Facility Name: **Cargill's Gainesville Vegetable Oil Mill & Refinery**
City: Gainesville
County: Hall
AIRS #: 04-13-139-00002

Application #: TV-355234
Date Application Received: September 5, 2019
Permit No: 2075-139-0002-V-04-0

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Introduction

This narrative is being provided to assist the reader in understanding the content of referenced operating permit. Complex issues and unusual items are explained here in simpler terms and/or greater detail than is sometimes possible in the actual permit. The permit is being issued pursuant to: (1) Georgia Air Quality Act, O.C.G.A § 12-9-1, et seq. and (2) Georgia Rules for Air Quality Control, Chapter 391-3-1, and (3) Title V of the Clean Air Act. Section 391-3-1-.03(10) of the Georgia Rules for Air Quality Control incorporates requirements of Part 70 of Title 40 of the Code of Federal Regulations promulgated pursuant to the Federal Clean Air Act. The narrative is intended as an adjunct for the reviewer and to provide information only. It has no legal standing. Any revisions made to the permit in response to comments received during the public participation and EPA review process will be described in an addendum to this narrative.

I. Facility Description

A. Facility Identification

1. Facility Name: Cargill's Gainesville Vegetable Oil Mill & Refinery

2. Parent/Holding Company Name

   Cargill, Incorporated

3. Previous and/or Other Name(s)

   None

4. Facility Location

   862 West Ridge Road, Gainesville, Georgia 30501

5. Attainment, Non-attainment Area Location, or Contributing Area

   The facility is located in Hall County, which has a designation of attainment/unclassifiable for all criteria pollutants.

B. Site Determination

There are no other facilities which could possibly be contiguous or adjacent and under common control.

C. Existing Permits

Table 1 below lists all current Title V permits, all amendments, 502(b)(10) changes, and off-permit changes, issued to the facility, based on a comparative review of form A.6, Current Permits, of the Title V application and the "Permit" file(s) on the facility found in the Air Branch office.

Table 1: List of Current Permits, Amendments, and Off-Permit Changes

Permit Number and/or Off-Permit Change	Date of Issuance/ Effectiveness	Purpose of Issuance
2075-139-0002-V-03-0	3/24/2015	Title V Renewal
2075-139-0002-V-03-1	11/9/2015	Installation of a 50 MMBtu/hr natural gas fired unit (B003), and a 99.9 MMBtu/hr natural gas and No. 2 fuel oil fired unit (B004)
2075-139-0002-V-03-2	7/6/2016	Incorporate the Division-approved extension of the Boiler MACT compliance date for Boiler B001 to January 31, 2017.
2075-139-0002-V-03-3	11/14/2016	Revise the numbering of the permit conditions in Permit Amendment No.: 2075-139-0002-V-03-2.
2075-139-0002-V-03-4	4/3/2018	Replace aging equipment downstream of the grain unloading station at its soybean oil production facility.
2075-139-0002-V-03-5	6/28/2019	Installation of a bucket elevator (MR01) controlled by fabric filter (FF03) to recirculate current product out of meal storage Tank B (M06B)
2075-139-0002-V-03-6	4/26/2021	Replacement of the existing steam-assisted soybean dryer with a new direct-fired natural gas dryer.

D. Process Description

1. SIC Codes(s)

2075

2. Description of Product(s)

The vegetable oil extraction plant produces mostly raw/crude soybean oil, hulls and soymeal. The edible oil refinery produces refines crude/raw vegetable oils received from Cargill's oil mill and other oil mills (imported crude vegetable oil). The facility also contains an edible oil packaging plant that packages the refined vegetable oil from the refinery and makes ready to ship vegetable oil packages. The packaging plant does not have any emission units/sources since no refining or processing, other than packaging, takes place at the packaging plant.

3. Overall Facility Process Description

Cargill owns and operates a vegetable oil extraction and processing plant in Gainesville, Georgia. Cargill has operated the plant since its initial construction and permitting. The primary raw materials for the mill are soybeans. Soybeans are brought to the facility by truck and railcar. The soybeans are dropped from the truck and railcar bottoms to below grade grates into conveyors that carry the beans to above ground storage tanks and silos (L12A). The bean unloading/receiving is aspirated (conducted under a slight negative/suction pressure) for particulate matter (PM) control and fugitive dust control. The soybeans next go through precleaning operations consisting of an aspirator, sifter and destoner to remove pods, dust and other trash. A cyclone separates the pods and dust and directs it to a grinder for sizing prior to transport to the hull storage tanks. Wet, cleaned soybeans are then dried in the steam assisted dryer (L10A). The drying process reduces the moisture of the wet soybeans. The dried beans are sent to the dry product storage silos using conveyors (L16A). The dry beans are then conveyed from the dry product silo to a cracking mill. The cracked soybeans go to one of the two aspirators, which are used for primary hull separation. Two cyclones receive the hulls and feed them to two sifter classifiers and a secondary aspirator for secondary separation of hulls from the oil-bearing seed pieces. Two cyclones transport the hulls to grinders, and the ground hulls are stored in the hull storage tank. A baghouse mounted on top of the hull storage tank controls displaced dust emissions resulting from filling the tank. The facility has another hull storage tank located next to the meal storage tanks.

After dehulling, the soybeans pass through a rotary conditioner, which uses steam to soften the soybeans. From the conditioner, soybeans are directed to the flaking operations, where rolling mills flatten the soybeans to increase their surface area. The extraction process consists of extracting the soybean oil from the flakes by mixing the flakes with hexane in an automated mixing vessel (X01A). The extraction process results in miscella (soybean oil dissolved in hexane) and soy meal from the defatted soy flakes. The miscella is next distilled to separate soybean oil from hexane. Hexane is also recovered from the soy flakes using steam in a desolventizer/toaster operation (X02A). The soybean meal from the extraction plant next goes to a meal dryer/cooler (P17A). PM emissions from the dryer/cooler are controlled by cyclones (DC01 to DC04). The cooled soybean meal is passed through a sifter and grinder and then stored in one of the three meal storage tanks. Baghouses mounted on the storage tanks control PM emissions from the air displaced during the tank filling.

The refining of the crude/raw soybean oil takes place in a separate building from the extraction plant and consists of bleaching, deodorizing, hydrogenation and blending operations (R04A). Most of the residual hexane is stripped from the oil during the deodorization process. Most of the hexane emissions in the refinery occur in the hot well. Hexane, water, and dirt are removed from the refined vegetable oil.

Cargill operates several cyclones and dust collection systems to assist in material transport and processing operations. However, many of these units are insignificant based on emissions levels. Other than the combustion units, the only significant sources of emissions from the process are the Mineral Oil System Extractor (X01A), Desolventizer/Toaster (X02A), Carter Day Dryer (L10A), Meal Dryer/Cooler (P17A), the Wet and Dry Oil Seed Conveying Systems to the Storage Silos (L12A & L16A), and the Vegetable Oil Refinery. The Meal Dryer/Cooler is controlled by four cyclones (DC01-DC04). The Wet and Dry Oil Seed Conveying Systems are controlled by a baghouse (CD01).

Cargill replaced the coal fired boiler (B001) with two natural gas boilers (B003 and B004). One of the units is a used 50 million British Thermal Unit per hour (MMBtu/hr) natural gas fired unit (B003), and the other is an existing 99.9 MMBtu/hr boiler that has the capacity to combust natural gas and No. 2 fuel oil; however, the facility has opted to seal off the No. 2 fuel oil line to the boiler and fire natural gas exclusively (B004). Two additional high-pressure boilers, HPB2 and HPB1, firing natural gas and No. 2 fuel oil are operated for refining processes. HPB2 has a maximum heat input rating of 10.50 MMBtu/hr (Note that Cargill submitted an off-permit change notification in 2015 to replace the existing 14.1 MMBtu/hr natural gas burner with a 10.5 MMbtu/hr natural gas burner for HPB2) and HPB1 has a maximum heat input rating of 8.1 MMBtu/hr. Cargill permanently shut down the existing 145 MMBtu/hr spreader/stoker coal-fired boiler (B001) on November 8, 2016 and removed the associated reverse air fabric filter baghouse (CAD1) in 2017. Cargill is requesting that all references to these units in the facility's permit be removed.

In 2019, Cargill replaced aging equipment downstream of the grain unloading station at its soybean oil production facility. New Drag Conveyor DC01 transports soybeans from the existing receiving hoppers to new Bucket Elevator RBE1. The bucket elevator transports soybeans to new Drag Conveyor DC02. This drag conveyor transports soybeans to the existing wet soybean storage silos. Drag Conveyor DC01 and Bucket Elevator RBE1 are controlled by new Fabric Filters FF01 and FF02. Drag Conveyor DC02 is completely enclosed and does not have an external control device. The new equipment allows soybeans to be transported from railcars to storage at a faster rate, but overall production capacity at the facility does not change.

In 2019, Cargill installed a bucket elevator (MR01) to recirculate the current product out of meal storage tank B (M06B) and back to the top of the tank. The boot of the new bucket elevator is controlled by a new "point of use" filter (FF03) with a design flow rate of 800 cfm. The purpose of this modification is to keep the meal recirculating in the tank while product is not shipped to the customer.

In 2022, Cargill replaced the existing steam-assisted soybean dryer with a new direct-fired natural gas dryer. Cargill replaced aging equipment, soybean cleaning equipment and associated conveyance equipment, crackers, and associated dehulling/aspiration system.

4. Overall Process Flow Diagram

The facility provided a process flow diagram in their Title V permit application.

E. Regulatory Status

1. PSD/NSR

The facility was PSD major for PM, PM_{10}, $PM_{2.5}$, SO_2, CO, VOC, Greenhouse Gases (CO2e) and NOx. With the shutdown of the 145 MMBtu/hr spreader/stoker coal-fired boiler (B001) on November 8, 2016, the potential emissions from the facility were decreased. The facility has taken limits on the amount of imported crude vegetable oil it will process at the refinery and the hexane concentration in the imported crude oil to avoid PSD review for VOCs. The facility has also limited the hexane consumption at its oil extraction unit in the oil mill. The facility has also taken limits on the emission rate of particulate matter from meal dryer/cooler (Emission Unit ID No. P17A) to avoid a PSD review for PM when this source was installed at the facility in 1996.

In 2022 Cargill's Gainesville Facility replaced the existing steam-assisted soybean dryer with a new direct-fired natural gas dryer. The proposed new dryer will reduce overall natural gas usage as it is more efficient to heat air directly than steam assisted drying.

A summary of the potential to emit ranges for the Gainesville facility was provided by the facility and presented in Table 3-1 with an overview of the emission calculation methodology provided in Appendix B of Application No. TV- 355234. As indicated in the table, the facility is now PSD major for only VOC.

Table 3-1. Summary of Facility-Wide Potential Emissions

Pollutant	Potential Emissions (tpy)	Title V Major Source Threshold (tpy)	Exceed Title V Major Source Threshold? (Yes/No)	PSD Major Source Threshold (tpy)	Exceed PSD Major Source Threshold? (Yes/No)
CO	60.8	100	No	250	No
NOx	32.1	100	No	250	No
Filterable PM	141.1	100	**Yes**	250	No
Total PM_{10}	41.2	100	No	250	No
Total $PM_{2.5}$	13.5	100	No	250	No
SO_2	2.8	100	No	250	No
VOC	507.7	100	**Yes**	250	**Yes**
CO_2e	86,638	N/A	N/A	N/A	N/A
Total HAP	16.5	25	No	N/A	N/A
Max Single HAP (n-Hexane)	16.4	10	**Yes**	N/A	N/A

2. Title V Major Source Status by Pollutant

Table 2: Title V Major Source Status

Pollutant	Is the Pollutant Emitted?	If emitted, what is the facility's Title V status for the pollutant?		
		Major Source Status	Major Source Requesting SM Status	Non-Major Source Status
PM	Y	✓		
PM_{10}	Y			✓
$PM_{2.5}$	Y			✓
SO_2	Y			✓
VOC	Y	✓		
NO_x	Y			✓
CO	Y			✓
TRS	N/A			✓
H_2S	N/A			✓
Individual HAP	Y	✓		
Total HAPs	Y			✓

3. MACT Standards

- 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart GGGG- Solvent Extraction for Vegetable Oil Production.

- 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart ZZZZ- Reciprocating Internal Combustion Engines (RICE)

- 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart DDDDD – Industrial, Commercial and Institutional Boilers and Process Heaters

4. Program Applicability (AIRS Program Codes)

Program Code	Applicable (y/n)
Program Code 6 - PSD	yes
Program Code 8 – Part 61 NESHAP	no
Program Code 9 - NSPS	yes
Program Code M – Part 63 NESHAP	yes
Program Code V – Title V	yes

Regulatory Analysis

II. Facility Wide Requirements

A. Emission and Operating Caps:

None applicable.

B. Applicable Rules and Regulations

The facility is subject to NESHAP (40 CFR 63) Subpart GGGG, which is also known as the Vegetable Oil MACT. This regulation applies to vegetable oil production processes at major sources of HAP. Cargill extracts soybean oil, which is considered a regulated oilseed and the facility uses hexane isomer blends for extractions, therefore the facility is subject to the requirements of the Vegetable Oil MACT standard and must comply with all applicable regulations. The requirements of the Vegetable Oil MACT are applied differently based upon whether the process is classified as new or existing. According to 40 CFR 63.2833, if the plant was constructed prior to May 26, 2000, it is an existing plant. Cargill was constructed prior to May 26, 2000; therefore, it is classified as an existing source.

The facility is subject to NESHAP (40 CFR 63) Subpart ZZZZ which is also known as the RICE MACT. This regulation applies to major and area sources of HAP that contain reciprocating internal combustion engines. Cargill has a diesel fire pump; therefore, it is subject to this rule. The requirements of the RICE MACT differ based upon whether the source is a major or an area source of HAP emissions, whether the source is new or existing, the power rating of the unit and whether or not the engine is classified as an emergency unit. The diesel fire pump located at Cargill is and existing unit, which is for emergency use, its power rating is less than 500 hp at a major source for HAP emissions. Based on the information provided by the facility, the pump has been referenced in Attachment B of the permit, and Permit Section 8.27 will address the applicable regulations.

The facility is subject to NESHAP (40 CFR 63) Subpart DDDDD, which is also known as the Boiler MACT. This regulation applies to industrial, commercial, and institutional boilers and process heaters located at major sources of HAP. The subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and work practice standards. The requirements of the Boiler MACT are applied differently based upon whether the boiler/process heater is new or existing, the type and means of fuel combustion by the unit and the size of the unit. Based on the information provided by the facility, there are four units subject to this regulation: Boilers B003, B004, HPB1, HPB2 are considered existing boilers because they were constructed before June 4, 2010.

The Boiler MACT classifies affected units based upon their construction date (new or existing) and fuel type. A source is classified as new if it began operation on or after June 4, 2010 or if it was reconstructed after that date; otherwise, the source is classified as existing. Boilers B003, B004, HPB1 and HPB2 are classified as existing units. Note that Boiler B003 was originally manufactured in 1993, and Boiler B004 was originally manufactured in 2001. Both of the boilers were not physically modified as they were relocated to the Gainesville facility.

Boilers B003 and B004 are only permitted to combust natural gas. Although the boilers HPB1 and HPB2 are permitted to combust fuel oil, the boilers meet the definition of "unit designed to burn gas 1 subcategory," since they are natural gas-fired units that only combust fuel oil during periods of natural gas curtailment. As such, these units do not have any emission limits. Note that a notification of alternative fuel use shall be submitted within 48 hours of the declaration of each period of natural gas curtailment or supply interruption.

HPB1, which has a heat input capacity of greater than 5 MMBtu/hr but less than 10 MMBtu/hr, is required to have tune-ups conducted biennially. B003, B004 and HPB2, which have heat input capacities greater than 10 MMBtu/hr, are required to have tune-ups conducted annually. All boilers at the Gainesville site are required to have a one-time energy assessment performed by a qualified energy assessor, which were completed in January 2016 and April 2017.

Note that the January 14, 2016, revised version of the Boiler MACT removed the startup and shutdown tracking requirements for units designed to burn gas fuels. Therefore, Cargill requests that the startup and shutdown tracking requirements for boilers B003 and B004 as contained in Condition 6.2.35 of Permit Amendment V-03-1 be removed from the renewal permit. In addition, Cargill requests that the compliance report required by the Boiler MACT be submitted the same schedule as the facility's Title V compliance reports. Specifically, compliance report as required by 40 CFR 63.7550(b) be postmarked or submitted no later than February 28 following the end of the reporting period.

C. Compliance Status

No compliance issues were indicated in the application.

D. Permit Conditions

Deleted Old Permit Condition 2.2.6 was removed due to the change in effect for MACT GGGG. The requirement for an SSM Plan was no longer required after September 15, 2020.

Deleted: Old Permit Condition 2.3.2 requiring compliance with Rule (yy) was deleted as NOx emissions after removal of Boiler B001 are less than 100 tpy. The remaining conditions have been renumbered.

Permit Conditions 2.2.1 and 2.2.2 subjects the soybean oil extraction facility to 40 CFR 63 Subparts A and GGGG.

Permit Condition 2.2.3 limits the oilseed solvent loss rate of 0.175 gallons of VOC solvent per ton of oilseed processed during any 12 consecutive month period. The Permittee shall not exceed a Compliance Ratio of 1 as calculated in accordance with methods specified in the Vegetable Oil MACT.

Permit Condition 2.2.4 lists all requirements under the Vegetable Oil MACT that apply to the facility under normal operation. This condition also incorporates the schedules for demonstrating compliance under the Vegetable Oil MACT.

Permit Condition 2.2.5 requires the Permittee to develop and implement a site-specific plan for demonstrating compliance with all applicable provisions of the Vegetable Oil MACT. It also requires the Permittee to keep the plan at the site in a readily accessible location if the source is operational.

Permit Condition 2.3.1 requires the facility to use all available Reasonably Available Control Technology to control VOC emissions from the facility.

Permit Condition 2.3.2 outlines the requirements for the facility to demonstrate compliance with Georgia Rule (tt) [VOC RACT].

Permit Condition 2.3.3 outlines the VOC RACT limit of 0.175 gallons of hexane (all isomers of hexane) per ton of soybeans processed during any 12 consecutive month period to align with the hexane limit under the Vegetable Oil MACT.

III. Regulated Equipment Requirements

A. Equipment List for the Process

Emission Units		Applicable Requirements/Standards	Air Pollution Control Devices	
ID No.	Description		ID No.	Description
B003	50 MMBtu/hr natural gas fired boiler	391-3-1-.03(2)(c), 391-3-1-.02(2)(d), 391-3-1-.02(2)(g), 391-3-1-.02(2)(lll), 40 CFR 60, Subpart A 40 CFR 60, Subpart Dc 40 CFR 63, Subpart A 40 CFR 63, Subpart DDDDD	N/A	N/A
B004	99.9 MMBtu/hr natural gas fired boiler	391-3-1-.03(2)(c), 391-3-1-.02(2)(d), 391-3-1-.02(2)(g), 391-3-1-.02(2)(lll), 40 CFR 60, Subpart A 40 CFR 60, Subpart Dc 40 CFR 63, Subpart A 40 CFR 63, Subpart DDDDD	N/A	N/A
HPB2	High pressure steam vaporizer 10.5 MMBtu/hr	391-3-1-.03(2)(c), 391-3-1-.02(2)(d)2(ii), 391-3-1-.02(2)(d)3, 391-3-1-.02(2)(g), 40 CFR 60, Subpart Dc 40 CFR 63, Subpart DDDDD	NA	None
HPB1	High Pressure Boiler 8.1 MMBtu/hr	391-3-1-.03(2)(c), 391-3-1-.02(2)(d)2(i), 391-3-1-.02(2)(d)3, 391-3-1-.02(2)(g), 40 CFR 63, Subpart DDDDD	NA	None
X01A	Mineral Oil System Extractor	391-3-1-.02(2)(b), 391-3-1-.02(2)(e) 2005 US EPA Consent Decree	NA	None
X02A	Desolventizer/Toaster	391-3-1-.02(2)(b), 391-3-1-.02(2)(e)	NA	None
L10A	Carter Day Dryer	391-3-1-.02(2)(b), 391-3-1-.02(2)(e), 391-3-1-.02(2)(n)	NA	None
P17A	Meal Dryer/Cooler	391-3-1-.02(2)(b), 391-3-1-.02(2)(e), 391-3-1-.02(2)(n)	DC01, DC02, DC03, DC04	Cyclones
L12A L16A	Conveying Wet & dry oil seeds to storage silos	391-3-1-.02(2)(n)	CD01	Baghouse
R04A	Vegetable Oil Refinery	391-3-1-.02(2)(b), 391-3-1-.02(2)(e),	NA	None
X05A	35,000-gallon Horizontal Underground Liquid Solvent Storage Tank	40 CFR Part 63 Subpart GGGG 391-3-1-.02(2)(b), 391-3-1-.02(2)(e), 391-3-1-.02(2)(tt), 391-3-1-.02(2)(vv)	NA	None
DC-1	Drag Conveyor 1	40 CFR 60 Subpart A 40 CFR 60 Subpart DD	FF01	Fabric Filter
DC-2	Drag Conveyor 2	40 CFR 60 Subpart A 40 CFR 60 Subpart DD	NA	None

Emission Units		Applicable Requirements/Standards	Air Pollution Control Devices	
ID No.	Description		ID No.	Description
RBE1	Bucket Elevator	40 CFR 60 Subpart A 40 CFR 60 Subpart DD	FF02	Fabric Filter
MR01	Bucket Elevator of Meal Storage Tank B	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(n)	FF03	Fabric Filter
EU01	Wet Storage Silo Drag Conveyor	40 CFR 60 Subpart A 40 CFR 60 Subpart DD	NA	None
EU02	Wet Bean Fill Leg Transfer Conveyors	40 CFR 60 Subpart A 40 CFR 60 Subpart DD	NA	None
EU03	Cleaner Fill Leg	40 CFR 60 Subpart A 40 CFR 60 Subpart DD	NA	None
EU04	Cleaner System	40 CFR 60 Subpart A 40 CFR 60 Subpart DD	FF04	Donaldson PowerCore CPV-3 Fabric Filter
EU05	Trash Grinder	391-3-1-.02(2)(b), 391-3-1-.02(2)(e), 391-3-1-.02(2)(n)	CD02 FF05	KICE R60-8N Dust Collector (Cyclone) Donaldson PowerCore CPV-6 Fabric Filter
EU06	Wet Bean Fill Leg	40 CFR 60 Subpart A 40 CFR 60 Subpart DD	FF06	Donaldson PowerCore CPV-2 Fabric Filter
EU07	45 MMBtu/hr direct fired Natural-Gas Soybean Dryer	391-3-1-.02(2)(g), 40 CFR 60 Subpart A 40 CFR 60 Subpart DD	NA	None
EU08	Dry Bean Leg	40 CFR 60 Subpart A 40 CFR 60 Subpart DD	FF07	Donaldson PowerCore CPV-2 Fabric Filter
EU09	Dry Bean Leg Enclosed Drag Conveyors	40 CFR 60 Subpart A 40 CFR 60 Subpart DD	NA	None
EU10	Dry Bucket Elevator	40 CFR 60 Subpart A 40 CFR 60 Subpart DD	FF08	Donaldson PowerCore CPV-2 Fabric Filter
EU11	Cracking Mill System	391-3-1-.02(2)(b), 391-3-1-.02(2)(e), 391-3-1-.02(2)(n)	NA	None
EU12	Primary and Secondary Aspirators	391-3-1-.02(2)(b), 391-3-1-.02(2)(e), 391-3-1-.02(2)(n)	CD03	Kice Model CR236-12 Dust Collector (Cyclone)
EU13	Wet Bean Cleaner Fill Leg (Optional)	40 CFR 60 Subpart A 40 CFR 60 Subpart DD	FF09	Donaldson PowerCore CPV-3 Fabric Filter

B. Equipment & Rule Applicability

Emission and Operating Caps:

Imported crude oil processing rate

In order to avoid major source designation under PSD for VOCs, imported crude/raw vegetable or soy oil processed at the edible oil refinery is limited to 500 million pounds during any consecutive 12-month period. Condition 3.2.2 incorporates this requirement.

Hexane content limit in imported crude oil

The weighted average hexane concentration in the imported crude vegetable/soy oil processed at the refinery, as determined during any 12 consecutive month period, shall not exceed 100 ppm. This condition has been imposed to avoid major source designation under PSD for VOCs. Condition 3.2.2 incorporates this requirement.

Rules and Regulations Assessment:

High Pressure Boilers HPB1, HPB2, and Boilers B003 and B004

Georgia Rule 391-3-1-.02(2)(d)2:
The High-Pressure Boilers (HPB1 and HPB2) and Boilers B003 and B004 are subject to Rule (d) for PM and Opacity. The allowable PM emission rate is given by 391-3-1-.02(2)(d)2. HPB1 is rated at 8 MMBtu/hr and under Rule 391-3-1-.02(2)(d)(i) the allowable PM rate for HPB1 is 0.5 pounds/million BTU heat input. HPB2 is rated at 10.5 MMBtu/hr and Boilers B003 and B004 are rated at 50 MMBtu/hr and 99.9 MMBtu/hr and under Rule 391-3-1-.02(2)(d)2(ii) the allowable PM rate is calculated via the equation $E = 0.5(10/R)^{0.5}$, where E equals the allowable PM rate in lb/MMBtu of heat input and R equals heat input in MMBtu/hr.

Georgia Rule 391-3-1-.02(2)(g)2:
GA Rule (g)2 limits sulfur dioxide emissions from fuel burning sources by limiting the fuel sulfur content to no more than 2.5% sulfur by weight (for heat input capacity below 100 MMBtu/hr. B003, B004, and HPB2 have a fuel sulfur content limit of 0.5% sulfur by weight (from 40 CFR 60 Subpart Dc) that subsumes the 2.5% Rule (g) limit. HPB1 is not subject to 40 CFR 60 Subpart Dc, so the 2.5% sulfur by weight limit applies. Since 2002, compliance with the Rule (g) sulfur dioxide limit is demonstrated through burning of natural gas, #1 or #2 distillate fuel oil with less than 0.5 wt% sulfur in both Boilers HPB1 and HPB2. Boilers B003 and B004 burn natural gas exclusively, therefore they are able to comply with the sulfur dioxide limit of Georgia Rule (g).

Georgia Rule 391-3-1-.02(2)(lll):
This regulation limits NOx Emissions from fuel burning with heat input capacity equal to or greater than 10 MMBTU/hr and less than or equal to 250 MM BTU/hr and installed or modified on or after May 1, 1999 to 30 ppm at 3% oxygen, dry basis. This requirement shall apply during the period of May 1st through September 30 of each year. This regulation applies to any boiler installed with a heat capacity greater than 10 MMBTU/hr and less than 100 MMBtu/hr which includes B003 and B004,

40 CFR 60 Subpart Dc (NSPS Dc)
B003, B004, and HPB2 are subject to the provisions of 40 CFR 60, Subpart Dc because they are each steam generating units for which construction, modification, or reconstruction is commenced after June 9, 1989 and each have a maximum design heat input capacity of 29 megawatts (MW) [100 MMBtu/hr] or less, but greater than 2.9 MW [10 MMBtu/hr]. The boiler shall be fired with fuels that meet specifications of fuel oil number 1 or 2 and shall have a sulfur content equal to or less than 0.5 wt.%. NSPS Subpart Dc provides specifications on the SO_2 emission standards for steam generating units that burn coal or oil. Boiler HPB1 is not subject to NSPS Dc because it has a heat input of less than 10 MMBtu/hr, however the facility has maintained fuel sulfur content of 0.5 weight percent for both HPB1 and HPB2 since 2002. Since HPB2 has the capability to combust distillate oil in addition to natural gas, the SO_2 emission standard is applicable to the unit. B003 and B004 only combust natural gas. Therefore, the NSPS Subpart Dc SO_2 standard is not applicable to these units. Boilers B003, B004, and HPB2 are not subject to the PM standard associated with NSPS Subpart Dc because they do not burn coal or wool. However, HPB2 is subject to the opacity standard because it has the capability to combust distillate fuel oil. The NSPS Subpart Dc opacity standard is not applicable to B003 and B004 as the units only burn natural gas.

Georgia Rule 391-3-1-.02(2)(yy):
Cargill is located in Hall County which is no longer one of the counties that contributes to non-attainment in the 13-county metro Atlanta area, and along with the removal of Boiler B001, the NOx emissions from the facility no longer exceeds 100 tpy, therefore Cargill is no longer subject to Georgia Rule (yy).

40 CFR Part 63, Subpart DDDDD:
Existing boilers (Source Codes: B003, B004, HPB1 and HBP2) are subject to the requirements of 40 CFR Part 63, Subpart DDDDD (NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters). Because the facility is an existing major source of HAPs with potential emissions of individual HAPs above 10 tons per year. Therefore, the facility is required to comply with the requirements of 40 CFR Part 63, Subpart DDDDD. High Pressure Boiler HPB2 is an existing natural gas-fired boiler that has the capability to burn #2 fuel oil and has a heat input capacity of 10 million Btu per hour or greater. HPB2 will combust #2 fuel oil only during testing/maintenance (not to exceed 48 hours per year) or periods of curtailment. B003, B004, and HPB2 are not subject to the emission limits outlined in Table 2 of 40 CFR 63 Subpart DDDDD, however the boilers are subject to the work practices outlined in Table 3 of 40 CFR 63 Subpart DDDDD. The facility is also required to conduct an annual tune-up per 40 CFR 63.7500 for B003, B004, and HPB2. High Pressure Boiler HPB1 is less than 10 MMBtu/hr so the facility must complete a tune-up every 2 years per 40 CFR 63.7500(e). All existing boilers in the gas 1 or gas 2 fuel subcategory with heat input capacities less than 10 million Btu per hour (MMBtu/hr) must comply with work practice standards and are not required to comply with the emission limits.

Manufacturing Processes

Georgia Rule 391-3-1-.02(2)(b) Opacity limit
The Carter-Day dryer (L10A), Mineral Oil Solvent extraction system (X01A), Desolventizer/toaster (X02A), the soybean conditioning line (P12A), the Flaker (P13A), Meal dryer/cooler system (P17A), the vegetable oil refinery (R04A), Trash Grinder (EU05), Cracking Mill System (EU11), Primary and Secondary Aspirators (EU12), and the 35,000-gallon horizontal underground liquid solvent storage tank (X05A) are all subject to the 40% opacity rule under 391-3-1-.02(2)(b).

In Permit Amendment V-03-6, it was determined the equipment that is not subject to the more stringent opacity requirements of NSPS DD are subject to Georgia Rule (b) for opacity.

Georgia Rule 391-3-1-.02(2)(e) PM limit from manufacturing process
The Carter-Day dryer (L10A), Mineral Oil Solvent extraction system (X01A), Desolventizer/toaster (X02A), the soybean conditioning line (P12A), the Flaker (P13A), Meal dryer/cooler system (P17A), the vegetable oil refinery (R04A), and the 35,000-gallon horizontal underground liquid solvent storage tank (X05A), Trash Grinder (EU05), Cracking Mill System (EU11), and the Primary and Secondary Aspirators (EU12) are all subject to the Particulate Matter emission limit of Rule (e)(i).

The entire vegetable oil extraction process is considered as one process for the purpose of Rule (e) all of the sources in the extraction process are considered new equipment and are subject to 391-3-1-.02(2)(e)(i).

The trash grinder and primary and secondary aspirator will be controlled with a dust collector and fabric filter to comply with Georgia Rule (e).

Georgia Rule 391-3-1-.02(2)(n) Fugitive emissions Opacity limit

The Carter Day dryer (L10A), The Carter-Day dryer (L10A), Mineral Oil Solvent extraction system (X01A), Desolventizer/toaster (X02A), the soybean conditioning line (P12A), the Flaker (P13A), Meal dryer/cooler system (P17A), the 35,000-gallon horizontal underground liquid solvent storage tank (X05A), conveying of wet/dry oilseeds to storage silos (L12A, L16A), are subject to the fugitive dust Rule (n) that limits opacity from fugitive emissions to 20% or less.

Opacity from fugitive sources is limited to 20 percent. Cargill will continue to take reasonable precautions to limit fugitive dust at the facility, including during construction periods.

Georgia Rule 391-3-1-.02(2)(vv) – Volatile Organic Liquid Handling and Storage

Georgia Rule 391-3-1-.02(2)(vv) is applicable to Storage Tank X05A since Cargill is subject to Georgia Rule (tt). This regulation requires Storage Tank X05A to be equipped with submerged fill pipes.

Part 60, Chapter I, Title 40 of the Code of Federal Regulations (40 CFR Part 60) New Source Performance Standards (NSPS) Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

This regulation applies to a storage vessel with a capacity greater than or equal to 75 cubic meters (m^3) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984 [40 CFR 60.110b(a)]. However, because Storage Tank X05A is subject to 40 CFR Part 63, Subpart GGGG, it is not subject to 40 CFR Part 60, Subpart Kb [40 CFR 60.110b(d)(8)].

Part 60, Chapter I, Title 40 of the Code of Federal Regulations (40 CFR Part 60) New Source Performance Standards (NSPS) Subpart DD, Standards of Performance for Grain Elevators,

Subpart DD regulates grain terminal elevators and grain storage elevators that were constructed, modified, or reconstructed after August 3, 1978. The affected facilities are each truck unloading station, truck loading station, barge and ship unloading station, barge and ship loading station, railcar loading station, railcar unloading station, grain dryer, and all grain handling operations. Grain handling operations include bucket elevators or legs (excluding legs used to unload barges or ships), scale hoppers and surge bins (garners), turn heads, scalpers, cleaners, trippers, and the headhouse and other such structures.

Cargill's grain elevators were constructed in the 1960s but were approved for upgrades with the issuance of Permit Amendment V-03-4 on April 3, 2018. Upon start up, the newly constructed grain handling equipment (DC-1, DC-2, and RBE1) will be subject to this rule. Cargill will conduct initial performance test on the affected equipment to demonstrate compliance with NSPS Subpart DD.

In Permit Amendment V-04-6, the following equipment is subject to NSPS Subpart DD:

- Two enclosed Drag Conveyor (EU01)
- Two enclosed conveyors (EU02)
- Clean Fill Leg (EU03), controlled by a new fabric filter (FF04)
- Cleaner System (EU04), controlled by a new cyclone and dust collector (CD02)
- Wet Bean Fill Leg (EU06), controlled by a new fabric filter (FF06)
- Grain Dryer (EU07), uncontrolled
- Dry Bean Leg (EU08), controlled by a new fabric filter (FF07)
- Two enclosed conveyors from dry bean leg to dry bucket elevator (EU09)
- Dry Bucket Elevator (EU10), controlled by a new fabric filter (FF08)
- Wet Bean Cleaner Fill Leg (EU13), if installed, controlled by a new fabric filter (FF09)

Equipment installed downstream of the cracking mill is not subject to the rule as it does not meet the definition of grain elevators. The trash grinder (EU05) is not an affected facility under the rule because the material going through the grinder is not considered as "whole grain".

Except the grain dryer and enclosed conveyors, all affected sources will be limited to the more stringent point source requirements of zero percent opacity and particulate matter no greater than of 0.023 gram per dry standard cubic meter (g/dscm) ca. 0.01 gr/dscf. The grain dryer will be subject to a zero percent opacity standard.

Georgia Rule 391-3-1-.02(2)(tt) – VOC Emissions from Major Sources

The facility is subject to State Rule (tt) requiring RACT for VOC control from all sources at the facility having a potential VOC emission of 1 ton/year or more. The VOC RACT limit applies to all isomers of hexane. EPD has determined that the VOC RACT for this facility is the Vegetable Oil MACT (40 CFR 63 Subpart GGGG) to which the facility is subject. Thus, the Vegetable Oil MACT limit has been adopted as RACT limit for VOC control.

Part 63, Chapter I, Title 40 of the Code of Federal Regulations (40 CFR Part 63) National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart GGGG – Standards for Solvent Extractions for Vegetable Oil Production

This regulation applies to a vegetable oil production process that is a major source of HAP emissions or is collocated within a plant site with other sources that are individually or collectively a major source of HAP emissions. (i) A vegetable oil production process is defined in §63.2872. In general, it is the collection of continuous process equipment and activities that produce crude vegetable oil and meal products by removing oil from oilseeds listed in Table 1 to §63.2840 through direct contact with an organic solvent, such as a hexane isomer blend. (ii) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year. (2) Your vegetable oil production process processes any combination of eight types of oilseeds listed in paragraphs (a)(2)(i) through (viii) of this section: (i) Corn germ; (ii) Cottonseed; (iii) Flax; (iv) Peanut; (v) Rapeseed (for example, canola); (vi) Safflower; (vii) Soybean; and (viii) Sunflower.

Cargill is subject to this regulation because it is vegetable oil production process located at a major source of HAP emissions and processes one of the listed oils in the above paragraph (a)(2)

C. Permit Conditions

Coal-fired boiler B001 and the associated reverse air fabric filter baghouse (CAD1) have been removed from the site, therefore references to B001 and any conditions pertaining to Boiler B001 will be removed. The Standby Boiler SB01 is also not in operation at the facility and references to the equipment will be removed.

Modified: Old Permit Condition 3.2.3 was modified to remove Boiler B001 and include Boilers B003 and B004 for types of fuel allowed.

Deleted: Old Condition 3.2.4 was deleted as fuels allowed for Boilers B003 and B004 have been incorporated into Condition 3.2.3.

Modified: Old Condition 3.3.2 was modified to include B003 and B004 as subject to NSPS Dc.

Modified: Old Condition 3.3.3 was modified to clarify which boilers are subject to NESHAP DDDDD.

Deleted: Old Condition 3.3.4 was deleted which included NESHAP DDDDD standards for B001.

Modified: Old Condition 3.3.5 (now 3.3.4) which included NESHAP DDDDD standards for all other affected boilers was modified to remove one-time energy assessment as it has been completed.

Deleted: Old Condition 3.3.6 was deleted which required a DDDDD compliance plan for B001.

Deleted: Old Condition 3.3.7 was deleted which required compliance with NSPS Dc for B003 and B004 and incorporated into Condition 3.3.2.

Deleted: Old Condition 3.3.8 was deleted which required compliance with DDDDD for B003 and B004 and incorporated into Condition 3.3.3.

Deleted: Old Condition 3.3.9 was deleted which required compliance with DDDDD standards for B003 and B004 and incorporated into Condition 3.3.4.

Modified: Old Condition 3.3.10 (now 3.3.5) was modified to include all sources require to comply with NSPS DD.

Modified: Old Condition 3.3.11 (now 3.3.6) was modified to include all sources subject to opacity and PM standard of NSPS DD.

Modified: Old Condition 3.3.12 (now 3.3.7) was modified to include all sources subject to fugitive emissions opacity of NSPS DD.

Deleted: Old Condition 3.3.13 was deleted and incorporated into Condition 3.3.5.

Deleted: Old Condition 3.3.14 was deleted and incorporated into Condition 3.3.5

Deleted: Old Condition 3.3.15 was deleted and incorporated into Condition 3.3.6.

Deleted: Old Condition 3.3.16 was deleted and incorporated into Condition 3.3.7.

Deleted: Old Condition 3.4.1 was deleted for B001 emission standards.

Modified: Old Condition 3.4.2 (now 3.4.1) was modified to include B003 and B004 for subject emission standards.

Modified: Old Condition 3.4.4 (now 3.4.3) was modified to include additional sources subject to 40% opacity standard.

Modified: Old Condition 3.4.5 (now 3.4.4) was modified to include additional sources subject to Rule (e).

Modified: Old Condition 3.4.6 (now 3.4.5) was modified to include additional sources subject to Rule (n)2.

Deleted: Old Condition 3.4.7 was deleted for B001 fuel sulfur limit.

Deleted: Old Condition 3.4.10 was deleted for Rule (yy) tune-ups.

Deleted: Old Condition 3.4.15 was deleted and B003 and B004 incorporated into new Condition 3.4.1 [Rule (d)].

Deleted: Old Condition 3.4.18 was deleted and incorporated into Condition 3.4.3 [Rule (b)].

Deleted: Old Condition 3.4.19 was deleted and incorporated into Condition 3.4.4 [Rule (e)].

Deleted: Old Condition 3.4.21 was deleted and incorporated into Condition 3.4.5 [Rule (n)2].

Permit Condition 3.2.1 limits the consumption of both n-hexane and iso-hexane by the vegetable oil/soy oil extraction process to 518.1 tons per 12 consecutive month period.

Permit Condition 3.2.2 limits the amount of crude vegetable/soy oil imported from outside facilities to less than 500 million pounds per 12 consecutive month period and the concentration of hexane must not exceed 100 ppm.

Permit Condition 3.2.3 requires the Permittee to exclusively combust natural gas in Boilers B003 and B004 and natural gas or #2 fuel oil in HPB1 and HPB2. High Pressure Boiler HPB2 may only burn #2 fuel oil during periods of gas curtailment or supply interruptions or during periods, not to exceed a combined 48 hours per year, for testing, maintenance or operator training.

Permit Condition 3.3.1 limits the sulfur content of fuel oil fired in boilers HPB2 to 0.5 percent sulfur by weight as required by Georgia Rule (g) and 40 CFR 60 Subpart Dc.

Permit Condition 3.3.2 requires boilers HPB2 and SB1 to comply with all applicable provisions of 40 CFR 60 Subparts A and Dc.

Permit Condition 3.3.3 was modified to remove reference to Boiler B001 and include reference to Boilers B003 and B004 for compliance with NESHAP DDDDD.

Permit Condition 3.3.4 outlines the work practices required for Boilers B003, B004, HBP1, and HP2 as specified in Table 3.3.4 in the Permit.

Permit Conditions 3.3.5 through 3.3.6 requires the Permittee to comply with all applicable provisions and emission limitations of NSPS Subpart DD for the equipment listed in Permit Condition 3.3.5.

Permit Condition 3.3.7 prohibits the equipment listed in Permit Condition 3.3.5 from discharging fugitive emissions that exhibit greater than 0 percent opacity.

New: Permit Condition 3.3.8 prohibits the natural gas soybean dryer (Source ID EU07) from discharging fugitive emissions that exhibit greater than 0 percent opacity on or after the 60th day of achieving maximum production rate, but no later than 180 days after initial startup.

Permit Conditions 3.4.1 and 3.4.2 requires the Permittee to comply with Georgia Rule (d) for Boilers B003, B004, HPB1 and HPB2.

Permit Condition 3.4.3 limits the opacity to 40 percent under Georgia Rule (b) for the following emission units: L10A, X01A, X02A, P17A, R04A, P12A, X05A, EU05, EU11, and EU12.

Permit Condition 3.4.4 limits particulate emissions under Georgia Rule (e) for the following emission units: L10A, X01A, X02A, P17A, R04A, P12A, X05A, EU05, EU11, and EU12.

Permit Condition 3.4.5 limits the opacity to 20 percent for the following fugitive dust sources: L10A, P12A, P17A, EU05, EU11, EU12, L12A and L16A under Georgia Rule (n).

Permit Condition 3.4.6 limits the sulfur content with HPB1 to less than 0.5 percent sulfur by weight. This condition, although more stringent than Rule (g) requirements, remains unchanged.

Permit Condition 3.4.7 limits particulate emissions from the meal dryer/cooler to 4.25 lb/hr to avoid PSD.

Permit Condition 3.4.8 (Old Permit Condition 3.4.11) requires storage tank X05A to be equipped with submerged fill pipes under Georgia Rule (vv).

New: Condition 3.4.9 requires Boilers B003 and B004 to comply with Georgia Rule (lll) emission standard.

New: Permit Condition 3.4.10 requires the the soybean dryer (EU07) to comply with the sulfur limit outlined in Georgia Rule (g).

IV. Testing Requirements (with Associated Record Keeping and Reporting)

A. General Testing Requirements

The permit includes a requirement that the Permittee conduct performance testing on any specified emission unit when directed by the Division. Additionally, a written notification of any performance test(s) is required 30 days (or sixty (60) days for tests required by 40 CFR Part 63) prior to the date of the test(s) and a test plan is required to be submitted with the test notification. Test methods and procedures for determining compliance with applicable emission limitations are listed and test results are required to be submitted to the Division within 60 days of completion of the testing.

Permit Condition 4.1.3l requires the Permittee to use Method 26 or 26A for the determination of the hydrogen chloride emission concentration.

Permit Condition 4.1.3m requires the Permittee to use Method 29, 30A, or 30B Method 101A for the determination of mercury emission concentration.

Permit Condition 4.1.3n requires the Permittee to use Method 10 for the determination of carbon monoxide emissions.

Permit Condition 4.1.3o requires the Permittee to use Section 12.5.2.1 of Method 19 for fuel sulfur analysis.

Permit Condition 4.1.4 was revised to outline the current performance test result submission requirements for any applicable sources that are subject to an electronic submission requirement under NSPS or NESHAP.

B. Specific Testing Requirements

Only changes in this section involve additions due to amendments and changes to referenced permit conditions.

Deleted: Old Permit Condition 4.2.1 requires the Permittee to use Method 5 or 17 to determine the PM concentration and Method 9 to determine opacity for drag conveyor 1 or the bucket elevator within 60 days after achieving maximum production rate has been deleted as the testing was completed January 31, 2021. Remaining conditions have been renumbered.

Permit Condition 4.2.1 requires the Permittee to comply with the fugitive emissions limit in Permit Condition 3.3.7 within 60 days but no later than 180 days of the initial startup of the sources after achieving maximum production rate for Drag Conveyor 2 (Source Code: DC-2), Wet Storage Silo Drag Conveyor (Source ID EU01), Wet Bean Fill Leg Transfer Conveyors (Source ID EU02), Dry Bean Leg Enclosed Drag Conveyors (Source ID EU09) and the natural gas soybean dryer (Source ID EU07).

Permit Condition 4.2.2 requires the Permittee to establish a proper pressure drop range during the initial performance test to determine opacity for the Cleaner Fill Leg (Source ID: EU03), Wet Bean Fill Leg (Source ID: EU06), Dry Bean Leg (Source ID EU08), Dry Bucket Elevator (Source ID: EU10), and Wet Bean Cleaner Fill Leg (Source ID EU13) within 60 days but no later than 180 days of the initial startup of the sources after achieving maximum production rate.

Permit Condition 4.2.3 requires the Permittee to determine compliance with the PM and visible emission limits in Condition 3.3.7.

V. Monitoring Requirements

A. General Monitoring Requirements

Condition 5.1.1 requires that all continuous monitoring systems required by the Division be operated continuously except during monitoring system breakdowns and repairs. Monitoring system response during quality assurance activities is required to be measured and recorded. Maintenance or repair is required to be conducted in an expeditious manner.

B. Specific Monitoring Requirements

Within the explanation of Conditions, Original Permit Conditions are the Conditions initially numbered in V-03-0 and Old Permit Conditions are the Conditions renumbered through the Amendments.

Deleted: Condition 5.2.3 for COMS on B001.

Deleted: Condition 5.2.6 NOx monitoring for B001.

Modified: Condition 5.2.7 (New Condition 5.2.5) was modified to include Boilers B003 and B004 for tune ups for Rule (lll).

Modified: Condition 5.2.12 (New Condition 5.2.10) was modified to remove references to startup, shutdown and malfunction as emissions during these situations are no longer allowed to be excluded by NESHAP GGGG.

Deleted: Condition 5.2.13 and 5.2.14 for B001 SO_2 monitoring [DDDDD] because Standby Boiler SB1 is no longer in operation.

Deleted: Condition 5.2.15 for one time energy assessment [DDDDD] which has been completed.

Deleted: Condition 5.2.16 for initial tune up of Boilers B001, HPB1 and HPB2 has been completed.

Modified: Condition 5.2.17 (new Condition 5.2.11) was modified to include Boilers B003 and B004 for annual tune-ups. [DDDDD]

Modified: Condition 5.2.18 (new Condition 5.2.12) was modified to include Boilers B003 and B004 for requires tune-up within 30 days of startup of boilers are not operational at time for tune-up. [DDDDD]

Deleted: Condition 5.2.20 requiring tune-up of Boilers B002 and B004 was deleted and incorporated into new Condition 5.2.5. Rule (lll)

Deleted: Condition 5.2.21 requiring one-time energy assessment after Boilers B002 and B004 startup has been completed.

Deleted: Condition 5.2.22 requiring initial tune-up for Boilers B003 and B004 have been completed.

Deleted: Condition 5.2.23 was deleted and incorporated into new Condition 5.2.11 requiring annual tune-ups for Boilers B003 and B004. [DDDDD]

Deleted: Condition 5.2.24 was deleted and incorporated into new Condition 5.2.12 requiring tune-up withing 30 days of startup of Boilers B003 and B004 if they are not operational at time for tune-up. [DDDDD]

Deleted: Conditions 5.2.25 and 5.2.26 were reserved Conditions and Conditions 5.2.27 and 5.2.28 were previously deleted.

Modified: Condition 5.2.29 (new Condition 5.2.13) was modified to include additions sources from like Conditions 5.2.32 and 5.2.35 from later amendments to install and operate monitoring for fabric filter baghouses.

Modified: Condition 5.2.30 (new Condition 5.2.14) was modified to include additional sources from like Conditions 5.2.33 and 5.2.36 from later amendments to determine visible emissions.

Modified: Condition 5.2.31 (new Condition 5.2.15) was modified to include additional sources from later amendments to develop and implement a PMP for fabric filters.

Deleted: Condition 5.2.32 was deleted and incorporated into new Condition 5.2.13 to install and operate monitoring for fabric filter baghouses.

Deleted: Condition 5.2.33 was deleted and incorporated into new Condition 5.2.14 to determine visible emissions.

Deleted: Condition 5.2.34 was deleted and incorporated into new Condition 5.2.15 to develop and implement a PMP for fabric filters.

Deleted: Condition 5.2.35 was deleted and incorporated into new Condition 5.2.13 to install and operate monitoring for fabric filter baghouses.

Deleted: Condition 5.2.36 was deleted and incorporated into new Condition 5.2.14 to determine visible emissions.

Deleted: Condition 5.2.37 was deleted and incorporated into new Condition 5.2.15 to develop and implement a PMP for fabric filters.

Permit Condition 5.2.1 requires the Permittee to maintain records of operation and maintenance checks for each week or portion of the week the vegetable oil mill is in operation.

Permit Condition 5.2.2 requires the Permittee to install, calibrate, maintain and operate a monitoring device to measure pressure drop on baghouse CD01.

Permit Condition 5.2.3 outlines the requirements of the visible emissions check for baghouse CD01.

Permit Condition 5.2.4 requires the Permittee to develop and implement a Preventative Maintenance Program for baghouse CD01.

Permit Condition 5.2.5 (Old Permit Condition 5.2.7) was modified to remove reference to HPB1 and HPB2 because the Permittee previously developed a RACT plan to minimize NOx emissions from the combustion sources (HPB1 and HPB2) by conducting annual tune-ups, which is incorporated into the facility's current operating permit. However, as the facility is no longer subject to Rule (yy) the requirement for the annual tune-ups for HPB1 and HPB2 are removed. The Permittee is required to perform a tune up of boilers B003 and B004.

Permit Condition 5.2.6 (Old Permit Condition 5.2.8) requires the Permittee to determine and record solvent loss in accordance using the procedures in 40 CFR 63.2853.

Permit Condition 5.2.7 requires the Permittee to determine and record the weighted average volume fraction of HAP in the actual solvent loss.

Permit Condition 5.2.8 requires the Permittee to determine and record the quantity of oilseed processed on an as-received basis.

Permit Condition 5.2.9 requires the Permittee to calculate and record a Compliance Ratio for the previous 12 operating months.

Permit Condition 5.2.10 (Old Permit Condition 5.2.14) outlines the exceptions outlined in the 2005 Consent Decree in which the Permittee is not required to calculate and record the actual solvent loss ratio in gallons of VOC solvent per ton of oilseed processed in accordance with the Vegetable Oil MACT.

Permit Condition 5.2.11 (Old Permit Condition 5.2.15) was modified to require the Permittee to conduct an annual tune-up of Boilers B003 and B004 and requirements to perform an annual tune-up for Boiler B001 have been removed.

Permit Condition 5.2.12 (Old Permit Condition 5.2.16) was modified to remove the effective date of the rule which already passed for the requirement of a tune-up to be conducted within 30 days in the event the boilers are not operational on the day of the boiler tune-up test. References to Boiler B001 were removed and references to Boilers B003 and B004 were added.

Permit Condition 5.2.13 requires the Permittee to install, calibrate, maintain and operate a monitoring device to measure pressure drop on fabric filters FF01, FF02, FF03, FF04, FF05, FF06, FF07, FF08 and FF09.

Permit Condition 5.2.14 requires the Permittee to perform a check for visible emissions from fabric filters FF01, FF02, FF03, FF04, FF05, FF06, FF07, FF08 and FF09 at least once for each day or portion thereof.

Permit Condition 5.2.15 requires the Permittee to develop and implement a Preventative Maintenance Program for fabric filters.

Permit Condition 5.2.16 requires the Permittee to create and maintain a record suitable for inspection or submittal for the following: check the exterior of the cyclone of the dust collectors for holes or evidence of malfunction, check hoppers for bridging and plugging, and check screw conveyors for proper operation to ensure dust removal.

C. Compliance Assurance Monitoring (CAM)

Cargill was subject to CAM Requirements for Boiler B001 and upon the removal of B001 from the facility, the Permittee is no longer subject to CAM, thus removing Old Permit Conditions 5.2.17 through 5.2.19

VI. Record Keeping and Reporting Requirements

A. General Record Keeping and Reporting Requirements

The Permit contains general requirements for the maintenance of all records for a period of five years following the date of entry and requires the prompt reporting of all information related to deviations from the applicable requirements. Records, including identification of any excess emissions, exceedances, or excursions from the applicable monitoring triggers, the cause of such occurrence, and the corrective action taken, are required to be kept by the Permittee and reporting is required on a semiannual basis.

Deleted: Permit Conditions 6.1.7b.iv has been removed because Boiler B001 is no longer in operation. Subsequent Conditions have been renumbered to reflect the change.

Deleted: Permit Condition 6.1.7b.vii has been removed because baghouse CAD1 which is the baghouse associated with controlling Boiler B001 emissions is no longer in operation. Subsequent Conditions have been renumbered to reflect the change.

Deleted: Old Permit Condition 6.1.7ix through 6.1.7xiv have been removed because Boiler B001 is no longer in operation. Subsequent Conditions have been renumbered to reflect the change.

Permit Condition 6.1.7b.i hexane limit of 518.1 tpy.

Permit Condition 6.1.7b.ii imported crude vegetable/soy oil limit of 500 MMlbs/yr.

Permit Condition 6.1.7b.iii total weighted average of hexane in imported crude vegetable/soy oil limit of 100 ppm.

Permit Condition 6.1.7b.iv and 6.1.7b.v fuel sulfur limits for boilers HPB1 and HPB2.

Permit Condition 6.1.7b.vi annual oilseed solvent loss rate limit of 0.175 gallons of VOC solvent per ton of oilseed processed.

New: Permit Condition 6.1.7b.vii was added (incorporates old Conditions 6.1.8c.i through 6.1.8c.iii combined) to require the Permittee to report any two consecutive determinations of visible emissions from the fabric filters listed in Condition 5.2.14 as an exceedance. [DDDDD]

Permit Condition 6.1.7c.i any adverse condition discovered in weekly checks according to Condition 5.2.1.

Permit Condition 6.1.7c.ii two consecutive determinations of visible emissions from baghouses listed in Condition 5.2.3.

Modified: Permit Condition 6.1.7c.iii through v. were modified to reflect changes to the reference Permit Condition numbers, to add Boilers B003 and B004, and remove Boilers HPB1 and HPB2 for tune ups.

New: Permit Condition 6.1.7c.vi. (incorporated from Condition 6.1.8c.i through iii) defines any two consecutive determinations of visible emissions from the fabric filters listed in condition 5.2.15 as an excursion.

New: Permit Condition 6.1.7c.vii. (incorporated from Condition 6.1.8c.iv) defines any adverse condition disclosed by the weekly operational and maintenance surveillance checks of the dust collectors listed in 5.2.16 as an excursion.

Permit Condition 6.1.7d.i fuel oil supplier certifications.

Deleted: Old Permit Condition 6.1.7d.ii and v. were removed because Boiler B001 is no longer in operation. Subsequent Condition Numbers reflect the change.

Permit Condition 6.1.7d.ii submit reports of hexane consumed, oil imported and weight average hexane in imported oil.

Permit Condition 6.1.7d.iii certification by responsible official.

Deleted: Old Permit Condition 6.1.8 was deleted and incorporated into new Condition 6.1.7.

B. Specific Record Keeping and Reporting Requirements

Permit Condition 6.2.1 requires the Permittee to record the consumption of hexane by the vegetable/soy oil extraction process each calendar month and calculate the 12-consecutive month total hexane consumption each month during the semi-annual reporting period.

Permit Condition 6.2.2 requires the Permittee to record the amount of imported crude vegetable/soy oil processed at the refinery each calendar month and calculate the 12-consecutive month total of crude oil imports each month during the semi-annual reporting period.

Permit Condition 6.2.3 requires the Permittee to retain the shipping receipts showing the gallons of imported crude vegetable/soy oil delivered to the refinery and the analysis of the oil for hexane content each calendar month and determine the weighted average concentration of hexane in the imported crude oil for a 12-consecutive month period.

Permit Condition 6.2.4 requires the Permittee to obtain supplier a statement that the oil complies with the specifications for Number 2 fuel oil as defined in ASTM D396 - Standard Specifications for Fuel Oil from the fuel supplier.

Permit Condition 6.2.5 requires the Permittee to maintain monthly records of #2 fuel oil consumption in Boilers HPB1 and HPB2.

Deleted: Old Permit Condition 6.2.6 was removed because Boiler B001 is no longer in operation. Subsequent Permit Conditions were renumbered to reflect this change.

Deleted: Old Permit Condition 6.2.7 requires the Permittee to maintain a record of actions taken to suppress fugitive dust emissions.

Modified: Permit Condition 6.2.6 requires the Permittee to maintain a written plan for the disposal of materials captured by the soybean processing air pollution control equipment. Old Condition 6.2.8 contained coal fired air pollution control equipment which has been removed.

Modified: Permit Condition 6.2.7 state the reports required by the Vegetable Oil MACT or 40 CFR 63 Subpart GGGG. Old Condition 6.2.9 has been revised to remove the rescinded SSM requirements of GGGG.

Modified: Permit Condition 6.2.8 state the recordkeeping requirements outlined by the Vegetable Oil MACT or 40 CFR 63 Subpart GGGG. The requirements of 40 CFR 63.2862(g) have also been added. It has been revised to remove the rescinded SSM requirements contained in Old Condition 6.2.10.

Deleted: Old Permit Conditions 6.2.11, 6.2.12 and 6.2.13 were removed because Boiler B001 is no longer in operation. Subsequent Permit Conditions were renumbered to reflect this change.

Permit Condition 6.2.9 and 6.2.10 state the notifications required by the Boiler MACT or 40 CFR 63 Subpart DDDDD. Permit Condition 6.2.10 adds reference to Boilers B003 and B004.

Deleted: Old Permit Condition 6.2.16 was removed because the initial compliance with the work practice standards have been met.

Permit Condition 6.2.11 and 6.2.12 (Old Permit Condition 6.2.17 and 6.2.18) state the notifications required by the Boiler MACT or 40 CFR 63 Subpart DDDDD. References to other conditions in the conditions have been modified to reflect any permit changes.

New: Permit Condition 6.2.13 was added to outline the applicable 1-year coverage period and deadline for submission.

Permit Conditions 6.2.14 through 6.2.17 state the reports required by the Boiler MACT or 40 CFR 63 Subpart DDDDD. Permit Condition 6.2.14 (Old Permit Condition 6.2.19) was modified to include reference to Boilers B003 and B004.

Deleted: Old Permit Condition 6.2.23 was removed because Boiler B001 is no longer in use and in the revised version of the Boiler MACT the startup and shutdown tracking requirements for units designed to burn gas 1 fuels was removed, thus removing the reference HPB1 and HPB2.

Permit Condition 6.2.18 (Old Condition 6.2.24) state the recordkeeping required by the Boilers or 40 CFR 63 Subpart DDDDD.

New: Permit Condition 6.2.19 requires the Permittee to maintain a record of all actions to suppress fugitive dust from DC2 including the date, time and a description of the occurrence.

Deleted: Permit Conditions 6.2.26, 6.2.27, 6.2.28, 6.2.29, 6.2.30, 6.2.31, 6.2.32, 6.2.33, 6.2.34, 6.2.35, 6.2.36, 6.2.37, 6.2.38 have been deleted and incorporated into existing permit conditions which now reference Boilers B003 and B004, and various other equipment added via 502(b)(10) amendments to the old TV Permit and subject to NESHAP DDDDD and NSPS DD.

VII. Specific Requirements

A. Operational Flexibility

Not applicable

B. Alternative Requirements

Not applicable

C. Insignificant Activities

See Permit Application on GEOS website.
See Attachment B of the permit

D. Temporary Sources

Not applicable

E. Short-Term Activities

Not applicable

F. Compliance Schedule/Progress Reports

Not applicable

G. Emissions Trading

Not applicable

H. Acid Rain Requirements

Not applicable

I. Stratospheric Ozone Protection Requirements

Note: Be sure to discuss any new stratospheric ozone protection requirements (see subsection J.) that may apply to the source. State if the facility has indicated that they are subject to Title VI

J. Pollution Prevention

Not applicable

K. Specific Conditions

Not applicable.

VIII. General Provisions

Generic provisions have been included in this permit to address the requirements in 40 CFR Part 70 that apply to all Title V sources, and the requirements in Chapter 391-3-1 of the Georgia Rules for Air Quality Control that apply to all stationary sources of air pollution.

Template Condition 8.14.1 was updated in September 2011 to change the default submittal deadline for Annual Compliance Certifications to February 28.

Template Condition Section 8.27 was updated in August 2014 to include more detailed, clear requirements for emergency generator engines currently exempt from SIP permitting and considered insignificant sources in the Title V permit.

Template Condition Section 8.28 was updated in August 2014 to more clearly define the applicability of the Boiler MACT or GACT for major or minor sources of HAP.

Addendum to Narrative

The 30-day public review started on month day, year and ended on month day, year. Comments were/were not received by the Division.

//If comments were received, state the commenter, the date the comments were received in the above paragraph. All explanations of any changes should be addressed below.//