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Detailed Information

Permitting Authority: PINAL AQCD

County: PINAL AFS Plant ID: 04-021-

Facility: PINAL ENERGY LLC

***Document Type: Final Permit**

I:\WP11\PERMITS\ISSUED.B\C30862-ISS.WPD PERMIT #C30862.000

(12/29/05) PINAL ENERGY - MARICOPA

PINAL ENERGY - MARICOPA

1. Introduction

This permit pertains to a new ethanol manufacturing facility, operated by Pinal Energy, LLC. The SIC Code is 2869. The facility is located at 38501 West Cow Town Road, Maricopa, Arizona, upon the parcels also identified by Pinal County Assessor's Parcels # 502-43-001J and K. The source is situated in an area currently classified as "attainment" for all pollutants.

An already permitted bulk grain distribution and animal feed manufacturing plant, owed by Arizona Grain, exists at the location where the ethanol plant will be built. The proposed ethanol plant will be located on the southern portion of the property, behind the existing grain silos. This plant has a nominal production capacity of 50,000,000 gallons per year of alcohol, but will probably produce approximately 60 million gallons, plus 5% denatured

gasoline. The ethanol produced will be used as a fuel additive in gasoline, and the plant is designed to expand to 100,000,000 gallons per year with minimal equipment additions.

Volatile organic compounds, hazardous air pollutants, nitrogen oxides, carbon monoxide and particulate matter will originate from grain handling, storage and cleaning (PM-10), a fermentation scrubber (VOC/HAPS), a thermal oxidizer (NOx/CO), storage tanks (VOC/ethanol), ethanol loadout (VOC), boilers (NOx/CO), emergency generator (NOx/CO) and cooling tower (PM-10). The facility will also include storage tanks for ammonia (19.5%), sulfuric acid, gluco amylase and alpha amylase. A description of the ethanol manufacturing process has been included in the Technical Support Document ("TSD") accompanying this permit.

The assessor's parcels where Pinal Energy will be located belong to the Arizona Grain and Eagle Milling facilities currently permitted by PCAQCD under permit number B30610.R01 which expires in June, 2006. Both these facilities are permitted under one single permit since Arizona Grain provides more than 50% of the raw materials for Eagle Milling, and the companies share common control. For purposes of assessing major source status, such a contract-for-service relationship requires that while obtaining two separate permits, emissions from both Arizona Grain/Eagle Milling and Pinal Energy facilities be aggregated.

100% of the corn utilized in the ethanol production at Pinal Energy will come from Arizona Grain. Given the practical production relationship between Pinal Energy and Arizona Grain, PCAQCD finds that the ethanol plant has a contract-for-service relationship with the grain processing facility.

The information in the permit application includes calculations of emissions from the Arizona Grain facility. Such calculations show that the Arizona Grain/Pinal Energy facility, in the absence of the limitations under this permit, would potentially constitute a "major emitting source" as defined in CAA §302(j), CAA §112, and §169(1). To avoid the additional regulatory burdens associated with such a classification, at Pinal Energy's request, this permit includes proposed "federally enforceable provision(s)" ("FEP"), designated pursuant to Code §3-1-084.

Pursuant to 40 CFR Part 51 §166.b.1.iii, fugitive emissions count towards the 100 tpy major source threshold if a source is a "categorical source" which ethanol manufacturing plants fall under for being Chemical Process Plants.

The limits imposed by this permit limit aggregate CO and NOx emissions of the combined Pinal Energy and AZ Grain facilities to no more than 91% of the 100 ton "major source" threshold and VOC emissions from both facilities to approximately 83% of the 100 ton threshold. Those same limitations constrain emissions of other criteria pollutants below relevant "major source" thresholds. Given the small margin of safety relative to the CO, NOx and VOC "major source" threshold, the permit imposes ongoing monitoring and recordkeeping requirements as a compliance verification mechanism, as well as process equipment and control equipment performance testing to verify the emission rates and efficiencies used in calculating emissions. A more in-depth explanation of the emissions from the Pinal Energy stand-alone facility is included in the TSD.

Even though ~~un~~controlled emissions from PM10 do not approach the major source threshold, this permit requires the use and monitoring of baghouses, dust collectors and filters during grain and DDGS handling to minimize emissions.

The facility is also subject to four New Source Performance Standards (NSPS) under 40 CFR Part 60, applicable to the boilers, the storage tanks and equipment VOC leaks. The applicable requirements have been incorporated into this permit.

A complete list of equipment from which emissions are allowed by this permit is given in Section 10 of this permit.

For additional information, see the Technical Support Document (TSD) for this permit, which outlines the facility configuration, operation, emissions, permitting history and other information.

2. Listing of *(Currently Federally Enforceable)* Applicable Requirements

A. Those specific provisions of the Pinal-Gila Counties Air Quality Control District ("PGAQCD") Regulations, as adopted by the Pinal County Board of Supervisors on March 31, 1975, and approved by the Administrator as elements of the Arizona State Implementation Plan ("SIP") at 43 FR 50531, 50532 (11/15/78), and specifically the following rules:

7-3-1.1 Visible Emissions - General
7-3-1.2 Particulate Emissions - Fugitive Dust
7-3-1.8 Particulate Emissions - Process Industries
7-3-4.1 CO Emissions - Industrial

B. Those specific provisions of the Pinal-Gila Counties Air Quality Control District Regulations, as last amended by the Pinal County Board of Supervisors on June 16, 1980, and approved by the Administrator as elements of the Arizona SIP at 47 FR 15579 (4/12/82), specifically, the following rules:

7-3-1.1 Visible Emissions; General

C. The General Provisions of the New Source Performance Standards (“NSPS”), 40 CFR Part 60, Subpart A [40 CFR §60.1 *et seq*. (1998)]

D. The New Source Performance Standard ("NSPS") for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR Part 60, Subpart Dc [40 CFR §60.40c *et seq*. (2000)]

E. The New Source Performance Standard ("NSPS") for Volatile Organic Liquid Storage Vessels, 40 CFR Part 60, Subpart Kb [40 CFR §60.110b *et seq*. (2000)].

F. The New Source Performance Standard ("NSPS") for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry, 40 CFR Part 60, Subpart VV [40 CFR §60.480 et seq. (2000)].

3. Authority to Construct; Minor New Source Requirements *[Federally enforceable - Code §§3-1-010, 3-1-030, 3-1-040 (as amended 10/12/95) approved as a SIP Element at 61 FR 15717 (4/9/96)] [Federally enforceable provision, pursuant to Code §3-1-084 (8/11/94)]* (Code §3-1-081.A)

A. General

Emissions from this facility, specifically the equipment described in "Equipment Schedule" section below, and the operating configuration as defined below and more fully described in the application for permit, fall subject to the enforceable limitations identified throughout this permit. Therefore, based on the regulations in effect upon the date of issuance of this permit and a finding that allowable emissions from the equipment described in the Equipment Schedule will neither cause nor contribute to a violation of any ambient air quality standard even without any additional limitations and further finding that in view of this permit does not constitute a "major emitting source" within the meaning of Code §3-3-203, this permit constitutes authority to construct and operate such equipment.

B. Emission Caps

Permittee shall limit emissions, in any consecutive twelve-month period, such that emissions of VOC, NOx, CO and PM10 do not exceed 100 tons, emissions of total HAPs do not exceed 25 tons, and emissions from any single HAP do not exceed 10 tons.

C. Product Throughput Limitations

Permittee shall limit the production of ethanol (before denaturing) to 60 million gallons per year.

D. Control Requirements

1. Regenerative Thermal Oxidizer (RTO)

a. Emissions from the DDGS Dryer and DDGS Cooler shall vent to the a regenerative thermal oxidizer having a VOC destruction efficiency of 99% or higher and a CO destruction of 90% or higher.

b. Temperature Monitoring System

The Permittee shall install and operate a temperature monitoring system that continuously monitors the temperature in the oxidizer combustion zone, and that temperature monitoring system shall be accurate to within 0.75% of observed temperature. The continuous temperature monitoring system shall also be equipped with a system to log those temperatures, electronically or otherwise, at least once every 15 minutes and an alarm, adequate to alert the permittee if instantaneous observed temperatures in the combustion zone fall below 1500° f.

c. Minimum Operating Temperature

Permittee shall maintain an average minimum temperature of 1500° F in the combustion zone of the RTO unit, based upon a rolling 1-hour average of monitored temperatures, or another adequate temperature as demonstrated by a performance test. Observed excursions below that average minimum

temperature shall trigger a requirement for a corrective action plan, as defined in the compliance section below.

2. Scrubber

a. Emissions from the following equipment shall be vent to a scrubber having at least a 98.5% VOC removal efficiency.

Fermenter #1	Liquefaction Tank
Fermenter #2	Yeast Propagation Tank
Fermenter #3	Whole Stillage Tank
Fermenter #4	Thin Stillage Tank
Beer Well	Syrup Tank
Slurry Mix Tank	Process Condensate Tank

b. Permittee shall install and operate a water flow meter that measures the water flow of the scrubber at all times during operation.

c. Permittee shall equip the scrubber with an operational pressure differential gauge to indicate pressure drop across the scrubber.

3. Flare

a. Emissions from the loadout of ethanol into trucks shall vent to a smokeless flare with a VOC destruction efficiency of 98% or higher.

b. Permittee shall install and operate a total natural gas volume flow meter on the flare.

c. Flare shall operate with pilot flame lit whenever truck loading equipment operates.

4. Baghouses, dust collectors and filters

a. Permittee shall install and operate the following to control particulate matter (PM10) emissions.

i. 2 baghouses to control emissions from the DDGS bucket elevator and DDGS loading spout.

ii. 3 dust collectors to control emissions from the grain storage reclaim bucket elevator, and one dust collector for each of the hammermills.

iii. Pulse jet filters to control emissions from the grain

bin feed conveyor and the surge bin.

iv. Totally enclosed and sealed conveyors to transfer the grain from the hammermills to the slurry mix tank, and to transfer the DDGS to the storage building.

b. Permittee shall maintain records of manufacturer's information regarding each baghouse, dust collector and filter, indicating an outlet performance standard of 0.005 gr/dscf each.

E. Operational Limitations

1. Emergency Units: Permittee shall limit the annual operation of the emergency generator and fire pump so that the rolling 12 month emissions from the combined use do not exceed the following:

a. 11 tons of NOx; and

b. 2.50 tons of CO

2. Boilers: Emissions from the boilers shall not exceed the following:

NOx (as NO2) (lb/MMBtu)	VOC (lb/MMBtu)	CO (lb/MMBtu)	PM10 (lb/MMBtu)
0.051	0.004	0.055	0.001

These provisions will limit this facility at approximately 92%, 90%, 83% and 47% of the major source thresholds for CO, NOx, VOC and PM10 respectively.

4. Emission Limitations and Controls

A. Applicable Limitations (Code §3-1-082)

Where different standards or limitations apply under this permit, the most stringent combination shall prevail and be enforceable.

B. Allowable Emissions (Code § 3-1-081.A.2.)

The owner/operator ("Permittee") is authorized to discharge or cause to discharge into the atmosphere those emissions of air contaminants as set forth in this permit. Unless exempted under Code §3-2-180, Permittee shall not use any material, process, or equipment not identified in this permit which will cause emissions of any regulated air pollutant in excess of the 5.5 pound-per-day *de minimis* amount, unless authorized by a permit revision as allowed under this permit, or by a separate permit issued by the District or other competent authority.

C. Particulate Matter Emissions

1. Opacity Limits ***[Currently federally enforceable pursuant to PGAQCD Reg. 7-3-1.1 (6/16/80) approved as a SIP element at 47 FR 15579 (4/12/82)]*** (Code §§2-8-300. and 4-2-040.)

a. Except for the boilers, the opacity of any plume or effluent, as determined by Reference Method 9 in the Arizona Testing Manual (ADEQ, 1992) shall not be greater than 20% in any area that is attainment or unclassifiable for each particulate matter standard except as provided in §2-8-300.C. and D.

b. Since they are regulated by a New Source Performance Standard, the opacity from the boilers shall not be greater than 40%.

Nothing in this limitation shall be interpreted to prevent the discharge or emission of uncontaminated aqueous steam, or uncombined water vapor, to the open air.

2. Boilers PM10 Emissions (Code §5-21-930.C)

Permittee shall not cause, suffer, allow or permit the emissions of particulate matter, caused by combustion of fuel, in excess of the amounts calculated by:

E = 1.02Q0.769

where:
E = the maximum allowable particulate emissions rate in pounds-mass per hour.
Q = the total heat input of all operating fuel-burning units on a plant or premises in million Btu/hr.

3. Particulate Emissions - Control of Fugitive Dust ***[Currently federally enforceable pursuant to PGAQCD Reg. 7-3-1.2 (3/31/75) approved as a SIP element at 43 FR 50531 (11/15/78)]***

Permittee shall not cause, suffer, allow or permit a building or its appurtenances or open area to be used, constructed, repaired, altered or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Particulate emissions shall be kept to a minimum by such measures as wetting down, covering, landscaping, paving, treating or by other reasonable means.

4. Particulate Emissions - Emission Rates [***Currently federally enforceable pursuant to PGAQCD Reg. 7-3-1.8 (3/31/75) approved as SIP element at 43 FR 50531 (11/15/78)*** (§5-24-1030)]

Permittee shall not cause, suffer, allow or permit the emissions of particulate matter in any one hour to exceed the amounts calculated by:

E = 55P0.11 - 40

where:
E = the maximum allowable particulate emissions rate in pounds-mass per hour.

P = the process weight in tons-mass per hour.

D. Volatile Organic Compound Storage Tanks - NSPS Standards [Federally enforceable (Code §6-1-030.17), 40 CFR §60.112b(a)](Code §5-18-740.A)

Permittee shall equip tanks SV011, 012, 013, 014 and 015 with one of the following:

1. A fixed roof in combination with an internal floating roof meeting the specifications of 40 §60.112b(a)(1)(i) through (ix).

2. An external floating roof meeting the specifications of 40 §60.112b(a)(2)(i) through (iii).

3. A closed vent system and control device following the specifications of 40 §60.112b(a)(3)(I) and (ii).

4. A system equivalent to those described to the ones above as described in 40 §60.114b.

E. VOC Equipment Leaks NSPS Standards [Federally Enforceable (Code §6-1-30), 40 CFR §60.482-1]

1. Within 180 days of initial startup, Permittee shall demonstrate compliance with the standards, test methods and procedures, recordkeeping requirements, and reporting requirements as specified in 40 CFR Part 60, Subpart VV - Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemical Manufacturing Industry.

2. Compliance with 40 CFR 60.428-1 to 60.428-10 will be determined by review of records and reports review of performance test results, and inspection using the methods and procedures specified in 40 CFR 60.485.

3. Permittee may request a determination of equivalence of a means of emission limitation s the requirements of 40 CFR 60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-6, 60.482-7, 60.482-8, and 60.482-10 as provided in 40 CFR 60.484.

4. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2 to 40 CFR 60.482-10 if it is identified as required in 40 CFR 60.486(e)(5).

F. Flare NSPS Standards [Federally Enforceable (Code §6-1-30), 40 CFR §60.18]

1. The flare shall be designed and operated with no visible emissions as determined by the methods specified in §60.18(f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

2. The flare shall be operated with a flame present at all times, as determined by the methods specified in §60.18(f).

3. Permittee shall comply with the heating content and maximum tip velocity requirements of §60.18(b).

4. The flare shall be steam-assisted, air-assisted or nonassisted.

G. Denaturant (gasoline) Tank Control Requirements (Code §5-18-740)

In addition to the NSPS requirements, Permittee shall:

1. Equip the gasoline tank with either submerged filling inlets or with vapor recovery or emission control systems such that loss of vapor to the atmosphere during filling operations shall be minimized.

2. Equip dock loading facilities with submerged filling.

3. All pumps and compressors which handle VOCs shall be equipped with mechanical seals.

H. Nitrogen Oxides Emission - Boilers ***[PGCAQCD Reg. 7-3-5.1.B approved as a SIP element at 43 FR 50531 (11/15/78)]*** (Code §5-22-970)

The boilers shall not emit more than 0.20 pounds of nitrogen oxides, maximum two-hour average, calculated as nitrogen dioxide, per million Btu heat input when gaseous fuel is fired.

I. Fuel Use Limitations

1. Primary Fuel (Code §3-1-081.)

The Permittee shall only burn natural gas in the thermal oxidizer, DDGS dryer, flare pilot and boilers.

2. Emergency Units Fuel (Code §§3-1-081.G, 5-23-1010)

The Permittee shall only burn diesel fuel which contains less than 0.9 percent sulfur by weight as fuel for the emergency generator and fire pump.

3. Other Fuels (Code §§3-1-081.G, 5-23-1010.F)

The Permittee shall not use used oil, used oil fuel, hazardous waste, and hazardous waste fuel (as defined in federal, state, or county codes and rules) without first obtaining a separate permit or an appropriate permit revision.

J. General Maintenance Obligation (Code §§3-1-081.E., 8-1-030.A.3)

At all times, including periods of start-up, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate the permitted facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions.

5. Compliance Demonstration

A. General Provisions

1. Testing Program

a. Testing Schedule

i. Initial Testing

Permittee shall conduct the performance tests within 180 days of start-up.

ii. Subsequent Tests

RTO, flare and scrubber tests shall be performed annually, no later than the anniversary date of the initial performance test.

Boiler and dryer testing shall be performed every 3 years, no later than the anniversary date of the initial performance test.

b. Test Protocol

Required tests shall use standard EPA test methods (40 CFR Part 60). At least 30 days before the test, Permittee shall submit test protocol to PCAQCD for review and approval; Permittee shall provide notice of the performance test at least 15 days prior to running the test.

c. Test Reports

Test reports shall be submitted to the District for approval within forty-five (45) days after the test. The test reports shall define the scrubber and RTO operating parameters, namely the range of pressure drops across and range of volumetric flows of water through the scrubber, and the operating temperature and minimum residence time of the RTO.

Upon approval of the testing report by the District, Permittee shall operate the scrubber and RTO within the operating parameters recorded during the performance tests.

2. Recordkeeping ***[Federally enforceable provision, pursuant to Code §3-1-084 (8/11/94)]*** (Code §3-1-083)

Permittee shall maintain records of:

a. All information required pursuant to any federally enforceable provision of this permit, recorded in a permanent form suitable for inspection.

b. All measurements, including continuous monitoring system, monitoring device and performance testing measurements; all monitoring device calibration checks, adjustments and maintenance performed on these systems or devices.

c. The occurrence and duration of any start-up, shutdown or malfunction in the operation of the permitted facility or any air pollution control equipment. For purposes of this provision, a "shut-down" means a cessation of operations at the entire facility for more than seven days, and a "start-up" constitutes the reactivation of the facility after a "shut-down."

B. Compliance with Authority to Construct Limitations

1. Testing Affected Facilities (Code §3-1-170.)

a. RTO Destruction Efficiency Verification

Permittee shall conduct a performance test to verify the VOC and CO destruction efficiency of the RTO. The emission rates of VOC and CO at the RTO outlet shall also be determined. Testing shall be conducted using EPA-approved Methods 25, 25A or 25B for VOC and Method 10 for CO. Tests shall be performed at the maximum practical production rate.

b. Scrubber

i. Permittee shall conduct a performance test to speciate VOCs at the outlet of the scrubber using EPA Method 18, 25 or 25A. At a minimum, Permittee shall test to determine the emissions rates of VOCs, ethanol, acetaldehyde, acrolein, formaldehyde and methanol. Tests shall be performed at the maximum practical production rate.

ii. Permittee shall conduct a performance test to determine the VOC emission rate to the inlet and from the outlet and the overall VOC control efficiency of the scrubber using EPA Method 18 or 25 or 25A.

c. Boiler Testing

Permittee shall conduct a performance test to determine NOx, CO, VOC and PM10 emission rates from the boilers. Tests shall be performed at the maximum practical production rate. Permittee may test only one boiler as a representative sample if both boilers have the same manufacturer and same size/capacity.

d. Dryer Testing

Permittee shall conduct a performance test to determine the CO emission rate from the dryer using EPA

Method 10. The test samples shall be taken at the dryer outlet (RTO inlet).

e. Flare Testing

Method 22 of Appendix A shall be used to determine compliance of the flare with the visible emission standards of this permit. The observation period is 2 hours and shall be used according to Method 22. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device. The net heating value of the gas being combusted, the actual exit velocity and the maximum permitted velocity shall be calculated as indicated in §60.18(f)

2. Parametric Monitoring ***[Currently federally enforceable pursuant to 40 CFR §60.684(a), Code §6-1-030.11 and a delegation from the EPA Administrator dated 2/24/93].***

a. RTO

i. Monitoring

Permittee shall continuously monitor the temperature in the RTO in accordance with section 3.D.1.b. of this permit.

ii. Action Plan

Should the rolling average temperature in the RTO unit fall below 1500° F(1-hr average), or if the RTO unit is non-operational, Permittee shall take actions to curtail emissions, and shall investigate and report the cause and curative action taken within 10 days in accordance with the deviation reporting requirements of this permit.

b. Scrubber Parameters

Permittee shall measure and record the gas pressure drop across the scrubber and the scrubber water flow at least once each day the plant is in operation, and note whether those values comply with the parameters established during the performance test.

c. Flare Gas Flow

Permittee shall keep accurate records of the monthly and annual quantity of natural gas combusted and dates and times the flare was used.

3. Non-Instrumental Emissions Monitoring

a. Permittee shall keep monthly and annual records of the amount of ethanol produced by the plant before the denaturant is added.
b. Cap Check

For the following calculations, Permittee shall use emission factors determined through on-site testing, or if not available, emission factors from the specific equipment manufacturer or AP-42. Any other emission factors shall be submitted to the District for approval. The calculations shall indicate the origin of the emission factor.

i. NOx and CO

As a surrogate measurement for monitoring emissions of oxides of nitrogen and carbon monoxide, Permittee shall maintain records reflecting total fuel consumption in the thermal oxidizer, boilers, and dryer and the amount of VOC's sent to the thermal oxidizers.

Due to the low fuel consumption from the emergency generator and pump, Permittee may keep records of hours of operation of the equipment.

On monthly basis, within 10 days of the end of every calendar month, permittee shall calculate the NOx and CO 12-month rolling emissions based on the fuel records and hours of operation of the emergency equipment.

ii. VOC

Within ten days of the end of every calendar month,, Permittee shall calculate the 12-month rolling VOC emissions.

C. Compliance with Regulatory Emission Limitations

1. Particulate Matter monitoring - Baghouse, Dust Collectors and Filters Inspections (PGCAQCD Reg. 7-3-1.1 approved as a SIP element at 47 FR 15579 (6/16/80)) (Code §3-1-083)

a. The baghouses, dust collectors and filters shall be maintained in accordance with manufacturer’s specifications.

b. To verify effective control of the baghouses, dust collectors and filters required by this permit, they shall be checked for visible emissions at least once daily during operations, and the results recorded.

c. If visible emissions in excess of 5% are observed during any of the checks, the emission source shall be inspected and cleaned or

repaired as necessary. Permittee shall maintain records of these inspections, the cause for the visible emissions and the corrective measures taken. If for 2 consecutive days, visible emissions of 5% or more opacity are observed, Permittee shall have a full Method 9 opacity test performed by a certified opacity observer, and shall provide a copy of the resulting report to the District within 10 days of the test.

2. Flare Monitoring (PGCAQCD Reg. 7-3-1.1 approved as a SIP element at 47 FR 15579 (6/16/80))(Code §3-1-083)

a. Monitoring: Permittee shall conduct visible emission checks on the flare on a daily basis and shall record the results.

b. Correction/Action Plan: If visible emissions in excess of 5% are observed during any of these checks, Permittee shall perform a full inspection to determine if the flare is being operated and maintained in accordance with manufacturer's specifications. Necessary corrective action shall be taken, and records of the inspection and the corrective action shall be kept. If visible emissions in excess of 5% are observed on 2 consecutive days, Permittee shall have a full Method 9 opacity test performed by a certified opacity observer, and shall provide a copy of the resulting report to the District within 10 days of the test.

3. Particulate Matter Monitoring - Other stacks and vents (PGCAQCD Reg. 7-3-1.1 approved as a SIP element at 47 FR 15579 (6/16/80))(Code §3-1-083)

a. On at least a monthly basis, Permittee shall conduct a visual opacity screen on each process enclosure, vent, control device exhaust, and fuel-burning exhaust stack during operation. Records of the opacity screening, including the date, the time, the results of the observation and any other related information shall be kept.

b. If visible emissions in excess of 5% opacity are observed, the Permittee shall investigate the cause and correct it. If for 2 consecutive months, visible emissions of 5% opacity are observed, Permittee shall have a full Method 9 opacity test performed by a certified opacity observer, and shall provide a copy of the resulting report to the District within 10 days of the test.

4. NOx and CO monitoring

Permittee shall make a monthly record of the number of hours the emergency generator and fire pump are operated. Each month, Permittee shall calculate the aggregate NOx and CO emissions from the generator and pump from the preceding 12 calendar months, and verify that total does not exceed the limit under this permit.

5. SOx monitoring

As an alternative to monitoring fuel sulfur, Permittee shall maintain

an annual certification from the fuel supplier that diesel fuel for the generator and pump does not contain more than 0.9% by weight.

6. VOC Storage Tank Visual Inspections and Recordkeeping [Federally enforceable (Code §6-1-030.17), 40 CFR 60 Subpart Kb](Code §5-18-740.E)

a. Permittee shall inspect the floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage tanks. Any subsequent inspections shall be conducted in accordance with §60.113b(a)(2) through (5). Records of these inspections shall be kept, identifying the storage tank on which the inspection was performed and shall contain the date of the inspection and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

b. After each inspection that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, a report shall be furnished to the District within 30 days of the inspection. The report shall identify the tank and the reason it did not meet the specifications of §61.112b(a)(1) or §60.113b(a)(3) and list each repair made.

c. Permittee shall keep records of the volatile organic liquid stored in the denaturant tank, the period of storage, and the maximum true vapor pressure during the respective storage period.

7. Equipment VOC Leaks Compliance Demonstration [Federally Enforceable (Code §6-1-30), 40 CFR 60, Subpart VV]

a. Each pump in light liquid service (PPLS) shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b), except as provided in 40 CFR 60.482-1(c)) and 40 CFR 60.482-2(d), (e) and (f). Each PPLS shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A leak is detected if an instrument reading of 10,000 ppmv or greater is measured or if there are any indications of liquids dripping from the pump seal.

b. When a leak is detected for each PLLS, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

c. Each PLLS equipped with a dual mechanical seal system that includes a barrier system is exempt from the requirements of 40 CFR 60.482-2(a) provided the requirements specified in 40 CFR 60.482-2(d)(1) through (6) are met.

d. Any pump in PLLS that is designated, as described in 60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 60.482-2(a) and 60.482-2(d)(4) through (6) if permittee demonstrates that the pump is unsafe-to-

monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 60.482-2(a) and permittee has written a plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 60.482-2(c) if a leak is detected.

e. Unless exempt under 60.482-3, each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in 60.482-3(h) and (I). The barrier fluid system shall be in heavy liquid service or shall not bin in VOC service. Each compressor shall be operated and equipped as specified in 60.482-3(b)(1), (2), OR (3).

f. Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 60.482(c).

g. After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 100 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 60.482-9. No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 60.485(c).

h. Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 60.482-10 is exempted from the requirements of 60.482-4(a) and (b).

i. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from 60.482-4(a) and (b), provided permittee complies with the requirements of 60.482-4(d)(2) of this section. After each pressure release, a new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 60.482-9.

j. Except for in-situ sampling systems without purges, each sampling connection system shall be equipped with a closed-purge, closed loop, or closed-vent system, except as provided in 60.482-1(c). Each closed-purge, closed-loop, or closed-vent system shall comply with the requirements specified in 60.482-5(b)(1), (2), (3) and (4).

k. Each open-ended valve or line shall be equipped with a cap, blind flange, plug or a second valve, except as provided in 60.482-1(c). The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times.

l. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

m. Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of 60.482-6(a), (b) and (c).

n. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 60.482-6(a) through (c) are exempt from the requirements of 60.482-6(a) through 9(c).

o. Each valve in gas/vapor service and in light liquid service shall be monitored monthly to detect leaks by the methods specified in 60.485(b) and shall comply with 60.482-7(b) through (e), except as provided in 60.482-7(f), (g), and (h), 60.483-1, 60.483-2, and 60.482-1(c). A leak sis detected if an instrument reading of 10,000 ppm or greater is measured.

p. Any valve in gas/vapor service or in liquid service for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.
q. When a leak is detected for any valve in gas/vapor service or in light liquid service, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 60.482-7(e)(1), (2), (3), and (4), where practicable.

r. Any valve in gas/vapor service or in light liquid service that is designated, as described in 60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt fro the requirements for 60.482-7(a) if the valve meets the requirements specified in 60.482-7(f)(1), (2), and (3).

s. Any valve in gas/vapor service or in light liquid service that is

designated, as described in §60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 60.482-7(a) if permittee demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 60.482-7(a), and permittee adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.

t. Any valve in gas/vapor service or in light liquid service that is designated, as described in §60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 60.482-7(a) if permittee demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface; the process unit within which the valve is located either becomes an affected facility through §60.14 or §60.15 or permittee designates less than 3.0 percent of the total number of valves as difficult-to-monitor; and permittee follows a written plan that requires monitoring of the valve at least once per calendar year.

u. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the permittee shall follow either one of the following procedures:

i. Shall monitor the equipment within 5 days by the method specified in §60.485(b) and shall comply with the requirements of 60.482-8(b) through (d) ; or

ii. Shall eliminate the visual, audible, olfactory, or other indication of a potential leak.

A leak is detected if an instrument reading of 10,000 ppm or greater is measured.

v. When a leak is detected in pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 60.482-9. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices specified in 60.482-7(e).

w. For closed vent systems and control devices, vapor recovery systems shall be designed and operated to recover the VOC emissions vented to them with an efficiency of 95 percent or greater, or to an exit concentration of 20 ppmv, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816 degrees C. Permittee shall monitor these control

devices to ensure they are operated and maintained in conformance with their designs.

x. Except as provided in 60.482-10(I) through (k), each closed vent system shall be inspected according to the procedrues and schedule specified in 60.482-10(f)(1) and (2). Leaks, as indicated by an instrument reading greater than 500 ppm above background shall be repaired as soon as practicable, except as provided in 60.482-10(h). A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. Repair shall be completed no later than 15 days after the leak is detected.

y. Delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the permittee determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.

z. If a vapor collection system or closed vent system is operated under vacuum, it is exempt from the inspection requirements of 60.482-10(f)(1)(I) and (f)(2).

aa. Any parts of the closed vent system that are designated, as described in 60.482-10(l)(1), as unsafe to inspect are exempt from the inspection requirements of 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 60.482-10 (j)(1) and (j)(2).

bb. Any parts of the closed vent system that are designated, as described in 60.482-10(l)(2), as difficult to inspect are exempt from the inspection requirements of 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 60.482-10 (k)(1) through (k)(2).

cc. Permittee shall record the following information:

i. Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment;

ii. Identification of all the parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment;

iii. For each inspection during which a leak is detected, a record of the information specified in 60.486©);
iv. For each inspection conducted in accordance with

60.485(b) during which no leaks were detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected; and

v. For each visual inspection conducted in accordance with 60.482-10(f)(1)(ii) during which no leaks were detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

dd. Closed vent systems and control devices shall be operated at all times when emissions may be vented to them.

ee. Permittee may elect to comply with the applicable provisions for valves in gas/vapor service and in light liquid service as specified in 60.483-1 and 483-2.

ff. Permittee may apply to the Administrator for a determination of equivalency for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions in VOC achieved by the controls required in Subpart VV.

gg. In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of 40 CFR 60 or other methods and procedures as specified in 60.485, except as provided in §60.8(b).

hh. Permittee shall determine compliance with the standards in §§60.482, 60.483, and 60.484 as follows: Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used:

i. Zero air (less than 10 ppm of hydrocarbon in air); and

ii. A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane.

ii. Permittee shall determine compliance with the no detectable emission standards in §§60.482–2(e), 60.482–3(i), 60.482–4, 60.482–7(f), and 60.482–10(e) as follows:

i. The requirements of 60.485(b) shall apply.
ii. Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum

concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

jj. Permittee shall test each piece of equipment unless demonstrated that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used:

i. Procedures that conform to the general methods in ASTM E260–73, 91, or 96, E168–67, 77, or 92, E169–63, 77, or 93 (incorporated by reference—see §60.17) shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment.

ii. Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid.

iii. Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, 60.485(d)(1) and (2) of this section shall be used to resolve the disagreement.

kk. Permittee shall demonstrate that an equipment is in light liquid service by showing that all the following conditions apply:

i. The vapor pressure of one or more of the components is greater than 0.3 kPa at 20 °C (1.2 in. H2O at 68 °F). Standard reference texts or ASTM D2879–83, 96, or 97 (incorporated by reference—see §60.17) shall be used to determine the vapor pressures.

ii. The total concentration of the pure components having a vapor pressure greater than 0.3 kPa at 20 °C (1.2 in. H2O at 68 °F) is equal to or greater than 20 percent by weight.

iii. The fluid is a liquid at operating conditions.

ll. Samples used in conjunction with 60.485(d), (e) and (g) of this section shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare.

mm. Permittee shall determine compliance with the standards of flares as specified in 60.485(g)(1), (2), (3), (4), (5), (6) and (7).

nn. Permittee may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each affected facility.

oo. When each leak is detected as specified in §§60.482–2, 60.482–3, 60.482–7, 60.482–8, and 60.483–2, the following requirements apply:

i. A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.

ii. The identification on a valve may be removed after it has been monitored for 2 successive months as specified in §60.482–7(c) and no leak has been detected during those 2 months.

iii. The identification on equipment except on a valve, may be removed after it has been repaired.

pp. When each leak is detected as specified in §§60.482–2, 60.482–3, 60.482–7, 60.482–8, and 60.483–2, the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:

i. The instrument and operator identification numbers and the equipment identification number.

ii. The date the leak was detected and the dates of each attempt to repair the leak.

iii. Repair methods applied in each attempt to repair the leak.

iv. “Above 10,000” if the maximum instrument reading measured by the methods specified in §60.485(a) after each repair attempt is equal to or greater than 10,000 ppm.

v. “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

vi. The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.

vii. The expected date of successful repair of the leak if a leak is not repaired within 15 days.

viii. Dates of process unit shutdowns that occur while the equipment is unrepaired.

ix. The date of successful repair of the leak.

qq. The following information pertaining to the design requirements for closed vent systems and control device described in §60.482–10 shall be recorded and kept in a readily accessible location:

i. Detailed schematics, design specifications, and piping and instrumentation diagrams.
ii. The dates and descriptions of any changes in the design specifications.

iii. A description of the parameter or parameters monitored, as required in §60.482–10(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.

iv. Periods when the closed vent systems and control devices required in §§60.482–2, 60.482–3, 60.482–4, and 60.482–5 are not operated as designed, including periods when a flare pilot light does not have a flame.

v. Dates of startups and shutdowns of the closed vent systems and control devices required in §§60.482–2, 60.482–3, 60.482–4, and 60.482–5.

rr. The following information pertaining to all equipment subject to the requirements in §§60.482–1 to 60.482–10 shall be recorded in a log that is kept in a readily accessible location:

i. A list of identification numbers for equipment subject to the requirements of this subpart.

ii. A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of §§60.482–2(e), 60.482–3(i) and 60.482–7(f). The designation of equipment as subject to the requirements of §60.482–2(e), §60.482–3(i), or §60.482–7(f) shall be signed by the permittee.

iii. A list of equipment identification numbers for pressure relief devices required to comply with §60.482–4.

iv. The dates of each compliance test as required in §§60.482–2(e), 60.482–3(i), 60.482–4, and 60.482–7(f), the background level measured during each compliance test, and the maximum instrument reading measured at the equipment during each compliance test.

v. A list of identification numbers for equipment in vacuum service.

ss. The following information pertaining to all valves subject to the requirements of §60.482–7(g) and (h) and to all pumps subject to the requirements of §60.482–2(g) shall be recorded in a log that is kept in a readily accessible location:

i. A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump.

ii. A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve.

tt. For valves complying with §60.483–2, Permittee shall record the schedule of monitoring and the percent of valves found leaking during each monitoring period.
uu. Permittee shall record in a log that is kept in a readily accessible location the design criterion required in §§60.482–2(d)(5) and 60.482–3(e)(2) and explanation of the design criterion; and any changes to this criterion and the reasons for the changes.

vv. Permittee shall be record in a log that is kept in a readily accessible location information for use in determining exemptions as provided in §60.480(d), including an analysis demonstrating the design capacity of the affected facility; a statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and an analysis demonstrating that equipment is not in VOC service.

ww. Information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location.

xx. The provisions of §60.7 (b) and (d) do not apply to affected facilities subject to Subpart VV.

8. Boilers NSPS Subpart Dc - Recordkeeping [Federally Enforceable (Code §6-1-030.5), 40 CFR §60.48c(a)]

Permittee shall record and maintain records of the amount of natural gas combusted in the boilers each day.

6. Compliance Reporting and Notifications

A. Semi-Annual Compliance Reporting ***[Federally enforceable provision, pursuant to Code §3-1-084 (8/11/94)]*** (Code §3-1-083.A)

In order to demonstrate compliance with the provisions of this permit, the

Permittee shall submit a semiannual report containing a summary of the information required to be recorded pursuant to this permit, which summary shall clearly show that Permittee has complied with the operational and emissions limitations under this permit. All instances of deviations from permit requirements shall be clearly identified in such reports. For brevity, such deviation reports may incorporate by reference any written supplemental upset reports filed by Permittee during the reporting period. The report shall be submitted to the District within 30 days after the end of each calendar half. Appendix A of this permit is a form which may be used for the report.

B. NSPS Subpart VV Notifications and Reports

1. Semiannual Report [**Federally Enforceable** (Code §6-1-030), 40 CFR §60.487]

All semiannual reports shall include the following information:

a. Process unit identification.

b. For each month during the semiannual reporting period,

i. Number of valves for which leaks were detected as described in §60.482(7)(b) or §60.483–2,
ii. Number of valves for which leaks were not repaired as required in §60.482–7(d)(1),
iii. Number of pumps for which leaks were detected as described in §60.482–2(b) and (d)(6)(i),
iv. Number of pumps for which leaks were not repaired as required in §60.482–2(c)(1) and (d)(6)(ii),
v. Number of compressors for which leaks were detected as described in §60.482–3(f),
vi. Number of compressors for which leaks were not repaired as required in §60.482–3(g)(1), and
vii. The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.

c. Dates of process unit shutdowns which occurred within the semiannual reporting period.

d. Revisions to items reported in the semiannual report if changes have occurred since the initial report, as required in 60.487(a) and (b), or subsequent revisions to the initial report.

2. Notifications and Reports [**Federally Enforceable** (Code §6-1-030), 40 CFR §60.478(d), (e)]

a. If electing to comply with the provisions of 60.483-1 and 483-2, Permittee shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions.

b. Permittee shall report the results of all performance tests in

accordance with 60.8 of the General Provisions. The provisions of 60.8(d) do not apply to facilities subject to the provisions of Subpart VV except that the Permittee shall notify the District of the schedule for the initial performance tests at least 30 days before the initial performance tests.

C. NSPS Subpart Kb - Notifications [**Federally Enforceable** (Code §6-1-030.17), 40 CFR §60.115b (a)]

1. Permittee shall notify the District in writing at least 30 days prior to the filling or refilling of each storage tank for which an inspection is required by 60.113b(a)(1) and 60.116b(a)(4) to afford the opportunity to have an observer present. If the inspection required by (a)(4) is not planned and the permittee could not have known about the inspection 30 days in advance or refilling the tank, Permittee shall notify the District at least 7 days prior to the refilling of the tank. Notification shall be made by phone (or fedex) immediately followed by written documentation demonstrating why the inspection was unplanned.

2. After installing the fixed roofs and internal floating roofs required by this permit, Permittee shall notify the District with a report that describes the control equipment and certifies that it meets the specifications of §60.112b(a)(1) and §60.113b(a)(1). This report shall be an attachment to the startup notification required by §60.7(a)(3).

D. Annual Regular Compliance/Compliance Progress Certification (Code §3-1-083.A.4.)

Permittee shall annually submit a certification of compliance with the provisions of this permit. The certification shall:

1. Be signed by a responsible official, namely the proprietor, a general partner, the president, secretary, treasurer or vice-president of the corporation, or such other person as may be approved by the Control Officer as an administrative amendment to this permit;

2. Identify each term or condition of the permit that is the basis of the certification;

3. Verify the compliance status with respect to each such term or condition;

4. Verify whether compliance with respect to each such term or condition has been continuous or intermittent;

5. Identify the permit provision, or other, compliance mechanism upon which the certification is based; and

6. Be postmarked within thirty (30) days of each anniversary date of the issuance of the permit.

7. Other Reporting Obligations

A. Deviations from Permit Requirements (Code §3-1-81.A.5.b.)

Permittee shall report any deviation from the requirements of this permit along with the probable cause for such deviation, and any corrective actions or preventative measures taken to the District within ten days of the deviation unless earlier notification is required by the provisions of this permit.

B. Notifications to Administrator(40 CFR 60.7; Code §3-1-083)

Permittee shall write to the Administrator at US EPA Region IX, Air Permits Office (AIR-3), 75 Hawthorne St., San Francisco, CA 94105, and to the District, providing notice of:

1. The actual date of commencement of construction of the facility. The notice shall be sent within 30 days of such date.

2. The actual date of start up of the facility. Notice shall be sent within 15 days after such a date.

C. Annual emissions inventory [Code §3-1-103. (Nov. '93)]

Since this source would be subject to an ADEQ permitting requirement, Permittee shall complete and submit to the District an annual emissions inventory, disclosing actual emissions for the preceding calendar year. The submittal shall be made on a form provided by the District. The inventory is due by the latter of March 31, or ninety (90) days after the form is furnished by the District.

8. Fee Payment (Code §3-7-600.)

As an essential obligation under this permit, a permit fee shall be assessed by the District and paid by Permittee in accord with the provisions of Code Chapter 3, Article 7, as they may exist at the time the fee is due. The permit fee shall be due annually on or before the anniversary date of the issuance of an individual permit, or formal grant of approval to operate under a general permit, or at such other time as may be designated now or hereafter by rule. The District will notify the Permittee of the amount to be due, as well as the specific date on which the fee is due.

9. General Conditions

A. Term (Code §3-1-089)

This permit shall have a term of five (5) years, measured from the date of issuance.

B. Basic Obligation (Code §3-1-081.)

Permittee shall operate in compliance with all conditions of this permit, the Pinal County Air Quality Control District ("the District") Code of Regulations ("Code"), and all State and Federal laws, statutes, and codes relating to air quality that apply to these facilities. Any permit noncompliance is grounds for enforcement action; for a permit termination, revocation and reissuance, or revision; or for denial of a permit renewal application and may additionally

constitute a violation of the CAA.

C. Duty to Supplement Application (Code §§3-1-050.H., 3-1-081.A.8.e., 3-1-087.A.1.c., 3-1-110.)

Even after the issuance of this permit, a Permittee, who as an applicant who failed to include all relevant facts, or who submitted incorrect information in an application, shall, upon becoming aware of such failure or incorrect submittal, promptly submit a supplement to the application, correcting such failure or incorrect submittal. In addition, Permittee shall furnish to the District within thirty days any information that the Control Officer may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit and/or the Code.

D. Right to Enter (Code §§ 3-1-132, 8-1-050)

Authorized representatives of the District shall, upon presentation of proper credentials and a showing that the District representative is equipped with certain safety equipment, namely a hard hat, be allowed:

1. To enter upon the premises where the source is located or in which any records are required to be kept under the terms and conditions of this permit;

2. To inspect any equipment, operation, or method required in this permit; and

3. To sample emissions from the source.

E. Transfer of Ownership

This permit may be transferred from one person to another by notifying the District at least 30 days in advance of the transfer. The notice shall contain all the information and items required by Code § 3-1-090. The transfer may take place if not denied by the District within 10 days of the receipt of the transfer notification.

F. Posting of Permit (Code §3-1-100)

Permittee shall firmly affix the permit, an approved facsimile of the permit, or other approved identification bearing the permit number, upon such building, structure, facility or installation for which the permit was issued. In the event that such building, structure, facility or installation is so constructed or operated that the permit cannot be so placed, the permit shall be mounted so as to be clearly visible in an accessible place within a reasonable distance of the equipment or maintained readily available at all times on the operating premises.

G. Permit Revocation for Cause (Code §3-1-140)

The Director of the District ("Director") may revoke this permit for cause, which cause shall include occurrence of any of the following:

1. The Director has reasonable cause to believe that the permit was obtained by

fraud or material misrepresentation;

2. Permittee failed to disclose a material fact required by the permit application form or a regulation applicable to the permit;

3. The terms and conditions of the permit have been or are being violated.

H. Certification of Truth, Accuracy, and Completeness (Code § 3-1-175.)

Any application form, report, or compliance certification submitted pursuant to the Code shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under Chapter 3 of the Code shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

I. Renewal of Permit (Code §3-1-050)

Expiration of this permit will terminate the facility's right to operate unless either a timely application for renewal has been submitted in accordance with §§3-1-050, 3-1-055 and 3-1-060, or a substitute application for a general permit under §3-5-490. For Class I permit renewals, a timely application is one that is submitted at least 6 months, but not greater than 18 months prior to the date of the permit expiration. For Class II or Class III permit renewals, a timely application is one that is submitted at least 3 months, but not greater than 12 months prior to the date of permit expiration.

J. Severability (Code §3-1-081.A.7)

The provisions of this permit are severable, and if any provision of this permit is held invalid the remainder of this permit shall not be affected thereby.

K. Permit Shield (Code § 3-1-102.)

1. Compliance with the terms of this permit shall be deemed compliance with any applicable requirement identified in this permit.

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

L. Permit Revisions (Code Chapter 3, Article 2)

1. This permit may be revised, reopened, revoked and reissued, or terminated for cause. Other than as expressly provided in Code Chapter 3, Article 2, the filing of a request by the permittee for a permit revision, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

2. The permittee shall furnish to the Control Officer, within a reasonable time, any information that the Control officer may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating the

permit or to determine compliance with the permit.

3. Permit amendments, permit revisions, and changes made without a permit revision shall conform to the requirements in Article 2, Chapter 3, of the Code.

4. Should this source become subject to a standard promulgated by the Administrator pursuant to CAA §112(d), then Permittee shall, within twelve months of the date on which the standard is promulgated, submit an application for a permit revision demonstrating how the source will comply with the standard. (Code §3-1-050.C.5)

5. Revision to Permit Provisions Designated as Federally Enforceable Pursuant to Code §3-1-084 ***[Federally enforceable provision, pursuant to Code §3-1-084 (8/11/94)]***

As an express condition of preserving the federal enforceability of any provision of this permit designated "federally enforceable" pursuant to Code §3-1-084, Permittee shall not make any facility allowed change that would contravene such provision, until thirty (30) days after the Permittee has previously furnished notice of the proposed change to the District and to the Administrator, to thereby allow the Administrator opportunity to comment upon the continued "federal enforceability" of the subject provision after the proposed change.

M. Permit Re-opening (Code §3-1-087.)

If the EPA objects to the "federally enforceable" designations under this permit, insofar as they are based on Code §3-1-084, then this permit may be subject to a Title V applicability determination after the EPA approves the District's Title V operating permit program. If a Title V permit is required, this permit will need to be re-opened, will be subject to EPA review and public review, and may require additional revision. While the District will notify Permittee if the EPA objects to any of those federally enforceable designations under Code §3-1-084, the Permittee bears the responsibility of determining when-and-or-if such a Title V permit application must be filed.

N. Record Retention (Code §3-1-083.A.2.b)

Permittee shall retain for a period of five (5) years all documents required under this permit, including reports, monitoring data, support information, calibration and maintenance records, and all original recordings or physical records of required continuous monitoring instrumentation.

O. Scope of License Conferred (Code §3-1-081.)

This permit does not convey any property rights of any sort, or any exclusive privilege.

P. Excess Emission Reports; Emergency Provision (Code §3-1-081.E, Code §8-1-030)

1. To the extent Permittee may wish to offer a showing in mitigation of any

potential penalty, underlying upset events resulting in excess emissions shall reported as follows:

a. The permittee shall report to the Control Officer any emissions in excess of the limits established by this permit. Such report shall be in two parts:

I. Notifications by telephone or facsimile within 24 hours or the next business day, whichever is later, of the time when the owner or operator first learned of the occurrence of excess emissions, including all available information required under subparagraph b. below.

ii. Detailed written notification within 3 working days of the initial occurrence containing the information required under subparagraph b. below.

b. The excess emissions report shall contain the following information:

I. The identity of each stack or other emission point where the excess emissions occurred.

ii. The magnitude of the excess emissions expressed in the units of the applicable limitation.

iii. The time and duration or expected duration of the excess emissions.

iv. The identity of the equipment from which the excess emissions occurred.

v. The nature and cause of such emissions.

vi. If the excess emissions were the result of a malfunction, steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunctions.

vii. The steps that were or are being taken to limit the excess emissions. To the extent this permit defines procedures governing operations during periods of start-up or malfunction, the report shall contain a list of steps taken to comply with this permit.

viii. To the extent excess emissions are continuous or recurring, the initial notification shall include an estimate of the time the excess emissions will continue. Continued excess emissions beyond the estimated date will require an additional notification.

2. 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 the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

3. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of the following subparagraph are met.

4. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

b. The permitted facility was at the time being properly operated;

c. During the period of emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and

d. The permittee submitted notice of the emergency to the Control Officer by certified mail or hand delivery within 2 working days of the time when emissions limitations were exceeded due to emergency. The notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective action taken.

10. Facility Specific Data

A. Equipment

Equipment for which emissions are allowed by this permit are as follows:

Stack/Vent ID	Emission ID	Description	Capacity
SV001C	EUGRAINFEEDA	Grain Bin Feed Conveyor w/ pulse jet filter	
SV001D	EUGRAINFEEDB	Grain Bin Feed Conveyor w/ pulse jet filter	
SV001E	EUGRAINFEEDC	Grain Bin Feed Conveyor w/ pulse jet filter	
SV002A	EUGRAINRECLAIM	Grain Reclaim Bucket Elevator w/ pulse jet filter	
SV002B	EUSURGEBIN	Grain Surge Bin w/ pulse jet filter	
SV003A	EUMILL1	Hammermill #1 w/ pulse jet filter	
SV003B	EUMILL2	Hammermill #2 w/ pulse jet filter	
SV004	EUFERMSCRUB	Fermentation CO2 Scrubber 98.5% VOC removal efficiency	4700 gal
SV004	EUFERM1	Fermenter #1	755,000 gal
SV004	EUFERM2	Fermenter #2	755,000 gal

SV004	EUFERM3	Fermenter #3	755,000 gal
SV004	EUFERM4	Fermenter #4	755,000 gal
SV004	EUBEERWELL	Beer Well	981,700 gal
SV004	EULAB	Lab Fume Hood	
SV004	EUMIXTANK	Slurry Mix Tank	17,600 gal
SV004	EULIQTANK	Liquefaction Tank	174,500 gal
SV004	EUYEASTPROP	Yeast Propagation Tank	142,700 gal
SV004	EUWSTANK	Whole Stillage Tank	225,000 gal
SV004	EUTSTANK	Thin Stillage Tank	165,000 gal
SV004	EUSYTANK	Syrup Tank	149,800 gal
SV004		Process Condensate Tank	
SV006	EUGENSET	Emergency Generator1 1Emissions calculated at 500 hours of operation.	1,750 hp
SV007	EURTO	Regenerative Thermal Oxidizer, 99% VOC reduction	10 MMBtu/hr
SV007	EUDDGSDRYER	DDGS Dryer	96.4 MMBtu/hr
	EUDDGSCOOL	Fluid Bed Cooler	
SV008A	EUDDGSRECLEIM	DDGS Reclaim Bucket Elevator w/ pulse jet filter	
SV008B	EUDDGSTRUCK	DDGS Truck Loadout Spout w/ pulse jet filter	
SV009		Ethanol Loadout Smokeless Flare, 98% VOC destruction	2.75 MMBtu/hr
SV010A		Boiler #1	95 MMBtu/hr
SV010B		Boiler #2	95 MMBtu/hr
SV011	EU200TANK1	Ethanol Day Tank #1	169,000 gal
SV012	EU200TANK2	Ethanol Day Tank #2	169,000gal
SV013	EUDENTANK	Denaturant Tank	56,400 gal
SV014	EUPROD1	Product Storage Tank #1	587,000 gal
SV015	EUPROD2	Product Storage Tank #2	587,000 gal
SV016	EUFIREPUMP	Diesel Fire Pump	600 hp
	FS007	Cooling Tower	18,000gpm
	EUCAUSTIC	Caustic tank (40% NaOH)	10,100 gal
	EUAMMONIA	Ammonia Tank (19.5%)	35,000 gal
	EUGLUCO	Gluco Amylase tank	8,000 gal
	EUACID	Sulfuric Acid Tank (98%)	10,100 gal
	AUALPHA	Alpha Amylase tank	8,000 gal
	EUUREA	Urea Tank	9,800 gal
	EUCIP	Dilute caustic tank (5%)	57,800 gal

B. Emission Table

See the technical support document for a discussion of point specific emissions and pollutants.

Appendix A

Semi-annual Report
Permit C30862.000

Abstract

This constitutes a semi-annual report, documenting emissions and use of emission-generating materials during the subject reporting period.

Facility - Pinal Energy LLC

38501 W. Cow Town Rd, Maricopa, AZ

Reporting Period - January-June or July-December Year

Material Usage Report

Amount of ethanol produced tons

Total natural gas burned during the period MMBtu

Natural gas burned in boilers (NSPS Dc) MMBtu

VOC/NOX/CO Emissions Report

Have the monthly emissions calculations required by §5.B.3.b been performed? YES/NO

Volatile Organic Compounds emitted during this period tons

Nitrogen Oxides emitted during this period tons

Carbon Monoxide emitted during this period tons

Emergency generator and Fire pump emissions tons CO tons NOx

Operations Report

Did the RTO temperature fall below 1500° F at any time? YES/NO

Has Permittee:

Maintained records required under §5.A.2 (generic recordkeeping)? YES/NO

Maintained records required under §5.B.2.b (scrubber parameters)? YES/NO

Maintained records required under §5.B.2.c (flare gas flow)? YES/NO

Maintained records of inspections required under §5.C.1 (baghouse inspections)? YES/NO

Maintained records of inspections required under §5.C.2 (flare inspections)? YES/NO

Maintained records of inspections required under §5.C.5 (NSPS Kb)? YES/NO

Maintained records required under §5.C.6 (NSPS VV)? YES/NO

Certification by Responsible Official

I certify that, based on information and belief formed after reasonable inquiry, that the statements and information in this report are true, accurate and complete.

Signed

Title

Date

Mail to - Pinal County Air Quality Control District

PO Box 987
Florence, AZ 85232