OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

MEMORANDUM **January 19, 2010**

TO: Phillip Fielder, P.E., Permits and Engineering Group Manager
Air Quality Division

THROUGH: Kendal Stegmann, Senior Environmental Manager
Compliance and Enforcement

THROUGH: Phil Martin, P.E., Engineering Section

THROUGH: Peer Review

FROM: Eric L. Milligan, P.E., Engineering Section

SUBJECT: Evaluation of Permit Application **No. 2009-138-C PSD**
Producers Cooperative Oil Mill
South Council Oil Mill (SIC 2076)
2500 S. Council Road, Oklahoma City, OK
SW/4 of S8, T11N, R4W, Oklahoma County
Latitude: 35.4419°N; Longitude: 97.6540°W

SECTION I. INTRODUCTION

Producers Cooperative Oil Mill (PCOM) requests approval to construct a new oil mill at 2500 S. Council Road in Oklahoma City, OK. The South Council Oil Mill is anticipated to process up to 1,800 TPD of oilseeds. The new oil mill will process canola, sunflower, safflower, peanut, camelina, and dry process corn germ into various vegetable oils. Startup of the new oil mill is proposed for September 2010. The construction permit application served as the initial notice for new sources as required by 40 CFR Part 63, Subpart GGGG.

SECTION II. PROCESS DESCRIPTION

The new PCOM South Council Oil Mill will be designed to convert up to 1,800 TPD of seeds into crude oils. The facility consists of several processing steps to prepare seed and remove up to 59 million gallons per year of crude oils. Seeds to be processed include:

- Canola (rapeseed),
- Sunflower,
- Peanut,
- Safflower,

- Camelina, and
- Dry Process Corn Germ.

The product rates for seeds vary based on the feed. Sunflower and Camelina seeds require an additional processing step of cracking. Roughly 80 gallons of crude oil per ton of seed are generated. The facility will also produce as a byproduct de-solventized meal which can be processed into pellets. This plant will convert seeds into crude oil and meal using the following series of processing steps:

Seed Unloading
The facility will receive seed by both truck and rail but predominantly by rail. The facility will have a railcar unloading location and two truck unloading locations. Seed unloading is accomplished either by hopper bottom trucks or railcar or by elevating each truck to a 45 degree angle and releasing the seed into the dump pit. From the dump pits, the seeds are transported by enclosed conveyers that direct the seeds into the seed tanks. The unloading will take place within a building. The truck and railcar unloading operations, receiving bucket elevators, and receiving screening operations will be collected and routed to the Receiving Baghouse (EU-32).

Seed Storage
The volume of seed storage tanks includes two weeks of capacity in four tanks (1,200,000 bushels total). Enclosed conveyors and bucket elevators will be used to transfer material. The seed storage tanks, grain receiving transfer conveyors, the diverter, seed transfer bucket elevators, seed transfer screen, and production elevators will be vented to the Storage Area Baghouse (EU-34). Two smaller day tanks are included providing an additional storage capacity of 100,000 bushels. These tanks will also be vented to EU-34.

Seed Cleaning
The seeds are transported by conveying system from storage to the preparation plant. A day tank will be filled multiple times a day. This bin enables continuous feed to the seed preparation process without using the high capacity conveyors of the main storage facility. The cleaning is completed on a multiple deck screener composed of screens with opening sizes designed to separate the seeds into three groups. Oversized and undersized fractions are sent to disposal. The bucket elevator from the days bin, weight belt (Magnetic feed) conveyor, seed cleaner, seed cleaner bucket elevator, and cracking mill conveyors will be routed to the Seed Cleaning Baghouse (EU-02).

Seed Milling (Cracking) and Conditioning
After cleaning, sunflower and camelina seeds are conveyed to the cracking mills, which are used for reducing the size of larger oilseeds prior to flaking in order to improve the quality of flakes and capacity of the flaking mill. The seeds are then pre-heated or conditioned in the rotary conditioner. Conditioning releases moisture that migrates to the surface of the seed and could be a hindrance to flaking. The surface moisture is removed by pulling air from the conditioner. The rotary conditioner, conveyor, and bucket elevator will be routed to the Rotary Conditioner Baghouse (EU-04). The fines are returned back to the process and the cleaned moist air exhausts to atmosphere.

Flaking
The warm, soft seeds, leaving the pre-heater, are then sent to flaking. The flaking mills will laminate the seeds into flakes. The distance from oil cells to the surface of the flakes is shortened in the process, and oil is available for extraction through pressure in the expeller and then with solvent in the extractor. The flaking mills are in-line and fed from a common chain enclosed conveyor. Excess seeds that are not distributed to the flakers (overflow) are returned to the flaking mill feed.

Like conditioning, flaking releases moisture that migrates to the surface of the flakes, and could be a hindrance to pre-pressing and solvent penetration in the extractor. The surface moisture is removed by pulling air from the flakes discharge conveyor (enclosed). The flaking mills' conveyors will be routed to the Flaking Mills Baghouse (EU-06). The fines are returned back to the process and the cleaned air exhausts to atmosphere.

Sterling^{TM} Pre-Pressing
The cooked and dried flakes are transported to the pre-presses where part of the oil is expelled and the remaining oil and solids form a pre-press cake. An enclosed conveyor is fitted in the base to discharge oil or fat. The hot pre-press cake from pre-pressing along with foots from oil clarification are conveyed to the expanders. The expanders inject live steam into the cake to increase moisture from approximately 7% up to 9% and produce an expanded pellet ideal for solvent extraction.

Pressing and expanding releases moisture that migrates to the surface of the cake/pellets, and needs to be removed for efficient solvent extraction. The surface moisture is removed by pulling air from the discharge of the presses and expanders. The pre-press elevator, the pre-presses, and the expanders will be routed to the Pre-press/Expander Baghouse (EU-10). The fines are returned back to the process and the cleaned air exhausts to atmosphere.

Cooling
The cake/pellets are cooled before reaching the extractor. Cooling is done in a tunnel-type cooler. The cooled pellets are conveyed across the restricted and controlled areas to the solvent extraction plant by means of one or more low speed chain conveyors (enclosed). The moist air and entrained fines are separated in the Cooler Baghouse (EU-12). The fines are returned back to the process and the cleaned air exhausts to atmosphere.

Oil Clarification
The expelled oil is first discharged into the foots recovery tank. The paddles move the large solid meal particles across a slotted wire screen to allow the free oil to drain back into the tank. The solids discharge into an enclosed conveyor and are mixed with material discharging from the cooker-dryers to be reprocessed through the screw presses. The screened oil flows to the Decanter Feed Tank with a mixer. Fine solids in suspension are still present in excessive quantity and must be removed to maintain oil quality. The screened oil is pumped directly from the feed tank to the centrifuge (decanter). From the centrifuge, the oil is sent to acid degumming.

Extracted Meal Finishing

Hot DT Meal to Pelletizing

Solvent extracted meal from the DT is conveyed across the controlled and restricted area to the meal pelletizers. After the solvent-extracted meal discharges from the DT, the meal is returned to the seed preparation building to be processed into pellets. These pellets are cooled before being conveyed to storage.

The solvent-extracted meal enters a conditioner mounted above the pellet mills. Steam is injected directly into the meal to adjust moisture and temperature of the pellets. The pellet mill presses the conditioned meal through a rotating die to form hard meal pellets. The formed pellets discharge the pellet mill directly into a vertical cooler located below the mill.

The vertical pellet cooler uses ambient air pulled through the pellet bed to lower the pellet temperature and remove surface moisture to allow the meal to be safely stored. The pellet dyer/cooler will be routed to Pellet Coolers' Baghouses (EU-16 & 18). The fines are returned to the process and the cleaned air exhausts to atmosphere. Only one pellet cooler can operate at a time. The cooled pellets discharge the cooler into a chain conveyor (enclosed) for transportation to storage. The slow conveyor speed minimizes pellets breakage.

Reflex Solvent Extraction

Material mixed with miscella is slurry-fed into the rotating baskets; thus, extraction starts immediately. After the initial slurry feed, the bed of material is continuously washed with counter-current stages of miscella. The miscella from the extractor flows to the miscella tank for solvent recovery. The meal solids are conveyed to the DTDC (below).

De-Solventizing-Toasting-Drying-Cooling (DTDC)

The patented DIMAX DTDC is a cylindrical, vertical vessel comprised of pre-desolventizing trays, countercurrent trays, sparge steam tray, steam drying trays, air drying trays, and air cooling trays.

Miscella Distillation

The miscella passes from the miscella tank to a first stage evaporator, miscella/oil heat exchanger, miscella heater, second stage evaporator, edible oil stripper, edible oil dryer, miscella/oil heat exchanger, edible oil cooler and on to crude oil storage.

Solvent Recovery

Vapor/Solvent System

The condensation of hexane and water vapors takes place in a first stage evaporator solvent pre-heater atmospheric condenser and vacuum condenser. A solvent/water separation tank decants the water from the condensed solvent. The water is stripped in a wastewater stripper to recover solvent prior to exiting the plant. The air is scrubbed of solvent by a mineral oil absorption system (EU-20) prior to exiting the plant. The recovered solvent is heated in a solvent pre-heater and solvent heater prior to being re-circulated back into the extractor.

The vacuum condenser condenses the vapors from the tube side of the first and second stage evaporators, vapors from the edible oil stripper, and vapors from the mineral oil stripper. The atmospheric condenser condenses the remaining DT and waste water stripper vapors that pass through the first stage evaporator and solvent pre-heater, the vapors from the extractor, as well as the vapors from the solvent/water separation tank, miscella tank, and solvent storage tanks. Therefore, there are no emissions from the water separation tank, still vent work tank, or solvent storage tanks during normal operations. However, there are pressure relief devices that vent to the atmosphere in emergency situations.

The combination solvent/water separation tank and solvent work tank decants the water from the solvent and stores the solvent prior to recirculation back to the extractor. The wastewater stripper heats the waste water and evaporates trace hexane from the waste water stream prior to discharge to the waste water sump.

The solvent pre-heater increases the solvent temperature exiting the solvent/water separation tank while simultaneously condensing excess DT vapors and wastewater stripper vapors that have passed through the first stage evaporator without condensing. The solvent heater heats the solvent leaving the solvent pre-heater.

Vegetable Oil System

The vegetable oil scrubber absorbs solvent vapors out of the vapor stream exiting the atmospheric condenser prior to discharging the plant through a flame arrestor and fan (EU-20).

The vegetable oil absorber, a packed column vessel, operates at atmospheric pressure. Vegetable oil flows countercurrent, through the packing, to the upcoming vapors. The vegetable oil heater heats the vegetable oil while sparging it with live steam and evaporating the solvent. The vegetable oil stripper evaporates and strips the hexane from the vegetable oil using a special vacuum, low temperature design.

The vegetable oil stripper is a two-stage vessel with integral entrainment separator and operates at a low pressure. In the first stage, the vegetable oil enters the flash chamber allowing most of the solvent to evaporate from the vegetable oil. The steam and evaporated solvent from the flash chamber ascend to the upper entrainment separator. The vegetable oil then flows from the flash chamber down to the packed column section where it cascades down through the packing, countercurrent to the upcoming sparge steam and exits the column. The steam and evaporated solvent from the packed column section ascend to the upper entrainment separator. The upper entrainment (contingency) separator prevents any vegetable oil mist from exiting with the vapors to the vacuum condenser. The vegetable oil cooler and vegetable oil chiller cool the vegetable oil.

Acid Degumming

The canola oil is sampled on a regular basis to check for calcium, magnesium and free fatty acid. The canola oil is treated with phosphoric acid and diluted sodium hydroxide. The canola oil is pumped from the day tank into the pre-treatment building with the flow rate carefully measured. Upon entry into the pre-treatment building, the oil is heated first by an oil/oil heat exchanger and then by an oil heater.

After heating, phosphoric acid is injected into the oil at a predetermined flow rate to the oil stream. The oil then passes to a high shear mixer to finely disperse the phosphoric acid into the oil to convert non-hydratable phosphatides to a hydratable state and a small amount of soft water is added to the oil stream. The oil/phosphoric acid mixture then passes into an agitated acid reactor. The oil is then pumped by the reactor tank discharge pump forward.

After acid conditioning, the oil is cooled in oil heat exchanger and oil cooler. Diluted sodium hydroxide solution is injected into the oil at a predetermined flow rate. The oil then passes to a medium shear mixer to disperse the sodium hydroxide into the oil. The diluted sodium hydroxide neutralizes the excess phosphoric acid and hydrates the remaining un-reacted phosphatides in the hydration tank.

The oil then passes through an oil heater and a centrifugal separator. This centrifugal separator separates the small stream of heavy phase (soapstock consisting of hydrated gums) from the larger stream of light phase (refined oil). The soapstock passes from the centrifugal separator to gums/soapstock tank. The gums/soapstock pump moves the oil to a storage tank. The refined oil passes from the centrifugal separator into an oil surge tank. The oil is then heated in the oil drier heater and dried in the oil drier.

Hexane emissions from the wastewater exiting the fat trap (EU-22) are expected to be negligible. A minimal amount of hexane (0.1%) is assumed to remain in the crude oil. The amount of hexane present at EU-22 will be significantly less.

Crude Oil Storage and Shipping

Produced crude oil is pumped from acid degumming to Crude Oil Storage. PCOM's design calls for a crude oil storage capacity of 3,160,000 gallons. Initially nine storage tanks, capable of storing 1,300,000 gallons, will be installed in the Future Refinery Tank Farm area. Crude oil will be shipped mostly by railcars but also by trucks. A new railcar loading station will be added next to the Chemical Building. An existing truck loading station at the Chemical Building will be used for crude oil loading as well. A minimal amount of hexane (0.1%) is assumed to remain in the crude oil. Emissions from crude oil storage will be insignificant.

Meal Storage and Load-Out

Desolventized meal is available from the meal finishing portion of the prep plant in meal form or as pellets. Both are conveyed from the prep building to the meal storage area. Eight bins will be installed to provide 16,800 tons of meal storage capacity (as either pellets or meal powder). Loading of meal will occur at the new truck and railcar stations also used for seed unloading. A truck loading station and a railcar loading station will be included. The finished meal bucket elevator, and meal transfer conveyors will be routed to the meal storage cyclone and baghouse (EU-36). The meal loadout bucket elevator, meal loadout conveyors, and loadout operations will be routed to the meal loadout cyclone and baghouse (EU-38).

Utilities

Cooling Tower

Sufficient cooling capacity is available from the existing cooling tower.

Steam System

Steam from existing boilers is anticipated to be adequate for seed processing. The three existing boilers generate 75 MMBTUH of steam each. One boiler is sufficient to normally run the plant.

Chemical Storage and Transfer

The meal clay tank with bag house provides up to 3% clay to meal and meal pellets. A truck unloading station for meal clay will be installed at the tank. Addition of acid storage is anticipated for waste water treatment. Hexane is required for the solvent extraction process. A new truck unloading station for hexane and a new 19,500 gallon hexane tank will be installed.

City Water System

The site has an existing city water supply which can provide up to 80 psig of water. This water is used for the process. The existing boilers have existing water pretreatment systems.

Fire Water

There are two existing fire water ponds, with a jockey pump.

Compressed Air

The site has two existing air compressor units with dryers. In addition, it also has a diesel fired emergency air compressor compression ignition (CI) internal combustion engine (ICE).

Treatment of Waste Liquids

There is an existing waste water treatment system. The majority of waste water will be from boiler water treatment, boiler blowdown, and cooling tower blowdown. The process will produce 14,000 lb/hr of wastewater.

SECTION III. EMISSION UNIT GROUPS

EUG 100. Baghouses

EU ID #	Point ID #	EU Name/Description	Const. Date
02	716-01	Seed Cleaning Baghouse	2010
04	714-02	Rotary Conditioner Baghouse	2010
06	714-03	Flaking Mills Baghouse	2010
10	2714-02	Pre-Press/Expander Baghouse	2010
12	2714-03	Cooler Baghouse	2010
16	3716-01	Pellet Dryer/Cooler #1 Baghouse	2010
18	3716-02	Pellet Dryer/Cooler #2 Baghouse	2010
28	28	North Silo Baghouse	2010
30	30	South Silo Baghouse	2010
32	F-101	Seed Receiving Baghouse	2010
34	F-102	Storage Area Baghouse	2010
36	F-601	Meal Storage Baghouse	2010
38	F-602	Meal Loadout Baghouse	2010
40	F-603	Meal Flow Agent Unloading	2010
42	42	Rail Meal Loadout Baghouse	2010
43	43	Truck Loadout Meal Baghouse	2010

EUG 300. Fugitive PM_{10} Sources

EU ID #	Point ID #	EU Name/Description	Const. Date
104/5	F1	Truck Seed Receiving Fugitives	2010
101	F2	Rail Seed Receiving Fugitives	2010
42	F3	Truck Meal Loadout Fugitives	2010
43	F4	Rail Meal Loadout Fugitives	2010
	F5	Roadways	N/A

EUG 400. Vegetable Oil Absorber

EU ID #	Point ID #	EU Name/Description	Const. Date
20	120	Vegetable Oil Absorber	2010

EUG 500. Boilers

EU ID #	Point ID #	EU Name/Description	Const. Date
501	101	Boiler #101, 75 MMBTUH	1969
502	102	Boiler #102, 75 MMBTUH	1969
503	103	Boiler #103, 75 MMBTUH	1969

EUG 600. Miscellaneous Insignificant Sources

EU ID #	Point ID #	EU Name/Description	Const. Date
22	45	Wastewater Fat Trap	2010
T-701-9	T-701-9	Crude Vegetable Oil Storage Tanks (A-I)	2010
SP-701/2	SP-701/2	Crude Vegetable Oil Loadout	2010
511	511	Cooling Tower	2010
541	541	500-gallon Diesel Fuel Storage Tank	2010
551	551	80-hp Diesel Fired Air Compressor CI-ICE	UNK

SECTION IV. EMISSIONS

Emissions from all the baghouses were calculated using a manufacturer's grain loading guarantee: 0.0003 grains/DSCF for EU 2, 28, 30, 32, 34, 36, 38, 40, 42, and 43; and 0.005 grains/DSCF for EU 4, 6, 10, 12, 16, and 18; and the flow rate of the baghouse as shown below. Emissions from EU 2, 4, 6, 10, 12, 16, 18, 36, 38, 40, 42, and 43 are based on continuous operation and EU 28, 30, 32, and 34 are based on operating 1,752 hours per year. $PM_{2.5}$ emissions are estimated at 17% of PM_{10} emissions. EU 2, 4, 6, 10, 12, 16, and 18 are vented inside the processing building. The applicant has requested a control efficiency of 90% for this but was only afforded a control efficiency of 50% for PM_{10} only.

PM_{10} Emissions from EUG 100. Baghouses

EU ID #	Point ID #	EU Name/Description	DSCFM	lb/hr	TPY
02	716-01	Seed Cleaning Baghouse	7,350	0.0095	0.042
04	714-02	Rotary Conditioner Baghouse	5,200	0.1114	0.488
06	714-03	Flaking Mills Baghouse	6,000	0.1286	0.563
10	2714-02	Pre-Press/Expander Baghouse	1,800	0.0386	0.169
12	2714-03	Cooler Baghouse	30,000	0.6429	2.816
16	3716-01	Pellet Dryer/Cooler #1 Baghouse	23,500	0.5036	2.206
18	3716-02	Pellet Dryer/Cooler #2 Baghouse	23,500	0.5036	2.206
28	28	North Silo Baghouse	12,896	0.0332	0.029
30	30	South Silo Baghouse	28,675	0.0737	0.064
32	F-101	Seed Receiving Baghouse	60,000	0.1543	0.135
34	F-102	Storage Area Baghouse	25,791	0.0663	0.058
36	F-601	Meal Storage Baghouse	14,328	0.0368	0.161
38	F-602	Meal Loadout Baghouse	14,328	0.0368	0.161
40	F-603	Meal Flow Agent Unloading	1,500	0.0039	0.017
42	42	Rail Meal Loadout Baghouse	1,500	0.0039	0.017
43	43	Truck Loadout Meal Baghouse	1,500	0.0039	0.017
		Totals		**2.351**	**9.149**

While the rail and truck unloading (receiving) stations and meal loadout stations will be located within buildings (i.e., closed in on at least three sides) and controlled by dust collectors, there is an expectation that some dust will remain un-captured. Fugitive unloading (receiving) emissions were calculated using emission factors from AP-42 (3/2003), Section 9.9.1, for railcars and straight trucks plus a 200% safety factor. While it is expected that some of the seed would be transported in hopper trucks, the straight truck factor is substantially larger and chosen as the worst-case. Fugitive meal loadout emissions were calculated using the emission factor from AP-42 (11/1995), Section 9.11.1, for meal loadout with approximately 25% of the PM emissions being PM_{10} plus a 200% safety factor. A 95% capture efficiency was used to determine uncontrolled emissions from the unloading (receiving) and meal loadout operations then an additional 90% control efficiency was applied for PM_{10} emissions within the building to account for reductions in wind speed. No additional control was applied for $PM_{2.5}$ emissions. The unloading (receiving) operations are limited to a maximum seed volume of 1,800 TPD and 657,000 tons per year and the estimated hourly throughput of the railcar (750 TPH) and truck (375 TPH) unloading (receiving) operations. The meal loadout operations are based on a maximum loading capacity of 200 TPH and an annual loading of 657,000 tons per year. $PM_{2.5}$ emissions are estimated at 17% of PM_{10} emissions.

Fugitive PM_{10} Emissions from Receiving and Loadout

EU ID #	Point ID #	EU Name/Description	lb/ton	lb/hr	TPY
104/5	F1	Truck Seed Receiving Fugitives	0.0590	0.2213	0.097
101	F2	Rail Seed Receiving Fugitives	0.0078	0.0585	0.013
42	F3	Truck Meal Loadout Fugitives	0.0675	0.1350	0.048
43	F4	Rail Meal Loadout Fugitives	0.0675	0.1350	0.048
		Totals		**0.5498**	**0.206**

Fugitive emissions from vehicle traffic were calculated using AP-42 (11/2006), Section 13.2.1, Equation 2, for paved roads and the variables listed below to get an uncontrolled emission factor of 1.52 lb/VMT. The applicant applied a 90% control factor for bi-weekly sweeping of the roadways. $PM_{2.5}$ emissions are estimated at 15% of PM_{10} emissions.

Variables

Vehicle Weight	Vehicle Speed	VMT[1]	Silt Loading	# Days w/Precip.
30 tons	15 mph	25,550	12 g/m^2	95 days

[1] - based on 200 trucks per day 365 days per year.

Fugitive PM_{10} Emissions from Roadways

EU ID #	Point ID #	EU Name/Description	lb/VMT	TPY
	F5	Roadways	0.1516	1.937

As stated in AP-42 (11/95), Section 9.11.1, the recommended method for estimating annual hexane emissions from vegetable oil production facilities is to obtain the annual hexane usage from the specific plant's records, and to assume that all hexane make-up is due to losses to the air. If the hexane usage is determined from purchase records then storage tank losses are already accounted for in the loss estimate.

VOC emissions from the facility are based on the factors shown below, the maximum process rate, and a solvent density of 5.5 lb/gallon.

VOC Emissions from Individual Processes

		VOC Emissions	
Source	**Control Technology**	**(gal/ton)**	**TPY**
Vegetable Oil Absorber	Condensation (Including Chilled Condenser)	0.009	16.26
Pellet Dryer/Cooler	Optimize DT Meal Solvent Extraction	0.142	256.56
Residual Crude Meal			
Meal Storage Bins	Optimize DT Meal Solvent Extraction	0.006	10.84
Crude Meal Deliveries[1]	Optimize DT Meal Solvent Extraction	0.043	77.69
Residual Crude Oil			
Secondary Oil Stripper	Closed Vent System Routed to VOS	<0.0001	0.18
Crude Oil Storage[1]	Fixed Roof Tanks	0.040	72.27
Solvent Storage Tanks	Closed Vent System Routed to VOS	<0.0001	0.18
Wastewater Collection			
Wastewater Evaporator	Closed Vent System Routed to VOS	<0.0001	0.18
Wastewater Discharge	None	0.001	1.81
Startup/Shutdown	Startup/Shutdown/Malfunction Plan	0.045	81.30
Equipment Leaks	LDAR Program	0.014	25.29
Total		**0.301**	**542.56**

[1] - As stated by the applicant, the solvent contained in the crude meal and crude oil is considered "bound" and does not generate direct emissions at the facility.

The facility has requested two operating scenarios for the boilers with only one of the boilers located on-site operating at any one time. The permit will limit operation of all the boilers to 8,760 hours per year. For the first operating scenario, the boilers will be fired with natural gas. For the second operating scenario, the boilers will be fueled with landfill gas (LFG). Emission estimates from the boilers firing natural gas are based on AP-42 (7/98), Section 1.4 and continuous operation. Emission estimates from the boilers firing LFG are based on AP-42 (10/2008 - DRAFT), Section 2.4 and continuous operation. The control efficiency for boilers for VOC in LFG is 98.6% and the concentration of VOC in the LFG was estimated using the "prior to 1992" value for unknown co-disposal of 2,057 ppmv VOC (as hexane). The SO_2 content of the gas has been assumed to be approximately 33 ppmv. LFG normally contains equal volumes of CO_2/CH_4 and has an estimated BTU content of 510 BTU/SCF.

Emissions from the Boilers Fired W/Natural Gas

	NO_X		CO		PM_{10}		SO_2		VOC	
EU	**lb/hr**	**TPY**	**lb/hr**	**TPY**	**lb/hr**	**TPY**	**lb/hr**	**TPY**	**lb/hr**	**TPY**
501/2/3	7.35	32.21	6.18	27.05	0.56	2.45	0.04	0.19	0.40	1.77

Emissions from the Boilers Fired W/Landfill Gas

	NO_X		CO		PM_{10}		SO_2		VOC	
EU	**lb/hr**	**TPY**	**lb/hr**	**TPY**	**lb/hr**	**TPY**	**lb/hr**	**TPY**	**lb/hr**	**TPY**
501/2/3	6.18	27.05	1.03	4.51	0.44	1.93	0.81	3.53	0.95	4.15

Emissions from the cooling towers are based on a flow rate of 3,492 gallons per minute and are based on the AP-42 (1/95), Section 13.4 drift rate of 1.7 lb/1,000 gallons emission factor for induced draft, wet cooling towers, with a **very low** total dissolved solids concentration of 1,200 ppmw, for a calculated emission factor of 0.002 lb/1,000 gallons and are approximately 1.88 TPY.

Facility-Wide Emissions

	NO_X		CO		SO_2	
EUG	**lb/hr**	**TPY**	**lb/hr**	**TPY**	**lb/hr**	**TPY**
100	----	----	----	----	----	----
300	----	----	----	----	----	----
400	----	----	----	----	----	----
500	7.35	32.21	6.18	27.05	0.81	3.53
600-ISA	2.48	0.62	0.53	0.13	0.16	0.04
Totals	**9.83**	**32.83**	**6.71**	**27.18**	**3.09**	**13.78**

Facility-Wide Emissions

	VOC		PM_{10}		$PM_{2.5}$	
EUG	**lb/hr**	**TPY**	**lb/hr**	**TPY**	**lb/hr**	**TPY**
100	----	----	2.35	9.15	0.99	4.13
300	----	----	----	2.14	----	0.85
400	----	542.56	----	----	----	----
500	0.95	4.15	0.56	2.45	0.56	2.45
600-ISA	0.25	0.25	0.18	0.04	0.18	0.04
Totals	**1.20**	**546.96**	**3.09**	**13.78**	**1.73**	**7.47**

SECTION V. PSD REVIEW

BACT

To be approved for a construction permit, a major source must demonstrate that the control technology to be applied is the best that is available for each pollutant that would cause the source to be defined as a major source. Best available control technology (BACT) means the best control technology that is currently available as determined by the Division Director on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs of alternative control systems. A BACT determination is not required for a modification that will result in an increase of emissions of less than 100 tons per year of any regulated air pollutant. The BACT requirement applies to each individual new or modified affected emissions unit and pollutant emitting activity that emits the pollutant subject to review.

Not only is solvent recovery cost effective for this type of facility it is required to keep competitive. Collection and control of solvent loss is an important part of the process. The primary purpose of the vegetable oil scrubber (VOS) is to reduce production costs and the cost savings from the solvent recovery far exceed the cost of the VOS. Finally, this type of facility is typically operated with a VOS. Therefore, any collection and recovery equipment up to and including the VOS is considered inherent process equipment.

In reviewing the MACT for vegetable oil production facilities, EPA identified the following nine emission points:

(1) Exhaust from the mineral oil absorber system;
(2) Exhaust from the meal dryer vent;
(3) Exhaust from the meal cooler vent;
(4) Residual losses from crude meal;
(5) Residual losses from crude oil;
(6) Evaporative losses from equipment leaks;
(7) Solvent storage tanks;
(8) Process wastewater collection; and
(9) Process startup/shutdowns.

In developing the MACT, EPA stated that it was not practical from a cost standpoint to quantify losses of HAP from the individual emission points. However, total HAP emissions from the entire source could be determined using records of deliveries and inventories of solvent and oilseed. Thus, the regulatory format for the MACT was selected as an emission limit expressed in terms of gallons of HAP lost per ton of oilseed processed. The EPA also investigated the differences in meal solvent retention among oilseed types and process operations which affect the lowest achievable level of HAP emissions. The MACT standard established the following emissions limits:

Allowable Hexane Loss for Type of Oil Seed Processed

Oil Seeds	Hexane Loss (gal/ton seeds)
Corn Germ, Dry Milling	0.7
Cotton Seed	0.4
Peanut	0.7
Canola (Rapeseed)	0.3
Safflower	0.7
Sunflower	0.3

While not specifically requiring a specific control technology, the MACT standard did not exclude the use of any pollution control or prevention techniques which would assist a source in complying with the HAP emission limits. The rule was structured to offer each source the flexibility of complying with an overall HAP emission limit for the entire source instead of requiring a specific means of control for specific emission points. It is the responsibility of each affected source to identify and develop its own unique set of techniques to demonstrate compliance with the HAP emission limits. Therefore, the overall HAP emission limit format of the MACT allows each source to develop a compliance plan that is the most cost effective and appropriate for that source.

This BACT determination will follow that same ideology as did most of the determinations on the RACT/BACT/LAER clearing house. Based on a review of the RBLC there have been nine PSD determinations for similar facilities in the past ten years with solvent losses ranging from 0.50 gallons/ton of seed processed to 0.15 gallons/ton of seed processed depending upon the type of seed being processed. This facility has proposed a limit of 0.30 gallons/ton of seed processed for all seeds combined. Even though there will be VOC emissions from other sources not specifically related to the handling and usage of the solvent, these emissions are insignificant compared to the emissions from solvent handling and usage.

This facility will increase emissions of VOC by approximately 585 TPY. The applicant followed the EPA guidelines for a top-down BACT review shown below:

1. Identify all control technologies.
2. Eliminate technically infeasible options.
3. Rank remaining control technologies by effectiveness.
4. Evaluate most effective controls and document results.
5. Select BACT.

After review of BACT, a facility wide emissions limit was proposed to simplify the permit and compliance with the applicable emission limit established of 0.3 gallons/ton of seed. Most of the control technologies were determined either technically infeasible or economically infeasible.

In the original BACT determination all of the sources, except for the solvent storage tanks, were addressed as a single source of emissions "Seed Oil Extraction." An updated analysis examined the listed nine categories separately. In the following review, each of the individual sources within the vegetable oil extraction process is addressed separately in each step of the process since the control devices for the sources are similar.

Step 1 – Identify Control Technologies

PCOM has identified technically feasible control technologies and emissions data through a review of EPA's RACT/BACT/LAER Clearinghouse (RBLC), EPA's NSR and CTC websites, and PCOM's knowledge of similar facilities.

VOC Control Technologies

VOC/Hexane	RTO/Incineration
	Biofiltration
	Carbon Adsorption
	Condensers
	Oil Scrubbers
	Vapor Recirculation/Closed Vent System
	Leak Detection and Repair (LDAR)

Step 2 – Eliminate Technically Infeasible Options

Due to the issues in the discussions below, RTO/Incineration, Biofiltration, and Carbon Abdorption has been determined to be technically infeasible for most of the facility's processes. Additional technically infeasible determinations are included below for specific processes.

RTO/Incineration

RTOs and incineration systems cannot be used to control VOC emissions in oilseed oil extracting facilities for both technical and safety reasons. No other facilities in solvent extraction currently employ this technology. First, the exhaust from the VOS will include small amounts of oil in aerosol form. The aerosol oil is likely to cause carbonization and degradation of packing in an RTO leading to a loss of heat transfer. Degrading the packing and losing heat transfer will make the RTO less effective. Therefore, an RTO on the outlet of the mineral oil absorber to control VOC emissions is technically infeasible. Second, the exhaust from the meal dryer/cooler will include PM_{10}. The packing material and the inlet screen in the regeneration system of an RTO are susceptible to plugging by particulate matter. The plugging will cause the RTO to malfunction. Therefore, a RTO to control VOC emissions for the meal dryer/cooler is technically infeasible. In addition to the technical problems associated with a RTO, RTOs and incinerating are not feasible for safety reasons. The National Fire Protection Agency (NFPA) standards for solvent extraction plants require that any flame operations, such as RTOs, be located at least 100 feet from the process area. These standards also require potential ignition sources be equipped with approved devices to prevent flashbacks into the process area. The inherent potential presence of fugitive hexane vapors at the plant and the presence of an open flame from a RTO present an unacceptable risk of explosion and fire hazard.

In addition to possible fugitive hexane vapors, variations in flow and solvent concentrations during normal operation, normal shutdown procedures, process upsets, and malfunctions may result in near Lower Explosive Limit (LEL) conditions in the vent exhaust and increase the risk of explosion. Furthermore, no applications of this type at solvent extraction plants have been demonstrated. After consideration of the safety and technical feasibility concerns and a cost analysis prepared in conjunction of with the MACT standard, the AQD has concluded that it is not appropriate to mandate RTO/incineration as BACT at this point in time.

Biofiltration

The application of the biofiltration technology outside of the bench-scale and pilot plant operations has been limited. There is no methodology or theory established to design for or predict the destruction efficiency that could be achieved for Producer's proposed new oilseed plant. A biofilter system is dynamic since the system continually changes with changes in the microbial growths it contains. Knowledge of the behavior of these dynamic systems over extended operating periods is not available. Thus there is no basis from which the long-term reliability of the system could be established.

At this stage in its development, the application of biofiltration for control of the hexane in the mineral oil absorber and meal dryer/cooler exhaust streams would be technically infeasible, primarily due to the large gas flow rate to be treated. Destruction efficiencies in biofilter systems are largely governed by gas residence time in the biofilter bed and the degradability of the contaminant to be treated. Hexane does have a relatively high degree of biodegradability. However, the bed volume required to provide even a five second residence time, the minimum residence time that may be suitable, would be prohibitively large. Since biofiltration is not a technically-proven control for hexane emissions from solvent extraction plants, this technology is eliminated from further consideration.

Carbon Adsorption

Carbon adsorption is not used to control VOC emissions in oilseed oil extraction facilities for technical and safety reasons. Carbon adsorption systems were applied rather widely to the final vent stream from solvent extraction plants in the late 1940s and early 1950s. In the late 1950s, mineral oil absorption systems began to replace carbon units. The technical issues for carbon adsorption are much the same as the RTO/incineration units. The aerosol oil in the mineral oil absorber exhaust and the PM_{10} in the meal dryer/cooler exhaust causes fouling of the carbon bed. Also, oilseeds naturally contain small amounts of sulfur compounds, which also cause fouling of the carbon bed. Although the PM_{10} concentration in the meal dryer/cooler exhaust can be reduced by a high efficiency filtration system, the aerosol oils and sulfur compounds cannot be similarly removed.

In addition, the adsorption of hexane onto carbon is an exothermic reaction. Increases in the concentration of the inlet stream will cause additional heat to build up in the carbon bed. Under optimum conditions, the air movement through the bed will remove the heat via convection. However, if channeling occurs in the carbon bed, or if the increase in concentration is too large (as in an upset condition), the bed can over heat to the point of auto-ignition. Good design and control can eliminate overheating of the carbon bed, but during an upset or when the equipment

or controls fail, overheating will result. This makes the carbon absorbers a potential source of ignition.

Although an absorber vessel would usually contain fires resulting from overheating, the vessel is directly connected to the process by duct work, which allows a flame path back to the process. The highest probability of a fire occurs in the absorber during process upsets when solvent vapor fills the duct connecting the process to the absorber. A flame front could flow back into the process from the absorber creating a fire and explosion hazard. The inherent potential presence of fugitive hexane vapors at the plant could also lead to catastrophic results. This creates an unacceptable risk of explosion. Because of these technical and safety concerns, carbon adsorption is technically infeasible and is eliminated from further consideration as BACT.

A. Meal Pelletizer Dryer/Cooler

Although the DT vaporizes a significant amount of solvent from the flaked meal, exiting meal still retains hexane solvent. Of the solvent present in the exiting meal, it is estimated that some of the hexane solvent will volatilize in downstream process equipment and the remaining solvent will remain bound in the meal after it exits the property for delivery. After the DT, meal is sent directly to a conditioner, followed by a pellet mill. Once pelletized, meal pellets are cooled in a vertical pellet dryer/cooler, which is where the overwhelming majority of the hexane solvent is expected to volatilize.

Condensation is not technically feasible. As stated in the U.S. EPA's Control Cost Manual (EPA /452/B-02-001), Section 3.1, Chapter 2, "Refrigerated condensers are used as air pollution control devices for treating emission streams with high VOC, concentrations (usually > 5,000 ppmv)…" Although the amount of hexane solvent that volatilizes through the pellet dryer/cooler is significant, the overall concentration is quite low due to the high flowrate of the vent stream (each of the pellet dryer/coolers operates with a 23,500 CFM blower). The hexane in the exhaust stream of the pellet dryer/cooler is between 80 and 100 ppmv, which is well below the concentration needed for effective condensation. Also, entrained PM can lead to sludge buildup that can lead to plugging.

Recirculation is not considered feasible. Although this option is feasible for other emission sources at the mill, the flowrate of the pellet dryer/coolers (nearly 50,000 SCFM) significantly exceeds the handling ability of any of the process equipment that could be candidates to receive such a vapor stream.

B. Residual Crude Meal Emissions

Again, condensation is not considered feasible. Due to the limited amount of "free" hexane that remains in the meal post pellet dryer/cooler, vapor streams captured from the meal storage bins will not have sufficiently high hexane concentrations to make condensation feasible. Also, recirculation is not considered technically feasible because of the significant vacuum/ventilation requirements needed to ensure capture of vapors from the meal bins would generate a stream flowrate much larger than the process equipment that might receive such a stream could handle.

Step 3 – Rank remaining control technologies by effectiveness

The remaining control technologies will be reviewed for each source to rank the effectiveness of each technology for each type of source.

A. Oil Absorber Exhaust

VOC Control Technologies

Control Technology
Oil Scrubbers
Condensers
Vapor Recirculation/Closed Vent System
Leak Detection and Repair (LDAR)

The oil absorber combined with a series of condensers represents the primary solvent recovery mechanism for the plant. Multiple solvent-laden vapor streams vent to an atmospheric condenser and then on to the absorber. Producers will use a vegetable oil absorber with a chiller. The vegetable oil absorber offers a higher collection efficiency and lower costs than a mineral oil system. The chiller will reduce the temperature of the vegetable oil to increase the absorption of the hexane.

It is difficult to evaluate the effectiveness of vapor recirculation, considering the complexities involved with identifying what quantity of the capture vapors are destroyed once they are reintroduced into the production process. As an optimistic estimate, vapor recirculation is considered to have an effectiveness equivalent to condensation. In terms of ranking, condensation will be ranked slightly higher than recirculation since condenser performance is more easily documented. LDAR is equipment specific and is not evaluated for the Oil Absorber Exhaust.

B. Meal Pelletizer Dryer/Cooler

As discussed previously, condensation, and vapor recirculation are not technically feasible for this emission point. LDAR is equipment specific and is not evaluated for the Meal Pelletizer Dryer/Cooler Exhaust. There are no remaining control technologies that are technically feasible for the Meal Pelletizer Dryer Cooler. Emissions from the pellet dryer/cooler can be reduced by optimizing operations at that DT and minimizing the amount of solvent in the meal being processed by the pelletizers.

C. Residual Crude Meal Emissions

As described in the previous section, post-DT meal contains hexane solvent. Some of the hexane will volatilize and some of hexane does not volatilize. Although the pelletized meal is expected to retain some of the post-DT hexane content, this fraction is generally considered "bound" and does not generate direct emissions. "Bound" hexane is still considered part of total hexane losses (emissions) even though it is not expected to

volatilize and are included in solvent loss totals when determining compliance with gal/ton MACT standards. As a result, only the remaining portions of hexane that were not volatilized in the vertical pellet dryer/cooler will contribute to residual crude meal emissions (approximately 0.009 gal/ton seed). Crude meal conveyor belts from the pellet dryer are enclosed and are expected to direct residual hexane solvent emissions to the meal storage bins.

Since condensation and recirculation are not considered technically feasible and LDAR is equipment specific, the control is minimizing the amount of solvent in the meal. This means operating the DT in such a manner that it removes as much solvent from the meal as possible.

D. Residual Crude Oil Emissions

After exiting the vegetable oil absorber, crude oil still contains limited quantities of hexane solvent. In order to reduce the hexane content of crude oil, the design of the South Council Oil Mill calls for the use of a secondary oil stripper. This unit will be a vacuum stripper, and is expected to reduce the hexane content of crude oil deliveries to a concentration of 50 ppmw (equivalent to approximately 0.009 gal/ton of solvent loss). The hexane contained in the crude oil is considered "bound" in the oil and does not generate direct emissions. As with crude meal, the "bound" hexane that leaves the mill in the crude oil are included in the total solvent loss when determining compliance with the MACT. Although the vacuum stripper does function as pollution control equipment by reducing the hexane content of the crude oil (reducing residual losses downstream), it is considered process equipment.

Potential Control Strategies

Pollutant	Control Technologies	Control Eff.
VOC	Internal Floating Roof	80-99%
	Vapor Recovery	92-95%
	Fixed Roof Tank	Base Case

E. Equipment Leaks

The presence of hexane solvent in various process streams throughout the mill results in limited quantities of hexane loss from equipment leaks. Producers will implement an LDAR program that will include those fugitive components that contain more than 10% by weight VOC. The LDAR program will comply with the standards of NSPS, Subpart VVa.

Producers wishes to clarify that the South Council Oil Mill is not subject to any NSPS or NESHAP subpart that requires implementation of an LDAR program. Implementation of LDAR is strictly to comply with BACT. Producers estimates that an LDAR program would reduce fugitive losses of hexane by approximately 25%.

E. Solvent Storage Tanks

The most stringent control will be applied to the solvent storage tanks including the solvent work tank. The solvent storage tanks will be operated with a closed vent system routed to the vegetable oil absorber which is considered inherent process equipment.

F. Process Wastewater Emissions

Wastewater is collected from several sources, including from the solvent work tank (the work tank also functions in conjunction with a water separator) and from a vacuum condenser that receives vapor streams from several process units. Prior to discharge, wastewater is processed by an evaporator that reduces the hexane content of wastewater discharges to an expected concentration of 10 ppmw. The BACT analysis will focus on solvent vapors stripped from the wastewater in the evaporator. Condensation is considered the most effective control technology, followed by recirculation/closed vent system.

G. Startup/Shutdown Emissions

Per 40 CFR 63.6 (e)(3)(v), Producers is required to develop a Startup, Shutdown and Malfunction (SSM) plan to minimize emissions of HAP during those events. The SSM plan will describe procedures for operating and maintaining environmental controls and equipment during startup, shutdown, and periods of operation when the process equipment or solvent recovery equipment malfunctions. Since the HAP (hexane) used at the mill accounts for 99% of the VOC emissions, the SSM plan developed for compliance of the MACT standard will also ensure that VOC emissions during startup, shutdown, and malfunctions will be minimized.

Step 4 – Evaluate Most Effective Controls and Document Results

A. Oil Absorber Exhaust

The current design of the South Council Oil Mill includes an additional vent condenser (utilizing cooling water) after the initial atmospheric condenser. Also included is a chilled condenser (using chilled water) that will increase absorber performance, particularly during periods of high ambient temperatures. While these additional condensers would be considered process equipment (since they are located before the vegetable oil absorber) and not control equipment, the use of these additional condensers results in hexane emission reductions that exceed what could be achieved with an add-on condenser.

B. Meal Pelletizer Dryer/Cooler

Optimizing DT operation to increase solvent recovery from the meal is the only control considered technically feasible.

C. Residual Crude Meal Emissions

Optimizing DT operation to increase solvent recovery from the meal is the only control considered technically feasible.

D. Residual Crude Oil Emissions

The remaining control technologies are evaluated on the basis of economic, energy, and environmental considerations.

Internal Floating Roofs
The most commonly considered control technology for fixed roof tanks is the installation of internal floating roofs (IFRs). IFRs are listed as one of the required control devices in 40 CFR 60, Subpart Kb, New Source Performance Standards. Furthermore, many states have considered BACT for fixed roof tanks to be installation of IFRs. Based on recent experience with installation of IFRs in similarly sized fixed roof tanks, the cost of a full installation (including preparation of tank for installation) is approximately $55,000 per tank (based on a cost quote from Matrix Service Company). Total cost for the 9 tanks equals $495,000. Assuming a control efficiency of 98%, installing IFRs would reduce the VOC emissions by 0.78 tons per year. This analysis concludes a cost effectiveness of $628,893 per ton of VOC controlled. Therefore, installation of IFRs in the tanks is not economically feasible.

Vapor Recovery
A Vapor Recovery system normally consists of two components: the vapor capture system to collect the VOC emitted from the storage tanks and the control system (i.e., incinerator, condenser, absorption system) to mitigate VOCs. Vapor Recovery has been effectively implemented to control VOC emissions from loading racks and storage tanks.

The cost of installing a vapor recovery system unit as well as its associated equipment for nine tanks is estimated at $113,000. Based upon this data, the cost for effectiveness for vapor recovery is $143,565/ton, which is considered to be economically infeasible for BACT.

E. Equipment Leaks

Producers estimate that an LDAR program would reduce fugitive losses of hexane by approximately 25%. Producers will implement such a program to reduce fugitive losses of hexane.

F. Process Wastewater Emissions

Condensation is considered feasible and effective. Overhead vapors from the wastewater evaporator will be collected and vented into the first stage evaporator/separator.

G. Startup/Shutdown Emissions

The SSM plan developed for compliance of the MACT standard will also ensure that VOC emissions during startup, shutdown, and malfunctions will be minimized.

Step 5 – Select BACT

A. Oil Absorber Exhaust

Producers proposes the use of additional process condensers as BACT for the vegetable oil absorber.

B. Meal Pelletizer Dryer/Cooler

Optimizing DT operation to increase solvent recovery from the meal is the only control considered technically feasible.

C. Residual Crude Meal Emissions

Optimizing DT operation to increase solvent recovery from the meal is the only control considered technically feasible.

D. Residual Crude Oil Emissions

Operation of a vacuum stripper, to remove solvent from the crude oil and venting the stripper to the atmospheric condenser.

E. Equipment Leaks

LDAR program complying with NSPS, Subpart VVa.

F. Process Wastewater Emissions

Optimizing operation of the wastewater evaporator to reduce solvent losses in the wastewater and venting the evaporator emissions to the atmospheric condenser.

G. Startup/Shutdown Emissions

The SSM plan developed for compliance of the MACT standard.

Control Technology Summary

Source	Control Technology
Vegetable Oil Absorber Vent	Condensation (including chilled condenser)
Pellet Dryer/Cooler	Optimization of DT Operation
Residual Crude Meal	Optimization of DT Operation
Crude Oil Storage[6]	Secondary Oil Stripper W/Closed Vent System
Solvent Storage Tanks	Closed Vent System to VOS
Wastewater Evaporator	Closed Vent System to VOS
Startup/Shutdown	MACT Startup/Shutdown/Malfunction Plan
Equipment Leaks	LDAR Program (NSPS, Subpart VVa)

Air Quality Impacts

For any pollutant exceeding its PSD significant emission level as part of a new construction, a PSD air quality impact analysis is required to demonstrate compliance with any applicable ambient air quality standards established for that pollutant. EPA regulates VOC as precursors to tropospheric ozone formation. Ozone is unique because the EPA has not established a PSD modeling significance level (an ambient concentration expressed in either $\mu g/m^3$ or ppmv) for ozone. However, EPA has established an ambient monitoring *de minimis* level, which is different from other criteria pollutants, because it is based on a mass emission rate (100 TPY) instead of an ambient concentration (in units of $\mu g/m^3$ or ppmv).

Comparison of Impacts to Monitoring Exemption Levels

Pollutant	Monitoring Exemption Levels	Ambient Impacts
VOC	100 TPY of VOC	545 TPY VOC

Since, VOC emissions are greater than the 100 TPY monitoring significance level. Ozone pre-construction monitoring is required. The 2008 OKC Monitoring Site (No. 401090033) located 15.2 km ENE of the facility will provide conservative monitoring data in lieu of pre-construction monitoring.

2008 Monitoring Data Summary	
Monitor 401090033	
Ranking	**Concentration (ppm)**
First High	0.078
Second High	0.073
Third High	0.073
Fourth High	0.071

As modeled, the potential increase in emissions of VOC is 400 TPY. OAC 252:100-8-35 requires an air quality impact evaluation for each regulated pollutant for which a major modification would result in a significant net emissions increase. No de minimis air quality level is provided for ozone. However, any net increase of 100 tons per year or more of volatile organic compounds subject to PSD is required to perform an ambient impact analysis. Methods for evaluating single source impacts on ozone concentrations are not consistent, due to the lack

of availability of data at a refined level, readily available tools and EPA guidance. DEQ has evaluated the impact of the proposed construction of the Producer's Cooperative facility using an existing air quality database generated for a SIP evaluation and the CAMx photochemical modeling system.

Oklahoma entered into Early Action Compact (EAC) agreements with EPA for the Tulsa and Oklahoma City metropolitan areas. Photochemical modeling evaluations were prepared in support of the agreements. These evaluations were conducted in accordance with EPA guidance and underwent an extensive public comment process and EPA review. The modeling was based on a two week episode beginning in Mid-August of 1999 and extending through the first week of September 1999. This episode was chosen both by virtue of being a prolonged period of high ozone concentrations and a reflection of the most common meteorological conditions that spawn high concentrations for Tulsa and Oklahoma City.

Modeling for Producer's Cooperative was conducted using the EAC 2007 control case. Emissions to be modeled were calculated by adding the future potential increases identified in the application to the 2007 grown emissions. Emissions from the former Dayton facility (site of new Producer's Cooperative) were subtracted from the potential increases for Producer's Cooperative in order to reflect current inventories for that location. The primarily hexane emissions were further speciated for the carbon bond for chemistry used in the EAC modeling.

Maximum impacts from the proposed increases occur in Oklahoma County. A maximum 8-hour increase of 0.059 ppb was predicted at the southwestern edge of Oklahoma County.

Additional Impacts Analysis

An additional impacts analysis considering existing air quality, the quantity of emissions, and the sensitivity of local soils, vegetation, and visibility in the source's impact area was performed for VOC as part of this application. The following are addressed:

- Growth Impact Analysis
- Soil and Vegetation Impact Analysis
- Visibility Impairment Impact Analysis

Growth Impact Analysis

A growth analysis is intended to quantify the amount of new growth that is likely to occur in support of the facility and to estimate emissions resulting from that associated growth. Associated growth includes residential and commercial/industrial growth resulting from the new facility. Residential growth depends on the number of new employees and the availability of housing in the area, while associated commercial and industrial growth consists of new sources providing services to the new employees and the facility. PCOM expects that no additional residential and commercial/industrial growth will result from the new facility since the facility will be located in an area that has an available population to supply employees and the area is commercially/industrially developed.

Soil And Vegetation Analysis

The effects of gaseous air pollutants on vegetation may be classified into three rather broad categories: acute, chronic, and long-term. Acute effects are those that result from relatively short (less than 1 month) exposures to high concentrations of pollutants. Chronic effects occur when organisms are exposed for months or even years to certain threshold levels of pollutants. Long-term effects include abnormal changes in ecosystems and subtle physiological alterations in organisms. Acute and chronic effects are caused by the gaseous pollutant acting directly on the organism, whereas long-term effects may be indirectly caused by secondary agents such as changes in soil pH.

VOC are regulated by the EPA as precursors to tropospheric ozone. Elevated ground-level ozone concentrations can damage plant life and reduce crop production. Since PCOM only emits small levels of NO_X from the boilers and comfort-heating, it is reasonable to conclude that the facility will not be a primary contributor to ozone formation and therefore will not adversely affect vegetation on the surrounding area.

Documentation of any direct effects of ozone on soils was not found during literature searches. The proposed project will not alter the pH balance of the soils in the area. Therefore, it is concluded that the increased VOC emissions from PCOM will produce no adverse affect on soils in the surrounding area.

Class I Impact Analysis

Class I Areas are defined by the U.S. EPA's New Source Review Manual as those areas of the nation that are of special natural, scenic, recreational, or historic interest to the public. The closest Class I Area to the PCOM facility is the Wichita Mountain Wildlife Refuge, which is located approximately 117 kilometers (km) southwest of the facility. This Class I Area is managed by the U.S. Forest Service (FS).

Class I Area analyses examine two separate items: (1) Class I Increments and (2) Air Quality Related Values (AQRVs). Class I Increment modeling is explicitly required by U.S. EPA under the PSD program and is reviewed for approval by the state permitting agency. Class I Areas have a separate set of PSD Increments for PM_{10}, SO_2, and NO_X that are more stringent than the typically considered Class II Increments. PCOM strives to comply with the most current guidelines and therefore has utilized the method recommended by the Federal Land Managers (FLMs) for Class I Area impact analysis. As an alternative to the standard Class I analysis, the FLMs consider a source located greater than 50 km from a Class I area to have negligible impacts with respect to Class I air quality related values (AQRV) if its total SO_2, NO_X, PM_{10}, and H_2SO_4 annual emissions (in tons per year), divided by the distance (in km) from the Class I area (Q/D) is 10 or less. Based on the Federal Land Managers' Air Quality Related Values Workgroup (FLAG), *Phase I Report—Revised*, DRAFT, June 27, 2008, the FLMs would not request any further Class I AQRV impact analyses from such sources. Therefore, PCOM utilized the FLM recommended formula *Q/D<10*, a Class I impact analysis.

Q/D<10 Analysis

Class I Area	Quantity (TPY)	Distance (km)	Q/D	Q/D<10?
Caney Creek	43.9	337	0.1	Yes
Hercules Glade	43.9	440	0.1	Yes
Upper Buffalo	43.9	380	0.1	Yes
Wichita Mountains	43.9	117	0.4	Yes

The proposed project is not expected to significantly impact any AQRVs in the Wichita Mountain Wildlife Refuge because the ratio of Q/D is less than 10. Therefore, further analysis is not required.

SECTION VII. INSIGNIFICANT ACTIVITIES

The insignificant activities identified and justified in the application are duplicated below. Records are available to confirm the insignificance of the activities. Appropriate recordkeeping of activities indicated below with "*" is specified in the Specific Conditions.

- * Stationary reciprocating engines burning natural gas, gasoline, aircraft fuels, or diesel fuel which are either used exclusively for emergency power generation or for peaking power service not exceeding 500 hours/year. Engines may be used in the future for emergency power generation.

- Space heaters, boilers, process heaters, and emergency flares less than or equal to 5 MMBTUH heat input (commercial natural gas). The facility has some heaters, boilers, and process heaters which are rated less than or equal to 5 MMBTUH.

- * Emissions from fuel storage/dispensing equipment operated solely for facility owned vehicles if fuel throughput is not more than 2,175 gallons/day, averaged over a 30-day period. The facility has a diesel storage tank used to fuel the emergency air compressor.

- * Emissions from storage tanks constructed with a capacity less than 39,894 gallons which store VOC with a vapor pressure less than 1.5 psia at maximum storage temperature. The facility has tanks that store oil which have capacities less than 39,894 gallons and store products having a vapor pressure less than 1.5 psia.

- Cold degreasing operations utilizing solvents that are denser than air. The facility will have cold degreasing operations utilizing solvents that are denser than air.

- * Welding and soldering operations utilizing less than 100 pounds of solder and 53 tons per year of electrodes. The facility will do welding and soldering mainly for maintenance which is a trivial activity and recordkeeping will not be required.

- * Torch cutting and welding of under 200,000 tons of steel fabricated per year. The facility will do torch cutting and welding mainly for maintenance which is a trivial activity and recordkeeping will not be required.

- * Non-commercial water washing operations (less than 2,250 barrels/year) and drum crushing operations of empty barrels less than or equal to 55 gallons with less than three percent by volume of residual material. The facility will have non-commercial water washing operations (less than 2,250 barrels/year) and drum crushing operations of empty barrels less than or equal to 55 gallons with less than three percent by volume of residual material.

- Hazardous waste and hazardous materials drum staging areas. The facility will have hazardous waste and hazardous materials drum staging areas.

- Sanitary sewage collection and treatment facilities other than incinerators and Publicly Owned Treatment Works (POTW). Stacks or vents for sanitary sewer plumbing traps are also included (i.e., lift station). The facility will have sanitary sewage collection and treatment facilities other than incinerators and Publicly Owned Treatment Works (POTW).

- * Surface coating operations which do not exceed a combined total usage of more than 60 gallons/month of coatings, thinners, and clean-up solvents at any one emissions unit. The facility coating usage should not exceed a combined total usage of more than 60 gallons/month of coatings, thinners, and clean-up solvents.

- Exhaust systems for chemical, paint, and/or solvent storage rooms or cabinets, including hazardous waste satellite (accumulation) areas. The facility will have chemical, paint, and/or solvent storage rooms or cabinets.

- Hand wiping and spraying of solvents from containers with less than 1 liter capacity used for spot cleaning and/or degreasing in ozone attainment areas. The facility will conduct spot cleaning and/or degreasing using solvents.

- * Activities having the potential to emit no more than 5 TPY (actual) of any criteria pollutant. Below is a list of activities that qualify and others may be used in the future.

    - The 80-hp air compressor diesel fired CI-ICE.

SECTION VIII. OKLAHOMA AIR POLLUTION CONTROL RULES

OAC 252:100-1 (General Provisions) [Applicable]
Subchapter 1 includes definitions but there are no regulatory requirements.

OAC 252:100-2 (Incorporation by Reference) [Applicable]
This subchapter incorporates by reference applicable provisions of Title 40 of the Code of Federal Regulations. These requirements are addressed in the "Federal Regulations" section.

OAC 252:100-3 (Air Quality Standards and Increments) [Applicable]
Primary Standards are in Appendix E and Secondary Standards are in Appendix F of the Air Pollution Control Rules. At this time, all of Oklahoma is in attainment of these standards.

OAC 252:100-5 (Registration, Emissions Inventory and Annual Operating Fees) [Applicable]
Subchapter 5 requires sources of air contaminants to register with Air Quality, file emission inventories annually, and pay annual operating fees based upon total annual emissions of regulated pollutants. Required annual information (Turn-Around Document) shall be provided to Air Quality.

OAC 252:100-8 (Permits for Part 70 Sources) [Applicable]
Part 5 includes the general administrative requirements for part 70 permits. Any planned changes in the operation of the facility which result in emissions not authorized in the permit and which exceed the "Insignificant Activities" or "Trivial Activities" thresholds require prior notification to AQD and may require a permit modification. Insignificant activities mean individual emission units that either are on the list in Appendix I (OAC 252:100) or whose actual calendar year emissions do not exceed the following limits:

5 TPY of any one criteria pollutant
2 TPY of any one hazardous air pollutant (HAP) or 5 TPY of multiple HAPs or 20% of any threshold less than 10 TPY for a HAP that the EPA may establish by rule

Emissions limitations have been established based on information in the permit application.

OAC 252:100-9 (Excess Emissions Reporting Requirements) [Applicable]
Except as provided in OAC 252:100-9-7(a)(1), the owner or operator of a source of excess emissions shall notify the Director as soon as possible but no later than 4:30 p.m. the following working day of the first occurrence of excess emissions in each excess emission event. No later than thirty (30) calendar days after the start of any excess emission event, the owner or operator of an air contaminant source from which excess emissions have occurred shall submit a report for each excess emission event describing the extent of the event and the actions taken by the owner or operator of the facility in response to this event. Request for affirmative defense, as described in OAC 252:100-9-8, shall be included in the excess emission event report. Additional reporting may be required in the case of ongoing emission events and in the case of excess emissions reporting required by 40 CFR Parts 60, 61, or 63.

OAC 252:100-13 (Open Burning) [Applicable]
Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in this subchapter.

OAC 252:100-19 (Particulate Matter (PM)) [Applicable]
This subchapter specifies a PM emissions limitation of 0.6 lb/MMBTU for fuel-burning equipment with a maximum heat input of 10 MMBTUH or less. This subchapter also limits emissions of PM from fuel-burning equipment with a heat input greater than 10 MMBTUH based on the maximum heat input of the fuel-burning equipment. The 75 MMBTUH boilers are limited to approximately 0.37 lb/MMBTU.

AP-42 (7/98), Section 1.4, lists the total PM emissions from the combustion of natural gas to be 7.6 lb/MMft^3 or about 0.0075 lb/MMBTU. AP-42 (10/2008 - Draft), Section 2.4, lists the total PM emissions from combustion of Landfill Gas (LFG) in boilers to be 3 lb/MMft^3 CH_4 or about 0.003 lb/MMBTU. AP-42 (10/96), Section 3.3, lists the total PM emissions from combustion of diesel in small (<600-hp) CI-ICE to be 0.31 lb/MMBTU. The permit requires the use of natural gas or LFG in the boilers and diesel fuel in diesel the CI-ICE to ensure compliance with Subchapter 19.

This subchapter also limits emissions of particulate matter from industrial processes based on their process weight rates. For process weight rates less than 60,000 lb/hr, the limits are determined using the formula in Appendix G ($E = 4.10*P^{(0.67)}$) where (E) is the emission rate in pounds per hour and (P) is the process weight rate in tons per hour. For process weight rates in excess of 60,000 lb/hr, the limits are determined using the formula in Appendix G ($E = 55.0*P^{(0.11)} - 40$) where (E) is the emission rate in pounds per hour and (P) is the process weight rate in tons per hour.

EU ID #	Point ID #	EU Name/Description	Rate TPH	Emissions lb/hr	SC 19 Limit lb/hr
02	716-01	Seed Cleaning Baghouse	75	0.010	48.4
04	714-02	Rotary Conditioner Baghouse	75	0.111	48.4
06	714-03	Flaking Mills Baghouse	75	0.129	48.4
10	2714-02	Pre-Press/Expander Baghouse	75	0.039	48.4
12	2714-03	Cooler Baghouse	75	0.643	48.4
16	3716-01	Pellet Dryer/Cooler #1 Baghouse	75	0.504	48.4
18	3716-02	Pellet Dryer/Cooler #2 Baghouse	75	0.504	48.4
28	28	North Silo Baghouse	75	0.033	48.4
30	30	South Silo Baghouse	75	0.074	48.4
32	F-101	Seed Receiving Baghouse	75	0.154	48.4
34	F-102	Storage Area Baghouse	75	0.066	48.4
36	F-601	Meal Storage Baghouse	75	0.047	48.4
38	F-602	Meal Loadout Baghouse	75	0.047	48.4
40	F-603	Meal Flow Agent Unloading	10	0.004	19.2
42	42	Rail Meal Loadout Baghouse	200	0.004	58.5
43	43	Truck Loadout Meal Baghouse	200	0.004	58.5
104/5	F1	Truck Seed Receiving Fugitives	375	0.221	65.6
101	F2	Rail Seed Receiving Fugitives	750	0.059	73.9
42	F3	Truck Meal Loadout Fugitives	200	0.135	58.5
43	F4	Rail Meal Loadout Fugitives	200	0.135	58.5

All of the industrial processes at this facility are controlled using baghouses. Compliance with the emission limits of this subchapter will be ensured by properly operating and maintaining these control devices. The permit will establish requirements for the facility to properly operate and maintain the control devices.

OAC 252:100-24 (PM Emissions from Grain, Feed or Seed Operations) [Applicable]
The purpose of this subchapter is to control emissions from facilities that handle, store or process grains, feeds or seeds. The provisions of this subchapter are applicable to all new, modified, and existing grain, feed, or seed facilities in the State of Oklahoma. However, facilities in compliance with Subchapters 25, 19-12, and 29 are not required to comply with this subchapter. This facility will be in compliance with the requirements of Subchapters 25, 19-12, and 29 and will not be required to comply with this subchapter.

OAC 252:100-25 (Visible Emissions and PM) [Applicable]
No discharge of greater than 20% opacity is allowed except for short-term occurrences that consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case, shall the average of any six-minute period exceed 60% opacity. Units subject to an opacity limit promulgated under section 111 (NSPS) of the Federal Clean Air Act are exempt from this subchapter.

When burning natural gas or LFG in the boilers, there is very little possibility of the boilers exceeding the opacity standards. Therefore, compliance with the standard is assured without any special monitoring provisions for the boilers. When burning diesel in the small CI-ICE, there is very little possibility of the CI-ICE exceeding the opacity standards. Therefore, compliance with the standard is assured without any special monitoring provisions for the CI-ICE.

Other sources at the facility are controlled using baghouses. Compliance with the opacity standards will be ensured by properly operating and maintaining these control devices. The permit will establish requirements for the facility to properly operate and maintain the control devices.

OAC 252:100-29 (Fugitive Dust) [Applicable]
No person shall cause or permit the discharge of any visible fugitive dust emissions beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or interfere with the maintenance of air quality standards. No person shall cause or allow any fugitive dust source to be operated, or any substances to be handled, transported or stored, or any structure constructed, altered, or demolished to the extent that such operation or activity may enable fugitive dust to become airborne and result in air pollution, without taking reasonable precautions to minimize or prevent pollution. Reasonable precautions include, but are not limited to, those actions set forth below:

1) The use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, driveways and parking lots or the clearing of land for commercial, industrial, or residential development.
2) The application of water or suitable chemicals or some other covering on materials stockpiles and other surfaces that can create air-borne dusts under normal conditions.
3) The installation and use of hoods, fans and dust collectors to enclose and vent the handling of dusty materials or the use of water sprays or other acceptable measures to suppress dust emission during handling. Adequate containment methods shall be employed during sandblasting or other similar operations.
4) The covering or wetting of open-bodied trucks, trailers, or railroad cars when transporting dusty materials in areas where the general public must have access.
5) The removal as necessary from paved street and parking surfaces of materials that have a tendency to become airborne.
6) The planting and maintenance of vegetative ground cover as necessary.
7) Make the best efforts to reduce fugitive dust emissions during load-out by minimizing the distance from the load-out spout to the top of the receiving vessel.

The permit will require the facility to take reasonable precautions to minimize or prevent fugitive dust.

OAC 252:100-31 (Sulfur Compounds) [Applicable]

Part 2 limits the ambient air impact of sulfur dioxide (SO_2) emissions from any one existing source or any one new petroleum and natural gas process source subject to OAC 252:100-31-26(a)(1). This part also limits the impact of H_2S emissions from any new or existing source. Recent modeling conducted using SCREEN3 was used to show the impacts of the existing EU at the facility on the ambient air as shown in the following tables.

Ambient Impacts of SO_2

Averaging Time	Standard $\mu g/m^3$	Impact $\mu g/m^3$
5-minute	1,300	48
1-hour	1,200	29
3-hour	650	26
24-hour	130	12

Ambient Impacts of H_2S

Averaging Time	Standard $\mu g/m^3$	Impact $\mu g/m^3$
24-hour	278	<1

Emissions from all of the existing equipment have been modeled and have been shown to be in compliance with these standards.

Part 5 limits sulfur dioxide emissions from new fuel-burning equipment (constructed after July 1, 1972). For gaseous fuels, the limit is 0.2 lb/MMBTU heat input averaged over 3 hours. For fuel gas having a gross calorific value of 1,000 BTU/SCF, this limit corresponds to fuel sulfur content of 1,203 ppmv. The permit requires the use of gaseous fuel with sulfur content less than 343 ppmv to ensure compliance with Subchapter 31.

The average sulfur content of LFG is 33 ppmv. LFG consists of methane (CH_4) and carbon dioxide (CO_2) in approximately equal volumes. At 1,000 BTU/SCF for CH_4, this comes to about 0.011 lb SO_2/MMBTU, which is in compliance with this subchapter.

For liquid fuels the limit is 0.8 lb/MMBTU heat input averaged over 3 hours. The only liquid fuel used at this facility is diesel. All diesel fuel must now meet the Tier II fuel standards which mean that they are low-sulfur diesel and have a maximum sulfur content of 0.05 percent. AP-42 (10/96), Section 3.4, gives an emission factor of 1.01*S lb/MMBTU, where S is the percent sulfur, which is approximately 0.05 lb/MMBTU for low sulfur diesel. The permit will require the use of fuel oil with a maximum sulfur content of 0.05 % sulfur by weight for the diesel fired CI-ICE.

OAC 252:100-37 (Volatile Organic Compounds) [Applicable]
Part 3 requires storage tanks constructed after December 28, 1974, with a capacity of 400 gallons or more and storing a VOC with a vapor pressure greater than 1.5 psia at maximum storage temperature to be equipped with a permanent submerged fill pipe or with an organic vapor recovery system. The hexane tanks will be equipped with vapor recovery system and there will be no emissions from these tanks.
Part 5 limits the VOC content of coating or other operations. This facility does not normally conduct coating or painting operations except for routine maintenance of the facility and equipment, which is exempt.
Part 7 requires fuel-burning equipment and refuse-burning equipment to be operated and maintained so as to minimize VOC emissions. Temperature and available air must be sufficient to provide essentially complete combustion.
Part 7 requires all effluent water separator openings, which receive water containing more than 200 gallons per day of any VOC, to be sealed or the separator to be equipped with an external floating roof or a fixed roof with an internal floating roof or a vapor recovery system. The effluent water separators located at this facility do not receive 200 gallons per day of VOC. The hexane/water separator will be equipped with vapor recovery system and there will be no emissions from the separator.

OAC 252:100-42 (Toxic Air Contaminants (TAC)) [Applicable]
This subchapter regulates toxic air contaminants (TAC) that are emitted into the ambient air in areas of concern (AOC). Any work practice, material substitution, or control equipment required by the Department prior to June 11, 2004, to control a TAC, shall be retained unless a modification is approved by the Director. Since no Area of Concern (AOC) has been designated anywhere in the state, there are no specific requirements for this facility at this time.

OAC 252:100-43 (Testing, Monitoring, and Recordkeeping) [Applicable]
This subchapter provides general requirements for testing, monitoring and recordkeeping and applies to any testing, monitoring or recordkeeping activity conducted at any stationary source. To determine compliance with emissions limitations or standards, the Air Quality Director may require the owner or operator of any source in the state of Oklahoma to install, maintain and operate monitoring equipment or to conduct tests, including stack tests, of the air contaminant source. All required testing must be conducted by methods approved by the Air Quality Director and under the direction of qualified personnel. A notice-of-intent to test and a testing protocol shall be submitted to Air Quality at least 30 days prior to any EPA Reference Method stack tests. Emissions and other data required to demonstrate compliance with any federal or state emission limit or standard, or any requirement set forth in a valid permit shall be recorded, maintained, and submitted as required by this subchapter, an applicable rule, or permit requirement. Data from any required testing or monitoring not conducted in accordance with the provisions of this subchapter shall be considered invalid. Nothing shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

The following Oklahoma Air Pollution Control Rules are not applicable to this facility:

OAC 252:100-11	Alternative Emissions Reduction	Not requested
OAC 252:100-15	Mobile Sources	Not in source category
OAC 252:100-17	Incinerators	Not type of emission unit
OAC 252:100-23	Cotton Gins	Not type of emission unit
OAC 252:100-24	Grain Elevators	Complies with SC 19, 25, &29
OAC 252:100-33	Nitrogen Dioxides	Not in source category
OAC 252:100-35	Carbon Monoxide	Not type of emission unit
OAC 252:100-39	Nonattainment Areas	Not in area category
OAC 252:100-47	Municipal Solid Waste Landfills	Not in source category

SECTION IX. FEDERAL REGULATIONS

PSD, 40 CFR Part 52 [Applicable]
VOC emissions are greater than the major source threshold of 250 TPY of any single regulated pollutant and the facility is not one of the 26 specific industries with a threshold of 100 TPY. PSD review has been completed in Section V.

NSPS, 40 CFR Part 60 [Subpart Kb is Applicable]
Subpart Dc, Small Industrial-Commercial-Institutional Steam Generating Units. This subpart affects steam generating units with a heat input capacity between 10 and 100 MMBTUH and that commence construction, modification, or reconstruction after June 9, 1989. The three 75 MMBTUH boilers were all constructed prior to the applicability date of this subpart.

Subpart Kb, VOL Storage Vessels. This subpart affects storage vessels for VOL that have a storage capacity greater than 19,813 gallons and which commenced construction, reconstruction, or modification after July 23, 1984. The following storage vessels are only required to keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel:

- Storage vessels with a capacity greater than or equal to 39,890 gallons that store a liquid with a maximum true vapor pressure (MTVP) less than 0.5076 psia; or
- Storage vessels with a capacity greater than or equal to 19,813 but less than 39,890 gallons that store a liquid with a MTVP less than 2.1756 psia.

The 30,000 gallon hexane (vp - 2.4 @ 70 °F) storage tanks are subject to this subpart. The crude oil vapor pressure is less than 0.5 psia. All applicable requirements have been incorporated into the permit.

Subpart DD, Grain Elevators. This subpart applies to each affected facility which commences construction, modification, or reconstruction after August 3, 1978, at any grain terminal elevator or any grain storage elevator. 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 terminal elevator means any grain elevator which has a permanent storage capacity of more than 88,100 m^3 (ca. 2.5 million U.S. bushels), except those located at animal food manufacturers, pet food manufacturers, cereal manufacturers, breweries, and livestock feedlots. Grain elevator means any plant or installation at which grain is unloaded, handled, cleaned, dried, stored, or loaded. Grain means corn, wheat, sorghum, rice, rye, oats, barley, and soybeans. This facility will have a grain elevator. However, the total storage capacity of this facility will be approximately 1.3 million bushels. Therefore, this facility is below the de minimis size and is not subject to this subpart.

Grain storage elevator means any grain elevator located at any wheat flour mill, wet corn mill, dry corn mill (human consumption), rice mill, or soybean oil extraction plant which has a permanent grain storage capacity of 35,200 m^3 (ca. 1 million bushels). This facility is not one of the specified mills or a soybean oil extraction plant.

Subpart VV, Equipment Leaks of VOC in the Synthetic Organic Chemical Manufacturing Industry (SOCMI). This subpart affects equipment constructed, reconstructed or modified after January 5, 1981 and on or before November 7, 2006. This facility does not produce, as intermediates or final products, any of the chemicals listed in §60.489 and is not an affected facility in the SOCMI.

Subpart VVa, Equipment Leaks of VOC in the SOCMI. This subpart affects equipment constructed, reconstructed or modified after November 7, 2006. This facility does not produce, as intermediates or final products, any of the chemicals listed in §60.489 and is not an affected facility in the SOCMI. The applicant has proposed compliance with this subpart to satisfy the BACT requirements.

Subpart NNN, VOC Emissions from SOCMI Distillation Operations. This subpart affects facilities that are a part of a process unit that produce, as a product, co-product, by-product, or intermediate, any of the chemicals listed in § 60.667. This facility produces listed chemicals and uses distillation to separate the desired product. However, none of the distillation and recovery process streams are vented to the atmosphere.

Subpart OOO, Nonmetallic Mineral Processing Plants. This subpart affects each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station at nonmetallic mineral processing plants. This facility does not crush or grind any nonmetallic minerals.

Subpart IIII, Stationary Compression Ignition (CI) Internal Combustion Engines (ICE). This subpart affects stationary CI ICE engines based on power and displacement ratings, depending on date of construction, beginning with those constructed after July 11, 2005. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator. This subpart affects the following engines non-fire pump engines manufactured after April 1, 2006, fire pump engines manufactured after July 1, 2006, and all compression engines modified or reconstructed after July 11, 2005. All engines at this facility were constructed/manufactured prior to these dates and are not subject to this subpart.

NESHAP, 40 CFR Part 61 [Not Applicable]
There are no emissions of any of the regulated pollutants: arsenic, asbestos, beryllium, benzene, coke oven emissions, mercury, radionuclides or vinyl chloride except for trace amounts of benzene. Subpart J, Equipment Leaks of Benzene only affects process streams that contain more than 10% benzene by weight. All process streams at this facility are below this threshold.

NESHAP, 40 CFR Part 63 [Subpart GGGG is Applicable]
Subpart Q, Industrial Cooling Towers. This subpart applies to all new and existing industrial process cooling towers that are operated with chromium-based water treatment chemicals on or after September 8, 1994, and are either major sources or are integral parts of facilities that are major sources as defined in § 63.401. This facility does not have or use industrial process cooling towers that are operated with chromium-based water treatment chemicals.

Subpart EEEE, Organic Liquids Distribution (Non-Gasoline). This subpart affects organic liquid distribution (OLD) operations at major sources of HAP with an organic liquid throughput greater than 7.29 million gallons per year (173,571 barrels/yr). This subpart affects the following EU at existing facilities:

- Storage Vessels with a capacity ≥ 20,000 gallons but < 40,000 gallons that store an organic liquid that contains > 5% HAP and that has an annual average vapor pressure ≥ 1.9 but < 11.1 psia;
- Storage Vessels with a capacity ≥ 40,000 gallons that store an organic liquid that contains > 5% HAP and that has an annual average vapor pressure ≥ 0.75 psia.
- Transfer racks that loads at any position ≥ 11.8 million liters (3.12 million gallons) per year of organic liquids into a combination of tank trucks and railcars.

Storage tanks, transfer racks, transport vehicles, containers, and equipment leak components that are part of an affected source under another NESHAP are excluded from the affected source. The listed equipment are part of the facility but are not part of the affected source under NESHAP Subpart GGGG. Organic liquids excludes liquids with an annual average true vapor pressure of less than 0.1 psia and liquids that contain less than 5% by weight one or more HAP listed in Table 1 of this subpart. Most of the oils produced at this facility will have low annual average vapor pressures and HAP contents of less than 5%. Therefore, even though this facility will be a major source and will produce approximately 59 million gallons of crude oils per year, it is not subject to this subpart because the majority of the liquids produced are not considered organic liquids subject to this subpart.

Subpart GGGG, Solvent Extraction for Vegetable Oil Production. This subpart affects vegetable oil production processes at a major source of HAP emissions that processes any combination of the following eight types of oilseeds: Corn germ, Cottonseed, Flax, Peanut, Rapeseed (for example, canola), Safflower, Soybean, and Sunflower. This facility has vegetable oil production processes that processes the listed oilseeds and will be a major source of HAP emissions. Therefore, it is an affected facility and will have to comply with this subpart.

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

The new facility will be regulated as a new source upon startup since construction will begin after May 26, 2000. The allowable solvent loss factors per Table 1 of § 63.2840 are listed in the following table.

Oil Seeds	**Hexane Loss (gal/ton seeds)**
Corn Germ, Dry Milling	0.7
Cotton Seed	0.4
Peanut	0.7
Canola (rapeseed)	0.3
Safflower	0.7
Sunflower	0.3

A material balance calculated emissions of hexane. The solvent hexane usage will be compliant with the above-listed solvent loss factors. Per § 63.2840, the facility is subject to a rolling 12-month compliance ratio of 1.00 or less to be calculated monthly based on operating months. Per § 63.2851, the facility will develop a plan for demonstrating compliance that details the procedures to monitoring and recording the appropriate data. Per § 63.2852, the facility will develop an SSM Plan prior to facility startup. All applicable requirements have been incorporated into the permit.

Subpart ZZZZ, Reciprocating Internal Combustion Engines (RICE). This subpart previously affected only RICE with a site-rating greater than 500 brake horsepower that are located at a major source of HAP emissions. On January 18, 2008, the EPA published a final rule that promulgates standards for new and reconstructed engines (after June 12, 2006) with a site rating less than or equal to 500 HP located at major sources, and for new and reconstructed engines (after June 12, 2006) located at area sources. Owners and operators of new or reconstructed engines at area sources and of new or reconstructed engines with a site rating equal to or less than 500 HP located at a major source (except new or reconstructed 4-stroke lean-burn engines with a site rating greater than or equal to 250 HP and less than or equal to 500 HP located at a major source) must meet the requirements of Subpart ZZZZ by complying with either 40 CFR Part 60 Subpart IIII (for CI engines) or 40 CFR Part 60 Subpart JJJJ (for SI engines). Owners and operators of new or reconstructed 4SLB engines with a site rating greater than or equal to 250 HP and less than or equal to 500 HP located at a major source are subject to the same MACT standards previously established for 4SLB engines above 500 HP at a major source, and must also meet the requirements of 40 CFR Part 60 Subpart JJJJ, except for the emissions standards for CO.

New or reconstructed emergency or limited use stationary RICE do not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of § 63.6645(d). Emergency stationary RICE is any stationary RICE that operates in an emergency situation. Limited use stationary RICE is any stationary RICE that operates less than 100 hours per year. The stationary RICE connected to the emergency air compressor is considered an emergency stationary RICE and currently is not subject to this subpart.

On March 13, 2009, EPA proposed additional requirements for stationary CI RICE located at major sources. A summary of these requirements for engines located at this facility is shown below.

Engine Category	**Normal Operation & During SSM**
Emergency CI $50 \geq HP \leq 500$	40 ppmvd CO @ 15% O_2

SSM – Startup, Shutdown & Malfunction.

To comply with the CO emission limits, it is expected that the CI engines will be required to be equipped with oxidation catalyst.

Subpart DDDDD, Industrial Boilers and Process Heaters. Subpart DDDDD regulated HAP emissions from industrial boilers and process heaters. In March, 2007, the EPA filed a motion to vacate and remand this rule back to the agency. The rule was vacated by court order, subject to appeal, on June 8, 2007. No appeals were made and the rule was vacated on July 30, 2007. Existing and new small gaseous fuel boilers and process heaters (less than 10 MMBBTUH heat rating) were not subject to any standards, recordkeeping, or notifications under Subpart DDDDD.

EPA is planning on issuing guidance (or a rule) on what actions applicants and permitting authorities should take regarding MACT determinations under either Section112(g) or Section 112(j) for sources that were affected sources under Subpart DDDDD and other vacated MACTs. It is expected that the guidance (or rule) will establish a new timeline for submission of section 112(j) applications for vacated MACT standards. Until such time as more guidance is received, AQD has determined that a 112(j) determination is not needed for sources potentially subject to a vacated MACT, including Subpart DDDDD. This permit may be reopened to address Section 112(j) if and when necessary.

Compliance Assurance Monitoring, 40 CFR Part 64 [Not Applicable]
Compliance Assurance Monitoring (CAM) applies to any pollutant specific emission unit at a major source, that is required to obtain a Part 70 permit, if it meets all of the following criteria:

- It is subject to an emission limit or standard for an applicable regulated air pollutant;
- It uses a control device to achieve compliance with the applicable emission limit or standard;
- It has potential emissions, prior to the control device, of the applicable regulated air pollutant greater than major source levels.

The EU at this facility that have the potential to emit more than the major source levels of a pollutant prior to control do not emit more than major source levels after control. Therefore, they would not be subject to CAM until renewal of their Part 70 operating permit.

CAM affects the emission units that use a control device to reduce emissions below major source thresholds. Those emission units include the following:

EU ID #	Point ID #	EU Name/Description
02	716-01	Seed Cleaning Bag Filter
06	714-03	Flaking Mills Cyclone
10	2714-02	Pre-press/Expander Cyclone
12	2714-03	Meal Cooler Cyclone
16	3716-01	Pellet Dryer-Cooler Bag Filter #1
18	3716-02	Pellet Dryer-Cooler Bag Filter #2
32	F-101	Seed Receiving Dust Collector
34	F-102	Storage Area Dust Collector

PCOM proposes to include pressure differential monitoring per manufacturer's recommendations, when operating, to ensure compliance with the proposed emission limitations.

Chemical Accident Prevention Provisions, 40 CFR Part 68 [Not Applicable]
The definition of a stationary source does not apply to transportation, including storage incident to transportation, of any regulated substance or any other extremely hazardous substance under the provisions of this part. The definition of a stationary source also does not include naturally occurring hydrocarbon reservoirs. Naturally occurring hydrocarbon mixtures, prior to entry into a natural gas processing plant or a petroleum refining process unit, including: condensate, crude oil, field gas, and produced water, are exempt for the purpose of determining whether more than a threshold quantity of a regulated substance is present at the stationary source. This facility does not store any regulated substance above the applicable threshold limits. More information on this federal program is available on the web page: *www.epa.gov/ceppo*.

Stratospheric Ozone Protection, 40 CFR Part 82 [Subparts A and F are Applicable]
These standards require phase out of Class I & II substances, reductions of emissions of Class I & II substances to the lowest achievable level in all use sectors, and banning use of nonessential products containing ozone-depleting substances (Subparts A & C); control servicing of motor vehicle air conditioners (Subpart B); require Federal agencies to adopt procurement regulations which meet phase out requirements and which maximize the substitution of safe alternatives to Class I and Class II substances (Subpart D); require warning labels on products made with or containing Class I or II substances (Subpart E); maximize the use of recycling and recovery upon disposal (Subpart F); require producers to identify substitutes for ozone-depleting compounds under the Significant New Alternatives Program (Subpart G); and reduce the emissions of halons (Subpart H).
Subpart A, Production and Consumption Controls. This subpart identifies ozone-depleting substances and divides them into two classes. Class I controlled substances are divided into seven groups; the chemicals typically used by the manufacturing industry include carbon tetrachloride (Class I, Group IV) and methyl chloroform (Class I, Group V). A complete phase-out of production of Class I substances is required by January 1, 2000 (January 1, 2002, for methyl chloroform). Class II chemicals, which are hydrochlorofluorocarbons (HCFCs), are generally seen as interim substitutes for Class I CFCs. Class II substances consist of 33 HCFCs. A complete phase-out of Class II substances, scheduled in phases starting by 2002, is required by January 1, 2030.
Subpart F, Recycling and Emission reduction. This subpart requires that any persons servicing, maintaining, or repairing appliances except for motor vehicle air conditioners; persons disposing of appliances, including motor vehicle air conditioners; refrigerant reclaimers, appliance owners, and manufacturers of appliances and recycling and recovery equipment comply with the standards for recycling and emissions reduction.

The standard conditions of the permit address the requirements specified at § 82.156 for persons opening appliances for maintenance, service, repair, or disposal; § 82.158 for equipment used during the maintenance, service, repair, or disposal of appliances; § 82.161 for certification by an approved technician certification program of persons performing maintenance, service, repair, or disposal of appliances; § 82.166 for recordkeeping; § 82.158 for leak repair requirements; and §

82.166 for refrigerant purchase records for appliances normally containing 50 or more pounds of refrigerant.

SECTION X. COMPLIANCE

Tier Classification
This application has been determined to be Tier II based on the request for a construction permit for a new Part 70 source. The permittee has submitted an affidavit that they are not seeking a permit for land use or for any operation upon land owned by others without their knowledge. The affidavit certifies that the applicant owns the land.

Fees Paid
Part 70 source construction permit application fee of $2,000.

Public Review
The applicant published the "Notice of Filing a Tier II Application" in *The Journal Record*, a daily newspaper in Oklahoma County, on May 15, 2009, and on November 27, 2009. The notices stated that the application was available for public review at the AQD main office. The applicant published the "Notice of Draft Permit" in *The Journal Record*, a daily newspaper in Oklahoma County, on November 27, 2009. The notice stated that the draft permit was available for public review at the AQD main office and on the Air Quality section of the DEQ web page at *http://www.deq.state.ok.us*. This facility is not located within 50 miles of the border of Oklahoma and any other state.

EPA Review
This permit was approved for concurrent public and EPA review. The draft permit was forwarded to EPA for review for a 45-day period. Since there were no comments received from the public, then the draft permit was deemed the proposed permit. No comments were received from the EPA.

SECTION XI. SUMMARY

The facility has demonstrated the ability to comply with all applicable rules and regulations. Ambient air quality standards are not threatened at this site. There are no active Air Quality compliance or enforcement issues concerning this facility. Issuance of the construction permit is recommended.

PERMIT TO CONSTRUCT
AIR POLLUTION CONTROL FACILITY
SPECIFIC CONDITIONS

Producers Cooperative Oil Mill **Permit Number 2009-138-C PSD**
South Council Oil Mill

The permittee is authorized to construct in conformity with the specifications submitted to Air Quality on April 27, 2009, October 8, 2009, and all supplemental materials. The Evaluation Memorandum dated January 19, 2010, explains the derivation of applicable permit requirements and estimates of emissions; however, it does not contain operating limitations or permit requirements. Commencing construction or continuing operations under this permit constitutes acceptance of, and consent to, the conditions contained herein:

1. Points of emissions and emission limitations for each point: [OAC 252:100-8-6(a)(1)]

Facility Wide Emission Limit: The facility shall not emit more than 545 TPY of VOC from solvent (VOC/Hexane) handling and usage. The facility shall also comply with an emission limit of 0.3 gallons of solvent (VOC/Hexane) per ton of camelina seed. VOC emissions from solvent handling and usage shall be based on material balances and shall be determined according to the methods in NESHAP, Subpart GGGG.

EUG 100. Baghouses: The facility shall conduct monitoring, recordkeeping, and reporting as specified. Emissions shall not exceed those listed for the applicable EU.

EU ID #	Point ID #	EU Name/Description	gr/DSCFM	lb/hr
02	716-01	Seed Cleaning Baghouse	0.0003	0.0095
04	714-02	Rotary Conditioner Baghouse	0.005	0.1114
06	714-03	Flaking Mills Baghouse	0.005	0.1286
10	2714-02	Pre-Press/Expander Baghouse	0.005	0.0386
12	2714-03	Cooler Baghouse	0.005	0.6429
16	3716-01	Pellet Dryer/Cooler #1 Baghouse	0.005	0.5036
18	3716-02	Pellet Dryer/Cooler #2 Baghouse	0.005	0.5036
28	28	North Silo Baghouse	0.0003	0.0332
30	30	South Silo Baghouse	0.0003	0.0737
32	F-101	Seed Receiving Baghouse	0.0003	0.1543
34	F-102	Storage Area Baghouse	0.0003	0.0663
36	F-601	Meal Storage Baghouse	0.0003	0.0368
38	F-602	Meal Loadout Baghouse	0.0003	0.0368
40	F-603	Meal Flow Agent Unloading	0.0003	0.0039
42	42	Rail Meal Loadout Baghouse	0.0003	0.0039
43	43	Truck Loadout Meal Baghouse	0.0003	0.0039

a. The permittee shall monitor and record the pressure differential daily when operating and conduct visible emissions observations at least monthly for each of the control devices listed when operating, except for EU 40. If visible emissions are detected, then the permittee shall conduct a thirty-minute opacity reading in accordance with EPA Reference Method No. 9 during operation of that control device. [OAC 252:100-8-6(a)(3)]

b. The permittee shall inspect, maintain, and operate the control devices according to manufacturer's instructions. [OAC 252:100-8-6(a)(1)]

EUG 300. Fugitive PM_{10} Sources: The facility shall comply with those operating limitations established for the applicable EU.

EU ID #	Point ID #	EU Name/Description	lb/hr
104/5	F1	Truck Seed Receiving Fugitives	0.2213
101	F2	Rail Seed Receiving Fugitives	0.0585
42	F3	Truck Meal Loadout Fugitives	0.1350
43	F4	Rail Meal Loadout Fugitives	0.1350

a. All loading and unloading operations shall be conducted within a building designed and operated to reduce emissions from loading and unloading operations. [OAC 252:100-8-6(a)(1)]

EUG 400. Vegetable Oil Absorber: The permittee shall conduct monitoring, recordkeeping, and reporting as specified.

EU ID #	Point ID #	EU Name/Description
20	120	Vegetable Oil Absorber

a. The permittee shall monitor and record the Vegetable Oil Absorber pressure differential at least daily while gases are being vented to the Vegetable Oil Absorber. [OAC 252:100-8-6(a)(3)]

b. The permittee shall install, maintain, and operate a chiller for the Vegetable Oil Absorber. The chiller shall be used during the months of April through October. Operation of the chiller is not required during the months of November through March. [OAC 252:100-8-34(b)]

EUG 500. Boilers: The permittee shall conduct monitoring, recordkeeping, and reporting as specified. The total emissions from all of the boilers shall not exceed those listed below.

EU ID #	Point ID #	EU Name/Description
501	501	Boiler #101, 75 MMBTUH
502	502	Boiler #102, 75 MMBTUH
503	503	Boiler #103, 75 MMBTUH

	NO_X		CO		PM_{10}		SO_2		VOC	
EU	**lb/hr**	**TPY**	**lb/hr**	**TPY**	**lb/hr**	**TPY**	**lb/hr**	**TPY**	**lb/hr**	**TPY**
501/2/3	7.35	32.21	6.18	27.05	0.56	2.45	0.81	3.53	0.95	4.15

a. The permittee shall monitor the amount of natural gas (NG) and landfill gas (LFG) combusted in each of the boilers. Each month the total amount of NG and LFG, the heat content of the gases, and total heat content of the gases combusted in the boilers shall be determined and recorded monthly. [OAC 252:100-8-6(a)(3)]

b. The total heat content of the gases combusted in the boilers shall not exceed the following based on a 12-month rolling total: [OAC 252:100-8-6(a)(1)]
   i. 657,000 MMBTU.

EUG 600. Miscellaneous Insignificant Sources:

EU ID #	Point ID #	EU Name/Description
22	45	Wastewater Fat Trap
T-701-9	T-701-9	Crude Vegetable Oil Storage Tanks (A-J)
SP-701/2	SP-701/2	Crude Vegetable Oil Loadout
511	511	Cooling Tower
541	541	500-gallon Diesel Fuel Storage Tank
551	551	80-hp Diesel Fired Air Compressor CI-ICE

2. The fuel-burning equipment shall be fired with pipeline grade natural gas or other gaseous fuel with a maximum sulfur content of less than 33 ppmv, except for the emergency compression ignition (CI) internal combustion engines (ICE) which shall be fired with fuel oil No. 2 (diesel) with a maximum sulfur content of 0.05 % by weight or less. Compliance can be shown by the following methods: for pipeline grade natural gas: a current gas company bill; for other gaseous fuel: a current lab analysis, stain-tube analysis, gas contract, tariff sheet, or other approved methods: for fuel oil, supplier's latest delivery ticket(s). Compliance shall be demonstrated at least once annually. [OAC 252:100-31]

3. Upon issuance of an operating permit, the permittee shall be authorized to operate this facility continuously (24 hours per day, every day of the year) up to a processing rate of 1,800 TPD of seed. [OAC 252:100-8-6(a)(1)]

4. The owner/operator shall comply with all applicable requirements of the NESHAP, Subpart GGGG: Solvent Extraction for Vegetable Oil Production, upon startup for each affected facility including but not limited to:

What This Subpart Covers

a. § 63.2830 What is the purpose of this subpart?
b. § 63.2831 Where can I find definitions of key words used in this subpart?
c. § 63.2832 Am I subject to this subpart?

d. § 63.2833 Is my source categorized as existing or new?
e. § 63.2834 When do I have to comply with the standards in this subpart?

Standards

f. § 63.2840 What emission requirements must I meet?

Compliance Requirements

g. § 63.2850 How do I comply with the hazardous air pollutant emission standards?
h. § 63.2851 What is a plan for demonstrating compliance?
i. § 63.2852 What is a startup, shutdown, and malfunction plan?
j. § 63.2853 How do I determine the actual solvent loss?
k. § 63.2854 How do I determine the weighted average volume fraction of HAP in the actual solvent loss?
l. § 63.2855 How do I determine the quantity of oilseed processed?

Notifications, Reports, and Records

m. § 63.2860 What notifications must I submit and when?
n. § 63.2861 What reports must I submit and when?
o. § 63.2862 What records must I keep?
p. § 63.2863 In what form and how long must I keep my records?

Other Requirements and Information

q. § 63.2870 What parts of the General Provisions apply to me?
r. § 63.2871 Who implements and enforces this subpart?
s. § 63.2872 What definitions apply to this subpart?

5. The owner/operator shall comply with all applicable requirements of the NSPS, Subpart VVa: Equipment Leaks of VOC in the SOCMI for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006, including but not limited to:

[OAC 252:100-8-34(b)]

a. § 60.482-1a Standards: General.
b. § 60.482-2a Standards: Pumps in light liquid service.
c. § 60.482-3a Standards: Compressors.
d. § 60.482-4a Standards: Pressure relief devices in gas/vapor service.
e. § 60.482-5a Standards: Sampling connection systems.
f. § 60.482-6a Standards: Open-ended valves or lines.
g. § 60.482-7a Standards: Valves in gas/vapor service and in light liquid service.
h. § 60.482-8a Standards: Pumps, valves, and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service.
i. § 60.482-9a Standards: Delay of repair.
j. § 60.482-10a Standards: Closed vent systems and control devices.
k. § 60.482-11a Standards: Connectors in gas/vapor service and in light liquid service.
l. § 60.483-1a Alternative standards for valves—allowable percentage of valves leaking.
m. § 60.483-2a Alternative standards for valves—skip period leak detection and repair.
n. § 60.484a Equivalence of means of emission limitation.
o. § 60.485a Test methods and procedures.
p. § 60.486a Recordkeeping requirements.
q. § 60.487a Reporting requirements.

6. The following records shall be maintained on-site to verify Insignificant Activities. No recordkeeping is required for those operations that qualify as Trivial Activities.
[OAC 252:100-8-6 (a)(3)(B)]

a. For stationary reciprocating engines burning natural gas, gasoline, aircraft fuels, or diesel fuel which are either used exclusively for emergency power generation or for peaking power service not exceeding 500 hours/year: records of the type of fuel and number of hours operated.
b. For fuel storage/dispensing equipment operated solely for facility owned vehicles: records of fuel throughput, averaged over a 30-day period.
c. For fluid storage tanks with a capacity of less than 39,894 gallons and a true vapor pressure less than 1.5 psia: records of capacity of the tanks and contents.
d. For Non-commercial water washing operations and drum crushing operations of empty barrels less than or equal to 55 gallons: the throughput of barrels per year at the water washing operations and the throughput of the drum crushing operations and quantity of residual material in each barrel.
e. For surface coating operations: total usage of coatings, thinners, and clean-up solvents at any one emissions unit per month.
f. For activities that have the potential to emit less than 5 TPY (actual) of any criteria pollutant: the type of activity and the amount of emissions from that activity (annual).

7. The permittee shall maintain records of operations as listed below. These records shall be maintained on-site or at a local field office for at least five years after the date of recording and shall be provided to regulatory personnel upon request. [OAC 252:100-8-6 (a)(3)(B)]

a. Operation, maintenance, and inspection of the air pollution control devices (monthly).
b. The pressure differentials and opacity monitoring as specified in Specific Condition No. 1.
c. The amount of seed processed (TPD, daily).
d. The amount, heat content, and total heat content of gases combusted in EUG 500 as specified in Specific Condition No. 1.
e. For fuel(s) burned, the appropriate document(s) as described in Specific Condition No. 2.
f. Records required by NESHAP, Subpart GGGG.
g. Records required by NSPS, Subparts Kb and VVa.

8. Within 180 days of start-up, the permittee shall determine the parameters to be monitored and recorded to ensure that operation of the desolventizer/toaster has been optimized to reduce the amount of solvent in the meal prior to discharging the meal to the pelltizer. The parameters shall be recorded at least daily. The permittee shall submit the parameters and target values along with the operating permit application. The permittee shall design the monitoring to obtain data for one or more indicators of performance for the DT of solvent control in the meal. The owner or operator shall establish an appropriate range(s) or designated condition(s) for the selected indicator(s) such that operation within the ranges provides a reasonable assurance that the amount of solvent remaining in the meal will be minimized for the anticipated range of

operating conditions. Such range(s) or condition(s) shall reflect the proper operation and maintenance of the DT for minimizing the amount of solvent remaining in the meal over the anticipated range of operating conditions. The design of indicator ranges or designated conditions may be:

a. Based on a single maximum or minimum value or at multiple levels that are relevant to distinctly different operating conditions;
b. Expressed as a function of process variables;
c. Expressed as maintaining the applicable parameter in a particular operational status or designated condition; or
d. Established as interdependent between more than one indicator.

[OAC 252:100-8-34(b)]

9. Reasonable precautions shall be taken to minimize fugitive dust emissions from source operations, truck loading and unloading operations, unpaved roads, and stockpiles. These precautions shall include, but not be limited to:

a. The use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, driveways and parking lots or the clearing of land for commercial, industrial, or residential development.
b. The application of water or suitable chemicals or some other covering on materials stockpiles and other surfaces that can create air-borne dusts under normal conditions.
c. The installation and use of hoods, fans and dust collectors to enclose and vent the handling of dusty materials or the use of water sprays or other acceptable measures to suppress dust emission during handling. Adequate containment methods shall be employed during sandblasting or other similar operations.
d. The covering or wetting of open-bodied trucks, trailers, or railroad cars when transporting dusty materials in areas where the general public must have access .
e. The removal as necessary from paved street and parking surfaces of materials that have a tendency to become airborne.
f. The planting and maintenance of vegetative ground cover as necessary.

10. The owner/operator shall comply with all applicable requirements of the NSPS, Subpart Kb: VOL Storage Vessels for the hexane storage vessels, including but not limited to:

a. § 60.110b Applicability and designation of affected facility.
b. § 60.111b Definitions.
c. § 60.112b Standard for volatile organic compounds (VOC).
d. § 60.113b Testing and procedures.
e. § 60.114b Alternative means of emission limitation.
f. § 60.114b Alternative means of emission limitation.
g. § 60.115b Reporting and recordkeeping requirements.
h. § 60.116b Monitoring of operations.

11. After completion of construction, the permittee shall submit an application for a Part 70 operating permit within 180 days of commencement of operation. The permittee shall also include in the application any testing showing compliance with the applicable emission limitations and the following: [OAC 252:100-8-4(b)(5)]

a. Existing CI-ICE make/model/serial number; and
b. Existing boiler make/model/serial number.

MAJOR SOURCE AIR QUALITY PERMIT
STANDARD CONDITIONS
(July 21, 2009)

SECTION I. DUTY TO COMPLY

A. This is a permit to operate / construct this specific facility in accordance with the federal Clean Air Act (42 U.S.C. 7401, et al.) and under the authority of the Oklahoma Clean Air Act and the rules promulgated there under. [Oklahoma Clean Air Act, 27A O.S. § 2-5-112]

B. The issuing Authority for the permit is the Air Quality Division (AQD) of the Oklahoma Department of Environmental Quality (DEQ). The permit does not relieve the holder of the obligation to comply with other applicable federal, state, or local statutes, regulations, rules, or ordinances. [Oklahoma Clean Air Act, 27A O.S. § 2-5-112]

C. The permittee shall comply with all conditions of this permit. Any permit noncompliance shall constitute a violation of the Oklahoma Clean Air Act and shall be grounds for enforcement action, permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application. All terms and conditions are enforceable by the DEQ, by the Environmental Protection Agency (EPA), and by citizens under section 304 of the Federal Clean Air Act (excluding state-only requirements). This permit is valid for operations only at the specific location listed.
[40 C.F.R. §70.6(b), OAC 252:100-8-1.3 and OAC 252:100-8-6(a)(7)(A) and (b)(1)]

D. 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 the permit. However, nothing in this paragraph 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. [OAC 252:100-8-6(a)(7)(B)]

SECTION II. REPORTING OF DEVIATIONS FROM PERMIT TERMS

A. Any exceedance resulting from an emergency and/or posing an imminent and substantial danger to public health, safety, or the environment shall be reported in accordance with Section XIV (Emergencies). [OAC 252:100-8-6(a)(3)(C)(iii)(I) & (II)]

B. Deviations that result in emissions exceeding those allowed in this permit shall be reported consistent with the requirements of OAC 252:100-9, Excess Emission Reporting Requirements.
[OAC 252:100-8-6(a)(3)(C)(iv)]

C. Every written report submitted under this section shall be certified as required by Section III (Monitoring, Testing, Recordkeeping & Reporting), Paragraph F.
[OAC 252:100-8-6(a)(3)(C)(iv)]

SECTION III. MONITORING, TESTING, RECORDKEEPING & REPORTING

A. The permittee shall keep records as specified in this permit. These records, including monitoring data and necessary support information, shall be retained on-site or at a nearby field office for a period of at least five years from the date of the monitoring sample, measurement, report, or application, and shall be made available for inspection by regulatory personnel upon request. Support information includes all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Where appropriate, the permit may specify that records may be maintained in computerized form.

[OAC 252:100-8-6 (a)(3)(B)(ii), OAC 252:100-8-6(c)(1), and OAC 252:100-8-6(c)(2)(B)]

B. Records of required monitoring shall include:

(1)the date, place and time of sampling or measurement;
(2)the date or dates analyses were performed;
(3)the company or entity which performed the analyses;
(4)the analytical techniques or methods used;
(5)the results of such analyses; and
(6)the operating conditions existing at the time of sampling or measurement.

[OAC 252:100-8-6(a)(3)(B)(i)]

C. No later than 30 days after each six (6) month period, after the date of the issuance of the original Part 70 operating permit or alternative date as specifically identified in a subsequent Part 70 operating permit, the permittee shall submit to AQD a report of the results of any required monitoring. All instances of deviations from permit requirements since the previous report shall be clearly identified in the report. Submission of these periodic reports will satisfy any reporting requirement of Paragraph E below that is duplicative of the periodic reports, if so noted on the submitted report. [OAC 252:100-8-6(a)(3)(C)(i) and (ii)]

D. If any testing shows emissions in excess of limitations specified in this permit, the owner or operator shall comply with the provisions of Section II (Reporting Of Deviations From Permit Terms) of these standard conditions. [OAC 252:100-8-6(a)(3)(C)(iii)]

E. In addition to any monitoring, recordkeeping or reporting requirement specified in this permit, monitoring and reporting may be required under the provisions of OAC 252:100-43, Testing, Monitoring, and Recordkeeping, or as required by any provision of the Federal Clean Air Act or Oklahoma Clean Air Act. [OAC 252:100-43]

F. Any Annual Certification of Compliance, Semi Annual Monitoring and Deviation Report, Excess Emission Report, and Annual Emission Inventory submitted in accordance with this permit shall be certified by a responsible official. This certification shall be signed by a responsible official, and shall contain the following language: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete."

[OAC 252:100-8-5(f), OAC 252:100-8-6(a)(3)(C)(iv), OAC 252:100-8-6(c)(1), OAC 252:100-9-7(e), and OAC 252:100-5-2.1(f)]

G. Any owner or operator subject to the provisions of New Source Performance Standards ("NSPS") under 40 CFR Part 60 or National Emission Standards for Hazardous Air Pollutants ("NESHAPs") under 40 CFR Parts 61 and 63 shall maintain a file of all measurements and other information required by the applicable general provisions and subpart(s). These records shall be maintained in a permanent file suitable for inspection, shall be retained for a period of at least five years as required by Paragraph A of this Section, and shall include records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of an affected facility, any malfunction of the air pollution control equipment; and any periods during which a continuous monitoring system or monitoring device is inoperative.

[40 C.F.R. §§60.7 and 63.10, 40 CFR Parts 61, Subpart A, and OAC 252:100, Appendix Q]

H. The permittee of a facility that is operating subject to a schedule of compliance shall submit to the DEQ a progress report at least semi-annually. The progress reports shall contain dates for achieving the activities, milestones or compliance required in the schedule of compliance and the dates when such activities, milestones or compliance was achieved. The progress reports shall also contain an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted. [OAC 252:100-8-6(c)(4)]

I. All testing must be conducted under the direction of qualified personnel by methods approved by the Division Director. All tests shall be made and the results calculated in accordance with standard test procedures. The use of alternative test procedures must be approved by EPA. When a portable analyzer is used to measure emissions it shall be setup, calibrated, and operated in accordance with the manufacturer's instructions and in accordance with a protocol meeting the requirements of the "AQD Portable Analyzer Guidance" document or an equivalent method approved by Air Quality.

[OAC 252:100-8-6(a)(3)(A)(iv), and OAC 252:100-43]

J. The reporting of total particulate matter emissions as required in Part 7 of OAC 252:100-8 (Permits for Part 70 Sources), OAC 252:100-19 (Control of Emission of Particulate Matter), and OAC 252:100-5 (Emission Inventory), shall be conducted in accordance with applicable testing or calculation procedures, modified to include back-half condensables, for the concentration of particulate matter less than 10 microns in diameter (PM_{10}). NSPS may allow reporting of only particulate matter emissions caught in the filter (obtained using Reference Method 5).

K. The permittee shall submit to the AQD a copy of all reports submitted to the EPA as required by 40 C.F.R. Part 60, 61, and 63, for all equipment constructed or operated under this permit subject to such standards. [OAC 252:100-8-6(c)(1) and OAC 252:100, Appendix Q]

SECTION IV. COMPLIANCE CERTIFICATIONS

A. No later than 30 days after each anniversary date of the issuance of the original Part 70 operating permit or alternative date as specifically identified in a subsequent Part 70 operating permit, the permittee shall submit to the AQD, with a copy to the US EPA, Region 6, a certification of compliance with the terms and conditions of this permit and of any other applicable requirements which have become effective since the issuance of this permit.

[OAC 252:100-8-6(c)(5)(A), and (D)]

B. The compliance certification shall describe the operating permit term or condition that is the basis of the certification; the current compliance status; whether compliance was continuous or intermittent; the methods used for determining compliance, currently and over the reporting period. The compliance certification shall also include such other facts as the permitting authority may require to determine the compliance status of the source.

[OAC 252:100-8-6(c)(5)(C)(i)-(v)]

C. The compliance certification shall contain a certification by a responsible official as to the results of the required monitoring. This certification shall be signed by a responsible official, and shall contain the following language: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete." [OAC 252:100-8-5(f) and OAC 252:100-8-6(c)(1)]

D. Any facility reporting noncompliance shall submit a schedule of compliance for emissions units or stationary sources that are not in compliance with all applicable requirements. This schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with any applicable requirements for which the emissions unit or stationary source is in noncompliance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the emissions unit or stationary source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based, except that a compliance plan shall not be required for any noncompliance condition which is corrected within 24 hours of discovery.

[OAC 252:100-8-5(e)(8)(B) and OAC 252:100-8-6(c)(3)]

SECTION V. REQUIREMENTS THAT BECOME APPLICABLE DURING THE PERMIT TERM

The permittee shall comply with any additional requirements that become effective during the permit term and that are applicable to the facility. Compliance with all new requirements shall be certified in the next annual certification. [OAC 252:100-8-6(c)(6)]

SECTION VI. PERMIT SHIELD

A. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC 252:100-8) shall be deemed compliance with the applicable requirements identified and included in this permit. [OAC 252:100-8-6(d)(1)]

B. Those requirements that are applicable are listed in the Standard Conditions and the Specific Conditions of this permit. Those requirements that the applicant requested be determined as not applicable are summarized in the Specific Conditions of this permit. [OAC 252:100-8-6(d)(2)]

SECTION VII. ANNUAL EMISSIONS INVENTORY & FEE PAYMENT

The permittee shall file with the AQD an annual emission inventory and shall pay annual fees based on emissions inventories. The methods used to calculate emissions for inventory purposes shall be based on the best available information accepted by AQD.
[OAC 252:100-5-2.1, OAC 252:100-5-2.2, and OAC 252:100-8-6(a)(8)]

SECTION VIII. TERM OF PERMIT

A. Unless specified otherwise, the term of an operating permit shall be five years from the date of issuance. [OAC 252:100-8-6(a)(2)(A)]

B. A source's right to operate shall terminate upon the expiration of its permit unless a timely and complete renewal application has been submitted at least 180 days before the date of expiration. [OAC 252:100-8-7.1(d)(1)]

C. A duly issued construction permit or authorization to construct or modify will terminate and become null and void (unless extended as provided in OAC 252:100-8-1.4(b)) if the construction is not commenced within 18 months after the date the permit or authorization was issued, or if work is suspended for more than 18 months after it is commenced. [OAC 252:100-8-1.4(a)]

D. The recipient of a construction permit shall apply for a permit to operate (or modified operating permit) within 180 days following the first day of operation. [OAC 252:100-8-4(b)(5)]

SECTION IX. SEVERABILITY

The provisions of this permit are severable and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
[OAC 252:100-8-6 (a)(6)]

SECTION X. PROPERTY RIGHTS

A. This permit does not convey any property rights of any sort, or any exclusive privilege.
[OAC 252:100-8-6(a)(7)(D)]

B. This permit shall not be considered in any manner affecting the title of the premises upon which the equipment is located and does not release the permittee from any liability for damage to persons or property caused by or resulting from the maintenance or operation of the equipment for which the permit is issued. [OAC 252:100-8-6(c)(6)]

SECTION XI. DUTY TO PROVIDE INFORMATION

A. The permittee shall furnish to the DEQ, upon receipt of a written request and within sixty (60) days of the request unless the DEQ specifies another time period, any information that the DEQ may request to determine whether cause exists for modifying, reopening, revoking,

reissuing, terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the DEQ copies of records required to be kept by the permit.
[OAC 252:100-8-6(a)(7)(E)]

B. The permittee may make a claim of confidentiality for any information or records submitted pursuant to 27A O.S. § 2-5-105(18). Confidential information shall be clearly labeled as such and shall be separable from the main body of the document such as in an attachment.
[OAC 252:100-8-6(a)(7)(E)]

C. Notification to the AQD of the sale or transfer of ownership of this facility is required and shall be made in writing within thirty (30) days after such sale or transfer.
[Oklahoma Clean Air Act, 27A O.S. § 2-5-112(G)]

SECTION XII. REOPENING, MODIFICATION & REVOCATION

A. The permit may be modified, revoked, reopened and reissued, or terminated for cause. Except as provided for minor permit modifications, the filing of a request by the permittee for a permit modification, revocation and reissuance, termination, notification of planned changes, or anticipated noncompliance does not stay any permit condition.
[OAC 252:100-8-6(a)(7)(C) and OAC 252:100-8-7.2(b)]

B. The DEQ will reopen and revise or revoke this permit prior to the expiration date in the following circumstances: [OAC 252:100-8-7.3 and OAC 252:100-8-7.4(a)(2)]

(1) Additional requirements under the Clean Air Act become applicable to a major source category three or more years prior to the expiration date of this permit. No such reopening is required if the effective date of the requirement is later than the expiration date of this permit.
(2) The DEQ or the EPA determines that this permit contains a material mistake or that the permit must be revised or revoked to assure compliance with the applicable requirements.
(3) The DEQ or the EPA determines that inaccurate information was used in establishing the emission standards, limitations, or other conditions of this permit. The DEQ may revoke and not reissue this permit if it determines that the permittee has submitted false or misleading information to the DEQ.
(4) DEQ determines that the permit should be amended under the discretionary reopening provisions of OAC 252:100-8-7.3(b).

C. The permit may be reopened for cause by EPA, pursuant to the provisions of OAC 100-8-7.3(d). [OAC 100-8-7.3(d)]

D. The permittee shall notify AQD before making changes other than those described in Section XVIII (Operational Flexibility), those qualifying for administrative permit amendments, or those defined as an Insignificant Activity (Section XVI) or Trivial Activity (Section XVII). The notification should include any changes which may alter the status of a "grandfathered source," as defined under AQD rules. Such changes may require a permit modification.
[OAC 252:100-8-7.2(b) and OAC 252:100-5-1.1]

E. Activities that will result in air emissions that exceed the trivial/insignificant levels and that are not specifically approved by this permit are prohibited. [OAC 252:100-8-6(c)(6)]

SECTION XIII. INSPECTION & ENTRY

A. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized regulatory officials to perform the following (subject to the permittee's right to seek confidential treatment pursuant to 27A O.S. Supp. 1998, § 2-5-105(18) for confidential information submitted to or obtained by the DEQ under this section):

(1) enter upon the permittee's premises during reasonable/normal working hours where a source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
(2) have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
(3) inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
(4) as authorized by the Oklahoma Clean Air Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit.

[OAC 252:100-8-6(c)(2)]

SECTION XIV. EMERGENCIES

A. Any exceedance resulting from an emergency shall be reported to AQD promptly but no later than 4:30 p.m. on the next working day after the permittee first becomes aware of the exceedance. This notice shall contain a description of the emergency, the probable cause of the exceedance, any steps taken to mitigate emissions, and corrective actions taken.

[OAC 252:100-8-6 (a)(3)(C)(iii)(I) and (IV)]

B. Any exceedance that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to AQD as soon as is practicable; but under no circumstance shall notification be more than 24 hours after the exceedance. [OAC 252:100-8-6(a)(3)(C)(iii)(II)]

C. 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 preventive maintenance, careless or improper operation, or operator error. [OAC 252:100-8-2]

D. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that: [OAC 252:100-8-6 (e)(2)]

(1) an emergency occurred and the permittee can identify the cause or causes of the emergency;
(2) the permitted facility was at the time being properly operated;
(3) 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.

E. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [OAC 252:100-8-6(e)(3)]

F. Every written report or document submitted under this section shall be certified as required by Section III (Monitoring, Testing, Recordkeeping & Reporting), Paragraph F.
[OAC 252:100-8-6(a)(3)(C)(iv)]

SECTION XV. RISK MANAGEMENT PLAN

The permittee, if subject to the provision of Section 112(r) of the Clean Air Act, shall develop and register with the appropriate agency a risk management plan by June 20, 1999, or the applicable effective date. [OAC 252:100-8-6(a)(4)]

SECTION XVI. INSIGNIFICANT ACTIVITIES

Except as otherwise prohibited or limited by this permit, the permittee is hereby authorized to operate individual emissions units that are either on the list in Appendix I to OAC Title 252, Chapter 100, or whose actual calendar year emissions do not exceed any of the limits below. Any activity to which a State or Federal applicable requirement applies is not insignificant even if it meets the criteria below or is included on the insignificant activities list.

(1) 5 tons per year of any one criteria pollutant.
(2) 2 tons per year for any one hazardous air pollutant (HAP) or 5 tons per year for an aggregate of two or more HAP's, or 20 percent of any threshold less than 10 tons per year for single HAP that the EPA may establish by rule.
[OAC 252:100-8-2 and OAC 252:100, Appendix I]

SECTION XVII. TRIVIAL ACTIVITIES

Except as otherwise prohibited or limited by this permit, the permittee is hereby authorized to operate any individual or combination of air emissions units that are considered inconsequential and are on the list in Appendix J. Any activity to which a State or Federal applicable requirement applies is not trivial even if included on the trivial activities list.
[OAC 252:100-8-2 and OAC 252:100, Appendix J]

SECTION XVIII. OPERATIONAL FLEXIBILITY

A. A facility may implement any operating scenario allowed for in its Part 70 permit without the need for any permit revision or any notification to the DEQ (unless specified otherwise in the

permit). When an operating scenario is changed, the permittee shall record in a log at the facility the scenario under which it is operating. [OAC 252:100-8-6(a)(10) and (f)(1)]

B. The permittee may make changes within the facility that:

(1) result in no net emissions increases,
(2) are not modifications under any provision of Title I of the federal Clean Air Act, and
(3) do not cause any hourly or annual permitted emission rate of any existing emissions unit to be exceeded;

provided that the facility provides the EPA and the DEQ with written notification as required below in advance of the proposed changes, which shall be a minimum of seven (7) days, or twenty four (24) hours for emergencies as defined in OAC 252:100-8-6 (e). The permittee, the DEQ, and the EPA shall attach each such notice to their copy of the permit. For each such change, the written notification required above shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change. The permit shield provided by this permit does not apply to any change made pursuant to this paragraph. [OAC 252:100-8-6(f)(2)]

SECTION XIX. OTHER APPLICABLE & STATE-ONLY REQUIREMENTS

A. The following applicable requirements and state-only requirements apply to the facility unless elsewhere covered by a more restrictive requirement:

(1) Open burning of refuse and other combustible material is prohibited except as authorized in the specific examples and under the conditions listed in the Open Burning Subchapter. [OAC 252:100-13]
(2) No particulate emissions from any fuel-burning equipment with a rated heat input of 10 MMBTUH or less shall exceed 0.6 lb/MMBTU. [OAC 252:100-19]

(3) For all emissions units not subject to an opacity limit promulgated under 40 C.F.R., Part 60, NSPS, no discharge of greater than 20% opacity is allowed except for: [OAC 252:100-25]

(a) Short-term occurrences which consist of not more than one six-minute period in any consecutive 60 minutes, not to exceed three such periods in any consecutive 24 hours. In no case shall the average of any six-minute period exceed 60% opacity;
(b) Smoke resulting from fires covered by the exceptions outlined in OAC 252:100-13-7;
(c) An emission, where the presence of uncombined water is the only reason for failure to meet the requirements of OAC 252:100-25-3(a); or
(d) Smoke generated due to a malfunction in a facility, when the source of the fuel producing the smoke is not under the direct and immediate control of the facility and the immediate constriction of the fuel flow at the facility would produce a hazard to life and/or property.

(4) No visible fugitive dust emissions shall be discharged beyond the property line on which the emissions originate in such a manner as to damage or to interfere with the use of adjacent properties, or cause air quality standards to be exceeded, or interfere with the maintenance of air quality standards. [OAC 252:100-29]

(5) No sulfur oxide emissions from new gas-fired fuel-burning equipment shall exceed 0.2 lb/MMBTU. No existing source shall exceed the listed ambient air standards for sulfur dioxide. [OAC 252:100-31]

(6) Volatile Organic Compound (VOC) storage tanks built after December 28, 1974, and with a capacity of 400 gallons or more storing a liquid with a vapor pressure of 1.5 psia or greater under actual conditions shall be equipped with a permanent submerged fill pipe or with a vapor-recovery system. [OAC 252:100-37-15(b)]

(7) All fuel-burning equipment shall at all times be properly operated and maintained in a manner that will minimize emissions of VOCs. [OAC 252:100-37-36]

SECTION XX. STRATOSPHERIC OZONE PROTECTION

A. The permittee shall comply with the following standards for production and consumption of ozone-depleting substances: [40 CFR 82, Subpart A]

(1) Persons producing, importing, or placing an order for production or importation of certain class I and class II substances, HCFC-22, or HCFC-141b shall be subject to the requirements of §82.4;
(2) Producers, importers, exporters, purchasers, and persons who transform or destroy certain class I and class II substances, HCFC-22, or HCFC-141b are subject to the recordkeeping requirements at §82.13; and
(3) Class I substances (listed at Appendix A to Subpart A) include certain CFCs, Halons, HBFCs, carbon tetrachloride, trichloroethane (methyl chloroform), and bromomethane (Methyl Bromide). Class II substances (listed at Appendix B to Subpart A) include HCFCs.

B. If the permittee performs a service on motor (fleet) vehicles when this service involves an ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all applicable requirements. Note: 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 air-tight sealed refrigeration system used as refrigerated cargo, or the system used on passenger buses using HCFC-22 refrigerant. [40 CFR 82, Subpart B]

C. The permittee shall comply with the following standards for recycling and emissions reduction except as provided for MVACs in Subpart B: [40 CFR 82, Subpart F]

(1) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156;
(2) 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;
(3) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161;
(4) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record-keeping requirements pursuant to § 82.166;
(5) Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to § 82.158; and
(6) Owners/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.

SECTION XXI. TITLE V APPROVAL LANGUAGE

A. DEQ wishes to reduce the time and work associated with permit review and, wherever it is not inconsistent with Federal requirements, to provide for incorporation of requirements established through construction permitting into the Source's Title V permit without causing redundant review. Requirements from construction permits may be incorporated into the Title V permit through the administrative amendment process set forth in OAC 252:100-8-7.2(a) only if the following procedures are followed:

(1) The construction permit goes out for a 30-day public notice and comment using the procedures set forth in 40 C.F.R. § 70.7(h)(1). This public notice shall include notice to the public that this permit is subject to EPA review, EPA objection, and petition to EPA, as provided by 40 C.F.R. § 70.8; that the requirements of the construction permit will be incorporated into the Title V permit through the administrative amendment process; that the public will not receive another opportunity to provide comments when the requirements are incorporated into the Title V permit; and that EPA review, EPA objection, and petitions to EPA will not be available to the public when requirements from the construction permit are incorporated into the Title V permit.
(2) A copy of the construction permit application is sent to EPA, as provided by 40 CFR § 70.8(a)(1).
(3) A copy of the draft construction permit is sent to any affected State, as provided by 40 C.F.R. § 70.8(b).
(4) A copy of the proposed construction permit is sent to EPA for a 45-day review period as provided by 40 C.F.R.§ 70.8(a) and (c).
(5) The DEQ complies with 40 C.F.R. § 70.8(c) upon the written receipt within the 45-day comment period of any EPA objection to the construction permit. The DEQ shall not issue the permit until EPA's objections are resolved to the satisfaction of EPA.
(6) The DEQ complies with 40 C.F.R. § 70.8(d).
(7) A copy of the final construction permit is sent to EPA as provided by 40 CFR § 70.8(a).
(8) The DEQ shall not issue the proposed construction permit until any affected State and EPA have had an opportunity to review the proposed permit, as provided by these permit conditions.
(9) Any requirements of the construction permit may be reopened for cause after incorporation into the Title V permit by the administrative amendment process, by

DEQ as provided in OAC 252:100-8-7.3(a), (b), and (c), and by EPA as provided in 40 C.F.R. § 70.7(f) and (g).

(10) The DEQ shall not issue the administrative permit amendment if performance tests fail to demonstrate that the source is operating in substantial compliance with all permit requirements.

B. To the extent that these conditions are not followed, the Title V permit must go through the Title V review process.

SECTION XXII. CREDIBLE EVIDENCE

For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any provision of the Oklahoma implementation plan, nothing shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

[OAC 252:100-43-6]

PART 70 PERMIT

AIR QUALITY DIVISION
STATE OF OKLAHOMA
DEPARTMENT OF ENVIRONMENTAL QUALITY
707 NORTH ROBINSON, SUITE 4100
P.O. BOX 1677
OKLAHOMA CITY, OKLAHOMA 73101-1677

Permit No. 2009-138-C PSD

Producers Cooperative Oil Mill,

having complied with the requirements of the law, is hereby granted permission to construct the South Council Oil Mill in SW/4 of Section 8, T11N, R4W, Oklahoma County, Oklahoma, subject subject to Specific Conditions and Standard Conditions dated July 21, 2009, both of which are attached:

In the absence of construction commencement, this permit shall expire 18 months from the issuance date, except as authorized under Section VIII of the Standard Conditions.

Division Director, Air Quality Division

1-21-10
Date

DEQ Form #100-890 Revised 12/20/06

Producers Cooperative Oil Mill
Attn: Ms. Becky Mosshammer
6 SE 4th Street
OKC, OK 73129

SUBJECT: Construction Permit No. **2009-138-C PSD**
Facility: South Council Oil Mill
Location: SW/4 of S8, T11N, R4W, Oklahoma County, Oklahoma

Dear Ms. Mosshammer:

Enclosed is the construction permit for the referenced facility. Please note that this permit is issued subject to the standard and specific conditions, which are attached. These conditions must be carefully followed since they define the limits of the permit and will be confirmed by periodic inspections.

Also note that you are required to annually submit an emissions inventory for this facility. An emissions inventory must be completed on approved AQD forms and submitted (hardcopy or electronically) by April 1st of every year. Any questions concerning the form or submittal process should be referred to the Emissions Inventory Staff at 405-702-4100.

Thank you for your cooperation in this matter. If we may be of further service, please contact me at eric.milligan@deq.state.ok.us or (405) 702-4217.

Sincerely,

Eric L. Milligan, P.E.
Engineering Section
AIR QUALITY DIVISION

Enclosures