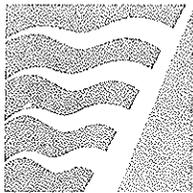


# **EXHIBIT C**



BAY AREA  
AIR QUALITY  
MANAGEMENT  
DISTRICT

July 24, 2001

Mirant Delta, LLC  
P O Box 1687  
Antioch, CA 94509

Attention: Joseph Bittner

Application Number: 1000  
Plant Number: 18  
Equipment Location:  
1456 Wilbur Avenue  
Antioch, CA 94509

ALAMEDA COUNTY  
Roberta Cooper  
Scott Haggerty  
(Vice Chairperson)  
Nate Miley  
Shelia Young

CONTRA COSTA COUNTY  
Mark DeSaulnier  
Mark Ross  
Gayle Ulkema

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Marland Townsend  
(Secretary)

SANTA CLARA COUNTY  
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(Chairperson)  
Liz Kniss  
Julia Miller  
Dena Mossar

SOLANO COUNTY  
William Carroll

SONOMA COUNTY  
Tim Smith  
Pamela Torliatt

Ellen Garvey  
EXECUTIVE OFFICER/  
AIR POLLUTION  
CONTROL OFFICER

Dear Applicant:

This is your Authority to Construct the following:

- S-41 Combustion Gas Turbine #1, General Electric Frame 7FA, 1872 MM Btu per hour, equipped with dry low-NO<sub>x</sub> Combustors, abated by A-11 Selective Catalytic Reduction System and A-12 CO Catalyst System.
- S-42 Heat Recovery Steam Generator #1, 395 MM Btu per hour, abated by A-11 Selective Catalytic Reduction System and A-12 CO Catalyst System.
- S-43 Combustion Gas Turbine #2, General Electric Frame 7FA, 1872 MM Btu per hour, equipped with dry low-NO<sub>x</sub> Combustors, abated by A-13 Selective Catalytic Reduction System and A-14 CO Catalyst System.
- S-44 Heat Recovery Steam Generator #2, 395 MM Btu per hour, abated by A-13 Selective Catalytic Reduction System and A-14 CO Catalyst System.
- S-45 Gas-Fired Fuel Preheater, 12 MM Btu per hour.
- S-46 10-Cell Wet Cooling Tower, 125,000 gallons per minute

The equipment described above is subject to condition no. 18138.

**Notification**

Please contact your assigned Permit Engineer, listed in the correspondence section of this letter, by phone, by fax, or in writing at least three days before the initial operation of the equipment so that we may observe the equipment in operation and verify conformance with the Authority to Construct. Operation includes any start-up of the source for testing or other purposes. Operation of equipment without notification to the District may result in enforcement action. **Do not send start-up notifications to the Air Pollution Control Officer.**

**Start-up Period**

After receipt of the start-up letter required above, this Authority to Construct authorizes operation during the start-up period from the date of initial operation noted in your start-up letter until the Permit to Operate is issued, up to a maximum of 90 days. All conditions (specific or implied) of the Authority to Construct are in effect during the start-up period.

Application: 1000  
July 24, 2001

**Fees**

District Regulation 3 requires a fee for each new Permit to Operate. You will be invoiced upon receipt of your start-up letter. No permits will be issued until all outstanding fees are paid.

**Implied Conditions**

In the absence of specific permit conditions to the contrary, the throughputs, fuel and material consumption, capacities, and hours of operation described in your permit application will be considered maximum allowable limits. A new permit will be required before any increase in these parameters, or change in raw material handled, may be made.

**Expiration**

In accordance with Regulation 2-1-407, this Authority to Construct expires two years from the date of issuance unless substantial use of the authority has begun.

**Confidentiality**

Unless you have already designated specifically identified materials in your permit application as confidential, under the California Public Records Act, all data in your permit application, the permit itself and all permit conditions will be considered a matter of public record and may be disclosed to a third party. Please contact your permit reviewer immediately if you wish to amend your permit application submittals or to designate certain permit conditions as confidential. Unless we hear from you within ten (10) calendar days of this letter, except for materials which have been previously designated as confidential, you shall be deemed to have waived any claim of confidentiality with respect to all materials in the District's files relating to this permit application.

**Right of Entry**

The Air Pollution Control Officer of the Bay Area Air Quality Management District, the Chairman of the California Air Resources Board, the Regional Administrator of the Environmental Protection Agency, and/or their designees, upon presentation of credentials, shall be granted the right of entry to any premises on which an air pollution source is located for the purposes of:

- A. The inspection of the source
- B. The sampling of materials used at the source
- C. The conduction of an emissions source test
- D. The inspection of any records required by District rule or permit condition.

**Correspondence**

Please include your application number with any correspondence with the District. The District's regulations may be viewed online at [www.baaqmd.gov/regs/rulereg.htm](http://www.baaqmd.gov/regs/rulereg.htm). If you have any questions on this matter, please call **Dick Wocasek, Air Quality Engineer II** at (415) 749-4984. Startup information may be faxed to the Permit Division at 415-749-5030.

Very truly yours,

Ellen Garvey  
Executive Officer/  
Air Pollution Control Officer



by  
Permit Services Division

FRW: ilh

CCPP Unit 8  
Permit Conditions

Definitions:

- 1-hour period: Any continuous 60-minute period beginning on the hour.
- Calendar Day: Any continuous 24-hour period beginning at 12:00 AM or 0000 hours.
- Year: Any consecutive twelve-month period of time
- Heat Input: All heat inputs refer to the heat input at the higher heating value (HHV) of the fuel, in Btu/scf.
- Rolling 3-hour period: Any three-hour period that begins on the hour and does not include start-up or shutdown periods.
- Firing Hours: Period of time during which fuel is flowing to a unit, measured in fifteen-minute increments.
- MM Btu: million British thermal units
- Gas Turbine Start-up Mode: The lesser of the first 256 minutes of continuous fuel flow to the Gas Turbine after fuel flow is initiated or the period of time from Gas Turbine fuel flow initiation until the Gas Turbine achieves two consecutive CEM data points in compliance with the emission concentration limits of conditions 27(b) and 27(d).
- Gas Turbine Shutdown Mode: The lesser of the 30 minute period immediately prior to the termination of fuel flow to the Gas Turbine or the period of time from non-compliance with any requirement listed in Conditions 27(b) through 27(d) until termination of fuel flow to the Gas Turbine.
- Specified PAHs: The polycyclic aromatic hydrocarbons listed below shall be considered to Specified PAHs for these permit conditions. Any emission limits for Specified PAHs refer to the sum of the emissions for all six of the following compounds.
- Benzo[a]anthracene
  - Benzo[b]fluoranthene

Benzo[k]fluoranthene  
Benzo[a]pyrene  
Dibenzo[a,h]anthracene  
Indeno[1,2,3-cd]pyrene

Corrected Concentration: The concentration of any pollutant (generally NOx, CO, or NH3) corrected to a standard stack gas oxygen concentration. For emission point P-11 (combined exhaust of S-41 Gas Turbine and S-42 HRSG duct burners) and emission point P-12 (combined exhaust of S-43 Gas Turbine and S-44 HRSG duct burners) the standard stack gas oxygen concentration is 15% O2 by volume on a dry basis.

Commissioning Activities: All testing, adjustment, tuning, and calibration activities recommended by the equipment manufacturers and the CCPP Unit#8 construction contractor to insure safe and reliable steady state operation of the gas turbines, heat recovery steam generators, steam turbine, and associated electrical delivery systems.

Commissioning Period: The Period shall commence when all mechanical, electrical, and control systems are installed and individual system start-up has been completed, or when a gas turbine is first fired, whichever occurs first. The period shall terminate when the plant has completed performance testing, is available for commercial operation, and has initiated sales to the power exchange.

Precursor Organic  
Compounds (POCs):

Any compound of carbon, excluding methane, ethane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate

GEC CPM:

California Energy Commission  
Compliance Program Manager

CCPP Unit#8:

Contra Costa Power Plant Unit 8

#### Conditions for the Commissioning Period

1. The owner/operator of the CCPP Unit 8 (CCPP Unit#8) shall minimize emissions of carbon monoxide and nitrogen

oxides from S-41 and S-43 Gas Turbines and S-42 and S-44 Heat Recovery Steam Generators (HRSGs) to the maximum extent possible during the commissioning period. Conditions 1 through 12 shall only apply during the commissioning period as defined above. Unless otherwise indicated, Conditions 13 through 47 shall apply after the commissioning period has ended.

2. At the earliest feasible opportunity in accordance with the recommendations of the equipment manufacturers and the construction contractor, the S-41 & S-43 Gas Turbine combustors and S-42 & S-44 Heat Recovery Steam Generator duct burners shall be tuned to minimize the emissions of carbon monoxide and nitrogen oxides.

3. At the earliest feasible opportunity, in accordance with the recommendations of the equipment manufacturers and the construction contractor, the A-11 and A-13 SCR Systems and A-12 and A-14 CO Oxidation Catalyst Systems shall be installed, adjusted, and operated to minimize the emissions of carbon monoxide and nitrogen oxides from S-41 & S-43 Gas Turbines and S-42 & S-44 Heat Recovery Steam Generators.

4. Coincident with the as designed operation of A-11 & A-13 SCR Systems, pursuant to conditions 3, 10, 11, and 12, the Gas Turbines (S-41 & S-43) and the HRSGs (S-42 & S-44) shall comply with the NOx and CO emission limitations specified in conditions 20(a) through 20(d).

5. The owner/operator of the CCPP Unit#8 shall submit a plan to the District Permit Services Division and the CEC CPM at least four weeks prior to first firing of S-41 or S-43 Gas Turbines describing the procedures to be followed during the commissioning of the gas turbines, HRSGs and gas-fired preheater. The plan shall include a description of each commissioning activity, the anticipated duration of each activity in hours, and the purpose of the activity. The activities described shall include, but not be limited to, the tuning of the Dry-Low-NOx combustors, the installation and operation of the SCR systems and oxidation catalysts, the installation, calibration, and testing of the CO and NOx continuous emission monitors, and any activities requiring the firing of the Gas Turbines (S-41 & S-43) and HRSGs (S-42 & S-44) without abatement by their respective SCR and CO Catalyst Systems.

6. During the commissioning period, the owner/operator of the CCPP Unit#8 shall demonstrate compliance with conditions 8 through 11 through the use of properly operated and maintained continuous emission monitors and data recorders for the following parameters:

- firing hours for each gas turbine and each HRSG
- fuel flow rates to each train
- stack gas nitrogen oxide emission concentrations at P-11 and P-12
- stack gas carbon monoxide emission concentrations P-11 and P-12
- stack gas carbon dioxide concentrations P-11 and

The monitored parameters shall be recorded at least once every 15 minutes (excluding normal calibration periods or when the monitored source is not in operation) for the Gas Turbines (S-41 & S-43) and HRSGs (S-42 & S-44). The owner/operator shall use District-approved methods to calculate heat input rates, NOx mass emission rates, carbon monoxide mass emission rates, and NOx and CO emission concentrations, summarized for each clock hour and each calendar day. All records shall be retained on site for at least 5 years from the date of entry and made available to District personnel upon request.

7. The District-approved continuous emission monitors specified in condition 6 shall be installed, calibrated, and operational prior to first firing of the Gas Turbines (S-41 & S-43) and Heat Recovery Steam Generators (S-42 & S-44). After first firing of the turbines, the detection range of these continuous emission monitors shall be adjusted as necessary to accurately measure the resulting range of CO and NOx emission concentrations. The type, specifications, and location of these monitors shall be subject to District review and approval.

8. The total number of firing hours of S-41 Gas Turbine and S-42 Heat Recovery Steam Generator without abatement of nitrogen oxide emissions by A-11 SCR System and/or A-12 Oxidation Catalyst System shall not exceed 500 hours during the commissioning period. Such operation of S-41 Gas Turbine and S-42 HRSG without abatement shall be limited to discrete commissioning activities that can only be properly executed without the SCR or Oxidation Catalyst Systems fully operational. Upon completion of these activities, the owner/operator shall provide written notice to the District Permit Services and Enforcement Divisions and the unused balance of the 500 firing hours without abatement shall expire.

9. The total number of firing hours of S-43 Gas Turbine and S-44 Heat Recovery Steam Generator without abatement of nitrogen oxide emissions by A-13 SCR System and/or A-14 Oxidation Catalyst System shall not exceed 500 hours during the commissioning period. Such operation of S-43 Gas Turbine and S-44 HRSG without abatement shall be limited to discrete commissioning activities that can only be properly executed without the SCR or Oxidation Catalyst Systems fully operational. Upon completion of these activities, the owner/operator shall provide written notice to the District Permit Services and Enforcement Divisions and the unused balance of the 500 firing hours without abatement shall expire.

10. The total mass emissions of nitrogen oxides, carbon monoxide, precursor organic compounds, PM10, and sulfur dioxide that are emitted by the Gas Turbines (S-41 & S-43) and Heat Recovery Steam Generators (S-42 & S-44) during the commissioning period shall accrue towards the consecutive twelve-month emission limitations specified in condition 24.

11. Combined pollutant mass emissions from the Gas Turbines (S-41 & S-43) and Heat Recovery Steam Generators (S-42 & S-44) shall not exceed the following limits during the commissioning period. These emission limits shall include emissions resulting from the start-up and shutdown of the Gas Turbines (S-41 & S-43).

NOx(as NO2)	8,400 pounds/calendar day	400 pounds/hour
CO	13,000 pounds/calendar day	584 pounds/hour
POC(as CH4)	535 pounds/calendar day	
PM10	624 pounds/calendar day	
SO2	297 pounds/calendar day	

12. Prior to the end of the Commissioning Period, the Owner/Operator shall conduct a District and CEC approved source test using external continuous emission monitors to determine compliance with condition 21. The source test shall determine NOx, CO, and POC emissions during start-up and shutdown of the gas turbines. The POC emissions shall be analyzed for methane and ethane to account for the presence of unburned natural gas. The source test shall include a minimum of three start-up and three shutdown periods. No later than twenty working days before the execution of the source tests, the Owner/Operator shall submit to the District and the CEC Compliance Program Manager (CPM) a detailed source test plan designed to satisfy the requirements of this condition. The District and the CEC CPM will notify the Owner/Operator of any necessary modifications to the plan within 20 working days of receipt of the plan; otherwise, the plan shall be deemed approved. The Owner/Operator shall incorporate the District and CEC CPM comments into the test plan. The Owner/Operator shall notify the District and the CEC CPM within seven (7) working days prior to the planned source testing date. Source test results shall be submitted to the District and the CEC CPM within 30 days of the source testing date.

Conditions for the Gas Turbines (S-41 & S-43) and the Heat Recovery Steam Generators (HRSGs; S-42 & S-44)

13. The Gas Turbines (S-41 and S-43) and HRSG Duct Burners (S-42 and S-44) shall be fired exclusively on natural gas. (BACT for SO2 and PM10)

14. The combined heat input rate to each power train consisting of a Gas Turbine and its associated HRSG (S-41 & S-42 and S-43 & S-44) shall not exceed 2,227 MM Btu per hour, averaged over any rolling 3-hour period. (PSD for NOx)

15. The combined heat input rate to each power train consisting of a Gas Turbine and its associated HRSG (S-41 & S-42 and S-43 & S-44) shall not exceed 49,950 MM Btu per calendar day. (PSD for PM10)

16. The combined cumulative heat input rate for the Gas Turbines (S-41 & S-43) and the HRSGs (S-42 & S-44) shall not exceed 34,900,000 MM Btu per year. (Offsets)

17. The HRSG duct burners (S-42 and S-44) shall not be fired unless its associated Gas Turbine (S-41 and S-43, respectively) is in operation. (BACT for NOx)

18. Except as provided in Condition No. 8, S-41 Gas Turbine and S-42 HRSG shall be abated by the properly operated and properly maintained A-11 Selective Catalytic Reduction (SCR) System whenever fuel is combusted at those sources and the A-11 catalyst bed has reached minimum operating temperature. (BACT for NOx)

19. Except as provided in Condition No. 9, S-43 Gas Turbine and S-44 HRSG shall be abated by the properly operated and properly maintained A-13 Selective Catalytic Reduction (SCR) System whenever fuel is combusted at those sources and the A-13 catalyst bed has reached minimum operating temperature. (BACT for NOx)

20. The Gas Turbines (S-41 & S-43) and HRSGs (S-42 & S-44) shall comply with requirements (a) through (h) under all operating scenarios, including duct burner firing mode and steam injection power augmentation mode. Requirements (a) through (h) do not apply during a gas turbine start-up or shutdown. (BACT, PSD, and Toxic Risk Management Policy)

(a) Nitrogen oxide mass emissions (calculated in accordance with District approved methods as NO<sub>2</sub>) at P-11 (the combined exhaust point for the S-41 Gas Turbine and the S-42 HRSG after abatement by A-11 SCR System) shall not exceed 20 pounds per hour or 0.0090 lb./MM Btu (HHV) of natural gas fired. Nitrogen oxide mass emissions (calculated in accordance with District approved methods as NO<sub>2</sub>) at P-12 (the combined exhaust point for the S-43 Gas Turbine and the S-44 HRSG after abatement by A-13 SCR System) shall not exceed 20 pounds per hour or 0.0090 lb./MM Btu (HHV) of natural gas fired. (PSD for NOx)

(b) The nitrogen oxide emission concentration at emission points P-11 and P-12 each shall not exceed 2.5 ppmv, on a dry basis, corrected to 15% O<sub>2</sub>, averaged over any 1-hour period. (BACT for NOx)

(c) Carbon monoxide mass emissions at P-11 and P-12 each shall not exceed 0.013 lb./MM Btu (HHV) of natural gas fired or 29.22 pounds per hour, averaged over any rolling 3-hour period. (PSD for CO)

(d) The carbon monoxide emission concentration at P-11 and P-12 each shall not exceed 6 ppmv, on a dry basis, corrected to 15% O<sub>2</sub>, averaged over any rolling 3-hour period. (BACT for CO)

(e) Ammonia (NH<sub>3</sub>) emission concentrations at P-11 and P-12 each shall not exceed 5 ppmv, on a dry basis, corrected to 15% O<sub>2</sub>, averaged over any rolling 3-hour period. This ammonia emission concentration shall be verified by the continuous recording of the ammonia injection rate to A-11 and A-13 SCR Systems. The

correlation between the gas turbine and HRSG heat input rates, A-11 and A-13 SCR System ammonia injection rates, and corresponding ammonia emission concentration at emission points P-11 and P-12 shall be determined in accordance with permit condition #29. (TRMP for NH3)

(f) Precursor organic compound (POC) mass emissions (as CH4) at P-11 and P-12 each shall not exceed 5.6 pounds per hour or 0.0025 lb./MM Btu of natural gas fired. (BACT)

(g) Sulfur dioxide (SO2) mass emissions at P-11 and P-12 each shall not exceed 6.18 pounds per hour or 0.0028 lb./MM Btu of natural gas fired. (BACT)

(h) Particulate matter (PM10) mass emissions at P-11 and P-12 each shall not exceed 11 pounds per hour or 0.00588 lb./MM Btu of natural gas fired when the HRSG duct burners are not in operation. Particulate matter (PM10) mass emissions at P-11 and P-12 each shall not exceed 13 pounds per hour or 0.00584 lb./MM Btu of natural gas fired when the HRSG duct burners are in operation. (BACT)

21. The regulated air pollutant mass emission rates from each of the Gas Turbines (S-41 and S-43) during a start-up or a shutdown shall not exceed the limits established below. (PSD)

	Cold Start-Up (lb./start-up)	Hot Start-Up lb./start-up)	Shutdown (lb./shutdown)
Oxides of Nitrogen (as NO2)	452	189	59
Carbon Monoxide (CO)	990	291	73
Precursor Organic Compounds (as CH4)	109	26	6

22. The Gas Turbines (S-41 and S-43) shall not be in start-up mode simultaneously. (PSD)

23. Total combined emissions from the Gas Turbines and HRSGs (S-41, S-42, S-43, and S-44), including emissions generated during Gas Turbine start-ups and shutdowns shall not exceed the following limits during any calendar day:

- (a) 1,994 pounds of NOx (as NO2) per day (CEQA)
- (b) 3,602 pounds of CO per day (PSD)
- (c) 468 pounds of POC (as CH4) per day (CEQA)
- (d) 624 pounds of PM10 per day (PSD)
- (e) 297 pounds of SO2 per day (BACT)

24. Cumulative combined emissions from the Gas Turbines and HRSGs (S-41, S-42, S-43, and S-44) and the Fuel Gas Preheater (S-45) and the Cooling Tower (S-46), including emissions generated during gas turbine start-ups and

shutdowns shall not exceed the following limits during any consecutive twelve-month period:

- (a) 174.3 tons of NO<sub>x</sub> (as NO<sub>2</sub>) per year  
(Offsets, PSD)
- (b) 259.1 tons of CO per year  
(Cumulative Increase)
- (c) 46.6 tons of POC (as CH<sub>4</sub>) per year  
(Offsets)
- (d) 112.2 tons of PM<sub>10</sub> per year  
(Offsets, PSD)
- (e) 48.5 tons of SO<sub>2</sub> per year  
(Cumulative Increase)

#### 25. Toxic and HAP Emission Limits

25.1. The maximum projected annual toxic air contaminant emissions (per condition 28) from the Gas Turbines and HRSGs combined (S-41, S-42, S-43, and S-44) shall not exceed the following limits:

4,102 pounds of formaldehyde per year  
506 pounds of benzene per year  
38 pounds of Specified polycyclic aromatic hydrocarbons (PAHs) per year

unless the following requirement is satisfied:

The owner/operator shall perform a health risk assessment using the emission rates determined by source test and the most current Bay Area Air Quality Management District approved procedures and unit risk factors in effect at the time of the analysis. This risk analysis shall be submitted to the District and the CEC CPM within 60 days of the source test date. The owner/operator may request that the District and the CEC CPM revise the carcinogenic compound emission limits specified above. If the owner/operator demonstrates to the satisfaction of the APCO that these revised emission limits will result in a cancer risk of not more than 1.0 in one million, the District and the CEC CPM may, at their discretion, adjust the carcinogenic compound emission limits listed above. (TRMP)

25.2. The maximum projected annual Hazardous Air Pollutant (HAP) emissions from the Gas Turbines and HRSGs combined (S-41, S-42, S-43, and S-44) shall not exceed the following limit:

20,000 pounds of hexane per year  
(US-CAA, Section 112(g))

Conformance with this limit shall be verified by the source testing in condition 32.

26. The owner/operator shall demonstrate compliance with conditions 14 through 17, 20(a) through 20(d), 21, 23(a), 23(b), 24(a), and 24(b) by using properly operated and maintained continuous monitors (during all hours of operation including equipment Start-up and

Shutdown periods) for all of the following parameters:

- (a) Firing Hours and Fuel Flow Rates for each of the following sources: S-41 & S-42 combined and S-43 & S-44 combined.
- (b) Carbon Dioxide (CO<sub>2</sub>) or Oxygen (O<sub>2</sub>) concentrations, Nitrogen Oxides (NO<sub>x</sub>) concentrations, and Carbon Monoxide (CO) concentrations at each of the following exhaust points: P-11 and P-12.
- (c) Ammonia injection rate at A-11 and A-13 SCR Systems
- (d) Steam injection rate at S-41 & S-43 Gas Turbine Combustors

The owner/operator 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, the owner/operator shall calculate and record the total firing hours, the average hourly fuel flow rates, and average hourly pollutant emission concentrations.

The owner/operator shall use the parameters measured above and District-approved calculation methods to calculate the following parameters:

- (e) Heat Input Rate for each of the following sources: S-41 & S-42 combined and S-43 & S-44 combined.
- (f) Corrected NO<sub>x</sub> concentrations, NO<sub>x</sub> mass emissions (as NO<sub>2</sub>), corrected CO concentrations, and CO mass emissions at each of the following exhaust points: P-11 and P-12.

Applicable to emission points P-11 and P-12, the owner/operator shall record the parameters specified in conditions 26(e) and (26f) at least once every 15 minutes (excluding normal calibration periods). As specified below, the owner/operator shall calculate and record the following data:

- (g) total Heat Input Rate for every clock hour and the average hourly Heat Input Rate for every rolling 3-hour period.
- (h) on an hourly basis, the cumulative total Heat Input Rate for each calendar day for the following: each Gas Turbine and associated HRSG combined and all four sources (S-41, S-42, S-43, and S-44) combined.
- (i) the average NO<sub>x</sub> mass emissions (as NO<sub>2</sub>), CO mass emissions, and corrected NO<sub>x</sub> and CO emission concentrations for every clock hour and for every rolling 3-hour period.
- (j) on an hourly basis, the cumulative total NO<sub>x</sub> mass emissions (as NO<sub>2</sub>) and the cumulative total CO mass emissions, for each calendar day for the following: each Gas Turbine and associated HRSG combined, and all four sources (S-41, S-42, S-43, and S-44) combined.
- (k) For each calendar day, the average hourly Heat Input Rates, Corrected NO<sub>x</sub> emission concentrations, NO<sub>x</sub> mass emissions (as NO<sub>2</sub>), corrected CO emission concentrations, and CO mass emissions for each Gas Turbine and associated HRSG combined.

(1) on a daily basis, the cumulative total NOx mass emissions (as NO2) and cumulative total CO mass emissions, for the previous consecutive twelve month period for all four sources (S-41, S-42, S-43, and S-44) combined.

(1-520.1, 9-9-501, BACT, Offsets, NSPS, PSD, Cumulative Increase)

27. To demonstrate compliance with conditions 20(f), 20(g), 20(h), 23(c) through 23(e), and 24(c) through 24(e), the owner/operator shall calculate and record on a daily basis, the Precursor Organic Compound (POC) mass emissions, Fine Particulate Matter (PM10) mass emissions (including condensable particulate matter), and Sulfur Dioxide (SO2) mass emissions from each power train. The owner/operator shall use the actual Heat Input Rates calculated pursuant to condition 26, actual Gas Turbine Start-up Times, actual Gas Turbine Shutdown Times, and CEC and District-approved emission factors to calculate these emissions. The calculated emissions shall be presented as follows:

(a) For each calendar day, POC, PM10, and SO2 emissions shall be summarized for: each power train (Gas Turbine and its respective HRSG combined) and all four sources (S-41, S-42, S-43, and S-44) combined.

(b) on a daily basis, the 365 day rolling average cumulative total POC, PM10, and SO2 mass emissions, for all four sources (S-41, S-42, S-43, and S-44) combined.

(Offsets, PSD, Cumulative Increase)

28. To demonstrate compliance with Condition 25, the owner/operator shall calculate and record on an annual basis the maximum projected annual emissions of Formaldehyde, Benzene, and Specified PAHs. Maximum projected annual emissions shall be calculated using the maximum Heat Input Rate of 34,900,000 MM Btu/year and the highest emission factor (pounds of pollutant per MM Btu of Heat Input) determined by any source test of the S-41 & S-43 Gas Turbines and/or S-42 & S-44 Heat Recovery Steam Generators. If this calculation method results in an unrealistic mass emission rate (the highest emission factor occurs at a low firing rate) the applicant may use an alternate calculation, subject to District approval. (TRMP)

29. Within 60 days of start-up of the CCPP Unit#8, the owner/operator shall conduct a District-approved source test on exhaust point P-11 or P-12 to determine the corrected ammonia (NH3) emission concentration to determine compliance with condition 20(e). The source test shall determine the correlation between the heat input rates of the gas turbine and associated HRSG, A-11 or A-13 SCR System ammonia injection rate, and the corresponding NH3 emission concentration at emission point P-11 or P-12. The source test shall be conducted over the expected operating range of the turbine and HRSG (including, but not limited to minimum, 70%, 85%, and

100% load) to establish the range of ammonia injection rates necessary to achieve NOx emission reductions while maintaining ammonia slip levels. Continuing compliance with condition 20(e) shall be demonstrated through calculations of corrected ammonia concentrations based upon the source test correlation and continuous records of ammonia injection rate. (TRMP)

30. Within 60 days of start-up of the CCPP Unit#8 and on an annual basis thereafter, the owner/operator shall conduct a District-approved source test on exhaust points P-11 and P-12 while each Gas Turbine and associated Heat Recovery Steam Generator are operating at maximum load (including steam injection power augmentation mode) to determine compliance with Conditions 20(a), (b), (c), (d), (f), (g), and (h), while each Gas Turbine and associated Heat Recovery Steam Generator are operating at minimum load to determine compliance with Conditions 20(c) and (d), and to verify the accuracy of the continuous emission monitors required in condition 26. The owner/operator shall test for (as a minimum): water content, stack gas flow rate, oxygen concentration, precursor organic compound concentration and mass emissions, nitrogen oxide concentration and mass emissions (as NO2), carbon monoxide concentration and mass emissions, sulfur dioxide concentration and mass emissions, methane, ethane, and particulate matter (PM10) emissions including condensable particulate matter. (BACT, offsets)

31. The owner/operator shall obtain approval for all source test procedures from the District's Source Test Section and the CEC CPM prior to conducting any tests. The owner/operator shall comply with all applicable testing requirements for continuous emission monitors as specified in Volume V of the District's Manual of Procedures. The owner/operator shall notify the District's Source Test Section and the CEC CPM in writing of the source test protocols and projected test dates at least 7 days prior to the testing date(s). As indicated above, the Owner/Operator shall measure the contribution of condensable PM (back half) to the total PM10 emissions. However, the Owner/Operator may propose alternative measuring techniques to measure condensable PM such as the use of a dilution tunnel or other appropriate method used to capture semi-volatile organic compounds. Source test results shall be submitted to the District and the CEC CPM within 60 days of conducting the tests. (BACT)

32. Within 60 days of start-up of the CCPP Unit#8 and on a biennial basis (once every two years) thereafter, the owner/operator shall conduct a District-approved source test on exhaust point P-11 or P-12 while the Gas Turbine and associated Heat Recovery Steam Generator are operating at maximum allowable operating rates to demonstrate compliance with Condition 25. If three consecutive biennial source tests demonstrate that the annual emission rates calculated pursuant to condition 28 for any of the compounds listed below are less than the

BAAQMD Toxic Risk Management Policy trigger levels shown, then the owner/operator may discontinue future testing for that pollutant:

Benzene	less than or equal	26.8 pounds/year
Formaldehyde	less than or equal	132 pounds/year
Specified PAHs (TRMP)	less than or equal	0.18 pounds/year

33. The owner/operator of the CCPP Unit#8 shall submit all reports (including, but not limited to monthly CEM reports, monitor breakdown reports, emission excess reports, equipment breakdown reports, etc.) as required by District Rules or Regulations and in accordance with all procedures and time limits specified in the Rule, Regulation, Manual of Procedures, or Enforcement Division Policies & Procedures Manual. (Regulation 2-6-502)

34. The owner/operator of the CCPP Unit#8 shall maintain all records and reports on site for a minimum of 5 years. These records shall include but are not limited to: continuous monitoring records (firing hours, fuel flows, emission rates, monitor excesses, breakdowns, etc.), source test and analytical records, natural gas sulfur content analysis results, emission calculation records, records of plant upsets and related incidents. The owner/operator shall make all records and reports available to District and the CEC CPM staff upon request. (Regulation 2-6-501)

35. The owner/operator of the CCPP Unit#8 shall notify the District and the CEC CPM of any violations of these permit conditions. Notification shall be submitted in a timely manner, in accordance with all applicable District Rules, Regulations, and the Manual of Procedures. Notwithstanding the notification and reporting requirements given in any District Rule, Regulation, or the Manual of Procedures, the owner/operator shall submit written notification (facsimile is acceptable) to the Enforcement Division within 96 hours of the violation of any permit condition. (Regulation 2-1-403)

36. The stack height of emission points P-11 and P-12 shall each be at least 195 feet above grade level at the stack base. (PSD, TRMP)

37. The Owner/Operator of CCPP Unit#8 shall provide adequate stack sampling ports and platforms to enable the performance of source testing. The location and configuration of the stack sampling ports shall be subject to BAAQMD review and approval. (Regulation 1-501)

38. Within 180 days of the issuance of the Authority to Construct for the CCPP Unit#8, the Owner/Operator shall contact the BAAQMD Technical Services Division regarding requirements for the continuous monitors, sampling ports, platforms, and source tests required by conditions 26, 29, 30 and 32. All source testing and monitoring shall

be conducted in accordance with the BAAQMD Manual of Procedures. (Regulation 1-501)

39. Prior to the issuance of the BAAQMD Authority to Construct for the CCPP Unit 8, the Owner/Operator shall demonstrate that valid emission reduction credits in the amount of 200.5 tons/year of Nitrogen Oxides, 53.6 tons/year of Precursor Organic Compounds or equivalent (as defined by District Regulations 2-2-302.1 and 2-2-302.2), and 112.2 tons of Particulate Matter less than 10 microns are under their control through enforceable contracts, option to purchase agreements, or equivalent binding legal documents. (Offsets)

40. Prior to the start of construction of the CCPP Unit 8, the Owner/Operator shall provide to the District valid emission reduction credit banking certificates in the amount of 200.5 tons/year of Nitrogen Oxides, 53.6 tons/year of Precursor Organic Compounds or equivalent as defined by District Regulations 2-2-302.1 and 2-2-302.2 and 112.2 tons of Particulate Matter less than 10 microns. (Offsets)

41. Pursuant to BAAQMD Regulation 2, Rule 6, section 404.3, the owner/operator of the CCPP Unit#8 shall submit an application to the BAAQMD for a significant revision to the Major Facility Review Permit prior to commencing operation. (Regulation 2-6-404.3)

42. Pursuant to 40 CFR Part 72.30(b)(2)(ii) of the Federal Acid Rain Program, the owner/operator of the CCPP Unit 8 shall not operate either of the gas turbines until either: 1) a Title IV Operating Permit has been issued; 2) 24 months after a Title IV Operating Permit Application has been submitted, whichever is earlier. (Regulation 2, Rule 7)

43. The CCPP Unit 8 shall comply with the continuous emission monitoring requirements of 40 CFR Part 75. (Regulation 2, Rule 7)

44. The owner/operator shall take monthly samples of the natural gas combusted at the CCPP Unit#8. The samples shall be analyzed for sulfur content using District-approved laboratory methods or the owner/operator shall obtain certified analytical results from the gas supplier. The sulfur content test results shall be retained on site for a minimum of five years from the test date and shall be utilized to satisfy the requirements of 40 CFR Part 60, subpart GG. Sulfur content shall be no more than 1.0 grains/100scf. (cumulative increase)

45. The cooling towers shall be properly installed and maintained to minimize drift losses. The cooling towers shall be equipped with high-efficiency mist eliminators with a maximum guaranteed drift rate of 0.0005%. The maximum total dissolved solids (TDS) measured at the base of the cooling towers or at the point of return to the wastewater facility shall not be higher than 5,666 ppmw

(mg/l). The owner/operator shall sample the water at least once per day. (PSD)

46. The owner/operator shall perform a visual inspection of the cooling tower drift eliminators at least once per calendar year, and repair or replace any drift eliminator components which are broken or missing. Prior to the initial operation of the CCPP Unit 8, the owner/operator shall have the cooling tower vendor's field representative inspect the cooling tower drift eliminators and certify that the installation was performed in a satisfactory manner. The CEC CPM may, in years 5 and 15 of cooling tower operation, require the owner/operator to perform a source test to determine the PM10 emission rate from the cooling tower to verify compliance with the vendor-guaranteed drift rate specified in condition 45. (PSD)

47. The Fuel Gas Preheater (S-45) shall not be operated more than 16 hours in any day. (BACT)

# **EXHIBIT D**

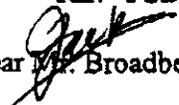


UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105

June 21, 2004

Mr. Jack Broadbent  
Air Pollution Control Officer  
Bay Area AQMD  
939 Ellis Street  
San Francisco, CA 94109-7799

RE: PSD Re-delegation Agreement

Dear  Mr. Broadbent:

EPA appreciates the efforts of your staff to work with us to draft a partial re-delegation of the federal Prevention of Significant Deterioration (PSD) permitting program. I am pleased to enclose a signed copy of the revised PSD delegation agreement. The agreement is effective immediately.

Please contact Laura Yannayon at (415) 972-3534 if you have any other questions related to this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Deborah Jordan".

Deborah Jordan  
Director, Air Division

Enclosure

cc: Brian C. Bunger, Bay Area Air Quality Management District, w/ enclosure  
Catherine Witherspoon, Executive Officer, California Air Resources Board w/enclosure

**U.S. EPA - Bay Area Air Quality Management District**  
**Agreement for Re-Delegation of Authority to Issue and Modify Prevention of**  
**Significant Deterioration Permits Subject to 40 CFR 52.21**

The undersigned, on behalf of the Bay Area Air Quality Management District (District) and the United States Environmental Protection Agency (EPA), hereby agree to the re-delegation of authority for the initial issuance or "administrative" or "minor" modification<sup>1</sup> of the Prevention of Significant Deterioration (PSD) permits identified below, subject to the terms and conditions of this agreement. This re-delegation is executed pursuant to 40 CFR 52.21(u), Delegation of Authority.

**I. BACKGROUND RECITALS**

1. EPA had delegated authority to implement the federal PSD regulations at 40 CFR 52.21 for all sources and modifications to the District on April 23, 1986. On December 31, 2002, EPA finalized revisions to the regulations at 40 CFR 52.21, which became effective on March 3, 2003. 67 FR 80186. The revisions to 40 CFR 52.21 did not significantly alter those portions of 40 CFR 52.21 that concern the issuance of permits for newly constructed "greenfield" sources. See *id.* at 80187.
2. The District may need to revise its local regulations to fully implement the federal regulations at 40 CFR 52.21, effective March 3, 2003. Accordingly, on March 3, 2003, EPA withdrew the delegation of PSD authority from the District. See 68 FR 19371

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<sup>1</sup> The terms "administrative" and "minor" modifications are defined the same as in the EPA memorandum entitled "Revised Draft Policy on Permit Modifications and Extensions" July 5, 1985, by Darryl Tyler, Director, Control Programs Development Division of US EPA Office of Air quality Planning and Standards.

(April, 21, 2003).

3. Because the federal regulations concerning permit issuance for new sources were not significantly altered effective March 3, 2003, existing District regulations continue to allow the District to implement 40 CFR 52.21 pursuant to a delegation agreement to complete the initial issuance or administrative or minor modification of the PSD permit(s). This delegation of authority does not extend to any modification that would be a "major" modification under 40 CFR 52.21, as amended on December 31, 2002. Any major modification shall be permitted by EPA pursuant to 40 CFR 52.21, as amended on December 31, 2002.

## II. APPLICABILITY

1. Pursuant to this re-delegation, the District shall have primary responsibility for initial issuance or administrative or minor modification of the PSD permit(s) identified below:

Facility:

- a. Delta Energy Center
  - b. Los Medanos Energy Center
  - c. Metcalf Energy Center
  - d. East Altamont Energy Center
  - e. Tesla Power Plant
  - f. Russell City Energy Center
  - g. Delta Power Plant
  - h. Potrero Power Plant
2. Permitting History for Delta Energy Center (Delta #12095). The District issued a Preliminary Determination of Compliance (PDOC) on August 12, 1999. Subsequently, the District issued the Final Determination of Compliance (FDOC) on October 22, 1999. The Prevention of Significant (PSD)/Authority to Construct (ATC) was issued on March

28, 2000. The Title IV/V permit was issued on March 19, 2003 and reissued on November 12, 2003. The Permit to Operate was issued on January 8, 2003, and modified on November 14, 2003.

3. Permitting History for Los Medanos Energy Center (Los Medanos #11866). The District issued a PDOC on March 18, 1999. Subsequently, the District issued the FDOC on June 10, 1999. The PSD/Authority to Construct was issued on September 10, 1999 and the Authority to Construct was superceded on July 2, 2001. The Title IV/V permit was issued on September 1, 2001 and modified on January 13, 2004. The District Permit to Operate was issued on May 19, 2002.
4. Permitting History for Metcalf Energy Center (Metcalf # 12183). The District issued the FDOC on August 24, 2000. The final PSD permit was issued on May 4, 2001. The Authority to Construct was issued on February 13, 2002 and a modification was granted on September 10, 2002.
5. Permitting History for East Altamont Energy Center (East Altamont # 13050). The District issued a PDOC on April 12, 2002. Subsequently, the District issued the FDOC on July 10, 2002. The Western Area Power Administration (WAPA) formally requested that US Fish and Wildlife (US FWS) initiate formal Section 7 consultation on February 11, 2002. The Authority to Construct has not been issued as of May 7, 2004.
6. Permitting History for Tesla Power Plant (Tesla # 13424). The District issued a PDOC on August 6, 2002. Subsequently, the District issued the FDOC on January 22, 2003. The EPA formally requested that US FWS initiate formal Section 7 consultation on

February 21, 2002. The final PSD permit is not issued because of a delay in the issuance of the Biological Opinion associated with Section 7 process. The California Energy Commission conducted an Evidentiary Hearing from September 8 to September 12, 2003. The Commissioners have not made a final determination as of May 7, 2004.

7. Permitting History for Russell City Energy Center (Russell City # 13161). The District issued a PDOC on October 25, 2001. Subsequently, the District issued the FDOC in March 2002 and an Authority to Construct on May 14, 2003. The EPA formally requested that US FWS initiate formal Section 7 consultation on March 11, 2002. The final PSD permit has not been issued because of a delay in the issuance of the Biological Assessment associated with the Endangered Species Act Section 7 process.
8. Permitting History for Delta Power Plant (Delta #18, Unit 8). The District issued a FDOC on February 2, 2001. The final PSD permit and Authority to Construct were issued on July 24, 2001. The Permit to Operate has not yet been issued as of May 7, 2004.
9. Permitting History for Potrero Power Plant (Potrero #26, Unit 7). The FDOC was issued on December 12, 2001. On July 25, 2003, Mirant of California (owner of the Potrero Power Plant) revised their application (#7951) to include a cooling tower system and reduce the annual hours of operation. A draft Biological Opinion and Incidental Take Statement were provide to EPA and the Army Corps of Engineers on April 2, 2003. NOAA Fisheries received comments on the draft Biological Opinion from EPA on May 6, 2003. The comments pertained to a revised description of EPA's federal action

regarding the issuance of the air quality permit. EPA comments also stated that the Corps has agreed to place all terms and conditions contained in the Incidental Take Statement of the April 2, 2003, draft Biological Opinion, in the Corps Section 404 Clean Water Act and in any Rivers and Harbor Act permits. The amended PDOC has not been issued as of May 7, 2004.

10. To allow the District to continue to issue and/or process minor modifications to the PSD permit(s) for Delta Energy, Los Medanos, Metcalf, East Altamont, Tesla, Russell City, Delta Power and Potrero, EPA and the District have agreed to this re-delegation of PSD authority to issue initial permits or make administrative or minor modifications, until the facility commences normal operations. If any of the facilities subject to this agreement requests a permit modification to incorporate conditions for a plantwide applicability limit or a clean unit exclusion, as provided in 40 CFR 52.21(aa) and 52.21(x) & (y), respectively, EPA shall process and issue any applications for a permit modification. EPA may review the PSD permit to ensure that the District's implementation of this agreement is consistent with federal regulations (40 CFR 52.21).
11. The District shall send to EPA a copy of all public notices required by 40 CFR 124.

### **III. GENERAL CONDITIONS**

1. The District shall request and follow EPA guidance on any matter involving the interpretation of Sections 160-169 of the Clean Air Act or 40 CFR 52.21, relating to the PSD permits for Delta Energy, Los Medanos, Metcalf, East Altamont, Tesla, Russell City, Delta Power and Potrero.

2. The District shall issue PSD permits under this Agreement in accordance with the PSD elements of the District's Regulation 2, Rule 2 and 40 CFR 52.21 as amended on December 31, 2002. Elements of Regulation 2, Rule 2 relating to state law requirements inconsistent with the Clean Air Act and 40 CFR 52.21 and 124, including, but not limited to, elements of Regulation 2, Rule 2 relating to the California Environmental Quality Act, shall not apply to PSD permits under this Agreement.
3. This re-delegation may be amended at any time by the formal written agreement of both the District and the EPA, including amendment to add, change, or remove conditions or terms of this agreement.
4. If the U.S. EPA determines that the District is not administering the PSD permit identified in this agreement in accordance with the terms and conditions of this re-delegation, the requirements of 40 CFR 52.21, 40 CFR 124, or the Clean Air Act, this re-delegation, after consultation with the District, may be revoked in whole or in part. Any such revocation shall be effective as of the date specified in a Notice of Revocation to the District.
5. If the District determines that administering the permits identified in this agreement in accordance with the terms and conditions of this agreement, the requirements of 40 CFR 52.21, 40 CFR 124, or the Clean Air Act conflicts with State or local law, or exceeds the District's authority or resources to fully and satisfactorily carry out such responsibilities, the District after consultation with EPA may remand administration of these permits to EPA. Any such remand shall be effective as of the date specified in a Notice of Remand

to EPA.

6. The permit appeal provisions of 40 CFR 124, including subpart C thereof, pertaining to the Environmental Appeals Board (EAB), shall apply to all appeals to the Administrator on permits and modifications to permits issued by the District under this re-delegation. For purposes of implementing the federal permit appeal provisions under this re-delegation, if there is a public comment requesting a change in a draft preliminary determination or draft permit conditions, the final permit issued by the District shall contain a statement that for Federal PSD purposes and in accordance with 40 CFR 124.15 and 124.19, (1) the effective date of the permit shall be 30 days after the date of the final decision by the District to issue, modify, or revoke and reissue the permit; and (2) if an appeal is made to the EAB through the Administrator, the effective date of the permit shall be suspended until such time as the appeal is resolved. The District shall inform EPA Region IX in accordance with conditions of this re-delegation when there is public comment requesting a change in the preliminary determination or in a draft permit condition. Failure by the District to comply with the terms of this paragraph shall render the subject permit invalid for Federal PSD purposes.
7. Pursuant to the provisions of 40 CFR 52.21(u)(2), the District shall consult with the appropriate State or local agency primarily responsible for managing land use prior to making any determinations under this Agreement.
8. Nothing in this agreement shall prohibit EPA from enforcing the PSD provisions of the Clean Air Act, the PSD regulations or any PSD permit issued by the District pursuant to

this agreement. In the event that the District is unwilling or unable to enforce a provision of this re-delegation with respect to a source subject to the PSD regulations, the District will immediately notify the Regional Administrator. Failure to notify the Regional Administrator does not preclude EPA from exercising its enforcement authority.

9. This re-delegation of authority becomes effective upon the date of the signatures of both parties to this Agreement.

June 16, 2004  
Date

John F. Broadbent  
Jack Broadbent  
Air Pollution Control Officer  
Bay Area Air Quality Management District

June 21, 2004  
Date

Deborah Jordan  
Deborah Jordan  
Director, Air Division  
U.S. EPA, Region IX