

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
ACTIVITY REPORT: Scheduled Inspection

N741238776

FACILITY: Carbon Green Bioenergy		SRN / ID: N7412
LOCATION: 7795 Saddlebag Lake Rd, LAKE ODESSA		DISTRICT: Grand Rapids
CITY: LAKE ODESSA		COUNTY: BARRY
CONTACT: Bill Bosch , EHS Mgr.		ACTIVITY DATE: 01/27/2017
STAFF: Eric Grinstern	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Unannounced Inspection		
RESOLVED COMPLAINTS:		

**Carbon Green BioEnergy, LLC (SRN: N7412)**

### FACILITY DESCRIPTION

Carbon Green BioEnergy (CGB) is located in Barry County near the unincorporated community of Woodbury. CGB is a fuel-grade corn ethanol production facility. The facility is a dry mill operation permitted to produce up to 59.9 million gallons of denatured ethanol. In addition to ethanol, the facility produces distillers dried grains and solubles (DDGS) as a byproduct of ethanol production that is sold as livestock feed.

### REGULATORY ANALYSIS

The facility has as an opt-out permit (No. 258-04E) that covers all permitted processes. The facility was initially issued air use permit No. 258-04 on May 2, 2005 and was called Superior Corn Products LLC. In June 2009, the facility was purchased by the current owners and renamed Carbon Green BioEnergy.

The most recent permit modification (No. 258-04E) addressed the installation of a fermentation vessel, increasing the number of fermentation vessels from three to four.

The fuel storage tanks are subject to NSPS Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels.

The facility's pumps, valves, etc. are subject to NSPS VV, Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry.

### Stationary Source

Review of the facility file showed that there have been discussions going back to 2013 regarding the facility's stationary source status in regards to Woodbury Grains (WG). In 2013, the AQD inspector documented that CGB had entered into a contract regarding CGB storing grain at WG. AQD made the determination that CGB and WG were one stationary source. This determination is consistent with EPA guidance, including guidance issued by EPA Region 7, regarding whether an elevator is a "support facility" to an ethanol plant. (USEPA Region 7 letter dated December 6, 2004, written by JoAnn Heiman, Chief, Air

Permitting and Compliance Branch) EPA has further stated that where more than 50% of the output or services provided by one facility is dedicated to another facility that it supports, then a support facility relationship is presumed to exist. Therefore, WG would be considered a support facility to CGB, regardless of any contractual agreement, so long as the 50% threshold is surpassed. In response to the p determination, the consultant to CGB, Environmental Partners, Inc. provided potential to emit calculations on September 23, 2013, showing the combined NOx and GHG emissions for CGB and WG. The same calculations were updated and submitted to the AQD on October 20, 2014. Potential to emit calculations for NOx from WG were based on EPA guidance dated November 14, 1995, which provided recommendations for establishing an upper limit estimate of grain handling for calculating the PTE of PM from "country grain elevators". The use of this guidance to calculate the PTE for NOx from a grain dryer does not appear to be appropriate. The guidance only addresses PM emissions from grain handling, not emissions associated with natural gas combustion in a grain dryer. The operation of a grain dryer can vary drastically from season to season based on the moisture content of the grain. Additionally, the PTE guidance was developed for "country grain elevators", which is defined in the guidance as follows:

"... a "country grain elevator" means any grain elevator that receives more than 50 percent of its grain from farmers in the immediate vicinity during the harvest season, and a grain terminal is an elevator that receives grain primarily from other elevators."

The stationary source, consisting of CGB and WG, does not appear to meet the "country grain elevator", definition in regards to the receipt of grain from farmers in the immediate vicinity during the harvest season. Due to the year around operation of CGB, the elevator's operations do not appear to be limited to receiving grain only during the harvest season.

Therefore, any evaluation of the PTE from WB needs to be calculated with a throughput estimate based upon year-round operations of the elevator at its maximum potential rate of operation.

PTI No. 258-04E has opt-out limits under FGFACILITY that restrict NOx emissions to 95 tpy on a source-wide basis. Based on data compiled by CGB, the combined actual emission of NOx from CGB and WG is well below 95 tpy. Therefore the existing permit sufficiently limits NOx emissions below major source status. PTI No. 258-04E does not contain a source-wide limit restricting the emission of PM. A source-wide PTE evaluation will need to be done to determine if the potential emissions of PM exceed the major source threshold. If the stationary source does not have a PTE for PM over the major source threshold, it appears that the existing permit is sufficient. The combined emissions from CGB and WG will need to be calculated and recorded to demonstrate compliance with the emission limits contained in FGFACILITY.

#### NSPS Subpart DD

NSPS Subpart DD, Standards of Performance for Grain Elevators, applies to affected facilities at grain elevators. The facility file for CGB contains an applicability evaluation as part of the October 20, 2014 evaluation conducted and submitted by the consultant for CGB. The

evaluation concluded that CGB was not subject to Subpart DD because the facility did not meet the definition of either a grain terminal elevator (GTE) or a grain storage elevator (GSE). The evaluation determined that the facility was not a GTE because CGB had a permanent grain storage capacity less than 2.5 million bushels and is an animal food manufacture.

The following information was evaluated to determine if the facility is exempt from Subpart DD because of the production and sale of DDGS as animal feed.

The facility's NAICS code is 325193, which is a facility that engages in the manufacturing of non-potable ethyl alcohol.

The facility is subject to NSPS Subpart VV, which is a Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry. Review of corn ethanol plants around the US showed no determinations that the production (and sale as animal feed) of DDGS as a byproduct of ethanol manufacturing excludes a facility from Subpart DD applicability.

USEPA Applicability Determination Control Number: 0800083, Applicability for Co-located Grain Elevators, April 12, 2007. This determination covers several applicability issues, and includes the following statement:

*The fact that the ethanol plant also produces animal feed would not exempt the grain terminal elevator if NSPS Subpart DD applies.*

Based upon the above evaluated documents, it does not appear that the production of animal feed as a byproduct of ethanol production would exempt the facility from being defined as a GTE and subject to NSPS Subpart DD.

The facility (CGB & WG) is one stationary source for NSR/PSD and Title V purposes; however, EPA has previously determined that NSPS regulations are different in regards to defining "stationary source". In summary EPA has provided guidance that co-location issues are not relevant to NSPS. (USEPA Applicability Determination Control Number: 1000049, Single Source Determination for Grain Elevators, September 17, 2010.) Therefore, NSPS applicability is based on each individual grain terminal or storage elevator. Since neither CGB nor WG individually has a storage capacity of 2.5 million bushels, neither is currently subject to NSPS Subpart DD.

## COMPLIANCE EVALUATION

At the facility, AQD staff, consisting of Eric Grinstern (EG), met with Bill Bosch, EHS Manager. EG explained that the purpose of the visit was to conduct an air quality compliance inspection. Following an entry meeting, a tour of the facility was conducted as well as a closing compliance and records discussion. Subsequent to the inspection EG requested compliance records from Mr. Bosch via email.

EG met with Bill Bosch and Ed Thomas, Plant Manager, in a follow up meeting on February 16, 2017 to discuss the facility's storage tanks and monitoring of the thermal oxidizer.

## EUFIREPUMP

**300 HP emergency firewater diesel pump****PROCESS/OPERATIONAL RESTRICTIONS**

**EUFIREPUMP** is limited to operate no more than 500 hours per 12-month rolling time period.

**MONITORING/RECORDKEEPING**

The facility is required to maintain monthly and 12-month rolling records of hours of operation in order to demonstrate compliance with the 500 hours per 12-month time period limit.

CGB provided requested hours of operation records for the previous 12 months. The facility recorded a total of 23.9 hours of operation over a 12 month period.

**EUDDGSCOOLER**

**DDGS** cooling cyclone (centrifugal mechanical separator)

**EMISSION LIMITS**

Restricts the emissions of PM and PM10. Compliance with the emission limits is based on stack testing (PM10) and proper operation of the baghouse.

**PROCESS/OPERATIONAL RESTRICTIONS**

Requires a properly operated baghouse and operation according to a malfunction abatement plan (MAP).

The facility provided a current copy of the MAP, dated August 2016. The MAP contains the preventative maintenance conducted to assure proper operation of the baghouse. Staff reviewed the weekly PM for the baghouse. CGB staff stated that if a weekly PM is not completed it rolls over to the following week. Observation of the baghouse showed no opacity and good housekeeping practices around the baghouse.

**TESTING/SAMPLING**

**PM10** testing required within 180 days of commencing trial operation.

Compliance testing was conducted in 2007, at which time PM10 emissions from the baghouse were 0.190 lbs. /hr. and 0.0015 lb. /1000 lbs. of exhaust gas. Compliance was demonstrated with the PM10 limit of 1.89 lbs. /hr. limit.

**EUNH3STGTANK**

**Anhydrous ammonia** storage tank.

The ammonia storage tank is still on-site, but has not been used for a few years.

The facility now uses urea instead of ammonia as an additive to the slurry tank.

### FGCORNHAND

Corn receiving, storage, and handling

Emission Units: EUTRUCKPIT, EURAILPIT, EURECEIVINGCONV, EUCORNELEV1,  
EUCORNELEV2, EUCORNBIN1, EUCORNBIN2, EUSCALPER,  
EUSCALPINGBIN, EUGRINDINGBIN

#### EMISSION LIMITS

Restricts the emissions of PM and PM10. Compliance with the emission limits is based on stack testing (PM10) and proper operation of the baghouse.

#### DESIGN/EQUIPMENT PARAMETERS

Requires a properly operated baghouse and operation according to a malfunction abatement plan (MAP).

The facility provided a current copy of the MAP, dated August 2016. The MAP contains the preventative maintenance conducted to assure proper operation of the baghouse. Staff reviewed the weekly PM for the baghouse. CGB staff stated that if a weekly PM is not completed it rolls over to the following week. Observation of the baghouse showed no opacity and good housekeeping practices around the baghouse.

#### TESTING/SAMPLING

PM10 testing required within 180 days of commencing trial operation.

Compliance testing was conducted in 2007, at which time PM10 emissions from the baghouse were 0.417 lbs. /hr. and 0.0025 lb. /1000 lbs. of exhaust gas. Compliance was demonstrated with the PM10 limit of 1.67 lbs. /hr. limit.

### FGCORNMILL

Corn hammer milling and flour handling

Emission Units: EUHAMMERMILL1, EUHAMMERMILL2, EUFLOURELEVATOR,  
EUFLOURCONVEYOR

#### EMISSION LIMITS

Restricts the emissions of PM and PM10. Compliance with the emission limits is based on stack testing (PM10) and proper operation of the baghouse.

#### DESIGN/EQUIPMENT PARAMETERS

Requires a properly operated baghouse and operation according to a malfunction abatement plan (MAP).

The facility provided a current copy of the MAP, dated August 2016. The MAP contains the preventative maintenance conducted to assure proper operation of the baghouse. Staff reviewed the weekly PM for the baghouse. CGB staff stated that if a weekly PM is not completed it rolls over to the following week. Observation of the baghouse showed no opacity and good housekeeping practices around the baghouse.

#### TESTING/SAMPLING

PM10 testing required within 180 days of commencing trial operation.

Compliance testing was conducted in 2007, at which time PM10 emissions from the baghouse were 0.101 lbs. /hr. and 0.0015 lb. /1000 lbs. of exhaust gas. Compliance was demonstrated with the PM10 limit of 1.5 lbs. /hr. limit.

#### FGFERMENTATION

Ethanol fermentation tanks and beer well

Emission Units: EUFERMENTER1, EUFERMENTER2, EUFERMENTER3, EUFERMENTER4,  
EUBEERWELL

#### EMISSION LIMITS

Restricts the emission of VOC and Acetaldehyde. Compliance with the emission limits is based on stack testing, proper operation of the vent gas scrubber, and by maintaining process and emission records.

Review of the 2016 monthly process and emission records supplied by the facility showed compliance with the VOC (10.1 lb. /hr.) and Acetaldehyde (1.9 lb. /hr.) emission limits. The highest monthly VOC emission rate in 2016 was 2.6 lbs. /hr., while the highest Acetaldehyde emission rate was 1.9 lbs. /hr., based on a monthly average. All process data demonstrated compliance with the minimum flow rates for the scrubber.

#### DESIGN/EQUIPMENT PARAMETERS - RECORDKEEPING

Requires the installation and operation of a vent gas scrubber with a minimum liquid flow rate of 45 gallons per minute and a sodium bisulfite addition rate of 1.5 gallons per hour.

The scrubber and flow rate monitors and recorders were observed during the inspection. Additionally, the facility supplied requested records for 2016, which showed compliance with the minimum flow rates. The facility also supplied daily flow records for the 30 days prior to the inspection, which also showed compliance with the minimum flow rates.

**TESTING/SAMPLING**

VOC and Acetaldehyde testing required within 180 days of commencing trial operation.

Compliance testing was conducted in 2007, at which time VOC emissions from the scrubber were 1.93 lbs. /hr. and Acetaldehyde emissions were 1.56 lbs. /hr. Both pollutants were below the permitted limits.

**FGDRYERSLIQHAND**

Ethanol distillation and purification, mash preparation, and centrifuges

Emission Units: EUDDGSDRYER1, EUDDGSDRYER2, EUTO&HRB, EUBEERCOLUMN, EUSIDESTRIP, EURECTIFIER, EUMOLSIEVE1, EUMOLSIEVE2, EUMOLSIEVE3, EUCENTRIFUGE1, EUCENTRIFUGE2, EUCENTRIFUGE3, EUCENTRIFUGE4, EUMASHPREP

**EMISSION LIMITS**

Restricts the emission of PM, PM10, VOC, NOx, and CO (FGDRYERSLIQHAND) and NOx from EUTO&HRB. Compliance with the emission limits is based on stack testing, proper operation of the thermal oxidizer, operations of a CEMS for NOx (EUTO&HRB) and by maintaining process and emission records.

Review of the 2016 monthly process and emission records supplied by the facility showed compliance with each of the emission limits.

**MATERIAL LIMITS**

Restricts fuel in EUDDGSDRYER1 & EUDDGSDRYER2 to sweet natural gas and biomethanator off-gas. Also restricts supplemental fuel to sweet natural gas in the thermal oxidizer.

Review of facility records and observations during the inspection showed compliance with the fuel usage limits.

**DESIGN/EQUIPMENT PARAMETERS**

Requires the installation and operation of a thermal oxidizer (TO) to attain a minimum VOC destruction efficiency of 95%. The temperature has to be maintained at or above 90% of the average temperature to achieve a minimum 95% destruction efficiency. Also requires maintenance in accordance with the MAP.

The facility has installed and is operating a TO. The facility tested and demonstrated a destruction efficiency of 99.83% in 2007.

The provided MAP addresses the operation of the TO.

The MAP lists a minimum combustion temperature of 1289 degrees F.

Review of the stack test report from 2007 shows that an average temperature of 1483 degrees F was recorded in order to achieve 99.83% efficiency. The minimum temperature for 90% of 1483 degrees F is 1335 degrees F.

Review of the previous versions of the MAP show that the facility listed the minimum combustion temperature at 1335 degrees F in the April 2007 MAP. Review of the November 2007 MAP shows that the minimum combustion temperature was listed at 1289 degrees F. The minimum temperature change was discussed during the February 16, 2017 meeting at the facility. Mr. Bosch stated that they converted to an absolute temperature scale (Rankine). By converting the temperature in degrees Fahrenheit to Rankine and then taking 90% of that value and convert it back to Fahrenheit you come up with 1288 degrees Fahrenheit.

$$1483 \text{ F} + 459.67 = 1942 \text{ R}$$

$$1942 \times 90\% = 1747.8 \text{ R}$$

$$1747.8 \text{ R} - 459.67 = 1288 \text{ F}$$

The facility converted between temperature scales for the sole purpose of reducing the minimum operating temperature of the thermal oxidizer. Review of the 2007 stack testing plan lists that the thermal oxidizer would be monitored and recorded in degrees F. The stack test results documenting the TO temperature during testing were in degrees Fahrenheit and the facility continues to maintain temperature records in degrees Fahrenheit.

The facility will be required to utilize 1335 degrees F as the minimum operating temperature of the TO. EG will request that the facility review TO temperature records for the past five years and provide records of any occurrences where the temperature dropped below 1335 degrees F and has not otherwise previously been reported.

Review of the requested records for the 30 days prior to the inspection showed an average temperature of 1430 degrees and a minimum temperature of 243 degrees. On January 9, 2017, there were four readings below the facility established minimum temperature of 1289 degrees. On January 16, 2017, there were nine readings below the facility established minimum temperature. The facility documented that the low temperature readings were associated with plant upsets resulting in partial and full plant shut downs.

#### **TESTING/SAMPLING**

PM10, VOC, NOx and CO testing required within 180 days of commencing trial operation.

Compliance testing was conducted in 2007, at which time compliance for each of the pollutant emission limits was verified.

#### **MONITORING/RECORDKEEPING**

Requires the operation of a temperature monitoring device for the TO.

The facility provided TO records documenting compliance.

Requires the operation of a continuous NOx monitoring device.



The facility has installed and is operating a NOx CEMS unit.

The most recent quarterly CEMS report was received on January 17, 2017, for 2016 Q4. The facility reported no excess NOx emissions for the reporting period. The facility reported 2 hours of monitor down time during the quarter, one hour for the calibration and one hour due to the failure of a pressure transmitter. The quarterly CEMS calibration was performed on November 21, 2016. The facility notified AQD of the transmitter failure and the intent to conduct the quarterly calibration on the day of the transmitter replacement.

Requires daily, monthly and 12-month rolling time period records of fuel use and annual capacity factor for EUTO&HRB.

As requested the facility provided monthly and 12-month rolling time period records for 2016. The 2016 annual capacity factor was 0.877.

Requires daily records, pursuant to 40 CFR 60.49b, for EUTO&HRB.

The facility provided records requested pursuant to 40 CFR 60.49b requirements. The facility also submits semi-annual reports of NOx monitoring data. The facility submits quarterly CEMS reports.

Requires monthly production records and other records necessary to demonstrate compliance with PM, NOx, VOC and CO emission limits.

The facility provided records requested for 2016.

Summary:

- PM10 monthly average high: 0.7 lbs. /hr., limit: 4.9 lbs. /hr.
- NOx monthly average high: 13.4 lbs. /hr., limit: 20.9 lbs. /hr.
- VOC monthly average high: 0.1 lbs. /hr., limit: 4.9 lbs. /hr.
- CO monthly average high: 4.2 lbs. /hr., limit: 20.4 lbs. /hr.

#### FGDDGSHAND

DDGS storage, handling, and loadout

Emission Units: EUDDGSSTGPILE, EUDDGSELEV, EUDDGSRAILCONVEY,  
EUDDGSRAILLOAD, EUDDGSTRUCKLOAD, EUDDGSSTGCONVEY

#### EMISSION LIMITS

Restricts the emissions of PM and PM10. Compliance with the emission limits is based on stack testing (PM10) and proper operation of the baghouse.

**PROCESS/OPERATIONAL RESTRICTIONS**

Requires a properly operated baghouse and operation according to a malfunction abatement plan (MAP).

The facility provided a current copy of the MAP, dated August 2016. The MAP contains the preventative maintenance conducted to assure proper operation of the baghouse. Staff reviewed the weekly PM for the baghouse. CGB staff stated that if a weekly PM is not completed it rolls over to the following week. Observation of the baghouse showed no opacity and good housekeeping practices around the baghouse.

**TESTING/SAMPLING**

PM10 testing required within 180 days of commencing trial operation.

Compliance testing was conducted in 2007, at which time PM10 emissions from the baghouse were 0.0190 lbs. /hr. and 0.0018 lb. /1000 lbs. of exhaust gas. Compliance was demonstrated with the PM10 limit of 0.32 lbs. /hr. limit.

**FGNSPSTANKS**

Storage tanks subject to NSPS Kb

Emission Units: EU190TANK, EUNATGASTANK, EUDENATTANK1, EUDENATTANK2, EUDENATTANK3, EUDENATTANK4, EU200TANK

**PROCESS/OPERATIONAL RESTRICTIONS**

Requires EUNATGSTANK to be equipped with a permanent submerged fill pipe.

The facility stated that the tank is equipped with submerged fill.

NSPS Kb compliance certification received on September 20, 2006 for all of the subject tanks, except the 30,000 gallon gasoline tank for which the certification was submitted on September 20, 2016.

**DESIGN/EQUIPMENT PARAMETERS**

Requires compliance with design requirements of NSPS Subpart Kb.

The facility stated that the tanks were designed and installed in accordance with the requirements of Subpart Kb. The facility monitors the tank levels through two methods, level tape and via pressure drop.

**MONITORING/RECORDKEEPING**

Requires compliance with inspection and monitoring requirements in accordance with NSPS Subpart Kb.

The facility conducts daily, weekly, monthly, annual, 5 year, and 10 year inspections.

Staff reviewed the tank inspection records during the February 16, 2017 visit.

The tanks are due for 5/10 year re-inspections as follows:

**EU190TANK, EU200TANK:**

5 year inspection due May 2018, 10 year inspection due 2023

**EUDENATTANK1, DENATTANK2:**

8308 Tank (south tank), 8309 Tank (north tank) - 5 year inspection due May 2018,

10 year due 2023

**EUDENATTANK3:**

NSPS Kb notification received on January 19, 2012; therefore the first five year inspection would be due in 2017.

**EUDENATTANK4 – not installed**

#### **FGETHLOAD**

Truck and rail ethanol loadout

The facility is currently only shipping ethanol by truck. The facility conducts denature blending at the time the trucks are loaded.

#### **DESIGN/EQUIPMENT PARAMETERS**

Requires the operation of the ethanol loadout flare and maintenance of the flare according to the MAP.

During the inspection staff observed the flare operating. The flare temperature at the time of the inspection was 1333 degrees F. The temperature is continuously recorded on a circular chart.

The MAP addresses the ethanol loadout flare. One parameter of normal operation is a stack temperature less than 2,100 degrees F. The facility will be requested to evaluate if having a low end minimum temperature is appropriate.

#### **MONITORING/RECORDKEEPING**

Requires records of monthly and 12-month rolling time period ethanol, and denaturant throughput.

The facility provided requested records of material throughput for 2016. The records show 57.6 MM gallons of denatured ethanol shipped which includes 2.28 MM gallons of denaturant used.

### FGMETHANATORS

Biomethanator system.

Emission Units: EUMETHANATORFEED, EUMETHANATOR1, EUMETHANATOR2

### EMISSION LIMITS

Restricts emissions from natural gas combustion in the flare to the following:

The facility provided records requested for 2016.

Summary:

- NOx monthly average high: 0.04 tpy, limit: 1.0 tpy
- VOC monthly average high: 0.03 tpy, limit: 0.8 tpy
- CO monthly average high: 0.2 tpy, limit: 5.2 tpy

### DESIGN/EQUIPMENT PARAMETERS

Requires off-gases from FGMETHANATORS to be routed through either the dryers or methanator flare.

The facility stated that the off-gases are routed to the dryers, unless the TO is down or during startup/shutdown periods.

The MAP addresses the methanator flare. One parameter of normal operation is a stack temperature less than 2,100 degrees F. The facility will be requested to evaluate if having a low end minimum temperature is appropriate.

### FGNSPSVV

All pumps, valves, and pressure relief devices in light liquid and heavy liquid service; all valves and pressure relief devices in gas/vapor service; each sampling connection; and each open ended valve or line and all associated closed vent systems and control devices.

The facility complies with NSPS VV via LDAR. The facility provides semiannual reports of LDAR monitoring.

Review of the LDAR reports showed that the facility appeared to be meeting the monitoring and recordkeeping requirements. No issues of concern were noted.

### FGFACILITY

**EMISSION LIMITS/Recordkeeping**

Establishes facility-wide opt-out emission limits for NOx, VOC, CO and HAPs.

The facility provided requested records for 2016.

Summary:

12-month rolling limits

- NOx 12-month rolling average high: 45.86 tons, limit: 95 tons

- VOC 12-month rolling average high: 27.82 tons, limit: 98

tons

- CO 12-month rolling average high: 20.22 tons, limit: 98 tons

- HAP (individual) 12-month rolling average high: 6.84 tons, limit: 10 tons

- HAP (aggregate) 12-month rolling average high: 6.84 tons, limit: 25 tons

Note: The above emissions do not include emissions from WG.

**MATERIAL LIMITS/Recordkeeping**

Limits ethanol and denaturant throughputs.

The facility provided requested records for 2016.

Summary:

12-month rolling limits

- 57.6MM gallons of ethanol w/denaturant shipped, limit: 59.9MM gal.

- 2.28MM gallons of denaturant used, limit: 6.0MM gal

- Denaturant tanks EU550TANK and EU1000TANK – both removed

**PROCESS/OPERATIONAL RESTRICTIONS**

Requires the facility to submit and operate according to a malfunction abatement plan (MAP) and odor management plan.

The facility submitted an updated copy of the MAP and odor plan.

Requires all plant roadways to be paved.

All roadways observed during the inspection were paved.

**DESIGN/EQUIPMENT PARAMETERS**

Requires signage for emergency contacts as well as fencing and warning signs to prevent unauthorized entry to the plant property.

Signage observed during the inspection.

**CONCLUSION**

Based on the information and observations made as part of this inspection, the facility appears to be in compliance with applicable air quality rules and regulations. However, the facility will be requested to response the information requested below.

The facility will be requested to address the following issues:

The facility needs to determine if the PTE for PM exceeds major source threshold. The facility will be requested to calculate stationary source PTE of PM for CGE and WG. Potential emissions from WG need to be based WG operating at maximum potential.

The facility needs to maintain records demonstrating compliance with the emission limits in FGFACILITY that account for emissions from WG.

The facility will be requested to evaluated establishing minimum operating temperatures for proper operation of the flares associated with FGETHLOAD, and FGMETHANATORS.

The facility will be required to utilize the stack test established 1335 degrees F as the minimum operating temperature of the TO. The facility will be requested to review temperature records for the past 5 years and report any readings below 1335 degrees, not previously reported.

NAME



DATE

3/1/17

SUPERVISOR

