

Bay Area Air Quality Management District

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**Permit Evaluation
and
Statement of Basis
for
RENEWAL of**

MAJOR FACILITY REVIEW PERMIT

for
**PE Berkeley, Inc.
Facility #B1326**

Facility Address:
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Berkeley, CA 94720

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Application: 8132

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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 Volume 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.

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 B1326.

This facility received its initial Title V permit on February 16, 1999. This application is for a permit renewal. Although the current permit expired on February 16, 2004, it continues in force until the District takes final action on the permit renewal. The standard sections of the permit have been upgraded to include new standard language used in all Title V permits. An emergency diesel-engine generator has been included in the permit. It was exempt at the time the initial permit was issued. This evaluation of loss of exemption was done via Application 4694.

The proposed permit shows all changes to the permit in strikeout/underline format.

The following permit application has been approved since the last TV permit modification.

Application 4694: Emergency diesel engine-generator (loss of exemption)

B. Facility Description

PE Berkeley, Inc. is a cogeneration facility comprised of a multi-fuel turbine/generator, a duct burner to fire a heat recovery steam generator, and an emergency diesel engine-generator. The facility produces electricity that is sold to PG&E, and steam that is sold to University of California, Berkeley. The total electricity output of the facility is 24 MW. The emergency

diesel-engine generator is maintained to provide backup power to restart the turbine in the event of a power interruption. There are five underground diesel storage tanks that are used to store backup fuel, and are exempt from District permits. Emissions from the facility are primarily combustion emissions (NO_x, CO, PM₁₀, SO₂, VOC, and insignificant amount of HAPs).

Nitrogen oxides (NO_x) emissions from the turbine are controlled by steam injection. In order to comply with the requirements of the District Regulation 9, Rule 9, by January 1, 2000, the steam injection rate was increased, and in doing so emissions of CO increased. The permit condition was revised to reflect raising the CO emission rate limit from 919 lb/day to 2,195 lb/day when the turbine is firing natural gas. This revision was evaluated via Application 579. There has been a significant increase in CO emissions as a result of this revision. There has been no significant increase in emissions due the inclusion of emergency diesel engine-generator in the permit.

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 certain 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 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.

Changes to permit:

The dates of adoption and approval of rules in Standard Condition 1.A have been updated. The following language was added to Standard Condition I.B: "If the permit renewal has not been issued by [], but a complete application for renewal has been submitted in accordance with the above deadlines, the existing permit will continue in force until the District takes final action on the renewal application." This is the "application shield" pursuant to BAAQMD Regulation 2-6-407.

Standard Condition I.B.11, which requires the responsible official to certify all documents submitted, was added to conform to changes in Regulation 2, Rule 6.

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.E.1 requiring the permit holder to provide any information, records, and reports requested or specified by the APCO, was added because it was omitted in error. The dates of the reporting periods and reporting deadlines have been added to Standard Conditions I.F and I.G for additional clarity.

The first sentence of Standard Condition I.F has been changed from " All required monitoring reports must be submitted to the District at least once every six months." to " Reports of all required monitoring must be submitted to the District at least once every six months " to conform more closely to BAAQMD Regulation 2-6-409.18.

Standard Condition I.H was modified to conform to the current standard.

Standard Condition I.J has been added to clarify that the capacity limits shown in Table II-A are enforceable limits.

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. This facility has no unpermitted significant sources.

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).

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.

Following are explanations of the differences in the equipment list between the time that the facility originally applied for a Title V permit and the permit proposal date:

Device with Changed Permit Status:

S1 Emergency Diesel Engine-Generator (loss of exemption)

Changes to permit:

An emergency diesel engine-generator (S1) was added to the permitted equipment list because of its change in status from an exempt source to a permitted source.

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.

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 allows contractors that have "portable" equipment permits that require them 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 sand-blasting or soil-vapor extraction equipment.

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

The note regarding SIP information from the Rule Development Section has been deleted since the SIP standards are now found on EPA's website.

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

- BAAQMD Regulation 2, Rule 1, General Requirements
- BAAQMD 2-1-429, Federal Emissions Statement
- SIP Regulation 2, Rule 1, General Requirements
- SIP Regulation 5, Open Burning
- Regulation 8, Rule 2, Miscellaneous Operations
- 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
- 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

- 40 CFR Part 61, Subpart M, National Emission Standards for Hazardous Air Pollutants – National Emission Standard for Asbestos

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 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

Title IV, 40 CFR 72 through 78 (Acid Rain)

The facility is exempt from the requirements of Acid Rain Program because it is not an affected unit under 40 CFR 72.6(b)(4)(i). This is a cogeneration facility constructed prior to November 15, 1990, and the facility's annual electric sale to the utility power distribution system is less than 219,000 MW-hrs.

MACT

The NESHAPS (MACT) for turbines was promulgated on March 5, 2004. The turbine at this facility is not subject to the MACT because the facility is not a major source of HAPs.

CAM

The turbine NOx emissions are abated by steam injection. Steam injection rate is not monitored because the turbine is equipped with a continuous emission monitor for NOx, CO, and O₂. The turbine is not subject to 40 CFR 64, Compliance Assurance Monitoring as per exemption 64.2(b)(1)(vi), emission limitations or standards for which a part 70 or 71 permit specifies a continuous compliance determination.

40 CFR 60, Subpart GG

The turbine is subject to the NOx emission standard of 60.332(a)(1). NOx limit is calculated by using the equation given in this section:

$$\text{STD} = (0.0075)(14.4/Y) + F$$

Where:

STD = allowable ISO corrected NOx emission concentration (percent by volume at 15% oxygen and on a dry basis),

Y = manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour), and

F = NOx emission allowance for fuel-bound nitrogen.

Turbine rating: 243 MMBTU/hr; 23.5 MW

$$Y = (243 \text{ MMBTU/hr})(1055 \text{ joules/BTU})/(23.5 \text{ MW})$$

$$= 10.909 \text{ kilojoules/watt-hr}$$

$$F = 0.0$$

$$\text{STD} = (0.0075)(14.4/10.909)$$

$$= 0.0099\% \text{ by volume @ 15\% oxygen dry}$$

$$= 99 \text{ ppmdv @ 15\% oxygen.}$$

Regulation 1-107, Combination of Emissions

Several requirements have been added to the turbine and the duct burner because they share one stack. Regulation 1-107, Combination of Emissions, states that: " Where air contaminants from two or more sources are combined prior to emission and there are no adequate and reliable means to establish the nature, extent and quantity of emission from each source, District Regulations shall be applied to the combined emission as if it originated in a single source." Therefore, the turbine is subject to the duct burner's emission limitations and vice versa.

The duct burner and emergency engine-generator do not have any abatement devices and therefore are not subject to 40 CFR 64, Compliance Assurance Monitoring.

The requirements of 40 CFR 60 Subparts D, Da, and Db do not apply because the duct burner heat input rating is less than 250 MMBTU/hr.

Other changes to permit:

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

A table for the emergency diesel engine-generator was added. The permit evaluation for Application 4694 has been attached to this SOB as Appendix C

Applicable requirements for the turbine and the duct burner were added. Several requirements were omitted in error. The requirements were also updated because of revisions to Regulation 1 and 40 CFR 60, Subpart GG.

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 over the past year and has no records of compliance problems at this facility during the past year. The compliance report is contained in Appendix A of this permit evaluation and statement of basis.

Changes to permit:

None

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 “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.

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.

Additional monitoring has been added, where appropriate, to assure compliance with the applicable requirements.

Changes to permit:

Permit conditions for the emergency diesel engine-generator were added.

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.

SO₂ Sources

S# & Description	Citation of Limit	Federally Enforceable Emission Limit	Monitoring
S-1 Emergency diesel engine-generator, S-40 Gas Turbine, S-41 Duct Burner	BAAQMD 9-1-301	Ground level concentrations of SO ₂ 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
S-40 Gas Turbine, S-41 Duct Burner	BAAQMD 9-1-302	300 ppm (dry)	None
S-1 Emergency diesel engine-generator, S-40 Gas Turbine, S-41 Duct Burner	BAAQMD 9-1-304	Sulfur content of fuel < 0.5% by weight	Fuel Sulfur Content Certification by supplier for each lot
S-40 Gas Turbine, S-41 Duct Burner	BAAQMD Cond #366 Part 2	Maximum of 0.12% by wt Sulfur in fuel oil	Fuel Sulfur Content Certification by supplier for each lot
	BAAQMD Cond #366 Part 3	Maximum of 0.25% by wt Sulfur in fuel oil during periods of natural gas curtailment	Fuel Sulfur Content Certification by supplier for each lot
	BAAQMD Cond #366 Part 11	987 lb/day (natural gas) 40 tons/year (combined S-40 & 41)	Fuel Sulfur Content analysis either for each fuel oil delivery or once during each 24-hour period that fuel oil is fired.

SO₂ Discussion:

BAAQMD Regulation 9-1-301 and 9-1-302

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 S40, turbine, and S41, duct burner, when they are firing natural gas.

S1, S40, and S41 are expected to comply with Regulation 9-1-301, 302 and 304 since the sulfur content of diesel fuel fired at these sources is limited by permit conditions to 0.5% by weight or less as specified. The sulfur content will be monitored by vendor fuel certification.

Per the CAPCOA/ARB/EPA Agreement of 6/24/99 entitled "Periodic Monitoring Recommendations For Generally Applicable Requirements in SIP", compliance with the diesel fuel sulfur content limit in BAAQMD Regulation 9-1-304 and the permit condition will be assured by certification of the sulfur content by the fuel supplier for each fuel delivery.

PM Sources

S# & Description	Citation of Limit	Federally Enforceable Emission Limit	Monitoring
S-1 Emergency diesel engine-generator	BAAQMD Regulation 6-303.1	Ringelmann 2.0	None
	BAAQMD Regulation 6-310	0.15 gr/dscf	None
S-40 Gas Turbine, S-41 Duct Burner	BAAQMD Regulation 6-301	Ringelmann 1.0	None
	BAAQMD Regulation 6-310	0.15 gr/dscf	None
	BAAQMD Regulation 6-310.3	0.15 gr/dscf at 6% O ₂	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 S40 and S41 burn natural gas during normal operation, 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. However, visible emission monitoring is required when these sources burn distillate oil.

Because S1 Emergency diesel engine-generator is fired exclusively on diesel fuel with a maximum sulfur content of 0.05% by weight, therefore exceedance of visible emissions of Ringelmann No. 2 are not expected. Therefore, S1 is expected to continue to comply with Regulation 6-303.1. Moreover, the generators operates only during emergencies, so additional monitoring is not warranted.

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% O₂. 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 S40 and S41 burn natural gas during normal operation, 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.

Potential to emit PM from S40 and S41 while burning fuel oil during natural gas curtailment is low and the operation is intermittent, additional monitoring to assure compliance with the emission limits is not justified and is not required. Requiring CEM or annual source tests for these sources would be onerous.

Potential to emit PM from S1, emergency diesel engine-generator is so low and the operation is intermittent, additional monitoring to assure compliance with the emission limits is not justified and is not required. Requiring CEM or annual source tests for this source would be onerous.

Changes to permit:

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.

"Emission Limit Citation" has been changed to "Citation of Limit" since not every limit is an emission limit. "Emission Limit" has been changed to "Limit" since not every limit is an emission limit.

The description of the BAAQMD 6-301 limit in Section VII has been corrected to say "for < 3 min/hr."

The "type of limit" has been changed to "Opacity" for BAAQMD Regulation 6-301, since it is an opacity standard.

The "type of limit" has been changed to "FP" for BAAQMD Regulation 6-310 and 6-311, since it is an filterable particulate standard.

A new table for emergency diesel engine-generator is added.

New monitoring requirements of Subpart GG are added where applicable.

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.

Changes to Permit:

The table is updated by adding Subpart GG test methods requirements.

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 the first type of permit shield.
This permit has no streamlining.

Following is the detail of the permit shield that is requested by the applicant.

1. The following requested permit shields are disallowed:

None

2. The following permit shield is allowed:

A. Non-applicable Requirements

Pursuant to District Regulations 2-6-233 and 2-6-409.12, the federally enforceable regulations and/or standards cited in the following table[s] are not applicable to the source or group of sources identified at the top of the table[s]. Enforcement actions and litigation may not be initiated against the source or group of sources covered by this shield based on the regulatory and/or statutory provisions cited.

Table IX
S-40, Turbine and S-41, Duct Burner

Citation	Title or Description (Reason not applicable)
Regulation 8, Rule 2	Organic Compounds - Miscellaneous Operations (Rule not applicable to combustion sources)

Changes to permit:

The standard language in the Section IX, Permit Shield, was updated.
The permit shield for subsumed requirements is deleted for S-40, Turbine.

XI. Glossary

Changes to permit:

The glossary was updated.

XII. Appendix A - State Implementation Plan

Changes to permit:

Section XII has been deleted. Sections III and IV now say that the SIP standards are now found on EPA's website and are not included as part of the permit.

D. Alternate Operating Scenarios:

No alternate operating scenario has been requested for this facility.

E. Compliance Status:

[Adapt as necessary.]

A _____ office memorandum from the Director of Compliance and Enforcement, to the Director of Permit Services, presents a review of the compliance record of _____ (Site #: _____). The Compliance and Enforcement Division staff has reviewed the records for _____ for the period between _____ through _____. This review was initiated as part of the District evaluation of an application by _____ 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.

Permit Evaluation and Statement of Basis: Site B1326, PE Berkeley, Inc., University of California, Berkeley Campus, Berkeley, CA 94720

The owner certified that all equipment was operating in compliance on October 24, 1995. No non-compliance issues have been identified to date.

F. Differences between the Application and the Proposed Permit:

None.

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APPENDIX A
BAAQMD COMPLIANCE REPORT

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 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.

MACT

Maximum Available Control Technology. Term for the standards contained in 40 CFR 63, National Emission Standards for Hazardous Air Pollutants for Source Categories.

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_x

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_x, PM₁₀, and SO₂.

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

PM₁₀

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.

SO₂

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 ²	=	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