

## Adendum to Engineering Evaluation Report

Mirant Delta, LLC, P#18  
Contra Costa Power Plant Unit 8 Project  
3201 Wilbur Avenue, Antioch  
Application #1000

### Background

Under Application #1000, an Authority to Construct was issued on July 24, 2001 to Plant #18, Mirant Delta for the Contra Costa Power Plant Unit 8 Project, a 530 MW natural gas-fired, combined-cycle merchant power plant. The Authority to Construct included 2 natural gas-fired General Electric Frame 7FA combustion turbine generators (CTG's), one steam turbine generator, and the associated equipment, including 2 supplementally fired heat recovery steam generators (HRS's) and a wet cooling tower. Each CTG was permitted at a nominal electrical output of 175 MW, and the steam produced by both HRS's would feed the single steam turbine generator with a nominal electrical output of 192 MW.

- S-41 Combustion Gas Turbine #1, General Electric Frame 7FA, 1872 MMBtu 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 MMBtu 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 MMBtu 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 MMBtu per hour, abated by A-13 Selective Catalytic Reduction System and A-14 CO Catalyst System.
- S-45 Gas-Fired Fuel Preheater, 12 MMBtu per hour.
- S-46 10-Cell Wet Cooling Tower, 125,000 gallons per minute

An Authority to Construct typically expires 2 years after issuance. The facility requested an extension of the Authority to Construct in 2003 under BAAQMD Regulation 2-1-407.3, Authority to Construct Expiration, Substantial Use:

**"2-1-407 Authority to Construct Expiration:** An authority to construct shall expire two years after the date of issuance, unless the authority to construct has been renewed. Upon receipt of a written request and any required fees prior to the expiration of the authority to construct, the APCO shall renew the authority to construct in writing if the APCO determines that the renewal complies with this section and that the holder of the authority to construct is not violating any provision or condition of the authority. If the APCO does not act on such a request prior to expiration of the authority to construct, the authority shall remain in effect until the APCO has acted to approve or deny the renewal request.

407.3 If substantial use of the authority to construct has begun, either during the initial term or during a renewal term, the authority to construct shall, upon request by the applicant, be renewed for additional two-year terms until the permit to operate is issued, or, if a term of less than two years is requested, for such term as is requested."

Substantial use is defined in Section 2-1-227:

**"2-1-227 Substantial Use:** Substantial use of an Authority to Construct consists of one or more of the following: purchase or acquisition of the equipment that constitutes the source; ongoing construction activities other than grading or installation of utilities or foundations; a contract or commitment to complete construction of the source within two years."

A project agreement for the purchase of 2 CTG's and a steam turbine generator executed on December 20, 2000 was submitted as proof of "substantial use" of the Authority to Construct. Based on this submittal, the District granted a 2 year-extension of the Authority to Construct under the terms of substantial use.

## Discussion

The facility has now requested a second extension of the Authority to Construct. In addition to the original demonstration of agreements to purchase 2 CTG's and a steam turbine generator, the facility has also indicated that it has entered into an agreement with Pacific Gas and Electric Company (PG&E) on January 14, 2005 which grants PG&E the option to acquire the Contra Costa Unit 8 project. On June 17, 2005, PG&E filed an application with the California Public Utilities Commission for approval of the agreement and other documents related to the acquisition, completion, and operation of the Unit 8 project. Upon receipt of approval for this transfer, Mirant expects construction of the plant to resume.

Since the definition of "substantial use" has not changed since the first extension, this project continues to meet the definition of "substantial use." Therefore, another renewal of the Authority to Construct is allowable under Section 2-1-407.3 as long as all other requirements in Section 2-1-407 are met. Section 2-1-407 requires

- (1) A written request for renewal and any required fees prior to the expiration; and
- (2) No condition or provision of the Authority to Construct is being violated

Note that the renewal requirements specified in Section 2-1-407.1, which limit the extension period and require the project to meet any changed BACT and offset requirements, do not apply to renewals under Section 2-1-407.3. Therefore, Section 2-1-407.1 requirements do not apply to this request.

A written request for renewal was submitted on June 27, 2005 and received June 28, 2005, prior to the July 24, 2005 expiration date, meeting the first of the three renewal requirements listed above. Regarding fees, the District recently adopted fees for renewal of an Authority to Construct, BAAQMD Regulation 3-330. This section was adopted on June 15, 2005 and became effective July 1, 2005. Since this request for renewal was received prior to the effective date of the new renewal fees, the new fees do not apply. The last requirement in Section 2-1-407 specifies that the owner/operator must be in compliance with the condition and provisions of the Authority to Construct. The Authority to Construct for this project was issued subject to Condition #18138. The majority of the requirements in Condition #18138 are operating requirements and conditions applying to the start up/commissioning period. Parts 39 and 40 of Condition #18138 do require the owner/operator to demonstrate proof of control of adequate emission reduction credits for the project and to subsequently provide the District with the credits prior to the start of construction, respectively. The District's database shows that these required emission credits were provided through Banking Certificate #693, 694, 695, and 754, meeting the precondition requirements specified under the Authority to Construct. Therefore, all requirements in Section 2-1-407 have been met.

## Recommendation

Since all requirements for renewal of an Authority to Construct contained in Section 2-1-407 have been met and the applicant has demonstrated substantial use of the Authority to Construct, I recommend the Authorities to Construct for the following equipment be renewed for an additional 2 years:

- 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

Tamiko Endow  
Air Quality Engineer

*Tamiko Endow*

Date

9-26-05

Date: 26Sep05  
 Application: 1000  
 Plant #: 18  
 Plant name: Miant Delta, LLC  
 Location: 3201 Wilbur Avenue, Antioch, CA 94509  
 UTM coordinates: 606.51(Lon) 4207.7(Lat)  
 Banking #: 795  
 Project title: New Source/Gas Turbine  
 Plant Contact: David Hammond, Plant Manager  
 Mailing address: P O Box 1687, Antioch, CA 94509  
 Telephone: (925) 779-6500  
 Engineer: F Richard Wocasek [653]  
 Folder: 3rd Floor File Room  
 Received: 03/06/00 . . . Completeness review due by: 03/27/00  
 Incomplete: 03/13/00 . . . Cancellation due by: 07/15/00  
 Re-activated: 04/18/00 . . . Completeness review due by: 05/10/00  
 Complete: 05/22/00 . . . Evaluation due by: 11/18/00  
 A/C: 07/24/01 . . . Expiration due by: 07/24/05  
 Last Billed: 255230.00 03/13/00  
 Total Billed: 255230.00  
 Final disposition: A/C granted 07/24/01

-----  
 Emissions Increase/decrease, (tons/year)  
 -----

|         |      |      |         |        |      |              |
|---------|------|------|---------|--------|------|--------------|
| PM10    | CO   | SO2  | NOX     | POC    | PM10 | increase     |
| 114.570 | .000 | .000 | 174.300 | 46.600 | .000 | bank no. 693 |
| .000    | .000 | .000 | 200.500 | 53.600 | .000 | offset ratio |
| .00     | .00  | .00  | 1.15    | 1.15   | .00  | bank no. 693 |
| 321.900 | .000 | .000 | .000    | .000   | .000 | offset ratio |
| 3.00    | .00  | .00  | .00     | .00    | .00  | bank no. 694 |
| 14.251  | .000 | .000 | .000    | .000   | .000 | offset ratio |
| 3.00    | .00  | .00  | .00     | .00    | .00  | bank no. 695 |
| .179    | .000 | .000 | .000    | .000   | .000 | offset ratio |
| 3.00    | .00  | .00  | .00     | .00    | .00  | bank no. 754 |
| 2.370   | .000 | .000 | .000    | .000   | .000 | offset ratio |
| 1.00    | .00  | .00  | .00     | .00    | .00  | bank no. 754 |

Source: S-41; Natural Gas-fired Combustion Turbine Generator <f>  
 Codes:  
 Condition #: 18138 <<f>  
 Final Disposition: None  
 Source: S-42; Heat Recovery Steam Generator (Duct Burner) <f>  
 Codes:  
 Condition #: 18138 <<f>  
 Final Disposition: None  
 Source: S-43; Natural Gas-fired Combustion Turbine Generator <f>  
 Codes:  
 Condition #: 18138 <<f>  
 Final Disposition: None  
 Source: S-44; Heat Recovery Steam Generator (Duct Burner) <f>  
 Codes:

Condition #: 18138 <<f>>  
Final Disposition: None

Source: S-45; Natural Gas-Fired Fuel Preheater <f>  
Codes:

Condition #: 18138 <<f>>  
Final Disposition: None

```

Source: S-41; Natural Gas-fired Combustion Turbine Generator <f>
Codes:
Filing Fee: 198.00
Initial Fee: 104832.00
Late Fee: .00
PO Fee: .00
Retro PO Fees: .00
Condition #: 18138 <<f>
Final Disposition: None

Source: S-42; Heat Recovery Steam Generator (Duct Burner) <f>
Codes:
Filing Fee: 198.00
Initial Fee: 22120.00
Late Fee: .00

```

PO Fee: .00  
Retro PO Fees: .00  
Condition #: 18138 <<f>>  
Final Disposition: None

Source: S-43; Natural Gas-fired Combustion Turbine Generator <f>

Codes: 198.00  
Filling Fee: 104832.00  
Initial Fee: .00  
Late Fee: .00  
PO Fee: .00  
Retro PO Fees: .00  
Condition #: 18138 <<f>>  
Final Disposition: None

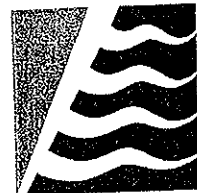
Source: S-44; Heat Recovery Steam Generator (Duct Burner) <f>

Codes: 198.00  
Filling Fee: 22120.00  
Initial Fee: .00  
Late Fee: .00  
PO Fee: .00  
Retro PO Fees: .00  
Condition #: 18138 <<f>>  
Final Disposition: None

Source: S-45; Natural Gas-fired Fuel Preheater <f>

Codes: 198.00  
Filling Fee: 336.00  
Initial Fee: .00  
Late Fee: .00  
PO Fee: .00  
Retro PO Fees: .00  
Condition #: 18138 <<f>>  
Final Disposition: None





BAY AREA  
AIR QUALITY  
MANAGEMENT  
DISTRICT  
SINCE 1955

Gateway Generating Station  
245 Market Street  
San Francisco, CA 94105  
Attention: Tom Allen

Application Numbers 1000 & 16115  
Plant Number: 18143  
Equipment Location:  
3201 Wilbur Avenue  
Antioch, CA 94509

Dear Applicant:

SUBJECT: AUTHORITY TO CONSTRUCT RENEWAL

In accordance with Regulation 2-1-407, an Authority to Construct expires two years from the date of issuance unless the Authority to Construct has been renewed. The Authority to Construct issued to you on July 24, 2001 for the following equipment:

- S-41 Natural Gas-fired Combustion Turbine Generator
- S-42 Heat Recovery Steam Generator
- S-43 Natural Gas-fired Combustion Turbine Generator
- S-44 Heat Recovery Steam Generator
- S-45 Natural Gas-fired Fuel Preheater
- S-46 Cell Cooling Tower

has been renewed. This Authority to Construct will now expire on July 23, 2009

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

Please include you application number with any correspondence with the District. The District's regulations may be viewed online at [www.baagmd.gov](http://www.baagmd.gov). If you have any questions on this matter, please call Brian K Lusher, Air Quality Engineer II at (415) 749-4623.

Very truly yours,

Jack P. Broadbent  
Executive Officer/APCO  
by  
Engineering Division

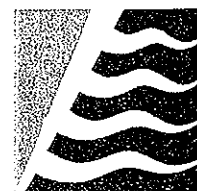
*Spence the 1st*

The Air District is a Certified Green Business  
Printed using soy-based inks on 100% post-consumer recycled content paper

San Francisco California 94109 • 415.771.6000 • [WWW.BAAQMD.GOV](http://WWW.BAAQMD.GOV)

- ALAMEDA COUNTY  
Tom Bates  
Scott Haggerty  
Janet Lockhart  
Nate Milley
- CONTRA COSTA COUNTY  
John Gioia  
Mark Ross  
(Chair)  
Michael Shmansky  
Gayle B. Ulkema
- MARIN COUNTY  
Harold C. Brown, Jr.
- NAPA COUNTY  
Brad Wagenknecht
- SAN FRANCISCO COUNTY  
Chris Daly  
Jake McGoldrick  
Gavin Newsom
- SAN MATEO COUNTY  
Jerry Hill  
Carol Klatt  
(Vice-Chair)
- SANTA CLARA COUNTY  
Erin Garner  
Yonko Kishimoto  
Liz Kniss  
Patrick Kwok
- SOLANO COUNTY  
John F. Silva
- SONOMA COUNTY  
Tim Smith  
Pamela Torlatti  
(Secretary)
- Jack P. Broadbent  
EXECUTIVE OFFICER/APCO

BOY-BKL



BAY AREA  
AIR QUALITY

MANAGEMENT

DISTRICT

SINCE 1955

Gateway Generating Station  
245 Market Street  
San Francisco, CA 94105

Attention: Tom Allen

Application Number: 1000  
Plant Number: 18143  
Equipment Location:  
3201 Wilbur Avenue  
Antioch, CA 94509

Dear Applicant:

SUBJECT: AUTHORITY TO CONSTRUCT

This is your Authority to Construct the following:

|      |                                                                           |
|------|---------------------------------------------------------------------------|
| S-41 | Natural Gas-fired Combustion Turbine Generator                            |
| S-42 | Heat Recovery Steam Generator (Duct Burner), abated by                    |
| A-11 | Catalytic AfterburnerSelective Catalytic Reduction with ammonia injection |
| S-43 | Natural Gas-fired Combustion Turbine Generator                            |
| S-44 | Heat Recovery Steam Generator (Duct Burner), abated by                    |
| A-13 | Catalytic AfterburnerSelective Catalytic Reduction with Ammonia Injection |
| S-45 | Natural Gas-Fired Fuel Preheater                                          |
| 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, in writing, (by letter, fax, or email) 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. Startup information may be faxed to the Engineering Division at (415) 749-5030.

Shane H. Kim

**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.  
**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 throughput, 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 the authority to construct has been renewed. This Authority to Construct was initially issued on July 24, 2001 and has been renewed. This Authority to Construct will expire on July 24, 2007.

**Trade Secret**  
Unless you have already designated specifically identified materials in your permit application as trade secret, 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 trade secret. Unless we hear from you within ten (10) calendar days of this letter, except for materials which have been previously designated as trade secret, 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:

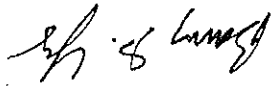
- A. The inspection of the source
- B. The sampling of materials used at the source
- C. The conduct of an emissions source test
- D. The inspection of any records required by District rule or permit condition.

**Correspondence**  
Please include your application number with any correspondence with the District. The District's regulations may be viewed online at [www.baaqmd.gov](http://www.baaqmd.gov). If you have any questions on this matter, please call Craig Ullery, Air Quality Engineer II at (415) 749-4718.

Very truly yours,

Jack P. Broadbent

Executive Officer/APCO



by  
Engineering Division

Definitions:

1-hour period: Any continuous 60-minute period

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.

The polycyclic aromatic  
hydrocarbons listed below  
shall be considered to

Specified PAHs for these permit  
conditions. Any emission

Precursor Organic Compounds (POCs):  
Any compound of carbon, excluding methane, ethane, carbon monoxide,

the plant has completed performance testing, is available for commercial operation, and has initiated sales to the power exchange.

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.

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.

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.

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

carbon dioxide, carbonic acid,  
metallic carbides or carbonates,  
and ammonium carbonate  
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 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 CCP 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 or oxygen concentrations P-11 and P-12

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 SO<sub>2</sub> and PM<sub>10</sub>)

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 NO<sub>x</sub>)

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 PM<sub>10</sub>)

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 NO<sub>x</sub>)

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 NO<sub>x</sub>)

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 NO<sub>x</sub>)

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 SCR 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 NH<sub>3</sub>)
- (f) Precursor organic compound (POC) mass emissions (as CH<sub>4</sub>) 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 (SO<sub>2</sub>) 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 (PM<sub>10</sub>) 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        | Hot Start-Up   | Shutdown       |
|----------------------|----------------|----------------|
| (lb./start-up)       | (lb./start-up) | (lb./shutdown) |
| Oxides of Nitrogen   | 452            | 189            |
| (as NO2)             |                |                |
| Carbon Monoxide (CO) | 990            | 291            |
| Precursor Organic    | 109            | 26             |
| Compounds (as CH4)   |                | 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 NOx (as NO2) per year (Offsets, PSD)
- (b) 259.1 tons of CO per year (Cumulative Increase)
- (c) 46.6 tons of POC (as CH4) per year (Offsets)
- (d) 112.2 tons of PM10 per year (Offsets, PSD)
- (e) 48.5 tons of SO2 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 NOX concentrations, NOX mass emissions (as NO2), 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 NOX mass emissions (as NO2), CO mass emissions, and corrected NOX and CO emission concentrations for every clock hour and for every rolling 3-hour period.  
(j) on an hourly basis, the cumulative total NOX mass emissions (as NO2) 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 NOX emission concentrations, NOX mass emissions (as NO2), corrected CO emission concentrations, and CO mass emissions for each Gas Turbine and associated HRSG combined.

(l) 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 CAPP 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 NH<sub>3</sub> 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 NO<sub>x</sub> 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 CCP 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 NO<sub>2</sub>), carbon monoxide concentration and mass emissions, sulfur dioxide concentration and mass emissions, methane, ethane, and particulate matter (PM<sub>10</sub>) 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 PM<sub>10</sub> 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 CCP Unit#8 and on an 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 | Less than or equal | 0.18 pounds/year |

(TRMP)

33. The owner/operator of the CCP 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 CCP 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 CCP 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 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 CCP 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 CCP 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 CCP 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 CCP 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 CCP 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 CCP 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 CCP Unit 8 shall comply with the continuous emission monitoring requirements of 40 CFR Part 75.

MIRANT

November 28, 2006

Jack P. Broadbent  
Executive Officer/Air Pollution Control Officer  
Bay Area Air Quality Management District  
939 Ellis Street  
San Francisco, CA 94109

Re: Transfer of Authorities to Construct  
Contra Costa Unit 8 Power Project  
Plant Number 18

Dear Mr. Broadbent:

Mirant Delta LLC (Mirant) and Pacific Gas & Electric Company (PG&E) have entered into an Asset Transfer Agreement dated June 10, 2005 pursuant to which PG&E will acquire the assets associated with the planned development of Unit 8 at the Contra Costa Power Plant (CC8). On June 15, 2006, the California Public Utilities Commission approved PG&E's acquisition of the CC8 assets. The Asset Transfer Agreement was closed on November 16, 2006. Pursuant to Regulation 2-1-406, the parties request the APCO's transfer to PG&E of the Authorities to Construct for the CC8 sources listed below:

**Application No. 1000, for the following sources:**

- S-41, Combustion Gas Turbine #1, abated by A-11 Selective Catalytic Reduction System and A-12 CO Catalyst System
- S-42, Heat Recovery Steam Generator #1, abated by A-11 Selective Catalytic Reduction System and A-12 CO Catalyst System
- S-43, Combustion Gas Turbine #2, abated by A-13 Selective Catalytic Reduction System and A-14 CO Catalyst System
- S-44, Heat Recovery Steam Generator #2, abated by A-13 Selective Catalytic Reduction System and A-14 CO Catalyst System
- S-45, Gas-Fired Fuel Preheater
- S-46, 10-Cell Wet Cooling Tower

**Application No. 14550, for the following source:**

- S-48, Oil-Water Separator

Mirant and PG&E have agreed that Mirant will remain responsible for all ob responsibility, coverage, and liability under the Authorities to Construct up to

89.17  
mirant  
on 11/28/06

The Parties note that certain Sections of the above referenced Proposals have been revised and conformed per the following:

Combustion Turbine Generator Proposal:

Tab 12 Rev. 2, dated 11/00

Steam Turbine Generator Proposal:

Tab 9 Rev. 1, dated 09/00

Tab 13 Rev. 2, dated 11/00

In the event of a conflict or inconsistency between or among the various Contract Documents, such conflict or inconsistency shall be resolved by reference to that document having the higher priority as determined by the order in which such documents are listed above.

3. Scope of Supply. Pursuant to the terms and conditions of this Contract, Purchaser will purchase and accept and Vendor will supply and deliver to the Destination Point two (2) PG7241FA GE gas turbines and one (1) D11S (33.5" LSB) steam turbine (collectively the "Equipment" or individually "Unit"), as more fully described in the Specifications and Vendor's Proposal (Appendix B).

4. Contract Price and Payment. The Purchaser shall pay the Vendor, the firm price of eighty-five million three hundred forty-seven thousand eight hundred three dollars (\$85,347,803) for the Equipment ("Contract Price"). Payments shall be made in accordance with Schedule A ("Payment Schedules") attached to and made a part of this Project Agreement and as described and in accordance with Paragraph 88 of Appendix A.

5. Termination. As described and in accordance with Paragraphs 78 and 79 of Appendix A, Purchaser shall have the right to terminate this Project Agreement at any time for its convenience by giving written notice thereof to Vendor. Upon such termination for convenience, Purchaser shall pay Vendor, as a termination payment, the sum set forth in Schedule B ("Termination Schedules") attached to and made a part of this Project Agreement less any amounts previously paid under this Project Agreement.

6. Scheduled Delivery Dates. Vendor shall deliver the Equipment to the Destination Point on or before the following dates (the "Scheduled Delivery Date" or "Contract Time"):

Gas Turbine #F11A: April 30, 2002

Gas Turbine Generator #F11A: April 30, 2002

GTG Auxiliaries #F11A: April 30, 2002

Gas Turbine #F11B: April 30, 2002

Gas Turbine Generator #F11B: April 30, 2002

GTG Auxiliaries #F11B: April 30, 2002

December 31, 2001  
December 31, 2001  
December 31, 2001  
Steam Turbine #S3:  
Steam Turbine Generator #S3:  
STG Auxiliaries #S3:

Purchaser has exercised the transportation option described in Paragraph 87A of Appendix A, and accordingly the Destination Point shall be free on board the Vendor's carrier (i) at the Project site for all truck shipments and (ii) at the nearest accessible rail siding to the Project site for all rail shipments.

7. Scheduled Provisional Acceptance Date. The Parties agree that the scheduled date for Provisional Acceptance is April 1, 2003 (the "Scheduled Provisional Acceptance Date").

8. Notices. All notices, consents, requests and other communications to be given under the Contract Documents shall be in writing and shall be sent by hand delivery, by certified or registered mail (return-receipt requested), by facsimile or by a recognized national overnight courier service as set forth below:

If to Purchaser:

Bay Area Power Services, L.L.C.  
c/o Southern Energy, Inc.  
1155 Perimeter Center West  
Atlanta, Georgia 30338  
Fax No.: 678-579-6600  
Attention: Mark Stone

If to Vendor:

General Electric Company  
Building 5, Room 446  
One River Road  
Schenectady, New York 12345  
Fax No.: 518-385-9485  
Attention: Dave Mollevik

Notices delivered pursuant to this Section shall be deemed given: at the time delivered, if personally delivered, three (3) business days after being deposited in the mail, if mailed; one (1) business day after being sent, if faxed; and one (1) business day after timely delivery to the courier, if by overnight courier service. Either Party hereto may change the address to which notice is to be sent by written notice to the other Party hereto in accordance with this Section.

9. Authorized Representatives. In order to secure effective cooperation and to deal on a prompt and orderly basis with the various scheduling and administrative issues which may arise in connection with the rights and obligations of the Parties hereunder, the parties hereby appoint the following persons as their "Authorized Representatives":

Purchaser:  
Vendor:

Mark Stone  
Dave Mollevik

Either Party may, at any time, change the designation of its Authorized Representative, provided that such Party promptly notify the other Party in writing of such change. Each Party's Authorized Representative shall be authorized to administer, but not modify, this Project

Agreement on behalf of such Party and agree upon procedures and provide such information as is necessary for coordinating the efforts of the parties.

10. Governing Law. The validity, performance, and all other matters relating to the interpretation and effect of this Project Agreement and any agreement resulting herefrom and any amendment thereto shall be governed by the internal substantive law of the State of Georgia, U.S.A. without giving effect to any choice of law or conflict of law provisions or regulations which would cause the law of any other jurisdiction to be applied.

11. Confidentiality. Notwithstanding the provisions of Paragraphs 30, 31, 32, 33, 34, and 35 of the General Conditions of the Contract, the Parties agree that the terms set forth in Paragraph 4 above and the Schedules and Appendices attached hereto shall be treated as confidential and not disclosed except as required by law or in connection with a Dispute under Paragraph 110 of the General Conditions of the Contract.

12. Entire Agreement. This Project Agreement, including the Contract Documents referred to herein in Paragraph 2 above, all of which are hereby incorporated as part of this Project Agreement by this reference, contains the entire agreement and understandings of Purchaser and Vendor with respect to the subject matter hereof, and supersedes all prior understandings or agreements of either or both Parties in connection therewith, whether written or oral. This Project Agreement shall not be amended or modified unless agreed to in writing by duly authorized representatives of both Parties.

IN WITNESS WHEREOF, the Parties have caused their authorized representatives to execute this Project Agreement on the date first written above.

|                               |                              |
|-------------------------------|------------------------------|
| BAY AREA POWER SERVICES, LLC  | GENERAL ELECTRIC COMPANY     |
| By: <u>[Signature]</u>        | By: <u>[Signature]</u>       |
| Name: <u>Alan M. Harrison</u> | Name: <u>B.L. Williamson</u> |
| Title: <u>Vice President</u>  | Title: <u>VICE PRESIDENT</u> |
| Date: <u>Dec. 20, 2000</u>    | Date: <u>12/20/00</u>        |

**Project Agreement for the Purchase and Sale of Equipment  
Executed Version for the Contra Costa Project**

**SCHEDULE B  
TERMINATION SCHEDULES**

| Termination<br>Month      | Termination Payment<br>as % of GTG#1<br>Price<br>(\$33,087,300) | Termination Payment<br>As % of GTG#2<br>Price<br>(\$33,087,300) | Termination<br>Payment as % of<br>STG Price<br>(\$19,173,203) | Cumulative<br>Termination<br>Payment as % of<br>the Contract Price |
|---------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------|
| 09/99<br>through<br>12/99 | 3.00%                                                           | 3.00%                                                           | 2.00%                                                         | 2.78%                                                              |
| 01/00                     | 3.00%                                                           | 3.00%                                                           | 2.00%                                                         | 2.78%                                                              |
| 02/00                     | 10.00%                                                          | 10.00%                                                          | 2.00%                                                         | 8.20%                                                              |
| 03/00                     | 10.00%                                                          | 10.00%                                                          | 2.00%                                                         | 8.20%                                                              |
| 04/00                     | 10.00%                                                          | 10.00%                                                          | 2.00%                                                         | 8.20%                                                              |
| 05/00                     | 10.00%                                                          | 10.00%                                                          | 2.00%                                                         | 8.20%                                                              |
| 06/00                     | 10.00%                                                          | 10.00%                                                          | 2.00%                                                         | 8.20%                                                              |
| 07/00                     | 10.00%                                                          | 10.00%                                                          | 2.00%                                                         | 8.20%                                                              |
| 08/00                     | 10.00%                                                          | 10.00%                                                          | 2.00%                                                         | 8.20%                                                              |
| 09/00                     | 12.80%                                                          | 12.80%                                                          | 4.00%                                                         | 10.82%                                                             |
| 10/00                     | 14.30%                                                          | 14.30%                                                          | 8.00%                                                         | 12.88%                                                             |
| 11/00                     | 15.50%                                                          | 15.50%                                                          | 12.00%                                                        | 14.71%                                                             |
| 12/00                     | 16.30%                                                          | 16.30%                                                          | 15.00%                                                        | 16.01%                                                             |
| 01/01                     | 18.00%                                                          | 18.00%                                                          | 24.00%                                                        | 19.35%                                                             |
| 02/01                     | 20.80%                                                          | 20.80%                                                          | 40.00%                                                        | 25.11%                                                             |
| 03/01                     | 22.00%                                                          | 22.00%                                                          | 51.00%                                                        | 28.51%                                                             |
| 04/01                     | 23.50%                                                          | 23.50%                                                          | 59.00%                                                        | 31.47%                                                             |
| 05/01                     | 26.50%                                                          | 26.50%                                                          | 76.00%                                                        | 37.62%                                                             |
| 06/01                     | 28.80%                                                          | 28.80%                                                          | 88.00%                                                        | 42.10%                                                             |
| 07/01                     | 31.50%                                                          | 31.50%                                                          | 94.00%                                                        | 45.54%                                                             |
| 08/01                     | 34.00%                                                          | 34.00%                                                          | 96.00%                                                        | 47.93%                                                             |
| 09/01                     | 34.00%                                                          | 34.00%                                                          | 98.00%                                                        | 48.83%                                                             |
| 10/01                     | 34.00%                                                          | 34.00%                                                          | 100.0%                                                        | 48.83%                                                             |
| 11/01                     | 34.00%                                                          | 34.00%                                                          | 100.0%                                                        | 48.83%                                                             |
| 12/01                     | 34.00%                                                          | 34.00%                                                          | 100.0%                                                        | 48.83%                                                             |
| 01/02                     | 34.00%                                                          | 34.00%                                                          | 100.0%                                                        | 48.83%                                                             |
| 02/02                     | 100.0%*                                                         | 100.0%*                                                         | 100.0%                                                        | 100.0%                                                             |

Upon termination by Purchaser for convenience, title to the Equipment for which title has not passed will remain with Vendor.

\*Upon shipment of either the respective turbine or generator.

## SCHEDULE A PAYMENT SCHEDULES

| Payment Month       | Event                                          | Monthly Payment as % of GTG #1 Price (\$33,087,300) | Monthly Payment as % of GTG #2 Price (\$33,087,300) | Monthly Payment as % of STG Price (\$19,173,203) | Monthly Payment as % of Contract Price | Cumulative Payment as % of Contract Price |
|---------------------|------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------|--------------------------------------------------|----------------------------------------|-------------------------------------------|
| 09/99               | Order Award                                    | 0%                                                  | 0%                                                  | 0%                                               | 0%                                     | 0%                                        |
| 10/99 through 07/00 |                                                | 0%                                                  | 0%                                                  | 0%                                               | 0%                                     | 0%                                        |
| 08/00               |                                                | 10.00%                                              | 10.00%                                              | 0%                                               | 7.75%                                  | 7.75%                                     |
| 09/00               |                                                | 3.53%                                               | 3.53%                                               | 0%                                               | 2.74%                                  | 10.49%                                    |
| 10/00               |                                                | 3.53%                                               | 3.53%                                               | 0%                                               | 2.74%                                  | 13.23%                                    |
| 11/00               |                                                | 3.53%                                               | 3.53%                                               | 0%                                               | 2.74%                                  | 15.96%                                    |
| 12/00               |                                                | 3.53%                                               | 3.53%                                               | 0%                                               | 2.74%                                  | 18.70%                                    |
| 01/01               |                                                | 3.53%                                               | 3.53%                                               | 0%                                               | 2.74%                                  | 21.44%                                    |
| 02/01               |                                                | 3.53%                                               | 3.53%                                               | 0%                                               | 2.74%                                  | 24.18%                                    |
| 03/01               |                                                | 3.53%                                               | 3.53%                                               | 0%                                               | 2.74%                                  | 26.91%                                    |
| 04/01               |                                                | 3.53%                                               | 3.53%                                               | 0%                                               | 2.74%                                  | 29.65%                                    |
| 05/01               |                                                | 3.53%                                               | 3.53%                                               | 0%                                               | 2.74%                                  | 32.39%                                    |
| 06/01               |                                                | 3.53%                                               | 3.53%                                               | 0%                                               | 2.74%                                  | 35.12%                                    |
| 07/01               |                                                | 3.53%                                               | 3.53%                                               | 0%                                               | 2.74%                                  | 37.86%                                    |
| 08/01               |                                                | 3.53%                                               | 3.53%                                               | 0%                                               | 2.74%                                  | 40.60%                                    |
| 09/01               |                                                | 3.53%                                               | 3.53%                                               | 0%                                               | 2.74%                                  | 43.33%                                    |
| 10/01               |                                                | 3.53%                                               | 3.53%                                               | 0%                                               | 2.74%                                  | 46.07%                                    |
| 11/01               |                                                | 3.53%                                               | 3.53%                                               | 0%                                               | 2.74%                                  | 48.81%                                    |
| 12/01               | Delivery of STG Major Components               | 3.53%                                               | 3.53%                                               | 90%                                              | 22.96%                                 | 71.76%                                    |
| 01/02               |                                                | 3.52%                                               | 3.52%                                               | 0%                                               | 2.73%                                  | 74.49%                                    |
| 02/02               | Shipment of GTG Major Components               | 25.00%                                              | 25.00%                                              | 0%                                               | 19.38%                                 | 93.88%                                    |
| 03/02               | Delivery of GTG Major Components               | 5.00%                                               | 5.00%                                               |                                                  | 3.88%                                  | 97.75%                                    |
| 03/02               | Delivery of STG Major Components 90 Days after |                                                     |                                                     | 10.00%                                           | 2.25%                                  | 100.00%                                   |

