

**Bay Area Air Quality Management District**

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**Permit Evaluation  
and  
Statement of Basis  
for**

**RENEWAL of  
MAJOR FACILITY REVIEW PERMIT**

for  
**Mirant Delta, LLC, Contra Costa Power Plant  
Facility #A0018**

**Facility Address:**  
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December 9, 2004

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Application Numbers: 6419 & 7180

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## **Permit Evaluation/Statement of Basis for Renewal of Major Facility Review Permit**

### **A. Background**

This facility is subject to the Operating Permit requirements of Title V of the federal Clean Air Act, Part 70 of Volume 40 of the Code of Federal Regulations (CFR), and BAAQMD Regulation 2, Rule 6, Major Facility Review because it is a Phase II Acid Rain facility as defined by BAAQMD Regulation 2-6-217 and because it is a “major facility” as defined by BAAQMD Regulation 2-6-212. It is an Acid Rain facility because it burns fossil fuel and serves a generator that is over 25 MW that is used to generate electricity for sale. It is a “major facility” because it emits more than 100 tons per year of a regulated air pollutant.

Major Facility Operating permits (Title V permits) must meet specifications contained in 40 CFR Part 70 as contained in BAAQMD Regulation 2, Rule 6. The permits must contain all applicable requirements (as defined in BAAQMD Regulation 2-6-202), monitoring requirements, recordkeeping requirements, and reporting requirements. The permit holders must submit reports of all monitoring at least every six months and compliance certifications at least every year.

In addition, Phase II Acid Rain facilities must meet the requirements of Title IV of the federal Clean Air Act, Acid Rain, and the Acid Rain regulations in Parts 72 through 78 of Volume 40 of the Code of Federal Regulations. These regulations were adopted and incorporated by reference in BAAQMD Regulation 2, Rule 7, Acid Rain. The main provisions of the regulations for natural gas and distillate oil fired acid rain sources, such as the ones at this facility, are the requirement to obtain one SO<sub>2</sub> allowance for each ton of SO<sub>2</sub> that is emitted, stringent monitoring requirements for NO<sub>x</sub>, CO, CO<sub>2</sub>, and SO<sub>2</sub>, and stringent recordkeeping and reporting.

In the Bay Area, state and District requirements are also applicable requirements and are included in the permit. These requirements can be federally enforceable or non-federally enforceable. All applicable requirements are contained in Sections I through VI of the permit.

Each facility in the Bay Area is assigned a facility identifier that consists of a letter and a 4-digit number. This identifier is also considered to be the identifier for the permit. The identifier for this facility is A0018.

This facility received its initial Major Facility Review permit on September 14, 1998 under Pacific Gas & Electric Company. The initial Title IV permit, which was incorporated into the Major Facility Review permit, was effective on January 1, 1998. This application is for a renewal of the Title IV and Title V permits. The standard sections of the permit have been upgraded to include new standard language used in all Title V permits. Also, various other corrections have been made to the permit. The proposed permit shows all changes to the permit in strikeout/underline format.

Mirant Delta LLC (formerly Southern Energy) took ownership of the facility from Pacific Gas & Electric Company on April 16, 1999. At that time, the Major Facility Review Permit for the Contra Costa Power Plant facility was transferred from Pacific Gas & Electric Company to Mirant Delta, LLC.

The primary responsible official, secondary responsible official, and facility contact have changed.

All of these revisions are described below in the permit content section. The proposed permit shows all changes to the permit in strikeout/underline format.

The facility has submitted 11 applications since the Major Facility Review permit was issued on September 14, 1998. One application (#2610) was cancelled. Following is a list of the applications:

<u>Application #</u>	<u>Description</u>	<u>Date of Receipt</u>
19626	Minor Title V Modification	2/22/99
892	NOx Reduction	2/2/00
1000	Proposed Unit 8	3/6/00
1119	Modification	4/4/00
2610	Banking	3/20/01 (cancelled)
4412	Exemption	3/11/02
4951	Transfer of ERC	4/22/02
5800	Transfer of ERC	7/17/02
6419	Title IV Permit Renewal	9/25/02
7180	Title V Permit Renewal	3/14/03
9283	Transfer of ERC	3/9/04

Applications 6419 and 7180 are for renewal of the Title IV and V permits, which is the subject of this action.

Application 4951 is for a transfer of PM10 and SOx emission reduction credits owned by Mirant Delta to Ultramar. Application 5800 is for a transfer of emission reduction credits owned by Mirant Delta to Midway Power. Application 9283 is for a transfer of emission reduction credits owned by Midway Power to Mirant Delta. These applications do not affect the permit for the remaining sources.

Application 892 was submitted for combustion modifications at S-9 Boiler, to enable the unit to comply with BAAQMD Regulation 9, Rule 11. The modifications were: installation of new low NOx burners, improving the flue gas recirculation system, and over fire air systems. The proposed retrofit is part of Mirant Delta's compliance plan under the Advanced Technology alternative Emission Control Plan ("system-wide emissions bubble") of Section 9 of District Regulation 9, Rule 11. Additional temporary permit conditions were required during the initial commissioning period. These conditions do not apply.

Application 1000 is for Unit 8 Combined Cycle Power Plant, rated at 530 MW. An Authority to Construct was issued on 7/24/2001. Although construction has been suspended, concrete pads were poured and the permit engineer had determined that “substantial progress” had been made. Subsequently, the Authority to Construct for Unit 8 was extended for an additional 2 years to July 24th of 2005.

Application 1119 is for the purpose of retrofitting S-10 boiler with selective catalytic reduction (SCR). No additional permit conditions were required because these boilers are already subject to the requirements of District Regulation 9, Rule 11.

Application 4412 is for a 500kW Clean Energy Demonstration Project that was projected to have NOx emissions of 8.6E-04 lb/day, CO + VOC emissions of 1.86 E-02 lb/day and SO2 emissions of 5.4E-1 lb/day. The source was deemed exempt by Regulation 2-1-114.2 because the unit will be fired exclusively on natural gas with a firing rate less than 10 million Btu/hour.

Application 19626 is for incorporation of non-SIP requirements of District Regulation 9, Rule 11 into the Title V permit as explicit permit conditions. These added conditions, applied under authority of CEQA, would remain in force regardless of changes of ownership, CPUC regulatory status, or rule applicability.

## **B. Facility Description**

The facility is a power plant that produces maximum 690 MW of electrical power for commercial sale and distribution originally. The power plant includes two power generating units consisting of steam generating boilers, steam turbines, turbogenerators and associated equipment. Boilers 9 and 10 began commercial operation in 1964.

To comply with the Acid Rain Program, established in accordance with Title IV, PG&E installed and certified Continuous Emissions Monitoring Systems (CEMS) for the 2 boilers. These CEMS are monitoring NOx and CO emissions.

Boilers 9 and 10 at Antioch Power Plant are currently operating under the Advanced Technology Alternative Emission Control Plan (ATAECP) contained in BAAQMD Regulation 9-11-309. This plan specifies Systemwide NOx emission Rate Limits that are included in the current Major facility Review Permit for Pittsburg (Plant #12), Contra Costa (Plant #18), and Potrero Power (Plant #26) plants. As an alternative means of compliance with the ATAECP limits stated in Regulation 9-11-309, the provisions contained in BAAQMD Regulation 2, Rule 9, Interchangeable Emission Reduction Credits (IERC's) may be utilized among the three Power Plants mention above. However, the applied IERC's can only be used to offset excess emissions from the Potrero Power Plant.

The 1998 plant inventory emissions are as follows:

Boilers	Heat Input (MM Btu/hr)	NOx (tons/yr)	CO (tons/yr)	SO2 (tons/yr)	VOC (tons/yr)	PM (tons/yr)	NH3 (tons/yr)
S-9	7,619,909	514.0	145.1	2.24	31.57	27.58	
S-10	11,813,895	305.7	225.0	3.48	48.94	42.76	0.0

S-20							
S-33					0.365		
S-34							
S-35							
S-37							
S-40					0.183		
S-100							
Exempt Sources					0.548		
Total	19,433,804	819.7	370.1	5.72	81.606	70.34	0.0

There has been a significant reduction in S-9 NOx emissions due to 91% less fuel being burned and because of combustion modifications made to reduce NOx. The modifications were: installation of new low NOx burners, improving the flue gas recirculation system, and over fire air systems. There has also been a significant reduction in NOx emissions at S10 Boiler due to 50% less fuel being burned and because of the installation of a NOx abatement device (Selective Catalytic Reduction System) in 2000. The NOx control measures were made by Mirant to comply with BAAQMD Regulation 9, Rule 11, "Nitrogen Oxides and Carbon Monoxide From Utility Electric Power Generating Boilers".

The 2003 plant inventory emissions are as follows:

Boilers	Heat Input, (MM Btu/hr)	NOx (tons/yr)	CO (tons/yr)	SO2 (tons/yr)	VOC (tons/yr)	PM (tons/yr)	NH3 (tons/yr)
S-9	688,906	20.3	27.9	0.2	1.8	2.5	
S-10 (SCR)	5,256,233	28.9	212.0	1.6	13.9	19.2	65.525
S-20							
S-33					0.365		
S-34							
S-35							
S-37							
S-40					0.183		
S-100							
Exempt Sources					0.548		
Total	5,945,139	49.2	239.9	1.8	16.796	21.7	65.525

The change in plant emissions between 2003 and 1998 are:

Pollutant	Change in Plant Emissions (tons/yr)
NOx	-770.50
CO	-130.2

SO2	-3.92
VOC	-64.81
PM	-48.64
NH3	+65.525

In addition, Mirant Delta also requested that the ability to burn fuel oil, and the requirement to monitor opacity from the boilers be deleted from the permit. Boilers 9 and 10 have been operated exclusively on natural gas since 1994 and no longer have the capability of combusting a non-gaseous fuel.

The facility also has a number of miscellaneous sources, such as sandblasting, gasoline service station, paint spray operation, sand blasting, solvent wipe cleaning operation, oil-water separator, cooling towers, and dissolved air floating unit, and a diesel-fired engine fire pump.

In 2000, the facility retrofitted boiler 10 with a Selective Catalyst Reduction unit (SCR). The NOx emission reduction, based on average fuel usage from 1996 to 1998, and from the baseline (after low NOx burner retrofit) of 30 ppmvd (3% O2) to the post SCR-retrofit level of 10 ppmvd (3% O2) resulting in a reduction factor of 20 ppmvd (3% O2) or approximately 0.0238 lb/MMBtu. The following table summarized the total NOx reduction.

Source Number	1996 to 1998 Average Actual Fuel Usage MMBTU/year	Reduction Factor lb NOx/MMBTU	NOx Reduction (tons /year)
10	8,033,063	0.0238	95.59

Regulation 9, Rule 11 requires CO limits to prevent any tradeoff of NO<sub>x</sub> for CO since some NO<sub>x</sub> control technologies have the potential to increase CO emissions while reducing NO<sub>x</sub>. This regulation requires a CO concentration of no more than 400 ppmvd during steady state operation for source testing. During normal operating conditions, these boilers are subject to load swings, which may increase CO concentrations above 400 ppmvd and thus, under the circumstances, are limited by the Regulation to 1000 ppmvd (1 hour clock average). It is expected that there will be no increase nor reduction in CO emissions from retrofitting the boilers with SCR systems.

The addition of this SCR unit also increases the ammonia emissions. Based on the required maximum ammonia slip of 10 ppmvd (3% O2) or 0.0044 lb NH<sub>3</sub>/MMBtu per BAAQMD Regulation 9-11 311 and 2003 annual fuel usage, the estimated ammonia emissions are as followed:

$$(3400 \text{ MMBtu/hr})(0.0044 \text{ lb NH}_3/\text{MMBtu})(8760 \text{ hr/yr}) = 131,050 \text{ lb/yr or } 65.525 \text{ ton/yr NH}_3$$

Aqueous ammonia will be stored in three horizontal steel storage tanks. These tanks are sealed and pressurized; therefore ammonia emissions to the atmosphere from tank breathing and working loss are not expected as conservatively estimated using the fixed roof tank formula from AP-42. See attached application #1119.

### **C. Permit Content**

The legal and factual basis for the permit follows. The permit sections are described in the order presented in the permit.

#### **I. Standard Conditions**

This section contains administrative requirements and conditions that apply to all facilities. If the Title IV (Acid Rain) requirements for fossil-fuel fired electrical generating facilities or the accidental release (40 CFR § 68) programs apply, the section will contain a standard condition pertaining to these programs. Many of these conditions were derived from 40 CFR § 70.6, Permit Content, which dictates certain standard conditions that must be placed in the permit. The language that the District has developed for many of these requirements has been adopted into the BAAQMD Manual of Procedures, Volume II, Part 3, Section 4, and therefore must appear in the permit.

The standard conditions also contain references to BAAQMD Regulation 1 and Regulation 2. These are the District's General Provisions and Permitting rules.

The facility is subject to Standard Condition I.K., Accidental Release, because of aqueous ammonia storage with 30,000 gallons capacity at 30% by weight.

#### **Changes to permit:**

- The rule dates in Standard Condition I.A have been updated and corrected.
- Standard Condition I.B.1 has been amended to state that the permit continues in force after the expiration date if a complete application has been submitted in accordance with the renewal deadlines. This is the "application shield" pursuant to BAAQMD Regulation 2-6-407.
- The following language was added as Standard Condition I.B.12: "The permit holder is responsible for compliance, and certification of compliance, with all conditions of the permit, regardless whether it acts through employees, agents, contractors, or subcontractors. (Regulation 2-6-307)." The purpose is to reiterate that the Permit Holder is responsible for ensuring that all activities at the facility comply with all applicable requirements.
- Standard Condition I.D.1 has been moved to I.E.1. I.E has been changed to I.E.2.
- The reference to Regulation 3 "Fees" was removed from the regulatory basis in Standard Conditions E "Records" and F "Monitoring Reports". BAAQMD Regulation 3 does not form a fundamental basis for these requirements.
- Standard Condition I.J has been changed to Standard Condition I.L so that the acid rain standard conditions for all acid rain sources in the Bay Area are in Standard Condition I.L.
- Standard Condition I.K is now Standard Condition I.J.
- Standard Condition I.L.1 was amended to correct the allowance transfer deadline in accordance with 40 CFR 72.2, as amended on December 11, 1998.

#### **II. Equipment**

This section of the permit lists all permitted or significant sources. Each source is identified by an S and a number (e.g., S-10).

Permitted sources are those sources that require a BAAQMD operating permit pursuant to BAAQMD Rule 2-1-302.

Significant sources are those sources that have a potential to emit more than 2 tons of a “regulated air pollutant,” as defined in BAAQMD Rule 2-6-222, per year or 400 pounds of a “hazardous air pollutant,” as defined in BAAQMD Rule 2-6-210, per year.

Major Facility Review permits list all abatement (control) devices.

The equipment section is considered to be part of the facility description. It contains information that is necessary for applicability determinations, such as fuel types, contents or sizes of tanks, etc. This information is part of the factual basis of the permit.

Each of the permitted sources has previously been issued an authority to construct or a permit to operate pursuant to the requirements of BAAQMD Regulation 2, Permits. These permits are issued in accordance with state law and the District’s regulations.

**Changes to permit:**

Because the facility has decided to give up the permit to burn oil at S-9 and S-10 Boilers, the reference to oil firing has been deleted from Table II-A.

The capacity of Service Station G#6557 has been added to the permit source, Table II-A.

The condition limit of 3 minutes per hour or less has been added to the abatement device Table II-B.

The current system-wide average NOx limit has been corrected to reflect the 2005 level in Regulation 9, Rule 11.

**III. Generally Applicable Requirements**

This section of the permit lists requirements that generally apply to all sources at a facility including insignificant sources and portable equipment that may not require a District permit. If a generally applicable requirement applies specifically to a source that is permitted or significant, the standard will also appear in Section IV and the monitoring for that requirement will appear in Sections IV and VII of the permit. Parts of this section apply to all facilities (e.g., particulate, architectural coating, odorous substance, and sandblasting standards). In addition, standards that apply to insignificant or unpermitted sources at a facility (e.g., refrigeration units that use more than 50 pounds of an ozone-depleting compound) are placed in this section.

Unpermitted sources are exempt from normal District permits pursuant to an exemption in BAAQMD Regulation 2, Rule 1. They may, however, be specifically described in a Major Facility Review permit if they are considered significant sources pursuant to the definition in BAAQMD Rule 2-6-239.

**Changes to permit:**

Language has been added to Section III to clarify that this section contains requirements that may apply to temporary sources. This provision requires contractors that have "portable" equipment permits to comply with all applicable requirements to work at the facility on a temporary basis, even if the permit does not specifically list the temporary source. Examples are temporary sandblasting or soil-vapor extraction equipment.

Section III has been modified to state that SIP standards are now found on EPA's website and are not included as part of the permit.

Table III has been updated by adding the following rules and standards to conform to current practice:

- SIP Regulation 2, Rule 1, General Requirements
- SIP Regulation 5, Open Burning
- BAAQMD Regulation 8, Rule 40 Aeration of Contaminated Soil and Removal of Underground Storage Tanks
- BAAQMD Regulation 8, Rule 47, Air Stripping and Soil Vapor Extraction Operations
- SIP Regulation 8, Rule 51, Adhesive and Sealant Products
- California Health and Safety Code Section 41750 et seq., Portable Equipment
- California Health and Safety Code Section 44300 et seq., Air Toxics "Hot Spots" Information and Assessment Act of 1987

The dates of adoption or approval of the rules and their "federal enforceability" status in Table III have also been updated.

#### **IV. Source-Specific Applicable Requirements**

This section of the permit lists the applicable requirements that apply to permitted or significant sources. These applicable requirements are contained in tables that pertain to one or more sources that have the same requirements. The order of the requirements is:

- District Rules
- SIP Rules (if any) are listed following the corresponding District rules. SIP rules are District rules that have been approved by EPA for inclusion in the California State Implementation Plan (SIP). SIP rules are "federally enforceable" and a "Y" (yes) indication will appear in the "Federally Enforceable" column. If the SIP rule is the current District rule, separate citation of the SIP rule is not necessary and the "Federally Enforceable" column will have a "Y" for "yes". If the SIP rule is not the current District rule, the SIP rule or the necessary portion of the SIP rule is cited separately after the District rule. The SIP portion will be federally enforceable; the non-SIP version will not be federally enforceable, unless EPA has approved it through another program.
- Other District requirements, such as the Manual of Procedures, as appropriate.
- Federal requirements (other than SIP provisions)
- BAAQMD permit conditions. The text of BAAQMD permit conditions is found in Section VI of the permit.
- Federal permit conditions. The text of Federal permit conditions, if any, is found in Section VI of the permit.

Section IV of the permit contains citations to all of the applicable requirements for particular sources. The text of the requirements is found in the regulations, which are readily available on the District's or EPA's websites, or in the permit conditions, which are found in Section VI of the permit. All monitoring requirements are cited in Section VII. Section VII is a cross-reference between the limits and monitoring requirements.

### **Complex Applicability Determinations**

The facility is not subject to 112(j) of the Clean Air Act because it is not a major source of hazardous air pollutants.

### **S9 and S10, Boilers**

The boilers are subject to the Acid Rain program contained in 40 CFR Parts 72 through 78 because they are utility units as defined in 40 CFR 72.2.

### **Changes to permit:**

Section IV has been modified to state that SIP standards are now found on EPA's website and are not included as part of the permit.

The dates of adoption or approval of the rules and their "federal enforceability" status have been updated.

### **S9 and S10, Electrical Generation Boilers:**

Condition 672, Part 1a, 1b, 2, 3, 4, and 5 have been deleted because all applicable fuel oil requirements for Sources S9 and S10 Boilers because these boilers will not burn fuel oil.

Condition 672, part 6 has been added to require that S9 and S10 Boilers burn PUC-quality natural gas exclusively.

Changes have been made to the citations for BAAQMD Regulation 1 because the SIP version has changed.

Various changes have been made because the facility has given up the permit to burn fuel oil at the boiler. BAAQMD Regulation 1-520.1 requires an opacity monitor only if the source burns non-gaseous fuel. NO<sub>x</sub> and either CO<sub>2</sub> or O<sub>2</sub> monitors are still required. The following requirements will be deleted because the source will not burn fuel oil:

- BAAQMD Regulation 6-302, Opacity Limitation
- BAAQMD Regulation 6-401, Appearance of Emissions
- BAAQMD Regulation 6-501, Sampling Facilities and Instruments Required
- BAAQMD Regulation 6-502, Data, Records, and Reporting
- BAAQMD Regulation 9-1-304, Fuel Burning (Liquid and Solid Fuels)
- BAAQMD Regulation 9-11-112, Exemption, Oil Testing

Changes have been made to the citations for BAAQMD Regulation 9, Rule 11 because the rule has changed, applicability of parts of the rule relate to time periods in the part, and portions of the rule have been adopted into the SIP. In particular, BAAQMD 9-11-303 and 304 no longer apply to the boiler because the facility is using the BAAQMD 9-11-309 Alternative Emission

Control Plan. Since there is no parallel requirement in the SIP rule, SIP 9-11-304 applies to the boilers.

Parts 1 through 12 of Condition 16327 have been deleted. The District imposed these conditions in 1999 pursuant to Application 19626 because Regulation 9, Rule 11 no longer applied to the facility due to a change to the definition of utility by the Public Utilities Commission. Condition 16327 was equivalent to Regulation 9, Rule 11. The rule was amended on May 17, 2000, and now applies to any electric power generating steam boilers. The condition explicitly stated that the condition would be rescinded when the rule was amended. Since the conditions were based on the parts of the rule that were not in the State Implementation Plan, the deleted permit conditions were not federally enforceable.

#### S20, Service Station:

The table for S20 has been changed to indicate that all applicable requirements are federally enforceable because Regulation 8-7 has been adopted into SIP since November 6, 2002.

Effective June 1, 2003, the new vapor tightness for tank requirement, BAAQMD 8-7-301.13, and vapor pressure for Balance Phase II vapor recovery system, BAAQMD 8-7-302.14 have been added for S20. The exemption from submerged pipe for tank less than 250 gallons equipped with Phase I vapor recovery, BAAQMD 8-7-311 has been added to the permit. CARB certified Phase II vapor recovery, BAAQMD 8-7-313 has been added. The nozzle to be equipped with hold open latch, BAAQMD 8-7-314 has been added. The periodic testing, BAAQMD 8-7-407, and periodic testing notification and submission, BAAQMD 8-7-408 have been added to the permit.

The future effective dates of October 2008 have been added to the table in the following requirements:

- Limit requirements of VOC emissions on liquid removal rate (BAAQMD Regulation 8-7-302.8)
- Liquid retaining (BAAQMD Regulation 8-7-302.12)
- Spitting (BAAQMD Regulation 8-7-302.13) in nozzle

#### S33, Paint Spray Operation-Maintenance:

The requirements for this source have been updated. The current District Regulation 8, Rule 3, Architectural Coatings, adopted on November 11, 2001, has been included. This rule has been approved into the SIP, so the separate SIP requirements have been deleted.

BAAQMD Regulation 8, Rule 19, Surface Coating of Miscellaneous Metal Parts and Products, has been updated. The exemption for Solid Film Lubricant, BAAQMD 8-19-123, has been added to the permit. The prohibition on using surface preparation solvents with a VOC content that exceeds 50 g/l (0.42 lbs/gal), as applied, for surface preparation of any metal part or product, in Section 8-19-321, Surface Preparation Standards, has been added. The prohibition on using emission reduction credits for compliance in Section 8-19-408 has been added.

#### S40, Solvent Wipe Cleaning Operation:

The requirements for this source have been updated. The current District Regulation 8, Rule 16, Solvent Cleaning Operations, adopted on October 16, 2002, has been included.

## **V. Schedule of Compliance**

A schedule of compliance is required in all Major Facility Review permits pursuant to BAAQMD Regulation 2-6-409.10 which provides that a major facility review permit shall contain the following information and provisions:

“409.10 A schedule of compliance containing the following elements:

- 10.1 A statement that the facility shall continue to comply with all applicable requirements with which it is currently in compliance;
- 10.2 A statement that the facility shall meet all applicable requirements on a timely basis as requirements become effective during the permit term; and
- 10.3 If the facility is out of compliance with an applicable requirement at the time of issuance, revision, or reopening, the schedule of compliance shall contain a plan by which the facility will achieve compliance. The plan shall contain deadlines for each item in the plan. The schedule of compliance shall also contain a requirement for submission of progress reports by the facility at least every six months. The progress reports shall contain the dates by which each item in the plan was achieved and an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.”

The BAAQMD Compliance and Enforcement Division have conducted a review of compliance over the past year and have no records of compliance problems at this facility during the past year. However, a fire pump engine was found during a recent inspection that needs a permit. It is a loss of exemption source. A permit application will be submitted and, if time permits, this source will be included as part of this Title V Renewal. The compliance report is contained in Appendix A of this permit evaluation and statement of basis.

## **VI. Permit Conditions**

The existing permit conditions are derived from previously issued District Authorities to Construct (A/C) or Permits to Operate (P/O). Permit conditions may also be imposed or revised as part of the annual review of the facility by the District pursuant to California Health and Safety Code (H&SC) § 42301(e), through a variance pursuant to H&SC § 42350 *et seq.*, an order of abatement pursuant to H&SC § 42450 *et seq.*, or as an administrative revision initiated by District staff. After issuance of the Title V permit, permit conditions will be revised using the procedures in Regulation 2, Rule 6, Major Facility Review. Permit conditions may also be derived from periodic monitoring requirements pursuant to BAAQMD Regulation 2-5-503, Monitoring.

Each permit condition is identified with a unique numerical identifier, up to five digits. Each part of the condition is also identified by a part number and each subpart is identified by a letter (for example, Condition 672, part 1a).

The regulatory basis is listed following each condition. The regulatory basis may be a rule or regulation. The District is also using the following terms for regulatory basis:

- BACT: This term is used for a condition imposed by the Air Pollution Control Officer (APCO) to ensure compliance with the Best Available Control Technology in Regulation 2-2-301.

- **Cumulative Increase:** This term is used for a condition imposed by the APCO that limits a source's operation to the operation described in the permit application pursuant to BAAQMD Regulation 2-1-403.
- **Offsets:** This term is used for a condition imposed by the APCO to ensure compliance with the use of offsets for the permitting of a source or with the banking of emissions from a source pursuant to Regulation 2, Rules 2 and 4.
- **PSD:** This term is used for a condition imposed by the APCO to ensure compliance with a Prevention of Significant Deterioration permit issued pursuant to Regulation 2, Rule 2.
- **TRMP:** This term is used for a condition imposed by the APCO to ensure compliance with limits that arise from the District's Toxic Risk Management Policy.
- **Recordkeeping:** This term is used for a condition imposed by the APCO to ensure compliance with equipment and process operating limits.

Any changes to existing permit conditions are clearly shown in "strike-out/underline" format in the proposed permit. When the permit is issued, all "strike-out" language will be deleted and all "underline" language will be retained, subject to consideration of comments received.

#### Condition 672

Parts 1a, 1b, 3, 4, and 5 were removed as part of Title V renewal because Boilers S9 and S10 are not using fuel oil.

#### Condition 16327

- Parts 1 through 12 have been deleted. The deletion is explained in part C.IV of this permit evaluation/statement of basis.
- A requirement to burn PUC-quality natural gas exclusively at S9 and S10 Boilers has been added as Part 1.

#### Condition 21996

- A throughput limit (Part 1) was added to limit the amount of gasoline dispensed from the S20 Gasoline Service Station.

### **VII. Applicable Limits and Compliance Monitoring Requirements**

This section of the permit is a summary of numerical limits and related monitoring requirements for each source. The summary includes a citation for each monitoring requirement, frequency of monitoring, and type of monitoring. The applicable requirements for monitoring are completely contained in Sections IV, Source-Specific Applicable Requirements, and VI, Permit Conditions, of the permit.

The District has reviewed all monitoring and has determined the existing continuous emission monitoring is adequate. For the boiler equipped with SCR, the equipment needs to test for ammonia slip concentration quarterly as specified in BAAQMD Regulation 9-11-311.

The tables below contain only the limits for which there is no monitoring or inadequate monitoring in the applicable requirements. The District has examined the monitoring for other limits and has determined that monitoring is adequate to provide a reasonable assurance of

compliance. Calculations for potential to emit will be provided in the discussion when no monitoring is proposed due to the size of a source.

Monitoring decisions are typically the result of a balancing of several different factors including: 1) the likelihood of a violation given the characteristics of normal operation, 2) degree of variability in the operation and in the control device, if there is one, 3) the potential severity of impact of an undetected violation, 4) the technical feasibility and probative value of indicator monitoring, 5) the economic feasibility of indicator monitoring, and 6) whether there is some other factor, such as a different regulatory restriction applicable to the same operation, that also provides some assurance of compliance with the limit in question.

These factors are the same as those historically applied by the District in developing monitoring for applicable requirements. It follows that, although Title V calls for a re-examination of all monitoring, there is a presumption that these factors have been appropriately balanced and incorporated in the District's prior rule development and/or permit issuance. It is possible that, where a rule or permit requirement has historically had no monitoring associated with it, no monitoring may still be appropriate in the Title V permit if, for instance, there is little likelihood of a violation. Compliance behavior and associated costs of compliance are determined in part by the frequency and nature of associated monitoring requirements. As a result, the District will generally revise the nature or frequency of monitoring only when it can support a conclusion that existing monitoring is inadequate.

### PM Sources

<b># &amp; Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
S9 and S10 Boilers	BAAQMD Regulation 6-301	Ringelmann 1.0 for less than 3 min/hr	None
S9 and S10 Boilers	BAAQMD Regulation 6-304	Ringelmann 2.0 or greater than 40% opacity for less than 3 min/hr during tube cleaning	None
S9 and S10 Boilers	BAAQMD Regulation 6-310	0.15 gr/dscf	None
S9 and S10 Boilers	BAAQMD Regulation 6-310.3	0.15 gr/dscf at 6% O2	None

### **PM Discussion:**

#### BAAQMD Regulation 6 “Particulate Matter and Visible Emissions”

##### Visible Emissions

Source S9 and S10 Boilers, have opacity monitors pursuant to District Regulation 1-520.1 because they hold a permit to burn fuel oil. The facility is giving up the permit to burn fuel oil and has accepted a condition to burn natural gas exclusively at this source. Therefore, the

source will no longer have an opacity monitor. The Title IV Acid Rain regulation, 40 CFR 75, also exempts gas-fired equipment from the requirement for opacity monitoring.

Moreover, in EPA's June 24, 1999 agreement with CAPCOA and ARB, "Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP", EPA has agreed that natural-gas-fired combustion sources do not need additional monitoring to verify compliance with Regulation 6, Visible Emissions. Therefore, no monitoring is necessary for this requirement.

Particulate Weight Limitation

BAAQMD Regulation 6-310 limits filterable particulate (FP) emissions from any source to 0.15 grains per dry standard cubic foot (gr/dscf) of exhaust volume. Section 310.3 limits filterable particulate emissions from "heat transfer operations" to 0.15 gr/dscf @ 6% O<sub>2</sub>. These are the "grain loading" standards.

S9 and S10 Boilers

S9 and S10 Boilers are subject to BAAQMD Regulation 6-310.3, 0.15 gr/dscf PM @ 6% O<sub>2</sub>. No monitoring has been imposed because the margin of compliance is high, as shown by the following calculation.

Natural Gas

The AP-42 factor for natural gas combustion is 7.6 lb/million standard cubic feet of natural gas (MMscf).

Converting to an emission factor per MMbtu:

$$(7.6 \text{ lb/MMscf}) \times (\text{MMscf}/1,050 \text{ MMbtu}) = 0.00724 \text{ lb/MMbtu}$$

The flue gas production rate for natural gas at 0% oxygen is 8,710 dscf. At 6% oxygen, the production rate is:

$$(20.9/20.9-6) (8710 \text{ dscf}) = 12,217 \text{ dscf}$$

The calculated particulate loading is:

$$(0.00724 \text{ lb PM/MMbtu}) \times (7000 \text{ gr/lb}) / (12,217 \text{ dscf/MMbtu}) = 0.004 \text{ gr/dscf}$$

The ratio of the limit to the calculated grain loading is 37.5:1, therefore, no additional monitoring is necessary to assure compliance.

**SO<sub>2</sub> Sources**

# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
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### SO<sub>2</sub> Sources

S# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
S9 and S10 Boilers	BAAQMD 9-1-301	Ground level concentrations of SO <sub>2</sub> shall not exceed: 0.5 ppm for 3 consecutive minutes AND 0.25 ppm averaged over 60 consecutive minutes AND 0.05 ppm averaged over 24 hours	None
S9 and S10 Boilers	BAAQMD 9-1-302	300 ppm (dry)	None

#### SO<sub>2</sub> Discussion:

##### BAAQMD Regulation 9-1-301

Area monitoring to demonstrate compliance with the ground level SO<sub>2</sub> concentration requirements of Regulation 9-1-301 is at the discretion of the APCO (per BAAQMD Regulation 9-1-501). This facility does not have equipment that emits large amounts of SO<sub>2</sub> and therefore is not required to have ground level monitoring by the APCO.

All facility combustion sources are subject to the SO<sub>2</sub> emission limitations in District Regulation 9, Rule 1 (ground-level concentration and emission point concentration). In EPA's June 24, 1999 agreement with CAPCOA and ARB, "Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP", EPA has agreed that natural-gas-fired combustion sources do not need additional monitoring to verify compliance with Regulation 9, Rule 1, since violations of the regulation are unlikely. Therefore, no monitoring is necessary for this requirement for S5 through S7, Boilers, which will exclusively burn natural gas.

### Lead Sources

S# & Description	Emission Limit Citation	Federally Enforceable Emission Limit	Monitoring
S9 and S10 Boilers	BAAQMD 11-1-301	6.75 kg/day	None
S9 and S10 Boilers	BAAQMD 11-1-302	1.0 g/m <sup>3</sup> averaged over 24 hours	None

Following are detailed citations of the lead standards:

- 11-1-301 Daily Limitation:** A person shall not discharge any emission of lead, or compound of lead calculated as lead, from any emission point in excess of 6.75 kg (15 lbs) per day.
- 11-1-302 Ground Level Concentration Limit Without Background:** A person shall not discharge any emission of lead, or compound of lead calculated as lead, that will result in ground level concentrations in excess of 1.0 ug/m<sup>3</sup> averaged over 24 hours.

These limits shall be compared with the potential to emit for lead from each emission point.

#### Compliance with 11-1-301

The AP-42 emission factor for lead from natural gas combustion at S9 and S10 Boilers, is 0.0005 lb/MMscf. Both boilers each burn 3.24 MMscf/hr or 77.7 MMscf/day. The maximum amount of lead that could be emitted by the boiler is 0.0389 lb/day or 0.0177 kg/day.

Since the potential to emit is at least 385 times lower than the limit, no additional monitoring is required.

#### Compliance with 11-1-302

The maximum lead emission levels above and the dispersion calculations prescribed in BAAQMD Regulation 11-1-601 were used to determine compliance with 11-1-302. The maximum 24-hr average ground level lead concentration caused by the facility at maximum operation is expected to be about 0.000011 micrograms/cubic meter, which is in compliance with the 1.0 micrograms/cubic meter limit. The calculations are attached in Appendix B and form part of this Statement of Basis. These calculations are based on natural gas combustion at the boiler. Since the margin of compliance is high, no monitoring is required for this limit.

#### Following is a list of revisions to Section VII:

- The language at the beginning of the section has been made clearer.
- A note has been added at the beginning of the section to clarify that this section is a summary of the limits and monitoring, and that in the case of a conflict between Sections I-VI and Section VII, the preceding sections take precedence.
- The headings at the top of the table have been changed. The "Pollutant" column has been changed to "Type of Limit" since not every limit is a pollutant limit. The first "Emission Limit" column has been changed to "Citation of Limit" since not every limit is an emission limit. The second "Emission Limit" column has been changed to "Limit" since not every limit is an emission limit and the column actually contains a short summary of the limit.
- The "type of limit" has been changed to "opacity" for Regulation 6-301.
- The "type of limit" has been changed to "FP" or "filterable particulate" for Regulation 6-310 and 6-310.3. Filterable particulate is defined as "particulate as measured by BAAQMD Method ST-15, Particulate." This is the type of particulate that is regulated by Regulation 6-310.

#### S9 and S10, Boilers

- The description of the limit for BAAQMD 6-301 has been expanded from "Ringelmann No. 1" to "Ringelmann No. 1 for no more than 3 min/hr", which is more complete.
- The description of the limit for BAAQMD 6-304 has been expanded from "Ringelmann No. 2" to "Ringelmann No. 2 or 40% opacity for no more than 3 min/hr", which is more complete.
- Parts 1 through 12 of Condition 16327 have been deleted. The deletion is explained in part C.IV of this Permit Evaluation/Statement of Basis.
- Part 1 of Condition 16327 has been added to specify the use of natural gas fired only.
- Outdated limits from Regulation 9, Rule 11 have been deleted.

Various changes have been made because the facility has given up the permit to burn fuel oil at the boiler. BAAQMD Regulation 1-520.1 requires an opacity monitor only if the source burns non-gaseous fuel. NO<sub>x</sub> and either CO<sub>2</sub> or O<sub>2</sub> monitors are still required. The following requirements will be deleted because the source will not burn fuel oil:

- BAAQMD Regulation 6-302, Opacity Limitation
- BAAQMD Regulation 9-1-304, Fuel Burning (Liquid and Solid Fuels)
- BAAQMD Regulation 9-11-304.1.2, the oil-firing limit of 700 ppmv NO<sub>x</sub>
- BAAQMD Regulation 9-11-304.1.2, the weighted average NO<sub>x</sub> limit for simultaneous natural gas and oil firing
- The requirement for opacity monitoring in 40 CFR Part 75. Pursuant to 40 CFR 75.14(c), opacity monitoring is not required for gas-fired units.

#### S-20, Service Station

The table was modified to include limit requirements of VOC emissions on liquid removal rate (BAAQMD Regulation 8-7-302.8), connector size requirement (BAAQMD Regulation 8-7-302.10), liquid retaining (BAAQMD Regulation 8-7-302.12) and spitting (BAAQMD Regulation 8-7-302.13) in nozzle and dynamic back pressure (BAAQMD Regulation 8-7-302.14.2).

#### S-100, Sand Blasting

The description of the limit for BAAQMD 6-301 has been expanded from "Ringelmann No. 1" to "Ringelmann No. 1 for no more than 3 min/hr", which is more complete. The additional SIP limit was removed because the BAAQMD limit is now in the SIP.

The limit from general operation requirement of BAAQMD Regulation 6-311 was removed from the table because it does not apply to sand blasting operation specifically. Sand blasting operation is already subject to BAAQMD Regulation 6-310, which is a more stringent requirement.

### **VIII. Test Methods**

This section of the permit lists test methods that are associated with standards in District or other rules. It is included only for reference. In most cases, the test methods in the rules are source test methods that can be used to determine compliance but are not required on an ongoing basis. They are not applicable requirements.

If a rule or permit condition requires ongoing testing, the requirement will also appear in Section VII of the permit.

The test methods for Condition 16327 have been deleted since the permit has been deleted.

#### Changes to permit

EPA Reference Method 5 (40 CFR 60, Appendix A), Determination of Particulate Emissions from Stationary Sources, has been added as an alternative method for BAAQMD Regulation 6-310.

Source test Method ST-27 for Dynamic Back Pressure has been added to the Phase II Vapor Recovery for gasoline service station.

**IX. Revision History**

Changes have been documented in the Title V permit and SOB.

**X. Title IV Acid Rain Permit**

The Title IV Acid Rain permit is contained in the Title V permit. 40 CFR 75 requires that it contain the following elements:

- Statement of Basis
- SO<sub>2</sub> allowance allocations and NO<sub>x</sub> requirements, if any.
- Any comments, notes or justifications regarding permit decisions
- The permit application (attached at the end of the Title V permit)

**Changes to permit**

The dates, name of BAAQMD Air Pollution Control Officer and Designated Representative have been changed. The note about changes to 40 CFR Part 73 Tables 2, 3, and 4 has been deleted since the number of allowances allocated to the remaining boiler has not been changed.

**XI. Glossary**

Additions and corrections have been made to the glossary.

**XII. Applicable State Implementation Plan**

The applicable regulations and rules from the State Implementation Plan are no longer attached to the permit. This section now states that the regulations and rules are available on EPA Region IX's website.

**XIII. Title IV Permit Application**

The Title IV Permit Application is considered part of the Title IV permit and therefore, is attached to the permit.

**D. Alternate Operating Scenarios:**

No alternate operating scenario has been requested for this facility.

**E. Permit Shield**

The District rules allow two types of permit shields. The permit shield types are defined as follows: (1) A provision in a major facility review permit that identifies and justifies specific federally enforceable regulations and standards are not applicable to a source or group of sources, or (2) A provision in a major facility review permit that identifies and justifies specific federally enforceable applicable requirements for monitoring, recordkeeping and/or reporting which are subsumed because other applicable requirements for monitoring, recordkeeping, and reporting in the permit will assure compliance with all emission limits.

The second type of permit shield is allowed by EPA's White Paper 2 for Improved Implementation of the Part 70 Operating Permits Program. The District uses the second type of permit shield for all streamlining of monitoring, recordkeeping, and reporting requirements in Major Facility Review permits. The District's program does not allow other types of streamlining in Major Facility Review permits.

This facility has no permit shields.

**F. Compliance Status:**

An office memorandum from the Director of Compliance and Enforcement dated February 1, 2005, to the Director of Engineering, presents a review of the compliance record of Mirant Delta (Site #: A0018). The Compliance and Enforcement Division staff has reviewed the records for the period from December 31, 2003 through December 31, 2004. This review was initiated as part of the District evaluation of an application by the facility for a Title V permit renewal. During the period subject to review, activities known to the District include:

- The District did not receive any alleged complaints.
- The District did not issue any Notices of Violation during this review period.
- The facility is not operating under a Variance or an Order of Abatement from the District Board of Directors.
- No monitor excesses were reported or documented.

The owner certified that all equipment was operating in compliance on March 13, 2003. No ongoing non-compliance issues have been identified to date.

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APPENDIX A  
COMPLIANCE REPORT

APPENDIX B  
DISPERSION CALCULATIONS FOR LEAD

APPENDIX B  
CALCULATION OF GROUND LEVEL LEAD CONCENTRATION

Mirant Delta, Plant 18

Methodology

According to the Manual of Procedures, Volume VI, Section 2.:

"Emission limitations required to meet Regulation 11-1-302 shall be determined by use of formulas 4.1 and 5.13, and figures 3-3 and 3-9, in "Workbook of Atmospheric Dispersion Estimates," by D. Bruce Turner, Public Health Service Publication No. 999-AP-26, Revised 1969, published by the U.S. Department of Health, Education and Welfare. In using said equations and figures, a neutral or "D" stability category shall be assumed, a wind shall be assumed that remains throughout the averaging period directed within a 22.5° sector of the compass rose at an average speed of two meters per second, and an ambient air temperature of 293 K shall be assumed.

Calculations

1. Stack parameters:

	S9	S10	S9 + S10
Q	6.1E-05 g/s	7.9E-05 g/s	1.4E-04 g/s
V <sub>S</sub>	14.4 m/s	14.4 m/s	28.7 m/s
T <sub>S</sub>	411 K	411 K	411 K
d	5.7 m	5.7 m	5.7 m
H <sub>S</sub>	137.2 m	137.2 m	137.2 m

2. Calculate plume rise using formula 4.1 (Holland's Equation) in Turner's workbook.

$$\delta H = (V_S d/u)(1.5 + (2.68 \text{ E-}3)(p d)((T_S - T_A)/T_S))$$

using

$$\begin{aligned} u &= 2 \text{ m/s} \\ T_a &= 293 \text{ K} \\ p &= 1013 \text{ mb} \end{aligned}$$

	S9	S10	S9 + S10

Permit Evaluation and Statement of Basis: Site A0012, Mirant Delta L.L.C., Pittsburg Power Plant, 696 West 10th St., Pittsburg, CA 94565

$\delta H$	244 m	244 m	488 m
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3. Determine  $X_{MAX}$  from Figure 3-9 in Turner's Workbook.

$H$  = Effective height of emission

$H = H_S + \delta H$

	S9	S10	S9 + S10
H	381 m	381 m	625 m

From Fig. 3-9 in Turner's Workbook, assuming "D" stability as specific in the MOP and H from above:

	S9	S10	S9 + S10
$X_{MAX}$	17 km	17 km	17 km

4. Determine Vertical Dispersion Coefficient ( $\sigma_z$ ) from Figure 3-3 in Turner's workbook.

From Fig. 3-3, assuming "D" stability and  $X_{MAX}$  from above:

	S9	S10	S9 + S10
$\sigma_z$	180 M	180 M	180 m

5. Calculate maximum annual average ( $X_{AN}$ ) and 24-hour average ( $X_{24}$ ) concentrations using Formula 5.13 in Turner's Workbook:

$$X_{AN} = (2.03 Q)(\exp[-0.5 (H/\sigma_z)^2]) / (\sigma_z u X_{MAX})$$

Using  $Q = \text{g/sec lead}$

$$X_{AN} = \text{g/m}^3, \text{ maximum annual average}$$

$$X_{24} = 4 X_{AN} = \text{g/m}^3, \text{ maximum 24-hr average}$$

	S9	S10	S9 + S10
$X_{AN}$	2.2 E-6 $\mu\text{g/m}^3$	2.8 E-6 $\mu\text{g/m}^3$	1.1 E-7 $\mu\text{g/m}^3$
$X_{24}$	8.6 E-6 $\mu\text{g/m}^3$	1.1 E-5 $\mu\text{g/m}^3$	4.5 E-7 $\mu\text{g/m}^3$

APPENDIX D  
Application 1119

## GLOSSARY

**ACT**

Federal Clean Air Act

**APCO**

Air Pollution Control Officer

**AP-42**

EPA's Compilation of Air Pollutant Emission Factors

**ARB**

Air Resources Board

**BAAQMD**

Bay Area Air Quality Management District

**BACT**

Best Available Control Technology

**Basis**

The underlying authority that allows the District to impose requirements.

**CAA**

The federal Clean Air Act

**CAAQS**

California Ambient Air Quality Standards

**CAPCOA**

California Air Pollution Control Officers Association

**CEQA**

California Environmental Quality Act

**CFR**

The Code of Federal Regulations. 40 CFR contains the implementing regulations for federal environmental statutes such as the Clean Air Act. Parts 50-99 of 40 CFR contain the requirements for air pollution programs.

**CO**

Carbon Monoxide

**Cumulative Increase**

The sum of permitted emissions from each new or modified source since a specified date pursuant to BAAQMD Rule 2-1-403, Permit Conditions (as amended by the District Board on 7/17/91) and SIP Rule 2-1-403, Permit Conditions (as approved by EPA on 6/23/95). Cumulative increase is used to determine whether threshold-based requirements are triggered.

**District**

The Bay Area Air Quality Management District

**dscf**

Dry Standard Cubic Feet

**EPA**

The federal Environmental Protection Agency.

**Excluded**

Not subject to any District regulations.

**Federally Enforceable, FE**

All limitations and conditions which are enforceable by the Administrator of the EPA including those requirements developed pursuant to 40 CFR Part 51, subpart I (NSR), Part 52.21 (PSD), Part 60 (NSPS), Part 61 (NESHAPs), Part 63 (MACT), and Part 72 (Permits Regulation, Acid Rain), including limitations and conditions contained in operating permits issued under an EPA-approved program that has been incorporated into the SIP.

**FP**

Filterable Particulate as measured by BAAQMD Method ST-15, Particulate.

**HAP**

Hazardous Air Pollutant. Any pollutant listed pursuant to Section 112(b) of the Act. Also refers to the program mandated by Title I, Section 112, of the Act and implemented by 40 CFR Part 63.

**IERC**

Interchangeable Emission Reduction Credit, as defined by BAAQMD Regulation 2-9-212.

**Major Facility**

A facility with potential emissions of: (1) at least 100 tons per year of regulated air pollutants, (2) at least 10 tons per year of any single hazardous air pollutant, and/or (3) at least 25 tons per year of any combination of hazardous air pollutants, or such lesser quantity of hazardous air pollutants as determined by the EPA administrator.

**MFR**

Major Facility Review. The District's term for the federal operating permit program mandated by Title V of the Federal Clean Air Act and implemented by District Regulation 2, Rule 6.

**MOP**

The District's Manual of Procedures.

**NAAQS**

National Ambient Air Quality Standards

**NESHAPS**

National Emission Standards for Hazardous Air Pollutants. See in 40 CFR Parts 61 and 63.

**NMHC**

Non-methane Hydrocarbons (Same as NMOC)

**NMOC**

Non-methane Organic Compounds (Same as NMHC)

**NO<sub>x</sub>**

Oxides of nitrogen.

**NSPS**

Standards of Performance for New Stationary Sources. Federal standards for emissions from new stationary sources. Mandated by Title I, Section 111 of the Federal Clean Air Act, and implemented by 40 CFR Part 60 and District Regulation 10.

**NSR**

New Source Review. A federal program for pre-construction review and permitting of new and modified sources of pollutants for which criteria have been established in accordance with Section 108 of the Federal Clean Air Act. Mandated by Title I of the Federal Clean Air Act and implemented by 40 CFR Parts 51 and 52 and District Regulation 2, Rule 2. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

**Offset Requirement**

A New Source Review requirement to provide federally enforceable emission offsets for the emissions from a new or modified source. Applies to emissions of POC, NO<sub>x</sub>, PM<sub>10</sub>, and SO<sub>2</sub>.

**Phase II Acid Rain Facility**

A facility that generates electricity for sale through fossil-fuel combustion and is not exempted by 40 CFR 72 from Titles IV and V of the Clean Air Act.

**POC**

Precursor Organic Compounds

**PM**

Particulate Matter

**PM<sub>10</sub>**

Particulate matter with aerodynamic equivalent diameter of less than or equal to 10 microns

**PSD**

Prevention of Significant Deterioration. A federal program for permitting new and modified sources of those air pollutants for which the District is classified "attainment" of the National Air Ambient Quality Standards. Mandated by Title I of the Act and implemented by both 40 CFR Part 52 and District Regulation 2, Rule 2.

**SIP**

State Implementation Plan. State and District programs and regulations approved by EPA and developed in order to attain the National Air Ambient Quality Standards. Mandated by Title I of the Act.

**SO<sub>2</sub>**

Sulfur dioxide

**THC**

Total Hydrocarbons (NMHC + Methane)

**Title V**

Title V of the federal Clean Air Act. Requires a federally enforceable operating permit program for major and certain other facilities.

**TOC**

Total Organic Compounds (NMOC + Methane, Same as THC)

**TPH**

Total Petroleum Hydrocarbons

**TRMP**

Toxic Risk Management Plan

**TSP**

Total Suspended Particulate

**VOC**

Volatile Organic Compounds

**Units of Measure:**

bhp	=	brake-horsepower
btu	=	British Thermal Unit
cfm	=	cubic feet per minute
g	=	grams
gal	=	gallon
gpm	=	gallons per minute
hp	=	horsepower
hr	=	hour
lb	=	pound
in	=	inches
max	=	maximum
m <sup>2</sup>	=	square meter
min	=	minute
mm	=	million
MMbtu	=	million btu
MMcf	=	million cubic feet
ppmv	=	parts per million, by volume
ppmw	=	parts per million, by weight
psia	=	pounds per square inch, absolute
psig	=	pounds per square inch, gauge
scfm	=	standard cubic feet per minute
yr	=	year

Appendix C

**Engineering Evaluation  
Mirant Delta LLC  
Application # 1119  
Plant # 18**