MONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICT
TITLE V OPERATING PERMIT TV 44-01
EVALUATION REPORT

24580 Silver Cloud Court
Monterey, CA 93940
Telephone: (831) 647-9411

Dated: September 6, 2007

APPLICATION RECEIVED FROM:

AERA Energy LLC
P.O. Box 11164
Bakersfield, CA 93389-1164

PLANT SITE LOCATION:

66893 Sargent Canyon Road
San Ardo, CA 93450

APPLICATION PROCESSED BY:

Mike Sewell, Air Quality Engineer

Nature of Business: Crude Oil Production

SIC Codes: 1311 - Crude Petroleum and Natural Gas

RESPONSIBLE OFFICIAL:

Name: Ms. JoAnn M. Meyer
Title: Senior Vice President, SJ Valley Asset
Phone: (805) 362-7712

FACILITY CONTACT PERSON:

Name: Mr. Tim Parcel
Title: Environmental Advisor
Phone: (831) 385-7704 or (559) 935-7418

ALTERNATIVE RESPONSIBLE OFFICIALS:

Name: Mr. K. A. Peck
Title: Manager of Operations

Name: Mr. J. Furman
Title: Process Supervisor

Name: Mr. M. L. Du Frene
Title: Process Supervisor

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PROJECT DESCRIPTION

AERA's existing Title V permit (TV26-04) expires on October 31, 2007. This application is for renewal of AERA's Title V Permit on the required five-year renewal cycle.

FACILITY DESCRIPTION

AERA Energy LLC operates a crude oil production facility in the San Ardo Field in Southern Monterey County. AERA's operation includes both primary and tertiary crude oil production wells.

These production wells are supported by several categories of equipment necessary to recover heavy crude oil from the production zones. These categories include: 1) steam generators; 2) a cogeneration plant; 3) produced crude oil storage tanks; 4) oil and water separation equipment including heater treaters, free water knockout vessels, induced gas flotation units, skim tanks, produced water tanks, and sand basins; 5) well head casing vent vapor collection system; 6) Recovery Gas Treatment Plant; 7) gasoline dispensing; and 8) crude oil drilling/workover rigs.

AERA's facility is considered a federal Major Source and subject to the Title V permitting program due to the potential to emit oxides of nitrogen (NO_x) and sulfur dioxide (SO_2).

EQUIPMENT DESCRIPTION

OIL PRODUCTION FACILITY CONSISTING OF:

1. Oil Recovery And Steam Injection Wells.

2. Drilling Rigs With Diesel Fired Internal Combustion Engines.

3. Cogeneration Facilities, Three Units (Cogen A, B & C) Each Consisting Of:

    a) Solar Centaur T-4501 Gas Turbine, Natural Gas Fired, Rated At 61.5 MMBtu/Hr Maximum Heat Input And 3.2 MW Electrical Output, Evaporative Cooler On Turbine Inlet, Water Injection For NO_x Control (0.5 Lbm H_2O/Lbm Fuel).

    b) Heat Recovery Steam Generator With Natural Gas Fired Duct Burner, 38.7 MMBtu/Hr Maximum Heat Input, Steam Output Rating: 57,180 Lbs/Hr @ 1054 psia and 551°F.

    c) NOx Abatement System, Zeolite Catalyst And Ammonia Injection System.

4. Two Steam Generators (Identification Numbers 30-12 And 30-13), Natural Gas Fired , 62.5 MMBtu/Hr Maximum Heat Input.

5. Nine Steam Generators (Identification Numbers 22-1 Through 22-4, And 30-1 Through 30-5), Natural Gas Fired , 85 MMBtu/Hr Maximum Heat Input.

6. Two Steam Generators With Packed Tower Scrubber System (Identification Numbers 30-6 And 30-10A), Natural Gas And Casing Gas Fired, 62.5 MMBtu/Hr Maximum Heat Input.

7. One Steam Generator With Three Tray Scrubber System (Identification Number 30-9), Natural Gas And Casing Gas Fired, 62.5 MMBtu/Hr Maximum Heat Input.

8. Casing Gas Processing Plant.

9. Five Crude Oil Heater Treaters (Identification Numbers CTB-1 Through CTB-5), Natural Gas Fired With Number 6 Fuel Oil Standby, Each Unit Equipped With Two Burners, Each Burner Has A Maximum Heat Input Rating Of 6.3 MMBtu/Hr.

10. Two Crude Oil Heater Treaters (Identification Numbers CTB-7 And CTB-8), Natural Gas Fired, Each Unit Equipped With Two Burners, Each Burner Has A Maximum Heat Input Rating Of 6.3 MMBtu/Hr.

11. Recovery Gas Treatment Plant Including Sulfatreat Vessels And Enclosed Ground Flare.

12. Oil Treating Facility Including Truck Loadout.

13. Waste Water Facility.

14. Gasoline Dispensing Facility.

15. Laboratory Fume Hood.

APPLICABLE FEDERAL REQUIREMENTS

Rule 200 - Permits Required
Rule 201 - Sources Not Requiring Permits
Rule 207 - Review of New or Modified Sources
Rule 213 - Continuous Emissions Monitors
Rule 214 - Breakdown Condition
Rule 218 - Title V: Federal Operating Permits
Rule 300 - District Fees (Emission Statement - Section 4.4)
Rule 308 - Title V: Federal Operating Permit Fees
Rule 400 - Visible Emissions

Rule 403 - Particulate Matter
Rule 404 - Sulfur Compounds and Nitrogen Oxides
Rule 412 - Sulfur Content of Fuels
Rule 413 - Removal of Sulfur Compounds
Rule 416 - Solvents
Rule 417 - Storage of Organic Liquids
Rule 418 - Transfer of Gasoline into Stationary Storage Containers
Rule 420 - Effluent Oil Water Separators
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Rule 423 - New Source Performance Standards
Rule 424 - National Emission Standards for Hazardous Air Pollutants
Rule 426 - Architectural Coatings
Rule 427 - Steam Drive Crude Oil Production Wells
Rule 433 - Organic Solvent Cleaning
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40 CFR Part 60, Subpart A - New Source Performance Standards, General Provisions
40 CFR Part 60, Subpart Dc - Performance Standards Industrial-Commercial-Institutional Steam Generating Units
40 CFR Part 60, Subpart GG - Standards of Performance for Stationary Gas Turbines
40 CFR Part 61, Subpart M - National Emission Standard for Asbestos
40 CFR Part 64 - Compliance Assurance Monitoring
40 CFR Part 68 - Risk Management Planning: Accidental Release Prevention (Section 112r)
40 CFR Part 82 - Protection of Stratospheric Ozone

COMPLIANCE DETERMINATION FOR APPLICABLE FEDERAL REQUIREMENTS

Rule 200 - Permits Required
This is the regulation which establishes the requirement for District permits. The facility has been in compliance with the requirements of this rule, and continued compliance is expected.

Rule 201 - Sources Not Requiring Permits
This is the regulation which identifies the types of processes and equipment not subject to permit.

Rule 207 - Review of New or Modified Sources
This facility and some of the equipment predate the NSR requirements. Newer equipment has undergone NSR, therefore conditions on these NSR permits are federally enforceable and will be included on this permit.

Rule 218 - Title V: Federal Operating Permits
This is the implementing regulation by which the District issues the federal Operating Permits. All requirements imposed by this rule will be included on the Title V permit.

In their original application, the facility requested a permit shield from certain applicable requirements which are addressed in this evaluation. As required by this rule, a provision will be included on the permit which specifies which applicable requirements the facility is shielded from and basis for the permit shield.

Rule 300 - District Fees (Section 4.4 Emission Statement)
The facility is subject to the *Emission Statement* as required by Section 182(a)(3)(B)(ii) of the federal Clean Air Act. Historically, the facility has submitted the required *Emission Statement*. An appropriate condition will be included on the permit to ensure the continued submittal of the *Emission Statement.*

Rule 308 - Title V: Federal Operating Permit Fees
This is the District's fee rule for Title V. Appropriate conditions will be included on the Title V permit to ensure compliance with the fee provisions contained in this rule.

Rule 400 - Visible Emissions
This rule is applicable to the emissions from the facility. Appropriate conditions will be included on the permit to ensure compliance with this rule.

Rule 403 - Particulate Matter
The 0.15 grains per dry cubic foot emission standard is applicable to all stationary fuel fired equipment (except for IC Engines which are exempt by Section 1.3.1) at the facility, but for some of the equipment this standard is superseded by the emission limitations imposed through the NSR (Rule 207) permitting process and is verified as follows.

Cogeneration Facilities - Based upon the requirements of Rule 403, the volumetric flow rate of 29,700 SDCFM for the Gas Turbines would establish an emission limit of 38.2 lbs PM_{10}/hr [(29,700 SDCFM)*(0.15 grains/SDCF)*(1 lb/7000 grains)*(60 M/Hr) = 38.2 lbs PM_{10}/hr]. From the NSR permits, the PM_{10} emission limit for each of the turbines is 0.81 lbs/hr which is well below the Rule 403 standard. Therefore, no monitoring/testing or record keeping will be included on the permit to show compliance with grain loading requirement for this equipment.

Steam Generators, 62.5 MMBtu/hr, Natural Gas Fired - Based upon the requirements of Rule 403, the volumetric flow rate of 9,000 SDCFM for these steam generators would establish an emission limit of 11.6 lbs PM_{10}/hr [(9,000 SDCFM)*(0.15 grains/SDCF)*(1 lb/7000 grains)*(60 M/Hr) = 11.6 lbs PM_{10}/hr]. AP-42 establishes an emission limit of 13.7 lbs PM_{10}/MMCF (from Table 1.4-1 dated 1/95) which would equate to a hourly emission of 0.82 lbs PM_{10}/hr [(62.5 MMBtu/hr)(1 MMCF/1050 MMBtu)(13.7 lbs PM_{10}/MMCF) = 0.82 lbs PM_{10}/hr]. This calculated value is well below the Rule 403 grain loading standard. Therefore, no monitoring/testing or record keeping will be included on the permit to show compliance with grain loading requirement for this equipment.

Steam Generators, 85 MMBtu/hr, Natural Gas Fired - Based upon the requirements of Rule 403, the volumetric flow rate of 12,340 SDCFM for these steam generators would establish an emission limit of 15.9 lbs PM_{10}/hr [(12,340 SDCFM)*(0.15 grains/SDCF)*(1 lb/7000 grains)*(60 M/Hr) = 15.9 lbs PM_{10}/hr]. AP-42 establishes an emission limit of 13.7 lbs PM_{10}/MMCF (from Table 1.4-1 dated 1/95) which would equate to a hourly emission of 0.82 lbs PM_{10}/hr [(85 MMBtu/hr)(1 MMCF/1050 MMBtu)(13.7 lbs PM_{10}/MMCF) = 1.11 lbs PM_{10}/hr]. This calculated value is well below the Rule 403 grain loading standard. Therefore, no monitoring/testing or record keeping will be included on the permit to show compliance with grain loading requirement for this equipment.

Steam Generators With Scrubber Systems - Based upon the requirements of Rule 403, the volumetric flow rate of 9,000 SDCFM for these steam generators would establish an emission limit of 11.6 lbs PM_{10}/hr [(9,000 SDCFM)*(0.15 grains/SDCF)*(1 lb/7000 grains)*(60 M/Hr) = 11.6 lbs PM_{10}/hr]. From the NSR permits, the PM_{10} emission limit for each of the steam generators with scrubbers is 0.50 lbs/hr which is well below the Rule 403

standard. Therefore, no monitoring/testing or record keeping will be included on the permit to show compliance with grain loading requirement for this equipment.

Crude Oil Heater Treaters - Based upon the requirements of Rule 403, the volumetric flow rate of 1,220 SDCFM firing natural gas and 1,290 SDCFM firing oil would establish an emission limit of 1.6 lbs PM_{10}/hr on natural gas and 1.7 lbs PM_{10}/hr on oil [NG - (1,220 SDCFM)*(0.15 grains/SDCF)*(1 lb/7000 grains)*(60 M/Hr) = 1.6 lbs PM_{10}/hr; Oil - (1,290 SDCFM)*(0.15 grains/SDCF)*(1 lb/7000 grains)*(60 M/Hr) = 1.7 lbs PM_{10}/hr]. AP-42 establishes an emission limit of 13.7 lbs PM_{10}/MMCF NG and 7.84 lbs TSP/Kgal oil combusted (from Table 1.4-1 and Table 1.3-5 both dated 1/95) which would equate to a hourly emissions of 0.16 lbs PM_{10}/hr while firing on NG [(12.6 MMBtu/hr)(1 MMCF/1050 MMBtu)(13.7 lbs PM_{10}/MMCF) = 0.16 lbs PM_{10}/hr] and 0.65 lbs PM_{10}/hr while firing on oil [(12.6 MMBtu/hr)(6.53 gals/MMBtu)(7.84 lbs TSP/Kgal)(Kgal/1000 gal) = 0.65 lbs TSP/hr]. Both the gas and oil emissions calculated based on AP-42 factors well are below the Rule 403 grain loading requirement. Therefore, no monitoring/testing or record keeping will be included on the permit to show compliance with grain loading requirement for this equipment.

Rule 404 - Sulfur Compounds and Nitrogen Oxides
This rule is applicable to the emissions from the facility.

Diesel Fired Drilling Rigs - Compliance with the 0.2% by volume (2000 ppmv) limit for SO_2 is assumed due to the following calculation based upon the AP-42 emission factor of 0.29 lbs SO_2/MMBtu heat input. Utilizing this emission factor and the F factor from EPA method 19, the SO_2 concentration for a diesel engine would equate to 3.1 ppmv [(0.29 lbs SO_2/MMBtu)*((MM lbmoles air)/(64.1 lbmole SO_2))*((379 Ft3 Air)/(lbmole air))/((9,190 SDCFM)*(60 M/Hr)) = 3.1 ppmv] This value is well below the 2000 ppmv SO_2 allowed in this rule. Therefore, no monitoring/testing or record keeping will be included on the permit to show compliance with the SO_2 limit for this equipment.

Compliance with the NO_x limit of 140 lb/hr from the diesel drilling rigs is assumed due to the following emission calculation based upon the AP-42 emission factors of 0.031 Lbs NO_x/Hp-hr. An emission rate of 140 lbs/hr would equate to an engine of 4516 Hp [(140 lbs/hr)/(0.031 lbs NO_x/Hp-hr) = 4516 Hp]. The engines on the drill rigs are all below 1,200 hp and are not capable of exceeding the 140 lb hour NO_x limit. Therefore, no monitoring/testing or record keeping requirements will be included on the permit to show compliance with the 140 lb/hr NO_x limit for this equipment.

Cogeneration Facilities - Compliance with the 0.2% by volume (2000 ppmv) limit for SO_2 is assured due to these units being fired exclusively on natural gas and based upon the SO_2 limit contained in the NSR permit of 0.1 lb/hr. The SO_2 concentration at this permitted emission level would be 0.33 ppmv [(0.1 lbs SO_2/hr)*((MM lbmoles air)/(64.1 lbmole SO_2))*((379 Ft3 Air)/(lbmole air))/((29,700 SDCFM)*(60 M/Hr)) = 0.33 ppmv]. This value is well below the 2000 ppmv SO_2 allowed in this rule.

Compliance with the 140 lb/hr and the 350 ppm NO_x limits are assured due to the emission limit contained on the NSR permits. The NO_x limit contained on the NSR permits is 3.8 lbs/hr which equates to 17.6 ppmv [(3.8 lbs NO_x/MMBtu)*((MM lbmoles air)/(46.0 lbmole NO_2))*((379 Ft3 Air)/(lbmole air))/((29,700 SDCFM)*(60 M/Hr)) = 17.6 ppmv]. These values are well below the below the 140 lb/hr and the 350 ppm NO_x limits allowed in this rule.

Therefore, the Rule 404 emission limits will be subsumed under the NSR limits for the cogeneration facilities which will be included on the Title V permit.

Steam Generators, Natural Gas Fired - Compliance with the 0.2% by volume (2000 ppmv) limit for SO_2 is assured due to these units being fired exclusively on natural gas. Therefore, no monitoring/testing or record keeping requirements will be included on the permit to show compliance with the 0.2% by volume SO_2 limit for this equipment.

62.5 MMBtu/hr Steam Generators - Compliance with the 140 lb/hr and the 350 ppm NO_x limit is assumed due to the following emission calculations based upon the AP-42 emission factors of 140 lbs NO_x/MMCF NG burned (from AP-42 Table 1.4-2 dated 1/95). The steam generators are rated at 62.5 MMBtu/Hr which equates to 8.3 lbs/hr [(62.5 MMBtu/Hr)(1 MMCF/1050 MMBtu)(140 lbs/MMCF) = 8.3 lbs NO_x/Hr], and utilizing this emission factor of 8.3 lbs NO_x/Hr would equate to 126.7 ppmv [(8.3 lbs NO_x/Hr)*((MM lbmoles air)/(46.0 lbmole NO_2))*((379 Ft3 Air)/(lbmole air))/((9,000 SDCFM)*(60 M/Hr)) = 126.7 ppmv]. The steam generators are not capable of exceeding the 140 lb hour NO_x limit or the concentration limit of 350 ppm.

85 MMBtu/hr Steam Generators - Compliance with the 140 lb/hr and the 350 ppm NO_x limit is assured due to the NSR limits included in the permit. These limits are 0.93 lbs/hr and 9 ppm, which are well below the rule limits.

Therefore, no monitoring/testing or record keeping requirements will be included on the permit to show compliance with the 140 lb/hr and 350 ppm NO_x limits for the natural gas fired steam generators.

Steam Generators With Scrubber Systems - Compliance with the 0.2% by volume (2000 ppmv) limit for SO_2 is assured due to the SO_2 limit contained on the NSR permits of 6.33 lbs/hr. The SO_2 concentration at this permitted emission level would be 69.3 ppmv [(6.33 lbs SO_2/hr)*((MM lbmoles air)/(64.1 lbmole SO_2))*((379 Ft3 Air)/(lbmole air))/((9,000 SDCFM)*(60 M/Hr)) = 69.3 ppmv]. This value is well below the 2000 ppmv SO_2 allowed in this rule.

Compliance with the 140 lb/hr and the 350 ppm NO_x limits are assured due to the emission limit contained on the NSR permits. The NO_x limit contained on the NSR permits is 6.25 lbs/hr which equates to 95.4 ppmv [(6.25 lbs NO_x/MMBtu)*((MM lbmoles air)/(46.0 lbmole NO_2))*((379 Ft3 Air)/(lbmole air))/((9,000 SDCFM)*(60 M/Hr)) = 95.4 ppmv]. These values are well below the below the 140 lb/hr and the 350 ppm NO_x limits allowed in this rule.

Crude Oil Heater Treaters - Compliance with the 0.2% by volume (2000 ppmv) limit for SO_2 is assumed while firing on natural gas and the following calculation will show compliance while firing on fuel oil. When firing on Number 6 standby fuel with a 0.5% sulfur content, AP-42 establishes an emission factor of 78.5 lbs SO_2/Kgal (from Table 1.3-2 dated 1/95) which would equate to an emission rate of 3.2 lbs SO_2/hr [(6.3 MMBtu/hr)(6.53 gals/MMBtu)(78.5 lbs SO_2/Kgal)(Kgal/1000 gal) = 3.2 lbs SO_2/hr]. The SO_2 concentration at this emission rate would be 325.1 ppmv [(3.2 lbs SO_2/hr)*((MM lbmoles air)/(64.1 lbmole SO_2))*((379 Ft3 Air)/(lbmole air))/((970 SDCFM)*(60 M/Hr)) = 325.1 ppmv]. This value is well below the 2000 ppmv SO_2 allowed in this rule. Therefore, no monitoring/testing or record keeping requirements will be included on the permit to show compliance with the 0.2% by volume SO_2 limit for this equipment.

Compliance with the 140 lb/hr and the 350 ppm NO_x limit is assumed due to the following emission calculations. AP-42 establishes emission factors of 55 lbs NO_x/Kgal while firing of fuel oil and 100 lbs NO_x/MMCF of natural gas (from AP-42 Tables 1.3-2 and 1.4-2, both dated 1/95) which would equate to a hourly emissions of 1.2 lbs NO_x/hr while firing on NG [(12.6 MMBtu/hr)(1 MMCF/1050 MMBtu)(100 lbs NO_x/MMCF) = 1.2 lbs NO_x/hr] and 4.5 lbs NO_x/hr while firing on oil [(12.6 MMBtu/hr)(6.53 gals/MMBtu)(55 lbs NO_x/Kgal)(Kgal/1000 gal) = 4.5 lbs NO_x/hr]. Utilizing these emission factors would establish a concentration of 85.4 ppmv on natural gas [(1.2 lbs NO_x/Hr)*((MM lbmoles air)/(46.0 lbmole NO_2))*((379 Ft3 Air)/(lbmole air))/((1,830 SDCFM)*(60 M/Hr)) = 85.4 ppmv] and 321.8 ppmv on fuel oil [(4.5 lbs NO_x/Hr)*((MM lbmoles air)/(46.0 lbmole NO_2))*((379 Ft3 Air)/(lbmole air))/((1,920 SDCFM)*(60 M/Hr)) = 321.8 ppmv]. The heater treaters are not capable of exceeding the 140 lb hour

NO_x limit or the concentration limit of 350 ppm. Therefore, no monitoring/testing or record keeping requirements will be included on the permit to show compliance with the 140 lb/hr and 350 ppm NO_x limits for this equipment.

Rule 412 - Sulfur Content of Fuels

This rule which requires that the sulfur content of fuels combusted be less than 50 grains per 100 cubic feet for gaseous fuel and less than 0.5% by weight for liquid or solid fuel is applicable to this facility. Combustion of natural gas assures compliance with the 50 grain limit while the backup fuel is Residual Oil Number 6 with sulfur content below 0.5%. Diesel fuel combusted in the internal combustion engines is in compliance with the less than 0.5% by weight sulfur content.

Note that the combustion of casing gas is not subject to the requirements of this rule, as it is exempted from the requirements of Rule 412 by Rule 413 as discussed below.

Rule 413 - Removal of Sulfur Compounds

This rule provides that Rule 412 shall not apply where sulfur compounds are removed from combustion products, or a mixture of fuels are used such that the emission of sulfur compounds to the atmosphere are no greater than the emission if the source was combusting a liquid or solid fuel with a sulfur content less than 0.5% by weight.

The following calculations verify that the combustion of casing gas is in compliance with Rule 413 requirements, and therefore not subject to the requirements of Rule 412. Sulfur emissions from a liquid fuel (diesel) with 0.5% by weight sulfur equate to 0.526 lbs SO_2/MMBtu [(0.5 lb Sulfur/100 lbs fuel)(1.0 lb fuel/19,000 Btu)(10^6 BTU/MMBtu)(64 lbs SO_2/32 lbs Sulfur) = 0.526 lbs SO_2/MMBtu], whereas the sulfur emissions from the combustion of casing gas are limited by the NSR permits to 152 lbs/MMCF (this is based on a 3% inlet H_2S concentration and a scrubber removal efficiency of 97%) which equates to 0.276 lbs SO_2/MMBtu [(152 lbs/MMCF)(1.0 CF/550 BTU)(10^6 Btu/MMBtu) = 0.276 lbs SO_2/MMBtu]. The emissions of the casing gas from the steam generator with the scrubber are less than the combustion of a liquid fuel with 0.5% sulfur by weight. Therefore, no monitoring/testing or record keeping will be required to ensure compliance with the Rule 413 requirements, but testing will be required to ensure compliance with the NSR established SO_2 emission limit which can be used as a surrogate to show continuing compliance with this rule requirement.

Rule 416 - Organic Solvents

This rule establishes specific limits on solvent usage and record keeping where the material is utilized as a dissolver, viscosity reducer or cleaning agent.. Appropriate conditions will be included on the permit to ensure compliance with this rule.

Rule 417 - Storage of Organic Liquids

This rule requires vapor loss control devices on organic storage tanks if the organic liquid stored has a true vapor pressure of 1.5 psi at actual storage conditions.

The gasoline dispensing facility and the waste water facility are not subject to the requirements of Rule 417 based upon section 1. The gasoline storage tank has a capacity of 4,000 gallons, while Rule 417 is only applicable to tanks greater than 150,000 liters (39,630 gallons). The actual vapor pressure of the stored liquid in waste water tanks is 0.17 psia, well below the 1.5 psia for triggering Rule 417 requirements.

The oil treating facility is subject to the requirements of this rule. The tanks at the oil treating facility are vented to the vapor recovery system meeting the requirements of section 1.3 of the rule with a minimum destruction efficiency of 95%.

Appropriate conditions will be included on the permit to ensure compliance with the provisions of this rule.

Rule 418 - Transfer of Gasoline into Stationary Storage Containers
This rule requires that the gasoline storage tank have a submerged fill pipe and that Phase I Vapor recovery be utilized when filling the tank. The rule also requires specific record keeping regarding the quantity of fuel delivered to the facility. The facility is in compliance with the requirements of this rule.

Appropriate conditions will be included on the permit to ensure compliance with the requirements of this rule.

Rule 420 - Effluent Oil Water Separators
This rule requires vapor loss control devices on any vessel or device operated to recover oil from effluent water where 200+ gallons a day of petroleum products are recovered if the Reid vapor pressure is 0.5 psi or greater. The Reid vapor pressure of the heavy crude processed in the effluent oil water separators is 0.22 psi. Therefore, the effluent oil water separators at this facility are not subject to the requirements of rule 420.

Appropriate conditions will be included on the permit to ensure compliance with the provisions of this rule if organic materials are process that have a Reid vapor pressure equal or greater than 0.5 psi.

Rule 426 - Architectural Coatings
This rule is applicable to all architectural coatings and limits the VOC content of these coatings. The facility is in compliance with the requirements of this rule.

An appropriate condition will be included on the permit to ensure compliance with the requirements of this rule.

Rule 427 - Steam Drive Crude Oil Production Wells
This rule is applicable to steam enhanced production wells at the facility. The facility is in compliance with the requirements of this rule by collecting the gas from the steam enhanced production wells and routing to the vapor recovery system. The gas is then processed by the vapor recovery system then routed to be burned in one of the steam generators.

Appropriate conditions will be included on the permit to ensure continued compliance with the provisions of the rule.

Rule 433 - Organic Solvent Cleaning
This rule contains specific operational and record keeping requirements for solvent cleaning and degreasing operations.

Appropriate conditions will be included on the permit to ensure compliance with the provisions of this rule.

Rule 1002 - Transfer of Gasoline into Vehicle Fuel Tanks
This rule contains specific requirements for the installation and operation of ARB Certified Vapor Recover (phase II) systems on gasoline dispensing facilities.

Appropriate conditions will be included on the permit to ensure compliance with the provisions of this rule.

40 CFR Part 60, Subpart A - New Source Performance Standards, General Provisions

This facility is subject to the requirements of 60.7 (notification and record keeping), 60.8 (performance tests), 60.11 (compliance with standards and maintenance requirements), and 60.13 (monitoring requirements) because they are subject to 40 CFR Part 60, Subparts Dc and GG. In their Title V application, the source has requested that the requirements of Subpart A be subsumed under the NSR permit requirements.

The District agrees, and asserts that compliance with the conditions on the Title V permit shall be considered compliance with the monitoring, record keeping, and reporting requirements contained in 40 CFR Parts 60.7, 60.8, 60.11, and 60.13.

40 CFR Part 60, Subpart Dc - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

All equipment with the exception of the Cogeneration facilities, the Natural Gas Fired Steam Generators, and the Steam Generators with Scrubber Systems predate this requirement. The equipment listed above is subject to the requirements of this part based upon the definition of a "steam generating unit". Although the listed equipment has undergone NSR permitting and is subject to this part, no SO_x and PM requirements are imposed due to the fact that no heat input is provided by coal, oil, or wood.

No conditions pertaining to this part will be included on the permit.

40 CFR Part 60, Subpart GG - Standards of Performance for Stationary Gas Turbines

The cogeneration facilities at this facility are subject to the requirements of this NSPS. In addition to the backend control of SCR, the turbine utilizes water injection to control NO_x formation.

The NO_x emission factor from Section 60.332(a)(2) would be 150 ppmvd. This 150 ppmvd limit far exceeds the NSR permit limit of 3.8 lbs NO_x/hr which equates to 17.6 ppmv [(3.8 lbs NO_x/MMBtu)*((MM lbmoles air)/(46.0 lbmole NO_2))*((379 Ft3 Air)/(lbmole air))/((29,700 SDCFM)*(60 M/Hr)) = 17.6 ppmv] established by District Rule 207. Therefore, the NO_x limit from the NSPS will be subsumed under the NSR permit requirements that will be included on the Title V permit.

The SO_2 limit from Section 60.333 would be 150 ppmv. Compliance with this limit is assumed due to these units being fired exclusively on natural gas and based upon the SO_2 limit contained in the NSR permits of 0.1 lb/hr per unit. The SO_2 concentration at this permitted emission level would be 0.33 ppmv [(0.1 lbs SO_2/hr)*((MM lbmoles air)/(64.1 lbmole SO_2))*((379 Ft3 Air)/(lbmole air))/((29,700 SDCFM)*(60 M/Hr)) = 0.33 ppmv]. This value is well below the 150 ppmv SO_2 allowed for in the NSPS. Therefore, the SO_2 emission standard from this NSPS will be subsumed under the NSR permit requirement that will be included on the Title V permit.

The testing and monitoring requirements contained in Sections 60.334 and 60.335 will be subsumed under the testing and monitoring requirements established under the NSR permits that will be included on the Title V permit. This will include the annual emissions testing requirement and the requirement to monitor operations with the use of CEMs.

40 CFR Part 61, Subpart M - National Emission Standard for Asbestos

This facility on an as needed basis is subject to Section 61.145 through 61.147 - standards for the demolition and renovation of asbestos. Historically, the facility has been in compliance with the requirements of these standards. An appropriate condition will be included on the permit to ensure compliance with these requirements.

40 CFR Part 64 - Compliance Assurance Monitoring
The cogeneration facilities, the steam generators firing waste gas and the waste gas collection system are subject to the requirements of this part.

The cogens are subject due to their potential to emit NO_x and due to the fact that the units have SCR installed to control NO_x. These units have CEMs installed which meet the general design criteria established in §64.3(b)(2), and therefore no addition CAM monitoring is proposed nor required.

Steam Generator 30-6 and 30-10A are subject due to their potential to emit SO_x. These two steam generators share a common post-incineration scrubber operation for which compliance with the SO_X emission limits will be indirectly monitored by measuring the water recycle rate and the pH of the scrubber water. Previous source tests and operations data show that a minimum pH of 6.6 and a minimum water recycle rate of 700 gpm verify compliance with the permitted SO_X limits . At least one data point for each the pH and the water recycle rate will be collected once a day. Methodology for monitoring will be a pH meter and a flow measuring device.

Steam Generator 30-9 is subject due to its potential to emit SO_x. This steam generator has a post-incineration scrubber operation for which compliance with the SO_x emission limit will be indirectly monitored by measuring the water recycle rate and the pH of the scrubber effluent. As this equipment is not presently operating, these parameters will need to be defined and submitted to the District within 60 days of start-up of this equipment.

The Hydrogen Sulfide Scavenger System is installed; however, it is not operational as source testing verifying compliance has not been completed. AERA has proposed that recovery gas flow and scrubber effluent H_2S concentrations will be monitored. As compliance for the unit has not been verified, "excursions" from the monitoring parameters have not been defined and the specific monitoring "means" have not been identified, these items will be defined/identified after the compliance determination.

The control of recovery gas limits VOC emissions. Therefore, AERA has proposed to monitor the recovery gas system pressure via a pressure gauge to meet the CAM requirements.

40 CFR Part 68 - Risk Management Planning: Accidental Release Prevention (Section 112r)
This facility is not subject to the requirements of this part. An appropriate condition will be included on the permit to ensure compliance with the Part 68 requirements if the facility were to become subject.

40 CFR Part 82 - Protection of Stratospheric Ozone
This facility is in compliance with the requirements of this part. An appropriate condition will be included on the permit to ensure compliance with these requirements.

THE FOLLOWING WILL BE INCLUDED ON THE TITLE V PERMIT:

PERMIT SHIELD

Compliance with the conditions contained on this Title V Permit shall be deemed compliance with the following applicable requirements as of the date of issuance of this permit based upon the criteria following each applicable requirement:

40 CFR Part 60, Subpart A - New Source Performance Standards, General Provisions
This facility is subject to the requirements of this part because they are subject to 40 CFR Part 60, Subparts Dc and GG. In their Title V application, the source has requested that the requirements of Subpart A be subsumed under the NSR permit requirements.

The District agrees, and asserts that compliance with the conditions on the Title V permit shall be considered compliance with the monitoring, record keeping, and reporting requirements contained in 40 CFR Parts 60.7, 60.8, 60.11, and 60.13.

40 CFR Part 60, Subpart Dc - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
All equipment with the exception of the Cogeneration facilities, the Natural Gas Fired Steam Generators, and the Steam Generators with Scrubber Systems predate this requirement. Although the equipment listed above is subject to the requirements of this part based upon the definition of a "steam generating unit", no requirements (SO_x or PM emission limits) are imposed due to the fact that no heat input is provided by coal, oil, or wood.

40 CFR Part 60, Subpart GG - Standards of Performance for Stationary Gas Turbines
The cogeneration facilities at this facility are subject to the requirements of this NSPS. In addition to the backend control of SCR, the turbines utilizes water injection to control NO_x formation.

The NO_x emission factor from Section 60.332(a)(2) would be 150 ppmvd. This 150 ppmvd limit far exceeds the NSR permit limit of 3.8 lbs NO_x/hr which equates to 17.6 ppmv [(3.8 lbs NO_x/MMBtu)*((MM lbmoles air)/(46.0 lbmole NO_2))*((379 Ft3 Air)/(lbmole air))/((29,700 SDCFM)*(60 M/Hr)) = 17.6 ppmv] established by District Rule 207. Therefore, the NO_x limit from the NSPS will be subsumed under the NSR permit requirements that will be included on the Title V permit.

The SO_2 limit from Section 60.333 would be 150 ppmv. Compliance with this limit is assumed due to these units being fired exclusively on natural gas and based upon the SO_2 limit contained in the NSR permits of 0.1 lb/hr per unit. The SO_2 concentration at this permitted emission level would be 0.33 ppmv [(0.1 lbs SO_2/hr)*((MM lbmoles air)/(64.1 lbmole SO_2))*((379 Ft3 Air)/(lbmole air))/((29,700 SDCFM)*(60 M/Hr)) = 0.33 ppmv]. This value is well below the 150 ppmv SO_2 allowed for in the NSPS. Therefore, the SO_2 emission standard from this NSPS will be subsumed under the NSR permit requirement that will be included on the Title V permit.

The testing and monitoring requirements contained in Sections 60.334 and 60.335 will be subsumed under the testing and monitoring requirements established under the NSR permits that will be included on the Title V permit. This will include the annual emissions testing requirement and the requirement to monitor operations with the use of CEMs.

FEDERALLY ENFORCEABLE EMISSION LIMITS AND STANDARDS

1. The pollutant mass emission rates in the exhaust discharged to the atmosphere from the heat recovery steam generator of Cogeneration Units A and B shall not exceed the following limits [District Rule 207; District Rule 403 limit of 38.2 lbs PM_{10}/hr; District Rule 404 NO_x limit of 140 lbs/hr and 350 ppm, and SO_2 limit of 2000 ppmv; 40 CFR Part 60, Subpart GG NO_x limit of 150 ppm and SO_2 limit of 150 ppm]:

Pollutant	Lbs/Hour	Lbs/Day
Oxides of Nitrogen (NO_x)	3.8	90.7
Carbon Monoxide (CO)	7.0	168.8
Ammonia (NH_3)	1.4	33.5
Particulate Matter <10 microns (PM_{10})	0.81	19.3
Volatile Organic Compounds (VOC)	1.0	24.1
Sulfur Dioxide (SO_2)	0.1	1.0

These limits shall not apply during startup, which is not to exceed two hours in length, or shut down, which is not to exceed one hour in length. SCR catalytic controls, water injection and good operating practices shall be used to the fullest extent during startup to minimize pollutant emissions.

2. Oxides of nitrogen, as NO_2, in the exhaust discharged to the atmosphere from the heat recovery steam generator of Cogeneration Unit C shall not exceed 9 ppmvd, calculated as a clock hour average at 15 percent O_2, dry. [District Rule 207; 40 CFR Part 60, Subpart GG NO_x limit of 150 ppm]

3. The pollutant mass emission rates in the exhaust discharged to the atmosphere from the heat recovery steam generator of Cogeneration Unit C shall not exceed the following limits [District Rule 207; District Rule 403 limit of 38.2 lbs PM_{10}/hr; District Rule 404 NO_x limit of 140 lbs/hr and 350 ppm, and SO_2 limit of 2000 ppmv; 40 CFR Part 60, Subpart GG NO_x limit of 150 ppm and SO_2 limit of 150 ppm]:

Pollutant	Lbs/Hour	Lbs/Day
Oxides of Nitrogen (NO_x)	3.3	79.8
Carbon Monoxide (CO)	7.0	168.8
Ammonia (NH_3)	1.4	33.5
Particulate Matter <10 microns (PM_{10})	0.81	19.3
Volatile Organic Compounds (VOC)	1.0	24.1
Sulfur Dioxide (SO_2)	0.1	1.0

These limits shall not apply during startup, which is not to exceed two hours in length, or shut down, which is not to exceed one hour in length. SCR catalytic controls, water injection and good operating practices shall be used to the fullest extent during startup to minimize pollutant emissions.

4. The pollutant mass emission rates in the exhaust discharged to the atmosphere from Steam Generators 30-12 and 30-13 shall not exceed the following limits [District Rule 207; District Rule 403 limit of 0.82 lbs PM_{10}/hr; District Rule 404 NO_x limit of 140 lbs/hr and SO_2 limit of 2000 ppmv]:

Pollutant	Lbs/Hour	Lbs/Day
Oxides of Nitrogen (NO_x)	3.1	65.0
Carbon Monoxide (CO)	0.21	5.0
Particulate Matter <10 microns (PM_{10})	0.29	7.0
Volatile Organic Compounds (VOC)	0.04	1.0
Sulfur Dioxide (SO_2)	0.03	0.8

5. The emissions of oxides of nitrogen, as NO_2, in the exhaust discharged to the atmosphere from Steam Generators 30-12 and 30-13 shall not exceed 40 ppmvd, calculated at 3 percent O_2, dry. [District Rule 207; District Rule 404 NO_x limit of 350 ppm]

6. The pollutant mass emission rates in the exhaust discharged to the atmosphere from Steam Generators 22-1 through 22-4 and 30-1 through 30-5 shall not exceed the following limits [District Rule 207; District Rule 403 limit of 0.82 lbs PM_{10}/hr; District Rule 404 NO_x limit of 140 lbs/hr and SO_2 limit of 2000 ppmv]:

Pollutant	Lbs/Hour	Lbs/Day
Oxides of Nitrogen (NO_x)	0.93	22.3
Carbon Monoxide (CO)	2.51	60.4
Particulate Matter <10 microns (PM_{10})	0.65	15.5
Volatile Organic Compounds (VOC)	0.47	11.2
Sulfur Dioxide (SO_2)	0.18	4.4

7. The emissions of oxides of nitrogen, as NO_2, in the exhaust discharged to the atmosphere from Steam Generators 22-1 through 22-4 and 30-1 through 30-5 shall not exceed 9 ppmvd, calculated at 3 percent O_2, dry. [District Rule 207]

8. The emissions of carbon monoxide in the exhaust discharged to the atmosphere from Steam Generators 22-1 through 22-4 and 30-1 through 30-5 shall not exceed 40 ppmvd, calculated at 3 percent O_2, dry. [District Rule 207]

9. The combined pollutant mass emission rate for Steam Generators 30-6 and 30-10A shall not exceed the following limits [District Rule 207; District Rule 403 limit of 11.6 lbs PM_{10}/hr; District Rule 404 NO_x limit of 140 lbs/hr and 350 ppm, and SO_2 limit of 2000 ppmv]:

Pollutant	Lbs/Hour	Lbs/Day
Sulfur Dioxide (SO_2)	19.00	456.0
Oxides of Nitrogen (NO_x)	12.50	300.0
Carbon Monoxide (CO)	0.16	4.0
Particulate Matter <10 microns (PM_{10})	11.0	264.0
Volatile Organic Compounds (VOC)	9.05	217.2

10. The pollutant mass emission rate for Steam Generator 30–9 shall not exceed the following limits [District Rule 207; District Rule 403 limit of 11.6 lbs PM_{10}/hr; District Rule 404 NO_x limit of 140 lbs/hr and 350 ppm, and SO_2 limit of 2000 ppmv]:

Pollutant	Lbs/Hour	Lbs/Day
Sulfur Dioxide (SO_2)	6.33	152.0
Oxides of Nitrogen (NO_x)	6.25	150.0
Carbon Monoxide (CO)	0.08	2.0
Particulate Matter <10 microns (PM_{10})	0.50	12.0
Volatile Organic Compounds (VOC)	2.14	51.4

11. Total casing gas disposed by steam generator 30-9 shall not exceed 1.0 MMCFD. [District Rule 207]

12. Total casing gas disposed by steam generators 30-6 and 30-10A shall not exceed 1.5 MMCFD for each unit, and shall not exceed 2.8 MMCFD for both units combined. [District Rule 207]

13. The scrubber effluent water pH shall be maintained at 6.6 or higher. [District Rule 207]

14. The minimum scrubber water flow rate for the scrubber serving Steam Generators 30-6 and 30-10A shall be 700 gallons per minute. [District Rule 207]

15. The minimum scrubber water flow rate for Steam Generator 30-9 shall be 200 gallons per minute. [District Rule 207]

16. The cogeneration facilities and Steam Generators 22-1 through 22-4, 30-1 through 30-5, 30-12 and 30-13 shall only be fired on natural gas. [District Rule 207]

17. The heat input rate to the Recovery Gas Treatment Plant flare shall not exceed 24.0 MMBtu/Hr. [District Rule 207]

18. Emissions from the flare shall not exceed the following limits: [District Rule 207]

Pollutant	Emission Level
NO_x	0.06 lbs/MMBtu
CO	0.37 lbs/MMBtu
VOC	0.0648 lbs/MMBtu
SO_2	0.2% by volume (2,000 ppmv)

19. The flare combustion temperature shall be maintained at a minimum of 1400° F within 30 minutes of start-up. [District Rule 207]

20. The Recovery Gas Treatment Plant's Sulfatreat system shall have a minimum sulfur removal efficiency of 97%. [District Rule 207]

21. Treated casing gas exiting the Sulfatreat system shall have an H_2S concentration that does not exceed 900 ppm. [District Rule 207]

22. When the Recovery Gas Treatment Plant is operational, Steam Generators 30-6 and 30-10A and their associated scrubber shall not be operational. [District Rule 207]

23. Each of the cogeneration facilities shall undergo no more than one cold startup per day. [District Rule 207]

24. AERA Energy LLC shall maintain a turbine startup protocol for both hot and cold startup, which details the procedures that will be used to minimize the pollutant emissions, and shall amend this protocol based on operating experience. [District Rule 207]

25. Operation of the cogeneration facilities and all steam generators must be conducted in compliance with all data and specifications submitted in the permit applications to the MBUAPCD. [District Rule 207]

26. Pollution Control equipment must be properly maintained and kept in good operating condition. [District Rule 207]

27. The cogeneration facilities shall not be operated, and the steam generators shall not be fired on casing gas unless their specific air pollution control equipment is in full use. [District Rule 207]

28. AERA Energy LLC shall cause to be operated an ambient air monitoring station at a site approved by the District in Southern Monterey County, for PM_{10}, O_3, and standard meteorological parameters on a continuous basis, in accordance with EPA requirements contained in 40 CFR Part 58, and as deemed necessary in accordance with the Air Resources Board guidelines. The air monitoring station instrumentations shall be compatible with the District's daily data retrieval polling methods. [District Rule 207]

29. The operation of the air monitoring station shall continue for the life of the project or until the Air Pollution Control Officer determines that good cause exists to discontinue monitoring. Good cause includes adequate technical justification submitted by the permittee that successfully proves that the continuation of all or part of the monitoring requirement is no longer necessary. [District Rule 207]

30. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three (3) minutes in any one (1) hour which is as dark or darker than Ringelmann 1 or equivalent 20% opacity. [District Rule 400]

31. Particulate matter shall not exceed 0.15 grains per standard dry cubic foot in any exhaust stream. [District Rule 403]

32. Sulfur compounds calculated as sulfur dioxide (SO_2) shall not exceed 0.2 percent by volume in any exhaust stream. [District Rule 404]

33. Oxides of Nitrogen, calculated as nitrogen dioxide (NO_2), shall not exceed 140 lbs/hr in any exhaust stream. [District Rule 404]

34. Oxides of Nitrogen, calculated as nitrogen dioxide (NO_2), from all gaseous fuel fired equipment shall not exceed 350 ppmv, calculated at 3 percent O_2, dry. [District Rule 404]

35. The sulfur content on any fuel oil used at the facility shall not exceed 0.5 percent by weight. [District Rule 412]

36. The sulfur content on any gaseous fuel used at the facility shall not contain sulfur compounds, calculated as hydrogen sulfide at standard conditions, in excess of 50 grains per 100 cubic feet. [District Rule 412]

    This condition does not apply to the combustion of casing gas in the steam generators. [District Rule 413]

37. During maintenance periods, all casing gas must be vented either to the steam generators for incineration or to an alternate approved control system. [District Rule 413]

38. No more than 40 pounds per day of Volatile Organic Compounds shall be discharged from any permit unit using or applying any solvent. [District Rule 416 Adopted 1/17/01]

39. AERA Energy LLC shall operate the storage tank at the Gasoline Dispensing Facility with a permanent submerged fill pipe and a Phase I vapor recovery system which has been certified by the California Air Resources Board. [District Rule 418]

40. AERA Energy LLC shall limit emissions of volatile organic compounds by the use of architectural coatings which comply with the requirements of District Rule 426. [District Rule 426]

41. AERA Energy LLC shall not operate any existing steam drive crude oil production well unless nonmethane hydrocarbon (volatile organic compound) emissions from the wellhead annulus valve are reduced by at least 98 percent by weight. [District Rule 427]

42. Any new steam drive oil production well shall meet the requirements of condition number 41 within four months from the date that the well is defined as a steam drive well. [District Rule 427]

43. AERA Energy LLC shall install and maintain all piping, valves, fittings, and equipment that are a part of the wellhead annulus valve and hydrocarbon control system for any steam drive crude oil well in a no-leak condition. A leak is defined as an emission of gaseous organic (volatile organic) compounds which causes an appropriate analyzer sampling one centimeter from a source to register as high or higher than it would register if sampling a gas composed of 15,000 ppm methane in air. [District Rule 427]

44. AERA Energy LLC shall submit an Operator Management Plan to the Air Pollution Control Officer. This plan shall describe the procedures which AERA Energy LLC intends to follow to comply with the provisions of Rule 427 and must include at least the following [District Rule 427]:

    a) detailed schedule of inspections, which provides for inspection of each affected component at least once per 12 month period, except that components with moving parts, including periodically manipulated valves, shall be inspected at least quarterly. The schedule shall indicate estimated inspection periods and frequency;

b) identification of manipulated valves and components with moving parts, which will be inspected quarterly;

c) repair procedures following leak detection;

d) identification of critical process units which cannot be immediately shut down for repair of leaks;

e) identification of any hazard(s) which might affect the safety of inspectors carrying out the provisions of Rule 427; and

f) identification of the resource commitment to the program to implement the Operator Management Plan.

Any modifications to an existing Operator Management Plan relating to changes in inspection or repair procedures must be submitted for, and receive, approval of the Air Pollution Control Officer before they are implemented.

45. AERA Energy LLC shall repair leaks on all piping, valves, fittings, and equipment that are a part of the wellhead annulus valve and hydrocarbon control system for any steam drive crude oil well within the following time frames [District Rule 427 Adopted 12/19/01]:

a) Leaks exceeding 75,000 ppm shall be repaired to a leak-free condition within 15 working days, with monitoring with an appropriate analyzer to verify the leak-free condition as soon as practicable, but not later than 1 calendar month after the date on which the component is repaired.

b) Leaks exceeding 15,000 ppm shall be repaired to a leak-free condition within 20 working days, with monitoring with an appropriate analyzer to verify the leak-free condition as soon as practicable, but not later than 1 calendar month after the date on which the component is repaired.

The Air Pollution Control Officer may grant a 10-day extension to the above repair time frames if the operator demonstrates an adequate necessity for the delay and that sufficient actions will be taken to correct the leak within this time period.

46. The provisions of condition number 45 do not apply to a leaking component which is an essential part of a critical process unit identified in the approved Operator Management Plan, in which case repair shall be accomplished during the next shutdown or process turnaround of the critical process unit, but in no case more than three months from the date of detection. [District Rule 427]

47. No more than 2 percent of the total number of steam drive crude oil production wells may contain an open ended line. [District Rule 427 Adopted 12/19/01]

48. AERA Energy LLC shall limit emissions of volatile organic compounds during solvent cleaning and degreasing operations pursuant to the requirements of District Rule 433. [District Rule 433]

49. AERA Energy LLC shall operate the dispenser at the Gasoline Dispensing Facility with a Phase II vapor recovery system which has been certified by the California Air Resources Board. [District Rule 1002]

50. AERA Energy LLC shall comply with the requirements of Sections 61.145 through 61.147 of the National Emission Standard for Asbestos for all demolition and renovation projects. [40 CFR Part 61, Subpart M]

51. Upon detection of an excursion as defined in condition 79, AERA Energy LLC shall restore the emissions unit to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. [40 CFR Part 64]

52. AERA Energy LLC shall submit a Compliance Assurance Monitoring Quality Improvement Plan (QIP) to the District as specified in 40 CFR §64.8 if the accumulation of excursions monitored under condition 78 exceed 5 percent of the pollutant-specific emissions unit's operating time for a reporting period. [40 CFR Part 64]

53. AERA Energy LLC shall comply with the requirements of 40 CFR Part 68 - Risk Management Plans. AERA Energy LLC shall submit a Risk Management Plan (RMP) if the facility becomes subject to the requirements of Part 68. [40 CFR Part 68]

54. AERA Energy LLC shall comply with the requirements of 40 CFR Part 82 - Protection of Stratospheric Ozone. [40 CFR Part 82]

TESTING REQUIREMENTS AND PROCEDURES

55. An annual performance test of each cogeneration facility shall be conducted during October of each year. AERA Energy LLC shall conduct performance tests in accordance with EPA Method 20 or CARB Method 100 for NO_x and O_2, EPA Method 10 or CARB Method 100 for CO, EPA Method 18 or CARB Method 100 for hydrocarbons, the collection method specified in BAAQMD Method 1B and the analysis specified in EPA Method 350.3 for ammonia to verify compliance with conditions 1, 2 and 3. AERA Energy LLC shall furnish the District written results of such performance tests within sixty (60) days of the test completion. A testing protocol shall be submitted to the District no later than 30 days prior to testing, and District notification at least 10 days prior to the actual date of testing shall be provided so that a District observer can be present. The compliance test shall include, but not be limited to, the determination of the following parameters [District Rule 207]:

a) Oxides of Nitrogen, as NO_2: ppmv at 15% O_2, dry and lb/hr.

b) Carbon Monoxide: ppmv at 15% O_2, dry and lb/hr.

c) Ammonia: ppmv at 15% O_2, dry and lb/hr.

d) Volatile Organic Compounds (VOC): ppmv and lb/hr.

and the following process parameters:

e) Natural gas consumption.

f) Electricity generated during the test.

g) Ammonia injected in lb/hr, NH_3/Inlet NO_x mole ratio, and verification of ammonia slip calculation used in weekly calculation.

h) Water injection rate and water to fuel ratio.

If the testing cannot be completed during the month of October and if AERA Energy LLC can establish that the cogeneration facility was not operating for a period of time that could have allowed the testing to be completed, the testing can be delayed, such that it is conducted within thirty days from the date on which the turbine is restarted, and comply with the following notification requirements:

1) AERA Energy LLC must notify the District that they will be unable to meet the October testing requirement as soon as it becomes known, but in no event later than October 30.

2) AERA Energy LLC must provide the District with at least five days prior notification of the anticipated date the cogeneration facility will be restarted.

3) AERA Energy LLC must provide the District with the time and date of cogeneration facility startup within 24 hours after the actual startup.

56. An annual performance test of each natural gas fired steam generator operated during the year shall be conducted prior to January 1 of each year. AERA Energy LLC shall conduct performance tests in accordance with EPA Method 7E or CARB Method 100 for NO_x, EPA Method 10 or CARB Method 100 for CO, EPA Method 3A or CARB Method 100 for O_2 to verify compliance with conditions 4 through 8. AERA Energy LLC shall furnish the District written results of such performance tests within sixty (60) days of the test completion. A testing protocol shall be submitted to the District no later than 30 days prior to testing, and District notification at least 10 days prior to the actual date of testing shall be provided so that a District observer can be present. The compliance test shall include, but not be limited to, the determination of the following parameters [District Rule 207]:

1. Carbon Monoxide: ppmv at 3% O_2, dry and lb/hr.

2. Oxides of Nitrogen, as NO_2: ppmv at 3% O_2, dry and lb/hr.

and the following process parameter:

3. Natural gas consumption rate.

57. Performance tests of each operational steam generator with scrubber shall be conducted quarterly. AERA Energy LLC shall conduct performance tests in accordance with EPA Method 20 or CARB Method 100 for SO_2, NO_x and O_2, EPA Method 10 or CARB Method 100 for CO, and EPA Method 18 or CARB Method 100 for hydrocarbons to verify compliance with condition numbers 9, 10,11, 11, 12 13, 14, and 15. AERA Energy LLC shall furnish the District written results of such performance tests within sixty (60) days of the test completion. A testing protocol shall be submitted to the District no later than 30 days prior to testing, and District notification at least 10 days prior to the actual date of testing shall be provided so that a District observer can be present. The compliance test shall include, but not be limited to, the determination of the following parameters [District Rule 207]:

a) Sulfur Dioxide: ppmv at 3% O_2, dry, lb_m/hr, and lb_m/MMCF.

b) Oxides of Nitrogen, as NO_2: ppmv at 3% O_2, dry, lb_m/hr, and lb_m/MMCF.

c) Carbon Monoxide: ppmv at 3% O_2, dry, lb_m/hr, and lb_m/MMCF.

d) Total hydrocarbons and volatile organic compounds (VOC): ppmv, lb_m/hr, and lb_m/MMCF.

and the following process parameters:

e) pH of the scrubber water feed and effluent, the scrubber water flow rate, and for Unit 30-9 only, the number of trays in the scrubber as tested.

f) Fuel(s) being fired, rate (SDCFM) and proportion of each.

In the second and fourth calendar quarter each year, in addition to the tests specified above, testing shall be completed to determine the following exhaust parameters:

g) Total Particulate: gr/sdcf, lb_m/hr, lb_m/MMCF, and PM_{10} fraction.

The quarterly tests shall be conducted such that the exhaust parameters, as specified within this condition, are determined for steam generators 30-6 and 30-10A at least once per calendar year.

58. AERA Energy LLC shall conduct testing of the H_2S concentration downstream of the Sulfatreat Vessels not less than once every 24 hours with the use of gas detector tube sampling as approved by the District to verify compliance with Condition number 21. [District Rules 207and 218]

59. Testing shall be completed upstream and downstream of the Sulfatreat Vessels on an annual basis to determine the sulfur content and the higher heating value of the treated gas to verify compliance with condition 20. AERA Energy LLC shall conduct testing using a grab sample analysis by GC-FPD/TCD performed in the laboratory and in accordance with EPA Method 19. [District Rule 207 & 218]

60. No testing is specified for the generic (Rule 400) opacity requirement from condition number 30 while firing on natural or casing gas. When firing on fuel oil continuously for a period of 120 hours and at intervals of seven (7) days during continuing operation on fuel oil , AERA Energy LLC shall conduct testing in accordance with the methodology contained in EPA Method 9 and the averaging/aggregating period contained in District Rule 400 to verify compliance with condition number 30. [District Rule 218]

61. No testing is specified for the (Rule 403) particulate matter emission standard from condition number 31. The fuel burning equipment is assumed to be in compliance with the particulate matter emission standard based upon the engineering calculations contained in the evaluation report. If testing is conducted for condition number 31, AERA Energy LLC should conduct testing in accordance with the methodology contained in EPA Method 5. [District Rule 218]

62. No testing is specified for the (Rule 404) sulfur concentration limit in condition number 32. The fuel burning equipment is assumed to be in compliance with this sulfur concentration limit based upon the

engineering calculations contained in the evaluation report. If testing is conducted for condition number 32, AERA Energy LLC should conduct testing in accordance with the methodology contained in EPA Method 6 or CARB Method 100. [District Rule 218]

63. No testing is specified for the (Rule 404) NO_x (oxides of nitrogen) limit in conditions number 33 and 34. The fuel burning equipment is assumed to be in compliance with these NO_x limits based upon the engineering calculations contained in the evaluation report. If testing is conducted for conditions number 33 and 34, AERA Energy LLC should conduct testing in accordance with the methodology contained in EPA Method 7 or CARB Method 100. [District Rule 218]

64. Testing of all fuel oil delivered to the facility shall be conducted prior to or upon receipt of the fuel oil, or in lieu of testing a manufacturers certification of the sulfur content of the fuel oil shall be supplied at the time of delivery. AERA Energy LLC shall conduct testing in accordance with ASTM D1552-83, ASTM D1266-87 or ASTM D2622-87 or shall receive certification as to the sulfur content of the fuel oil from the manufacturer to verify compliance with condition number 35. AERA Energy LLC shall furnish the District the certification or written results of the test prior to firing the fuel oil, but in no case later than thirty (30) days of completion. [District Rule 218]

65. An annual performance test of each steam generator firing casing gas shall be conducted prior to January 1 of each year. AERA Energy LLC shall conduct performance tests in accordance with EPA Methods 2, 2A, 2C, or 2D for measuring flow rates and EPA Methods 18, 25, 25A, or 25B for measuring the total gaseous organic concentrations at the inlet and outlet of the control device to verify compliance with condition number 41. AERA Energy LLC shall furnish the District written results of such performance tests within sixty (60) days of the test completion. A testing protocol shall be submitted to the District no later than 30 days prior to testing, and District notification at least 10 days prior to the actual date of testing shall be provided so that a District observer can be present. [District Rule 218, District Rule 427]

66. Annual leak testing shall be conducted according to the schedule contained in the Operator Management Plan required in condition number 44. AERA Energy LLC shall conduct testing in accordance with EPA Method 21 for Determination of Volatile Organic Compound Leaks to verify compliance with condition numbers 43 and 45. [District Rule 427]

MONITORING AND RECORD KEEPING REQUIREMENTS

67. Continuous emission monitoring systems must be calibrated and operated to measure the cogeneration facilities exhaust stack for NO_x, CO and O_2. The system shall continuously record the NO_x and CO concentrations corrected to a value of 15 percent O_2, dry, and the NO_x and CO mass emission rates in pounds per hour and pounds per day. The system shall meet all the requirements of Rule 213 and shall be certified at least once per year. [District Rule 207; District Rule 213; 40 CFR Part 64]

Any breakdown of the CEM system shall be reported to the District within 1 hour of the occurrence, and the CEM defect shall be repaired within 96 hours or the monitored equipment shall be shut down until such repair is completed.

68. The mole ratio of injected ammonia to the SCR inlet NO_x shall be recorded and the ammonia slip shall be calculated by a District approved method and recorded no less than once per seven (7) working days when the cogeneration facility is operating. If the cogeneration facility operates four (4) consecutive days but less than seven (7) the recording shall be made at least one time unless unscheduled maintenance prevents taking the reading and the District is notified within 5 days. The ammonia slip data used to determine slip shall be maintained in a log and kept on site. [District Rule 207]

69. A continuous monitoring system must be operated to monitor and record the fuel consumption and the mass ratio of water to fuel being fired in the cogeneration facilities' turbines on an average hourly basis. This data shall be maintained in a log and kept on site to calculate the mass ratio of water to fuel consumption on an average hourly basis as required by the District. This system must be accurate to within ± 5 percent. [District Rule 207; 40 CFR Part 60, Subpart GG]

70. Instrumentation must be operated to measure the SCR catalyst inlet temperature and pressure differential across the SCR catalyst. [District Rule 207]

71. AERA Energy LLC shall monitor and record all startup, shutdown, and operational profiles of the cogeneration facilities in a log maintained on site. [District Rule 207]

72. Instrumentation shall continuously record the combustion temperature during flare operation. [District Rule 207]

73. AERA Energy LLC shall maintain daily records of the quantity of casing gas combusted in each Steam Generator and the flare. [District Rule 207]

74. AERA Energy LLC shall maintain records for each maintenance period which include time and date started and completed, as well as the amount of casing gas processed during the period. [District Rule 207]

75. AERA Energy LLC shall maintain daily records to document compliance with condition 38. [District Rule 416 Adopted 4/20/94]

76. AERA Energy LLC shall maintain records showing the quantity of all gasoline delivered to the gasoline dispensing facility. [District Rule 418]

77. AERA Energy LLC shall maintain a log covering at least the preceding 12-month period of all inspections performed to verify compliance with conditions 43 and 45. The log shall include inspection dates, components found leaking and emission levels (in ppm) and repair and verification dates. [District Rule 427]

78. AERA Energy LLC shall maintain a monthly log of the facility-wide total volume of make-up solvent used, and waste solvent disposed of or recycled, for all cleaning devices using volatile organic compounds for

solvent cleaning and degreasing. [District Rule 433]

The record keeping provisions of this condition do not apply to remote reservoir cold cleaners which are serviced by an independent contractor. For such remote cold cleaners, evidence of service shall be maintained.

79. AERA Energy LLC shall maintain the following Compliance Assurance Monitoring (CAM) as specified below [40 CFR Part 64]:

a) The pH of the scrubber water and the water recycle rate for the Scrubber serving Steam Generators 30-6 and 30-10A shall be monitored and recorded at least once per day on any day that the Scrubber is operating. Excursions from the monitoring parameters are defined as a pH of less than 6.6 and/or a water recycle rate of less than 700 gpm. A pH meter and a flow measuring device will be utilized for the monitoring.

b) The recovery gas flow rate and the scrubber water inlet flow rate for the Scrubber serving Steam Generator 30-9 shall be monitored and recorded at least once per day on any day that the Scrubber is operating. A minimum ratio of these parameters will be established to assure that the effluent pH is at least 4.6. A performance test shall be conducted to verify compliance and to define excursions from the monitoring parameters and the monitoring methodology and shall be submitted to the District within 45 days of start-up of this equipment.

Within 30 days of completion of the performance testing, AERA Energy shall submit to the District an application for modification of the CAM parameters and methodology associated with the Scrubber serving Steam Generator 30-9.

c) The control of recovery gas shall be monitored and recorded at least once per day. An excursion shall be defined as any period of time that the recovery gas exceeds 30 psi at Gas Plant #2 after the inlet pressure regulators, when the SO_2 scrubber is operating. A pressure gauge will be used for the monitoring.

80. As applicable AERA Energy LLC shall maintain the following general records of required monitoring information [District Rule 218]:

A) the date and time of sampling or measurements;
B) the date(s) analyses were performed;
C) the company or entity that performed the analyses;
D) the analytical techniques or methods used;
E) the results of such analyses;
F) the operating conditions existing at the time of sampling or measurement; and
G) the records of quality assurance for continuous monitoring systems (including, but not limited to quality control activities, audits, and calibration drift checks) and source testing methods.

81. AERA Energy LLC shall maintain records on the occurrence and duration of any startup, shutdown, or malfunction in the operation of the pollution control equipment under this permit. [District Rule 218]

82. AERA Energy LLC shall retain records of all required monitoring data and support information as required by Conditions 55 through 81 for a period of at least five (5) years from the date of the monitoring, sample collection, measurement, report, and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit pursuant to Conditions 88 through 92. [District Rule 218]

REPORTING REQUIREMENTS

83. AERA Energy LLC shall submit to the Air Pollution Control District a written report each month on the cogeneration facilities which shall include [District Rule 207]:

a) time intervals, date, and magnitude of excess emissions;

b) nature and cause of the excess emission, and corrective actions taken;

c) time and date of each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of system repairs and adjustments; and

d) a negative declaration when no excess emissions occurred.

84. AERA Energy LLC shall submit to the Air Pollution District by February 15, an annual report containing the annual fuel usage of all equipment under this permit; and the annual natural gas fuel consumption, annual electricity generated, and annual emissions of NO_x, CO, VOC, and ammonia from the cogeneration facility for the preceding calendar year. [District Rule 207]

85. AERA Energy LLC shall report all breakdowns which result in the inability to comply with any emission standard or requirement contained on this permit to the Air Pollution Control Officer (APCO) within 1 hour of the occurrence; this one hour period may be extended up to six hours for good cause by the APCO. The APCO may elect to take no enforcement action if AERA Energy LLC demonstrates to the APCO's satisfaction that a breakdown condition exists.

The estimated time for repair of the breakdown shall be supplied to the APCO within 24 hours of the occurrence and a written report shall be supplied to the APCO within 5 days after the occurrence has been corrected. This report shall include at a minimum [District Rule 214]:

a) a statement that the condition or failure has been corrected and the date of correction; and

b) a description of the reasons for the occurrence; and

c) a description of the corrective measures undertaken and/or to be undertaken to avoid such an occurrence in the future; and

d) an estimate of the emissions caused by the condition or failure.

86. AERA Energy LLC shall submit an annual report to the District by May 1 of each year which includes a tabulation of the record keeping required under condition number 77 and a schedule of repair for leaking components, and a currently updated version of the Operator Management Plan as required by District Rule 427 and condition 44. [District Rule 427]

87. AERA Energy LLC shall submit quarterly reports to the District of all wells connected to a vapor recovery system. [District Rule 427]

88. AERA Energy LLC shall submit quarterly reports to the District, in a District approved format, within 45 days from the end of the quarter and these shall include [District Rules 213 & 218]:

A) the time intervals, date and magnitude of excess emissions, nature and cause of the excess (if known), corrective actions and preventative measures adopted; and

B) the averaging period used for data reporting corresponding to the averaging period specified in the emission test period used to determine compliance with an emission standard for the pollutant in question; and

C) time and date of each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of system repairs and adjustments; and

D) all information pertaining to any monitoring as required by the permit; and

E) a negative declaration specifying when no excess emissions occurred; and

F) a summary of actual monthly emissions from the CEM for all equipment which operated during the quarter.

89. AERA Energy LLC shall submit an annual compliance certification report to the District and U.S. EPA, in a District approved format, no later than February 15 for the period of January 1 through December 31 of the preceding year. [District Rule 218]

This report shall include a written statement from the responsible official which certifies the truth, accuracy, and completeness of the report and shall include at a minimum:

A) identification of each term or condition of the permit that is the basis of the certification; and

B) the compliance status; and

C) whether compliance was continuous or intermittent; and

D) the method(s) used for determining the compliance status of the source, currently and over the reporting period.

GENERAL CONDITIONS

90. AERA Energy LLC shall comply with all conditions of this federal operating permit. Any noncompliance with a permit condition constitutes a violation of the Federal Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. [District Rule 218]

91. In an enforcement action, the fact that AERA Energy LLC would have to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit is not a defense. [District Rule 218]

92. This permit may be modified, revoked, reopened and reissued, or terminated for cause as determined by the District. The filing of a request by AERA Energy LLC for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [District Rule 218]

93. This permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. [District Rule 218]

94. AERA Energy LLC shall furnish to the District, within a reasonable time, any information that the District may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, AERA Energy LLC shall also furnish to the District copies of records required to be retained by this permit. [District Rule 218]

95. For applicable requirements that will become effective during the permit term, AERA Energy LLC shall meet such requirements on a timely basis unless a more detailed schedule is expressly required by the applicable requirement. [District Rule 218]

96. Any document submitted to the District pursuant to this permit shall contain certification by the responsible official of truth, accuracy and completeness. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. AERA Energy LLC shall promptly, upon discovery, report to the District a material error or omission in these records, reports, plans, or other documents. [District Rule 218]

97. AERA Energy LLC shall report any violation of any requirement contained in this permit to the District within 96 hours after such occurrence. The violation report shall include the time intervals, date and magnitude of excess emissions; nature and cause of the excess (if known), corrective actions and preventive measures adopted. [District Rule 218]

98. Upon any administrative or judicial challenge, all the emission limits, specific and general conditions, monitoring, record keeping, and reporting requirements of this permit, except those being challenged,

remain valid and must be complied with. [District Rule 218]

99. For this federal operating permit to remain valid through the permit term of five years from the date of issuance, AERA Energy LLC shall pay an annual emission fee based upon the requirements of District Rule 308. [District Rule 218]

100. AERA Energy LLC shall have available at the facility at all times a copy of this federal operating permit. [District Rule 218]

101. For protection from enforcement action based upon an emergency, as defined in District Rule 218, the responsible official for AERA Energy LLC shall submit to the District relevant evidence which demonstrates [District Rule 218]:

A) an emergency occurred; and

B) that AERA Energy LLC can identify the cause(s) of the emergency; and

C) that the facility was being properly operated at the time of the emergency; and

D) that all steps were taken to minimize the emissions resulting from the emergency; and

E) within two working days of the emergency event, AERA Energy LLC provided the District with a description of the emergency and any mitigating or corrective actions taken.

102. Upon presentation of credentials, AERA Energy LLC shall allow the District, the ARB, the EPA, or an authorized representative, to perform the following [District Rule 218]:

A) enter upon the premises where the federal operating permit source is located or in which any records are required to be kept under the terms and conditions of this federal operating permit;

B) to have access to and copy any records required to be kept under the terms and conditions of this federal operating permit;

C) to inspect any equipment, operation, or process described or required in this federal operating permit; and,

D) to sample emissions from the source.

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