MONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICT
TITLE V OPERATING PERMIT TV45-02

EVALUATION REPORT

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

APPLICATION RECEIVED FROM:

Dynegy Moss Landing LLC
Moss Landing Power Plant
P.O. Box 690
Moss Landing, CA 95039

PLANT SITE LOCATION:

Highway 1 and Dolan Road
Moss Landing, CA 95039

APPLICATION PROCESSED BY:

Mike Sewell, Air Quality Engineer

APPROVED FOR RELEASE BY:

Lance Ericksen
Engineering Division Manager

9/4/09
Date

MONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICT
TITLE V OPERATING PERMIT TV 45-02
EVALUATION REPORT

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

Dated: September 4, 2009

APPLICATION RECEIVED FROM:

Dynegy Moss Landing LLC
Moss Landing Power Plant
P.O. Box 690
Moss Landing, CA 95039

PLANT SITE LOCATION:

Highway 1 and Dolan Road
Moss Landing, CA 95039

APPLICATION PROCESSED BY:

Mike Sewell, Air Quality Engineer

ORIS Code: 0260

Nature of Business: Electric Power Generation

SIC Codes: 4911 - Electric Power Generation

RESPONSIBLE OFFICIAL:

Name: James G. Dodson
Title: Plant Manager
Phone: (831) 633-6746

ALTERNATIVE RESPONSIBLE OFFICIAL:

Name: Rex A. Lewis
Title: Production Superintendent
Phone: (831) 633-6698

FACILITY CONTACT PERSON:

Name: Steve Abbott
Title: Environmental Specialist
Phone: (831) 633-6649

PROJECT DESCRIPTION

On April 2, 2009, Dynegy submitted an application to modify their Title V permit to reduce the frequency of the ammonia slip testing. On August 4, 2009, Dynegy notified the District that the Responsible Official for the facility had changed.

FACILITY DESCRIPTION

No changes to the facility description.

EQUIPMENT DESCRIPTION

No changes to the equipment descriptions.

DISTRICT EVALUATION

The historical testing data has show continued compliance with the ammonia slip limits, and the local District permits allow for a reduction in testing frequency once a compliance history is established. This compliance history has been established. Therefore, this requested change will be proposed by the District and be released for EPA and public comment.

APPLICABLE FEDERAL REQUIREMENTS

Permit changes between the previous Title V permit (TV45-01) and the proposed Title V permit (TV45-02) are shown on the attached redline (additions) and ~~strikeout~~ (deletions) version of the permit.

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MONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICT
TITLE V OPERATING PERMIT TV45-0~~1~~2

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

ISSUED TO:

Dynegy Moss Landing, LLC
Moss Landing Power Plant
P.O. Box 690
Moss Landing, CA 95039-0690

PLANT SITE LOCATION:

Highway 1 and Dolan Road
Moss Landing, CA 95039

ISSUED BY:

~~Douglas Quetin~~
Richard Stedman, Air Pollution Control Officer

~~January 1, 2008~~
Effective Date

ORIS Code: 0260

Nature of Business: Electric Power Generation

SIC Codes: 4911 - Electric Power Generation

RESPONSIBLE OFFICIAL:

Name: ~~Elton E. McCrillis~~James G. Dodson
Title: Plant Manager
Phone: (831) 633-6746

ALTERNATIVE RESPONSIBLE OFFICIAL:

Name: Rex A. Lewis
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Phone: (831) 633-6698

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FACILITY DESCRIPTION

The Moss Landing Power Plant owned by Dynegy Moss Landing, LLC is an electric generating facility located in Moss Landing, California. The facility has a present net power production capacity of approximately 2,590 megawatts from two large boilers and two combined cycle gas turbine units. The two large boilers, Units 6 and 7 (Boilers 6-1 and 7-1) began operation in 1967 and 1968, respectively, and the two combined cycle gas turbine units had their first fires lit during the second quarter of 2002 and began commercial operation in the third quarter of 2002.

In addition to the boilers and the combined cycle gas turbine units, Dynegy Moss Landing, LLC operates ancillary equipment at the facility. This ancillary equipment will be included on the Title V permit for the facility.

EQUIPMENT DESCRIPTION

POWER GENERATION FACILITY CONSISTING OF:

TWO 765 MW UNITS - BOILERS NUMBER 6-1 AND 7-1 EACH CONSISTING OF:

Steam Generator, Babcock and Wilcox Company, Once-Through, Radiant, Reheat, Pressurized Furnace Type, Nominal 6500 MMBtu/hr, Natural Gas-Fired.

Combustion Control And Burner Management Provided By Foxboro Integrated Distributed Control System.

Steam Production Rate: Nominal 5,100,000 Lb/hr (At 1005° F And 3830 Psia)

Forced Draft Fans:

Two Forced Draft Fans, Howden Variax Variable Pitch Axial Flow Type ANT-2650/1200M, Each Powered By Teco Westinghouse 6,860 Hp Electric Motor.

Induced Draft Fans:

Two Induced Draft Fans, Howden Variax Variable Pitch Axial Flow Type ANN-3400/2000B, Each Powered By Teco Westinghouse 6,440 Hp Electric Motor.

Air Preheaters:

Two (2) Ljungstrom Regenerative Air Preheaters, Each With 334,800 Ft^2 Of Heating Surface And Equipped With Stainless Steel Intermediate And Cold-End Baskets.

Air Preheater Drain System And Stack Wash Collection System.

Burners And Overfire Air Ports:

Sixteen (16) Burner Cells Total, Eight (8) Front Wall, Eight (8) Back Wall.

Each Burner Cell Equipped With Three (3) Babcock & Wilcox S-Type Low NO_x Burners, And Two (2) Ignitors.

Each S-Burner Equipped With Total Air Sliding Damper, Adjustable Spin Vanes, Core Air Sliding Disk, And Gas Spud Assembly.

Eight (8) Dual Zone Overfire Air Ports, Four (4) Front Wall, Four (4) Back Wall.

Gas Recirculation Fans:

Two (2) Flue Gas Recirculation Fans, Centrifugal Type, Each Rated At 252,000 CFM @ 12.5 Inches H_2O Static Pressure.

Selective Catalytic Reduction (SCR) System:

Single Reactor Vessel With Associated Duct Work.

Catalyst, 169 M^3 Cormetech Type CM-37 Vanadium, Titanium, And Tungsten Oxide Honeycomb Catalyst, With The Ability To Add An Additional 84 M^3 If Necessary.

Ammonia Injection System, Two-Train Ammonia Flow Control System Providing Vaporized Aqueous Ammonia Via Flow Control Valves, Vaporizers, And Dilution Air Blowers To The Ammonia Injection Grid Located In The Economizer Outlet .

Continuous Emissions Monitoring System:

Two CiSCO Sample Acquisition Probes Located Approximately 120' Above Grade Inside The Stack

Instrumentation Shelter, 8' x 10', Located At The Base Of The Stack., Shelter Houses Sample Transport And Conditioning Systems, And Analyzers.

Analyzers; Rosemount Model 951C Chemiluminescence Analyzer Measuring NO_2; And Siemens Ultramat/Oxymat 6E Analyzer Measuring CO Via Non-Dispersive Infrared Measurement And O_2 Via Paramagnetic Measurement.

Data Acquisition System, VIM Technologies, Installed On An IBM Compatible Computer Located In The Energy Management Center.

Exhaust Stack:

500 Ft High Above Grade, 66 Ft O.D. At Base, 20 Ft O.D. At Top.

TWO 530 MW UNITS - COMBINED CYCLE UNITS 1 & 2 EACH CONSISTING OF:

Two Gas Turbine Generators, General Electric Frame 7, Model PG7241, Each Rated At 1,870 MMBtu/Hr Maximum Heat Input And 180 MW Nominal Electrical Output, With Dry Low-NO_x Combuster.

Water Tube Type Heat Recovery Steam Generators (HRSG), Nominal Ratings: High Pressure Steam Capacity: 409,900 Lbs/Hr @ 1,903 psia And 1,047°F, Intermediate Pressure Steam Capacity: 484,500 Lbs/Hr @ 358 psia And 1,022°F, Low Pressure Steam Capacity: 55,300 Lbs/Hr @ 71 psia And 499°F.

Steam Turbine Generator And Condenser Serving Gas Turbine Units, Quadruple Admission, Triple Extraction, 196.8 MW Nominal Rated Electrical Output.

Selective Catalytic Reduction NO_x Control Systems Located Within The HRSG.

Ammonia Injection Systems.

CEM Systems Designed To Continuously Record The Measured Gaseous Concentrations, And Calculate And Continuously Monitor And Record The NO_x And CO Concentrations Corrected To Fifteen (15) Percent Oxygen (O_2) On A Dry Basis.

AQUEOUS AMMONIA STORAGE TANKS

Aqueous Ammonia Storage Tank Farm Consisting Of 5 Storage Tanks Each With A Capacity Of 30,000 Gallons.

START-UP PACKAGE BOILER

One Nebraska Boiler, Self Contained Packaged Forced Draft Steam Boiler, With A National Combustion Equipment Inc. Hyper-Mix Low NO_x Burner Rated At 124.8 MMBtu/hr, Natural Gas Fired.

GASOLINE STORAGE TANK

One 1,000 Gallon Aboveground Gasoline Storage Tank With Dual Point Vapor Recovery And Submerged Fill Equipment.

ABRASIVE BLASTING EQUIPMENT

Abrasive Blasting Booth With Stationary Blast Equipment, Compressed Air Provided By Electric Compressor, And Portable Abrasive Blasting Equipment With Compressed Air Provided By Electric Or Diesel Fired Compressor.

PAINT SPRAY FACILITY

Outdoor Paint Spray Operations Authorized At Three Locations.

EMERGENCY GENERATOR

Caterpillar Engine Generator Set, 1502 BHp, 1,000 Kw Output.

EMERGENCY FIRE PUMPS

Caterpillar Engine Driven Fire Pump, 340 Bhp.

Two Cummins Engine Driven Fire Pumps, Each 370 BHp.

LABORATORY FUME HOODS

Fume Hoods, Located In Chemical Laboratory.

FEDERALLY ENFORCEABLE EMISSION LIMITS AND STANDARDS

1. The heat input rate to each Boiler (6-1 and 7-1) shall not exceed 7,048 MMBtu/hr. [District Rule 207]

2. The heat input rate to each Gas Turbine shall not exceed 1,870 MMBtu/hr. [District Rule 207]

3. The pollutant mass emission rates in the exhaust discharged to the atmosphere from each Boiler (6-1 and 7-1) shall not exceed the following limits [District Rule 207, District Rule 431 limits of 0.3 lbs NO_x/MMBtu and 9.64 tons NO_x/day when averaged over the May 1 through October 31 annually.]:

Pollutant	Lbs/Hour	Lbs/Day
Oxides of Nitrogen (NO_x)	85.6	2,054.4
Carbon Monoxide (CO)	862.7	20,704.8
Particulate Matter <10 microns (PM_{10})	52.5	1,260.0
Volatile Organic Compounds (VOC)	38.0	912.0
Ammonia (NH_3)	31.6	758.4
Sulfur Dioxide (SO_2)	4.9	117.6

4. The maximum daily combined emissions from the Gas Turbines, including start-ups and shutdowns and combustor tuning periods, shall not exceed the following limits [District Rule 207]:

Pollutant	Lbs/Day
Oxides of Nitrogen (NO_x)	2,589.4
Carbon Monoxide (CO)	17,301.8
Particulate Matter <10 microns (PM_{10})	864.0
Volatile Organic Compounds (VOC)	620.0
Ammonia (NH_3)	1,224.0
Sulfur Dioxide (SO_2)	124.8

5. The pollutant mass emission rates in the exhaust discharged to the atmosphere from each Gas Turbine shall not exceed the following limits [District Rule 207]:

Pollutant	Lbs/Hour	Lbs/Day
Oxides of Nitrogen (NO_x)	17.23	413.5
Carbon Monoxide (CO)	37.76	906.2
Particulate Matter <10 microns (PM_{10})	9.00	216.0
Volatile Organic Compounds (VOC)	4.79	115.0
Ammonia (NH_3)	12.75	306.0
Sulfur Dioxide (SO_2)	1.30	31.2

These limits shall not apply during start-up, which is not to exceed four (4) hours, during shutdown, which is not to exceed two (2) hours, or during steam turbine cold start-up or combustor tuning or energy regulatory agency required performance testing, which are not to exceed six (6) hours. SCR catalytic controls and good engineering practices shall be used to the fullest extent practical during start-up and shutdown to minimize pollutant emissions.

Steam turbine cold start-up periods are start-up periods that follow a shutdown of the steam turbine for at least 72 hours. Combustor tuning activities include all testing, adjustment, tuning, and calibration activities recommended by the gas turbine manufacturer to insure safe and reliable steady state operation of the gas turbine following replacement of the combustor. This includes, but is not limited to, adjusting the amount of fuel distributed between the combustion turbine's staged fuel system to simultaneously minimize NO_x, CO, and VOC production while ensuring combustor stability. Energy regulatory agency required performance testing includes, but is not limited to load ramp rate performance verification, generating system stability testing, emergency response testing or emergency blackout recovery. Energy regulatory agencies include Federal, Regional or State agencies.

6. The pollutant concentrations discharged to the atmosphere from each Gas Turbine shall not exceed the following limits, calculated at 15 percent O_2 [District Rule 207]:

Pollutant	Concentration (ppm)
Oxides of Nitrogen (as NO_2)	2.5 (clock hour average)
Carbon Monoxide (CO)	9.0 (rolling three-hour average)
Ammonia (NH_3)	5.0 (3-60 minute averages)

These limits shall not apply during start-up, which is not to exceed four (4) hours, shutdown, which is not to exceed two (2) hours or during steam turbine cold start-up or combustor tuning, which is not to exceed six (6) hours. SCR catalytic controls and good engineering practices shall be used to the fullest extent practical during start-up, shutdown and combustor tuning to minimize pollutant emissions.

7. The pollutant emission rates discharged to atmosphere from each Gas Turbine during a start-up, shutdown or combustor tuning activities shall not exceed the following limits. These limits apply to any start-up period which shall not exceed four (4) hours, to any shutdown, which shall not exceed two (2) hours, and to any steam turbine cold start-up or combustor tuning, which shall not exceed six (6) hours. [District Rule 207]

Pollutant	Lbs/Start-Up	Lbs/Cold Start-up or Combustor Tuning	Lbs/Shutdown
Oxides of Nitrogen (as NO_2)	320.0	480.0	160.0

Carbon Monoxide (CO)	3,608.0	5,412.0	1,804.0
Volatile Organic Compounds (as CH_4)	64.0	214.0	32.0

8. Exceedance of the hourly NO_x emission limits specified in condition numbers 5 and 6 is allowed during short-term excursions which total less than 10 hours per rolling 12-month period. [District Rule 207]

   Short-term excursions are defined as 15-minute periods designated by Dynegy Moss Landing, LLC that are a direct result of a diffusion mode switchover, not to exceed four consecutive 15-minute periods, when the 15-minute average NO_x concentration exceeds 2.5 ppm corrected to 15% O_2.

   The maximum 1-hour average NO_x concentration for periods that include short-term excursions shall not exceed 30 ppmvd corrected to 15% O_2. All emissions during short-term excursions shall be included in all calculations of daily, quarterly, and annual mass emissions required by this permit.

9. The emissions concentration of oxides of nitrogen, as NO_2, discharged to atmosphere from the Start-up Package Boiler shall not exceed 10 ppmv dry, calculated at 3% O_2. [District Rule 207]

10. The Start-up Package Boiler shall only be fired on natural gas, and shall be operated less than 876 hours per year. [District Rule 207 & 40 CFR Part 60, Subpart Db]

11. Cumulative emissions, including emissions generated during Start-ups, Shutdowns and Combustor Tuning Activities, from all power generation equipment and the start-up package boiler at the Moss Landing Power Plant shall not exceed the following quarterly limits [District Rule 207]:

Pollutant	Pounds Of Emissions Per Calendar Quarter			
	First	Second	Third	Fourth
NO_x (as NO_2)	286,778	285,301	409,492	336,584
SO_x	23,823	24,567	32,613	29,468
VOC	144,537	150,294	212,540	188,206
PM_{10}	213,533	221,488	307,505	273,879
CO	2,929,068	3,059,753	4,472,774	3,920,385

12. No more than one of the Gas Turbines shall be operated in support of a steam turbine cold start-up or undergo combustor tuning at any one time. [District Rule 207]

13. The total number of hours during which each Gas Turbine may be operated to support a steam turbine cold start-up or may undergo combustor tuning shall not exceed 30 hours per year. [District Rule 207]

14. Boiler 6-1, Boiler 7-1, and the Gas Turbines shall be abated by properly operated and maintained Selective Catalytic Reduction Systems. [District Rule 207]

15. Boiler and stack inspection and cleaning shall be conducted during Boiler 6-1 and 7-1 outages of 21 days or more. [District Rule 207]

16. Dynegy Moss Landing, LLC shall hold Sulfur Dioxide Allowances not less than the total annual emissions of sulfur dioxide for the previous calendar year from Boilers 6-1 and 7-1and Combined Cycle Units 1 (Gas Turbines 1A & 2A) and 2 (Gas Turbines 3A & 4A) . [District Rule 219]

17. 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]

    This limit shall not apply to the gas turbines during turbine start-up, which is not to exceed four (4) hours. Good engineering practices shall be used to the fullest extent practical during start-up to minimize pollutant emissions.

18. During periods of gas turbine start-up, which is not to exceed four (4) hours, no air contaminant shall be discharged into the atmosphere from the gas turbines for a period or periods aggregating more than three (3) minutes in any one (1) hour which is as dark or darker than Ringelmann 2 or equivalent 40% opacity. [District Rule 400]

19. Particulate matter shall not exceed 0.15 grains per standard dry cubic foot in any exhaust stream, except stationary internal combustion engines. [District Rule 403]

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

21. Oxides of Nitrogen, calculated as nitrogen dioxide (NO_2), from the Start-up Package Boiler or the Emergency Generator shall not exceed 140 lbs/hr. [District Rule 404]

22. 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]

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

24. 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]

25. Dynegy Moss Landing, LLC shall operate the Gasoline Storage Tank 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]

26. Dynegy Moss Landing, LLC shall operate a Phase II vapor recovery system on the dispenser served by the Gasoline Storage Tank which has been certified by the Air Resources Board. [District Rule 1002]

27. Dynegy Moss Landing, 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]

28. The emission concentration of oxides of nitrogen, as NO_2, from Boilers 6-1 and 7-1 shall not exceed 10 ppm during operation on natural gas. This limit is based on a one (1) hour average at three (3) percent oxygen (O_2) on a dry basis. [District Rule 431]

29. The NH_3 emission concentration from any emissions control device installed and operated pursuant to the requirements of District Rule 431 shall not exceed 10 ppm, based upon the average of three 60-consecutive minute averages at three (3) percent oxygen (O_2) on a dry basis. [District Rule 431]

30. The CO emission concentration from Boilers 6-1 and 7-1 shall not exceed 400 ppm during steady-state compliance tests based upon a 60-consecutive minute average and shall not exceed 1000 ppm during normal operations based upon a one (1) hour clock-hour average at three (3) percent oxygen (O_2) on a dry basis. [District Rule 431]

31. The limits contained in condition numbers 3, 28, 29, and 30 shall not apply during start-up, the time period during which the boiler has no fires in it, until the unit that it serves has reached minimum operating load, the catalytic reaction temperature and main breaker closure, or shutdown, the time period during which a unit is reduced below minimum load or catalytic reduction temperature, to a condition where the fires in the boiler are extinguished, not to exceed eight (8) hours. SCR catalytic controls and good engineering practices shall be used to the fullest extent practical during start-up to minimize pollutant emissions. [District Rule 431]

32. Dynegy Moss Landing, 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]

33. If total combined usage of coatings applied to metal parts and products, as defined by District Rule 434, equals or exceeds 55 gallons per year, each coating used for metal parts and products must not exceed the following volatile organic compound content limits:

	VOC Content Limit, as Applied	
Coating Category	grams/liter	lbs/gal
Pretreatment Wash Primer	780	6.5
All Other Coatings	420	3.5

34. Dynegy Moss Landing, 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]

35. Dynegy Moss Landing, LLC shall comply with the requirements of 40 CFR Part 68 - Risk Management Plans. Dynegy Moss Landing, LLC's Risk Management Plan must be revised and updated by January 6, 2011 or earlier as required by 40 CFR §68.190. Dynegy Moss Landing, LLC shall certify compliance with these requirements as part of the annual compliance certification required by 40 CFR Part 70 and this permit. [40 CFR Part 68]

36. Dynegy Moss Landing, LLC shall comply with the requirements of 40 CFR Part 82 - Protection of Stratospheric Ozone [40 CFR Part 82]

TESTING REQUIREMENTS AND PROCEDURES

37. Annual performance tests of Boilers 6-1 and 7-1 and the Gas Turbines shall be conducted in accordance with the Monterey Bay Unified Air Pollution Control District test procedures, and the written results of the performance tests shall be provided to the District within thirty (30) days after testing. A testing protocol shall be submitted to the District no later than thirty (30) days prior to the testing, and notification to the District at least ten (10) days prior to the actual date of testing shall be provided so that a District observer may be present. Changes to the test date made subsequent to the initial ten day notification may be communicated by telephone or other acceptable means no less than forty-eight (48) hours prior to the new test date. [District Rules 207 & 218]

38. No testing is specified for the generic (District Rule 400) opacity requirement from condition numbers 17 or 18. The equipment is assumed to be in compliance with the opacity requirement due to historical operations and local compliance inspections without opacity violations. If testing is conducted for condition numbers 17 or 18, Dynegy Moss Landing, LLC should conduct testing in accordance with the methodology contained in EPA Method 9 or equivalent method and the averaging/aggregating period contained in District Rule 400. [District Rule 218]

39. No testing is specified for the (District Rule 403) particulate matter emission standard from condition number 19. 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 19, Dynegy Moss Landing, LLC should conduct testing in accordance with the methodology contained in EPA Method 5 or equivalent method. [District Rule 218]

40. No testing is specified for the (District Rule 404) sulfur concentration limit in condition number 20. 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 20, Dynegy Moss Landing, LLC should conduct testing in accordance with the methodology contained in EPA Method 6 or equivalent method. [District Rule 218]

41. No testing is specified for the (District Rule 404) NO_x (oxides of nitrogen) limit in condition number 21. 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 condition number 21, Dynegy Moss Landing, LLC should conduct testing in accordance with the methodology contained in EPA Method 7E or equivalent method. [District Rule 218]

42. Dynegy Moss Landing, LLC shall cause ~~quarterly~~ testing to be performed to verify compliance with the Ammonia (NH_3) slip limits established in condition numbers 6 and 29~~.~~ as follows:

    1) Boiler testing shall be performed at the frequency as required by 40 CFR Part 75 for relative accuracy test audits (RATA).

    2) Gas turbine testing shall be performed every EPA operating quarter, as defined in 40 CFR Part 72, or in the next EPA operating quarter if a gas turbine cannot be tested in an EPA operating quarter due to the unit being non-operational at the time of scheduled testing.

    Dynegy Moss Landing, LLC shall conduct this testing in accordance with the collection method specified in BAAQMD Source Test Procedure ST-1B and the analysis specified in EPA method 350.3. [District Rules 207, 218, & 431]

43. No testing is specified for the (District Rule 431) normal operation CO limit contained in condition number 30. Continuing compliance with these limits will be assured by the continuous emission monitoring (CEM) system. Compliance with the steady state limit will be verified by the testing required by condition number 37. [District Rules 207 & 218]

MONITORING AND RECORD KEEPING REQUIREMENTS

44. CEM Systems shall be installed and operated on Boilers 6-1 and 7-1 and Combined Cycle Units 1 (Gas Turbines 1A & 2A) and 2 (Gas Turbines 3A & 4A). These systems shall be designed to continuously record the measured gaseous concentrations, and calculate and continuously monitor and record the CO, O_2, and NO_x concentrations corrected to three (3) percent oxygen (O_2) for the Boilers and fifteen (15) percent oxygen (O_2) for the Gas Turbines on a dry basis. [District Rules 207, 213 & 219, 40 CFR Part 64]

45. The equipment installed on Boilers 6-1 and 7-1 and Combined Cycle Units 1 (Gas Turbines 1A & 2A) and 2 (Gas Turbines 3A & 4A) for the continuous monitoring of CO_2 or O_2 and NO_x shall be maintained and operated in accordance with 40 CFR Parts 72 and 75. [District Rule 219]

46. The equipment for the continuous monitoring of CO on Boilers 6-1 and 7-1 and Combined Cycle Units 1 (Gas Turbines 1A & 2A) and 2 (Gas Turbines 3A & 4A) shall be maintained and operated in accordance with 40 CFR Part 60 Appendix F and with the ability to calculate CO emission concentrations corrected to three (3) percent oxygen for the Boilers and fifteen (15) percent oxygen for the Turbines on a dry basis. [District Rule 431]

For periods of missing CO data, CO hourly values shall be substituted from valid hourly average data from the previous thirty (30) unit operating days, excluding periods of start-up, shutdown and combustor tuning. The CO data shall be substituted based on equivalent incremental load ranges.

47. A written Quality Assurance program for Boilers 6-1 and 7-1 and Combined Cycle Units 1 (Gas Turbines 1A & 2A) and 2 (Gas Turbines 3A & 4A) CEMs must be established in accordance with 40 CFR Part 75, Appendix B for NO_x and 40 CFR Part 60, Appendix F for CO which includes, but is not limited to: procedures for daily calibration testing, quarterly linearity and leak testing, record keeping and reporting implementation, and relative accuracy testing. [District Rule 219]

48. Dynegy Moss Landing, LLC shall demonstrate compliance by using properly operated and maintained continuous emission monitors (during all hours of operation including equipment Start-up and Shutdown periods and Combustor Tuning Activities, except for periods of CEM maintenance performed in accordance with District requirements) for all of the following parameters [District Rules 207 and 431]:

a) Firing hours and Fuel Flow Rates.
b) Oxygen (O_2) Concentrations, Nitrogen Oxide (NO_x) Concentrations, and Carbon Monoxide (CO) Concentrations.
c) Ammonia Injection Rates.

Dynegy Moss Landing, LLC shall record all of the above parameters every 15 minutes (excluding normal calibration periods) and shall summarize all of the above parameters for each clock hour. For each calendar day, Dynegy Moss Landing, LLC shall calculate and record the total Firing Hours, the average hourly Fuel Flow Rates, and pollutant emission concentrations.

Dynegy Moss Landing, LLC shall use the parameters measured above and District-approved calculation methods to calculate the following parameters:

d) Heat Input Rate.
e) Corrected NO_x concentrations, NO_x mass emissions (as NO_2), corrected CO concentrations, and CO mass emissions.

For each source, Dynegy Moss Landing, LLC shall record the parameters specified in d) and e) of this Condition every 15 minutes (excluding normal calibration periods). As specified below, Dynegy Moss Landing, LLC shall calculate and record the following data:

f) Total Heat Input Rate for every clock hour.
g) The NO_x mass emissions (as NO_2), and corrected average NO_x emission concentration for every clock hour.
h) The CO mass emissions, and corrected average CO emission concentration for every clock hour.
i) On an hourly basis, the cumulative total NO_x mass emission (as NO_2) and the cumulative total CO mass emissions.
j) For each calendar day, the cumulative total NO_x mass emission (as NO_2) and the cumulative total CO mass emissions.
k) For each calendar quarter, the cumulative total NO_x mass emission (as NO_2) and the cumulative total CO mass emissions.
l) For each calendar year, the cumulative total NO_x mass emission (as NO_2) and the cumulative total CO mass emissions.

49. Dynegy Moss Landing, LLC shall calculate and record on a daily basis, the Volatile Organic Compound (VOC) mass emissions, Fine Particulate Matter (PM_{10}) mass emissions, Sulfur Dioxide (SO_2) mass emissions, and Ammonia (NH_3) mass emissions from each power generating source. Dynegy Moss Landing, LLC shall use the actual heat input rates, actual Start-up times, actual Shutdown times, actual Combustor Tuning times and District-approved emission factors to calculate these emissions. The calculated emissions shall be presented as follows [District Rule 207]:

    a) For each calendar day, VOC, PM_{10}, SO_2, and NH_3 mass emissions shall be summarized for each source.
    b) On a daily basis, the cumulative total VOC, PM_{10}, SO_2 and NH_3 mass emissions shall be summarized for each calendar quarter and for the calendar year.

50. To demonstrate compliance with condition number 13, Dynegy Moss Landing, LLC shall record the start time, end time and duration of each steam turbine cold start-up and each combustor tuning period. This information shall be compiled and supplied to the District in the semiannual monitoring report as specified in Condition 62. [District Rule 207]

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

52. Dynegy Moss Landing, LLC shall monitor SO_2 emissions from Boilers 6-1 and 7-1and Combined Cycle Units 1 (Gas Turbines 1A & 2A) and 2 (Gas Turbines 3A & 4A) in accordance with 40 CFR Part 72 and 75. [District Rule 219]

53. Dynegy Moss Landing, LLC shall maintain daily records to document compliance with condition number 24. [District Rule 416 Adopted 4/20/94]

54. Dynegy Moss Landing, LLC shall maintain records showing the quantity of all gasoline delivered to the gasoline storage tanks. [District Rule 418]

55. As applicable Dynegy Moss Landing, 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.

56. Dynegy Moss Landing, LLC shall maintain records on the occurrence and duration of any start-up, shutdown, or malfunction in the operation of any CEM. [District Rule 213]

57. Dynegy Moss Landing, LLC shall retain records of all required monitoring data and support information 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 the permit. [District Rule 218]

REPORTING REQUIREMENTS

58. Dynegy Moss Landing, LLC shall submit monthly reports on the continuous emissions monitoring systems to the District, in a District approved format, within 30 days from the end of the month and these shall include [District Rules 207, 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) a negative declaration specifying when no excess emissions occurred; and

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

59. Dynegy Moss Landing, LLC shall report all breakdowns which results 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 Dynegy Moss Landing, 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 with 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.

60. If combined annual emissions from the entire facility are greater than 25 tons of either NO_x or VOC, Dynegy Moss Landing, LLC shall submit an Emission Statement for each Permit to Operate and Authority to Construct in accordance with the mandatory provisions of Section 182(a)(3)(B)(ii) of the federal Clean Air Act. [District Rule 300, Section 4.4]

61. Dynegy Moss Landing, LLC shall submit quarterly Electronic Data Reports (EDR) to EPA for Boilers 6-1 and 7-1 and Combined Cycle Units 1 (Gas Turbines 1A & 2A) and 2 (Gas Turbines 3A & 4A). These reports must be submitted within 30 days following the end of each calendar quarter and shall include all information required in §75.64. [40 CFR Part 75]

62. Dynegy Moss Landing, LLC shall submit semiannual monitoring reports to the District, in a District approved format, no later than August 15 for the period of January 1 through June 30 and no later than February 15 for the period of July 1 through December 31. [District Rule 218]

These monitoring reports shall include at a minimum:

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

d) a negative declaration specifying when no excess emissions occurred.

63. Dynegy Moss Landing, LLC shall submit an annual compliance certification report to the District and 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

64. Dynegy Moss Landing, 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]

65. In an enforcement action, the fact that Dynegy Moss Landing, 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]

66. This permit may be modified, revoked, reopened and reissued, or terminated for cause as determined by the District. The filing of a request by Dynegy Moss Landing, 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]

67. 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]

68. Dynegy Moss Landing, 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, Dynegy Moss Landing, LLC shall also furnish to the District copies of records required to be retained by this permit. [District Rule 218]

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

70. 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. Dynegy Moss Landing, 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]

71. Dynegy Moss Landing, 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 Rules 214 and 218]

72. 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]

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

74. Dynegy Moss Landing, LLC shall have available at the facility at all times a copy of this federal operating permit. [District Rule 218]

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

    a) an emergency occurred; and

    b) that Dynegy Moss Landing, 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, Dynegy Moss Landing, LLC provided the District with a description of the emergency and any mitigating or corrective actions taken.

76. Upon presentation of credentials, Dynegy Moss Landing, 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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MONTEREY BAY UNIFIED AIR POLLUTION CONTROL DISTRICT
TITLE IV ACID RAIN PERMIT

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

Effective January 1, 2008 through December 31, 2012

ISSUED TO:

Dynegy Moss Landing, LLC
Moss Landing Power Plant
P.O. Box 690
Moss Landing, CA 95039

PLANT SITE LOCATION:

Highway 1 and Dolan Road
Moss Landing, CA 95039

ISSUED BY:

~~Douglas Quetin~~Richard Stedman, Air Pollution Control Officer ~~January 1, 2008~~ Effective Date

ORIS Code: 0260

Nature of Business: Electric Power Generation

SIC Code: 4911 - Electric Power Generation

DESIGNATED REPRESENTATIVE:

Name: ~~Elton E. McCrillis~~James G. Dodson
Title: Plant Manager
Phone: (831) 633-6746

ALTERNATIVE DESIGNATED REPRESENTATIVE:

Name: Rex A. Lewis
Title: Production Superintendent
Phone: (831) 633-6698

FACILITY CONTACT PERSON:

Name: Steve Abbott
Title: Environmental Specialist
Phone: (831) 633-6649

ACID RAIN PERMIT CONTENTS

1) Statement of Basis

2) SO_2 allowances allocated under this permit and NO_x requirements for each affected unit.

3) Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements or conditions.

4) The permit application submitted for this source. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the application.

1) STATEMENT OF BASIS

Statutory and Regulatory Authorities: In accordance with District Rules 218 and 219 and Titles IV and V of the Clean Air Act, the Monterey Bay Unified Air Pollution Control District issues this permit pursuant to District Rules 218 and 219.

2) SO_2 ALLOWANCE ALLOCATIONS

	Year	2008	2009	2010	2011	2012
UNIT 6-1	SO_2 allowances under Tables 2, 3, or 4 of 40 CFR Part 73	8854*	8854*	8095*	8095*	8095*
	NO_x Limit	This unit is not subject to the NO_x requirements from 40 CFR Part 76 as this unit is not capable of firing on coal.				

	Year	2008	2009	2010	2011	2012
UNIT 7-1	SO_2 allowances under Tables 2, 3, or 4 of 40 CFR Part 73	975*	975*	802*	802*	802*

	NO_x Limit	This unit is not subject to the NO_x requirements from 40 CFR Part 76 as this unit is not capable of firing on coal.

UNIT 1A	Year	2008	2009	2010	2011	2012
	SO_2 allowances under Tables 2, 3, or 4 of 40 CFR Part 73	0	0	0	0	0
	NO_x Limit	This unit is not subject to the NO_x requirements from 40 CFR Part 76 as this unit is not capable of firing on coal.				

UNIT 2A	Year	2008	2009	2010	2011	2012
	SO_2 allowances under Tables 2, 3, or 4 of 40 CFR Part 73	0	0	0	0	0
	NO_x Limit	This unit is not subject to the NO_x requirements from 40 CFR Part 76 as this unit is not capable of firing on coal.				

UNIT 3A	Year	2008	2009	2010	2011	2012
	SO_2 allowances under Tables 2, 3, or 4 of 40 CFR Part 73	0	0	0	0	0
	NO_x Limit	This unit is not subject to the NO_x requirements from 40 CFR Part 76 as this unit is not capable of firing on coal.				

UNIT 4A	Year	2008	2009	2010	2011	2012
	SO_2 allowances under Tables 2, 3, or 4 of 40 CFR Part 73	0	0	0	0	0
	NO_x Limit	This unit is not subject to the NO_x requirements from 40 CFR Part 76 as this unit is not capable of firing on coal.				

*- The number of allowances actually held by an affected source in a unit account may differ from the number allocated by USEPA. This condition would not necessitate a revision to the unit SO_2 allowance allocations identified in this permit.

3) COMMENTS, NOTES AND JUSTIFICATIONS

None

4) PERMIT APPLICATION

Attached