health Officer	Yes	Contains general requirements
(3-10)(16-58)	Enforcement - Variances	Yes	Contains general requirements
(3-11)(16-51)	Severability	Yes	Contains general requirements
(3-12)(16-48)	Words, Phrases Substituted in State Regulations Adopted by Reference	Yes	Contains general requirements

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TDEC/Shelby/Memphis	Description	Applicable Req.	Notes
(3-13)(16-61)	Right Of Entry	Yes	Contains general requirements
(3-16)(16-50)	Open Burning	Yes	Contains general requirements
(3-18)(16-89)	Fugitive Dust	Yes	Contains general requirements
(3-19)(16-88)	Nuisance Abatement	Yes	Contains general requirements
(3-35)(16-71)	Created; Membership; Term of Office; Jurisdiction; Hearings; Appeals	Yes	Contains general requirements
(14-5-27-28, 30-32, 34-36)(16-93 through 100)	Permits and Fees (Various)	Yes	Contains general requirements
(14-5-35)(16-101)	Penalty Provisions	Yes	Contains general requirements
(14-5-36)(16-102)	Annual Review of Fee Structure and Financial Need	Yes	Contains general requirements

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# Appendix B

## Insignificant Activities

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## **INSIGNIFICANT ACTIVITIES**

The following activities and emission sources are deemed insignificant by the applicant [see Section 16-77, Reference 1200-3-9-.04(5)(g)] but are required to be listed in the permit:

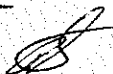
- 1) Emission Source Emission Source Natural Gas Boiler HCl tank
- 2) Maintenance shop painting (rebuilt/repaired pumps) operations (canned spray paint)
- 3) Dryer Cooler Discharge Conveyor Vent (Emission Source 11002C)

## INSIGNIFICANT ACTIVITIES

The following activities and emission sources are deemed insignificant by the applicant [see Section 16-77, Reference 1200-3-9-.04(5)(g)] but are required to be listed in the permit:

- 1) Syrup refinery HCl aspiration scrubber (Emission Source 6001)
- 2) Fructose HCl aspiration scrubber (Emission Source 9001)
- 3) Fructose 35% HCl tank aspiration scrubber (Emission Source 9007)
- 4) Fructose Acid/Base surge tank aspiration scrubber (Emission Source 9009)
- 5) Emission Source Emission Source Coal Boiler HCl tank
- 6) Vacuum pump exhausts from the corn syrup refinery
- 7) Vacuum pump exhausts from the fructose plant
- 8) Sodium bisulfite storage tank
- 9) Starch dissolved air flotation (DAF) unit (Starch Modification – Emission Group 5000)
- 10) Maintenance shop painting (rebuilt/repared pumps) operations (canned spray paint)
- 11) Dryer Cooler Discharge Conveyor Vent (Emission Source 11002C)

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# Appendix C

## Visible Emission Observation Procedure

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## VISIBLE EMISSIONS OBSERVATION PROCEDURE

### **Position**

1. The observer shall stand at a distance sufficient to provide a clear view of the emissions.
2. The observer shall stand with the sun oriented in the 140-degree sector behind his back.
3. The observer shall (as much as possible), make his observations from a position such that his line of vision is approximately perpendicular to the plume direction.
4. When observing visible emissions from rectangular outlets, the observer shall stand approximately perpendicular to the longer axis of the outlet.
5. When multiple stacks are involved, the observer's line of sight should not include more than one plume at a time.

### **Observations**

1. Visible emission observations shall be made in that portion of the plume where condensed water is not present.
2. When condensed water vapor is present within the plume as it emerges from the emissions outlet, visible emission observations shall be made beyond the point in the plume at which condensed water vapor is no longer visible.
3. Visible emissions observations of each emissions outlet shall be made for a total of 30 consecutive seconds.

### **Field Records**


The observer shall record:

1. The observer's name
  1. The date
  2. The emission stack ID number
  3. Yes (Y) if there are visible emissions or No (N) if there are no visible emissions.

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# Appendix D

## 40 CFR 63, Subpart GGGG Compliance Plan and SSM Plan

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## **Solvent Extraction MACT Compliance Plan**

- 1. Owner Name and Address:**  
Cargill Inc.  
15407 McGinty Road West  
Wayzata, MN 55391-2399
  
- 2. Physical Address:**  
Cargill Inc.  
2330 Buoy St  
Memphis, TN 38103
  
- 3. Measurement Method Description:**  
**Corn Germ Beginning Inventory:** Germ in process tanks at the beginning of the month (From Plant Monthly Process Report)  
**Corn Germ Unloads / Transfers:** Germ unloads / transfers during previous month (From Plant Monthly Process Report)  
**Corn Germ Ending Inventory:** Germ in process tanks at the end of the month (From Plant Monthly Process Report)  
**Crude Corn Oil Bypassing Extraction:** Cargill standard factors for corn oilseed % oil content and % of oil removed in Germ Prep plant  
**Solvent Received:** Solvent unloads during the previous month from vendor Certificate of Analysis (From Extraction Plant Daily Production Report)  
**Solvent Received n-Hexane Volume Fraction:** From vendor MSDS and vendor Certificate of Analysis  
**Solvent Beginning Inventory:** Manual solvent tank level measurement (using a stick) at the beginning of the month (From Extraction Plant Daily Production Report)  
**Solvent Ending Inventory:** Manual solvent tank level measurement (using a stick) at the end of the month (From Extraction Plant Daily Production Report)
  
- 4. Measurement Method Date:**  
**Corn Germ Beginning Inventory:** First day of the current month  
**Corn Germ Unloads / Transfers:** First day of the current month  
**Corn Germ Ending Inventory:** First day of the following month  
**Crude Corn Oil Bypassing Extraction:** Measurement constants do not vary from month to month.  
**Solvent Received:** First day of the following month  
**Solvent Received n-Hexane Volume Fraction:** First day of the following month  
**Solvent Beginning Inventory:** First day of the current month  
**Solvent Ending Inventory:** First day of the following month
  
- 5. Calculation Examples:**  
**Corn Germ Beginning Inventory:** No conversion necessary  
**Corn Germ Unloads / Transfers:** No conversion necessary

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**Corn Germ Ending Inventory:** No conversion necessary  
**Crude Corn Oil Bypassing Extraction:** [Corn Germ Beginning Inventory (lbs) + Corn Germ Unloads / Transfers (lbs) – Corn Germ Ending Inventory (lbs)] \* [(Corn Oil % of Oilseed weight)\*(Corn Oil % Removed in Germ Prep)]  
**Monthly Oilseed Processed:** Corn Germ Beginning Inventory (lbs) + Corn Germ Unloads / Transfers (lbs) – Corn Germ Ending Inventory (lbs) – Crude Corn Oil Bypassing Extraction (lbs)  
**Solvent Received:** No conversion necessary  
**Solvent Received n-Hexane Volume Fraction:** No conversion necessary  
**Solvent Beginning Inventory:** See Extraction Plant Daily Production Report spreadsheet to convert solvent tank level (inches) to solvent volume (gallons)  
**Solvent Ending Inventory:** See Extraction Plant Daily Production Report spreadsheet to convert solvent tank level (inches) to solvent volume (gallons)

6. **Data Logging**

**Corn Germ Beginning Inventory:** Data recorded on Plant Process Report and Extraction MACT Spreadsheet  
**Corn Germ Unloads / Transfers:** Data recorded on Plant Process Report and Extraction MACT Spreadsheet  
**Corn Germ Ending Inventory:** Data recorded on Plant Process Report and Extraction MACT Spreadsheet  
**Crude Corn Oil Bypassing Extraction:** Data recorded on Extraction MACT Spreadsheet  
**Solvent Received:** Data recorded on Extraction Plant Daily Production Report and Extraction MACT Spreadsheet  
**Solvent Received n-Hexane Volume Fraction:** Data recorded on Extraction MACT Spreadsheet  
**Solvent Beginning Inventory:** Data recorded on Extraction Plant Daily Production Report and Extraction MACT Spreadsheet  
**Solvent Ending Inventory:** Data recorded on Extraction Plant Daily Production Report and Extraction MACT Spreadsheet

7. **Data Compliance Plan**

Periodic reviews of data will be conducted to ensure that the data meets compliance demonstration needs

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## **Extraction MACT Standard Startup, Shutdown and Malfunction (SSM) Plan**

Written Startup, Shutdown and Malfunction (SSM) procedures have been developed and implemented to minimize excess emissions of hazardous air pollutants (HAP) during extraction plant startups, shutdowns and malfunctions.

Electronic copies of these written procedures are located in the **S: \everyone \ PSM \ Extraction \ (f) Operating Procedures** folder on the Cargill computer network.

Electronic SSM procedures located in this folder include:

- Extraction Plant Cold Startup
- Extraction Plant Warm Startup
- Extraction Plant Cooling Tower Operation
- Extraction Plant Emergency Shutdown
- Extraction Plant Solvent Unload
- Extraction Plant Reboiler
- Extraction Plant Degumming

Whenever there is a malfunction in the extraction plant that could cause excess emissions of hazardous air pollutants, the extraction plant will be shutdown per the Extraction Plant Emergency Shutdown procedures.

During periods of startup and shutdown, the extraction plant will be operated in accordance with the above-listed procedures.

Extraction plant operating records and solvent loss records will confirm conformance with the SSM plan.

Records of occurrence and duration of each extraction plant startup, shutdown and malfunction will be kept electronically.

Any action(s) taken during a startup, shutdown or malfunction that is not consistent with the SSM plan that causes excess HAP emissions will be reported within 48 hours to Memphis Shelby County Health Department (MSCHD).

Older versions of the SSM plan must be maintained for at least (5) years after revision of the plan. All SSM plan revisions must be reported in the SSM semiannual report to the MSCHD.

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