

# **Bay Area Air Quality Management District**

939 Ellis Street  
San Francisco, CA 94109  
(415) 771-6000

## **Permit Evaluation and Statement of Basis for the**

## **MAJOR FACILITY REVIEW PERMIT**

for

### **NRG Energy Center San Francisco, LLC Facility # B6151**

**Facility Address:**

465 Stevenson Street  
San Francisco, CA 94103

**Mailing Address:**

410 Jessie Street  
San Francisco, CA 94103

Application Engineer: Dennis Jang  
Site Engineer: Xuna Cai

Application: 12220

November 2011

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## **Title V Statement of Basis**

### **A. Background**

This facility is subject to the Operating Permit requirements of Title V of the federal Clean Air Act, Part 70 of Title 40 of the Code of Federal Regulations (CFR), and BAAQMD Regulation 2, Rule 6, Major Facility Review because it is a major facility as defined by BAAQMD Regulation 2-6-212. It is a major facility because it has the “potential to emit,” as defined by BAAQMD Regulation 2-6-218, of more than 100 tons per year of a regulated air pollutant and 100,000 tons per year of greenhouse gases on a CO<sub>2</sub> equivalent basis.

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 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 B6151.

This facility is applying for their initial Title V permit (application #12220, submitted on March 23, 2005). The NRG Energy Center was originally owned by San Francisco Thermal but changed ownership in the early 2000's. The facility has been in operation since 1957. On October 24, 1995, San Francisco Thermal submitted an application for a Title V permit. At that time, the District determined that the facility was not subject to Title V based upon an estimate of its potential to emit. Because S-3, S-4, S-5, S-6, and S-7 Boilers are “grandfathered” sources with no permit conditions that limit annual emissions, the District has since determined that the potential to emit for NRG Energy Center exceeds the major source thresholds for nitrogen oxides, carbon dioxide, and greenhouse gases on a CO<sub>2</sub> equivalent basis. Therefore, NRG is subject to Title V permitting requirements.

### **B. Facility Description**

NRG Energy Center is a steam generation facility, located in San Francisco, California, which supplies steam to industrial and commercial customers. The steam is used for space heating, water heating, and as process steam. The primary customer base consists of hotels located in or near the financial district of San Francisco. The steam is generated by 5 boilers that are fired primarily on natural gas. Four of the boilers (S-3, S-4, S-5, S-6, & S-7) can be fired on diesel fuel as a backup fuel in the event of an interruption in natural gas service. The fifth boiler, (S-9) is fired exclusively on natural gas.

### **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. Many of these conditions derive 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.

#### **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., S24).

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 of 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.

All abatement (control) devices that control permitted or significant sources are listed. Each abatement device whose primary function is to reduce emissions is identified by an A and a number (e.g., A-24). If a source is also an abatement device, such as when an engine controls VOC emissions, it will be listed in the abatement device table but will have an "S" number. An abatement device may also be a source (such as a thermal oxidizer that burns fuel) of secondary emissions. If the primary function of a device is to control emissions, it is considered an abatement (or "A") device. If the primary function of a device is a non-control function, the device is considered to be a source (or "S").

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 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. The capacities in the permitted sources table are the maximum allowable capacities for each source, pursuant to Standard Condition I.J and Regulation 2-1-403.

There are no differences between the equipment list in the permit and the equipment list in the original Title V permit application.

### **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 Title V permit if they are considered *significant sources* pursuant to the definition in BAAQMD Rule 2-6-239.

### **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 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. 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 IV. Section VII is a cross-reference between the

limits and monitoring requirements. A discussion of monitoring is included in Section C.VII of this permit evaluation/statement of basis.

### Complex Applicability Determinations

#### 40 CFR Part 60 – New Source Performance Standards

S-6 and S-7 Boilers each have a maximum heat input of 130 MM BTU/hr and were constructed before June 19, 1984 and have not been modified or reconstructed since June 19, 1984.

Therefore, they are not subject to 40 CFR 60 Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. In 1994, S-3, S-4, S-5, S-6, and S-7 Boilers were retro-fitted with Low-NO<sub>x</sub> burners to comply with the NO<sub>x</sub> and CO emission standards of District Regulation 9, Rule 7. However, the maximum firing rates of the boilers did not increase and there was no increase in emissions from the boilers. Therefore, the burner retrofits were not considered to be modifications. Furthermore, the cost of the retrofitting did not exceed 50% of the cost of the boiler. Therefore, the retrofitting was not considered to be a reconstruction of the boiler.

S-3, S-4, S-5, and S-9 Boilers are not subject to Subpart Db because they each have a heat input rating of less than 100 MM BTU/hr.

#### 40 CFR Part 63 – National Emission Standards for Hazardous Air Pollutants

On March 11, 2005, NRG Energy Center San Francisco submitted to the District an Initial Notification Report pursuant to 40 CFR 63.9(b) certifying that they are an area source for HAPs and therefore not subject to 40 CFR 63, Subpart DDDDD, “National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters”. S-3, S-4, S-5, S-6, S-7, and S-9 Boilers are not subject to 40 CFR 63, Subpart JJJJJ, “National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources” because they meet the definition of “gas-fired boiler” as stated in 40 CFR 63.11237. Pursuant to 40 CFR 63.1195(e), gas-fired boilers are not subject to Subpart JJJJJ.

40 CFR 63, Subpart ZZZZ NESHAP for Stationary Reciprocating Internal Combustion Engines Because S-13 Standby Generator Diesel Engine was installed prior to 6/12/2006 and the NRG facility is an area source of HAPs, S-13 is subject to the provisions of 40 CFR 63, Subpart ZZZZ. The applicable provisions are listed in Table IV-D.

#### 40 CFR Part 64 – Compliance Assurance Monitoring

40 CFR Part 64 CAM does not apply to S-3, S-4, S-5, S-6, S-7, or S-9 Boilers since none of them are equipped with abatement devices.

## **V. Schedule of Compliance**

A schedule of compliance is required in all Title V 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.”

Since the District has not determined that the facility is out of compliance with an applicable requirement, the schedule of compliance for this permit contains only sections 2-6-409.10.1 and 2-6-409.10.2.

The BAAQMD Compliance and Enforcement Division has conducted a review of compliance records for the period of 8/19/06 through 8/19/11 and found no instances of ongoing non-compliance at this facility. The compliance report is contained in Appendix A of this permit evaluation and statement of basis.

## **VI. Permit Conditions**

During the Title V permit development, the District has reviewed the existing permit conditions, deleted the obsolete conditions, and, as appropriate, revised the conditions for clarity and enforceability. Each permit condition is identified with a unique numerical identifier, up to five digits.

When necessary to meet Title V requirements, additional monitoring, recordkeeping, or reporting has been added to the permit.

All changes to existing permit conditions are clearly shown in “strikeout/underline” format in the proposed permit. When the permit is issued, all ‘strikeout’ language will be deleted and all “underline” language will be retained, subject to consideration of comments received.

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.

Conditions that are obsolete or that have no regulatory basis have been deleted from the permit.

Conditions have also been deleted due to the following:

- Redundancy in record-keeping requirements.
- Redundancy in other conditions, regulations and rules.
- The condition has been superseded by other regulations and rules.
- The equipment has been taken out of service or is exempt.
- The event has already occurred (i.e. initial or start-up source tests).

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.

## **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 monitoring is adequate with the following exceptions.

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.

### NOx Sources

<b>S# &amp; Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
S3, S4, S5, S6, & S7 Boilers	BAAQMD 9-7-301.1	30 ppmv, dry @ 3% O <sub>2</sub>	Annual source test
	BAAQMD 9-7-301.2	40 ppmv, dry @ 3% O <sub>2</sub>	Annual source test
	SIP 9-7-305.1	150 ppmv @ 3% O <sub>2</sub> dry	Annual source test
	SIP 9-7-306.1	150 ppmv @ 3% O <sub>2</sub> dry	None

#### NOx Discussion:

In 1994, S-3, S-4, S-5, S-6, and S-7 boilers were retrofitted with low-NOx burners to meet the NOx emission limitations of Regulation 9-7-301.1 and 9-7-301.2. Initial source testing was performed and it was determined that the boilers were in compliance with those limits. There was no recurring source test requirement imposed on these sources after they were retrofitted. To insure compliance with these emission limits, an annual source test requirement will be imposed under Title V per Regulation 2, Rule 6, section 409.2.2. This is not considered to be a burdensome requirement because annual source testing will be required when the new Regulation 9, Rule 7 NOx limit of 9 ppmv goes into effect on January 1, 2012.

### CO Sources

<b>S# &amp; Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
S3, S4, S5, S6 & S7 Boilers	BAAQMD 9-7-301.4	400 ppmv, dry @ 3% O <sub>2</sub>	Annual source test
S3, S4, S5, S6 & S7 Boilers	SIP 9-7-301.2	400 ppmv @ 3% O <sub>2</sub> dry	Annual source test
	SIP 9-7-305.2	400 ppmv @ 3% O <sub>2</sub> dry	Annual source test
	SIP 9-7-306.2	400 ppmv @ 3% O <sub>2</sub> dry	None

**CO Discussion:**

Based upon initial source testing conducted after the retrofitting of S-3, S-4, S-5, S-6, and S-7 Boilers, the sources were in compliance with the CO emission limit of 400 ppmv. There was no recurring source test requirement imposed on these sources after they were retrofitted. To insure compliance with these emission limits, an annual source test requirement will be imposed under Title V per Regulation 2, Rule 6, section 409.2.2. This is not considered to be a burdensome requirement because annual source testing will be required when the new Regulation 9, Rule 7 CO limit of 400 ppmv goes into effect on January 1, 2012.

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

<b>S# &amp; Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
S3, S4, S5, S6, S7, S9 Boilers & S13 Standby Generator Diesel Engine	BAAQMD 9-1-301	Ground level concentrations of SO2 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
S3, S4, S5, S6, S7, S9 BOILERS	BAAQMD 9-1-302	300 ppm (dry)	None
S3, S4, S5, S6, S7 Boilers & S13 Standby Generator Diesel Engine	BAAQMD 9-1-304	Sulfur content of fuel < 0.5% by weight	None

**SO2 Discussion:**

**BAAQMD Regulation 9-1-301**

Area monitoring to demonstrate compliance with the ground level SO2 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 SO2 and therefore is not required to have ground level monitoring by the APCO.

All facility combustion sources are subject to the SO2 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 sources that are fired with natural gas.

S-9 is fired exclusively with natural gas. Therefore, monitoring for 9-1-301 is not necessary.

S-3, S-4, S-5, S-6, and S-7 Boilers are capable of firing diesel fuel. However, this occurs infrequently and only during periods of natural gas curtailment and equipment testing. Therefore, monitoring for ground-level SO2 concentrations is not justified for these sources.

S-13 Standby Generator Diesel Engine is fired exclusively on California low-sulfur diesel fuel (15 ppmw sulfur) and is operated infrequently during power outages and equipment testing. Therefore, monitoring for ground-level SO2 concentrations is not justified for this source.

BAAQMD Regulation 9-1-302

S-3, S-4, S-5, S-6, S-7 and S-9 Boilers will not exceed the 300 ppmv SO2 emission limit of 9-1-302 when firing natural gas. Therefore, monitoring for this standard is not necessary.

BAAQMD Regulation 9-1-304

S-3, S-4, S-5, S-6, and S-7 Boilers and S-13 Diesel Engine will be fired on California low-sulfur diesel fuel with a maximum sulfur content of 15 ppm or 0.0015% by weight. Therefore, monitoring for the fuel sulfur content limit of 0.5% by weight specified in Regulation 9-1-304 is not necessary.

PM Sources

<b>S# &amp; Description</b>	<b>Emission Limit Citation</b>	<b>Federally Enforceable Emission Limit</b>	<b>Monitoring</b>
S3, S4, S5, S6, S7, S9 Boilers	BAAQMD Regulation 6-301	Ringelmann 1.0	None
S13 Standby Generator Diesel Engine	BAAQMD Regulation 6-303	Ringelmann 2.0	None
S3, S4, S5, S6, S7, S9 Boilers, and S13 Standby Generator Diesel Engine	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

BAAQMD Regulation 6-301 limits visible emissions to no darker than 1.0 on the Ringelmann Chart (except for periods or aggregate periods less than 3 minutes in any hour). Visible emissions are normally not associated with combustion of gaseous fuels, such as natural gas. Sources 3, 4, 5, 6, 7, and 9 burn primarily natural gas and only burn diesel fuel during periods of natural gas curtailment and equipment testing. Therefore, per the EPA's June 24, 1999 agreement with CAPCOA and ARB titled "Summary of Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP", no monitoring is required to assure compliance with this limit for these sources.

BAAQMD Regulation 6-303 limits visible emissions to no darker than 2.0 on the Ringelmann Chart (except for periods or aggregate periods less than 3 minutes in any hour). This section applies to internal combustion engines. S-13 Standby Generator Diesel Engine is fired exclusively on California low-sulfur diesel fuel with a maximum sulfur content of 15 ppmw. Therefore, particulate emissions are expected to be minimal and monitoring for this visible emissions standard is not justified.

### 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.

Exceedances of the grain loading standards are normally not associated with combustion of gaseous fuels, such as natural gas. Sources 3, 4, 5, 6, 7, and 9 primarily burn natural gas and only burn diesel fuel during periods of natural gas curtailment and equipment testing. Therefore, per the EPA's July 2001 agreement with CAPCOA and ARB entitled "CAPCOA/CARB/EPA Region IX Recommended Periodic Monitoring for Generally Applicable Grain Loading Standards in the SIP: Combustion Sources: Summary of Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP", no monitoring is required to assure compliance with this limit for these sources.

S-13 Standby Generator Diesel Engine is fired exclusively on California low-sulfur diesel fuel with a maximum sulfur content of 15 ppmw. Therefore, particulate emissions are expected to be minimal and monitoring for this emission limit is not justified.

### **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 IV of the permit.

### **IX. 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 explaining that specific federally enforceable regulations and standards do not apply to a source or group of sources, or (2) A provision in a major facility review permit explaining that specific federally enforceable applicable requirements for monitoring, recordkeeping and/or reporting 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 Title V permits. The District's program does not allow other types of streamlining in Title V permits.

This facility has no permit shields.

### **X. Glossary**

#### **D. Alternate Operating Scenarios:**

No alternate operating scenario has been requested for this facility.

#### **E. Compliance Status:**

An inter-office memorandum from the Compliance and Enforcement Division to the Engineering Division dated August 29, 2011 presents a review of the compliance record for site #B6151. The Compliance and Enforcement Division staff has reviewed the records for the five-year period between 8/19/06 through 8/19/11. This review was initiated as part of the District evaluation of an application by NRG Energy Center for a Title V permit. During the period subject to review, activities known to the District include:

- There were no Notices of Violation issued during this review period.
- The District did not receive any alleged complaints.

- The facility is not operating under a Variance or an Order of Abatement from the District Board.
- There were no monitor excesses or equipment breakdowns reported or documented by District staff.

To date, the Compliance and Enforcement Division has not identified any ongoing non-compliance issues at the NRG facility.

**F. Differences between the Application and the Proposed Permit:**


The Title V permit application was originally submitted on March 23, 2005. This version is the basis for constructing the proposed Title V permit. There are no differences between the application submitted and the proposed permit.

APPENDIX A  
BAAQMD COMPLIANCE REPORT

**COMPLIANCE & ENFORCEMENT DIVISION**

**Inter-Office Memorandum  
August 29, 2011**

TO: JOHN CHILADAKIS– DIRECTOR OF ENGINEERING  
FROM: BRIAN BATEMAN – DIRECTOR OF ENFORCEMENT  
SUBJECT: REVIEW OF COMPLIANCE RECORD OF:  
NRG Energy Center San Francisco, LLC Site # A8988



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**Background**

This review was initiated as part of the District evaluation of an application by NRG Energy Center San Francisco, LLC for a Title V Permit. The purpose of this review is to assure that any non-compliance problems identified have been adequately addressed, or, if non-compliance persists, that a schedule of compliance is properly incorporated into the Title V permit compliance schedule. In addition, the review checks for patterns of recurring violation that may be addressed by additional permit terms. Finally, the review is intended to recommend, if necessary, any additional permit conditions and limitations to improve compliance.

**Compliance Review**

Staff reviewed NRG Energy Center San Francisco, LLC Annual Compliance Certifications for 8-19-2006 to 8-19-2011 and found no ongoing non-compliance and no recurring pattern of violations.

Staff also reviewed the District compliance records for NRG Energy Center San Francisco, LLC for 8-19-2010 through 8-19-2011. During this period NRG Energy Center San Francisco, LLC activities known to the District include:

The District did not issue any Notices of Violation.

The District did not receive any air pollution complaints alleging NRG Energy Center San Francisco, LLC as the source.

The District did not receive any notifications for Reportable Compliance Activities (RCA).

There are no enforcement agreements, open variances, or open abatement orders for NRG Energy Center San Francisco, LLC.



REVIEW OF COMPLIANCE RECORD OF:  
**NRG Energy Center San Francisco, LLC Site # A8988**  
August 29, 2011  
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### **Conclusion**

The Compliance and Enforcement Division has made a determination that for the five year period 8-19-2006 through 8-19-2011 NRG Energy Center San Francisco, LLC was in continuous compliance. There is no evidence of on-going non-compliance and no recurring pattern of violations that would warrant consideration of a Title V permit compliance schedule.

## APPENDIX B

### GLOSSARY

**ACT**

Federal Clean Air Act

**APCO**

Air Pollution Control Officer

**ARB**

Air Resources Board

**BAAQMD**

Bay Area Air Quality Management District

**BACT**

Best Available Control Technology

**Basis**

The underlying authority which 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.

**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

**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