



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

July 20, 2010

Mr. Gerardo Rios
Chief – Permits Office
U. S. EPA, Region IX
75 Hawthorne Street, Air 3
San Francisco, CA 94105

Dear Mr. Rios:

Subject: California Institute of Technology (ID 800387) – Title V Permit
Revision

California Institute of Technology (ID 800387) has proposed to revise their Title V permit by replacing three existing boilers with three new boilers. This is a university (SIC 8221) located at 650 S. Wilson Ave., Pasadena, CA 91106. This proposed permit revision is considered as a “minor permit revision” to their Title V permit. Attached for your review is the evaluation and permit for the proposed revision. With your expected receipt of the proposed Title V permit revision today, we will note that the EPA 45-day review period begins on July 20, 2010.

If you have any questions or need additional information regarding the proposed permit revision, please call Vicky Lee of my staff at (909) 396-2284.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Brian L. Yeh', is written over a horizontal line.

Brian L. Yeh
Senior Manager
General Commercial and Energy Team
Engineering and Compliance

BLY:AYL:RGC:VL
Attachments

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIV. APPLICATION PROCESSING AND CALCULATIONS	PAGES	PAGE
	1	24
	APPL. NO.	DATE
	509331, 509332, 509333, 509334	7/13/10
	PROCESSED BY	CHECKED BY
	V. Lee	

CAL INST OF TECH
1200 E CALIFORNIA BLVD
PASADENA, CA 91125

Facility ID 800387

Equipment Location: 650 S. Wilson
Pasadena, CA 91106

PERMITS TO CONSTRUCT

A/N 509332—Title V Revision

Rev. 13--Minor Title V revision.

This revision consists of replacing three existing boilers (G6772, F53892, F53899) with three new boilers (A/N 509331, 509333, 509334). The replacement boilers will result in an emissions decrease for all pollutants.

A/N 509331—New Boiler No. 1

This will replace existing Boiler No. 1, G6772.

BOILER NO. 1, CB-NEBRASKA, WATERTUBE TYPE, MODEL NO. NB-201D-55, WITH A LOW NOX BURNER, NATCOM, MODEL NO. P-67-G-29-1722, NATURAL GAS FIRED, RATED AT 66.2 MMBTU PER HOUR, FLUE GAS RECIRCULATION, AND 100 HP COMBUSTION AIR BLOWER.

A/N 509333—New Boiler No. 2

This will replace existing Boiler No. 2, F53892.

BOILER NO. 2, CB-NEBRASKA, WATERTUBE TYPE, MODEL NO. NB-201D-55, WITH A LOW NOX BURNER, NATCOM, MODEL NO. P-67-G-29-1722, NATURAL GAS FIRED, RATED AT 66.2 MMBTU PER HOUR, FLUE GAS RECIRCULATION, AND 100 HP COMBUSTION AIR BLOWER.

A/N 509334—New Boiler No. 3

This will replace existing Boiler No. 3, F53899.

BOILER NO. 3, CB-NEBRASKA, WATERTUBE TYPE, MODEL NO. NB-201D-55, WITH A LOW NOX BURNER, NATCOM, MODEL NO. P-67-G-29-1722, NATURAL GAS FIRED, RATED AT 66.2 MMBTU PER HOUR, FLUE GAS RECIRCULATION, AND 100 HP COMBUSTION AIR BLOWER.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIV. APPLICATION PROCESSING AND CALCULATIONS	PAGES	PAGE
	2	24
	APPL. NO.	DATE
	509331, 509332, 509333, 509334	7/13/10
	PROCESSED BY	CHECKED BY
	V. Lee	

2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS BOILER SHALL BE FIRED WITH NATURAL GAS ONLY.
[RULE 1303(a)(1)-BACT, RULE 1303(b)(2)-OFFSETS]
4. THIS BOILER SHALL EMIT NO MORE THAN 9 PPM OF OXIDES OF NITROGEN (NOX), CALCULATED AS NO₂, MEASURED BY VOLUME ON A DRY BASIS AT 3% O₂.
[RULE 1146, RULE 1303(a)(1)-BACT]
5. THIS BOILER SHALL EMIT NO MORE THAN 100 PPM OF CARBON MONOXIDE (CO), MEASURED BY VOLUME ON A DRY BASIS AT 3% O₂.
[RULE 1303(a)(1)-BACT]
6. THE FLUE GAS RECIRCULATION SYSTEM SHALL BE IN FULL USE WHENEVER THE BOILER IS IN OPERATION.
[RULE 1146, RULE 1303(a)(1)-BACT]
7. THE OPERATOR SHALL INSTALL, OPERATE, AND MAINTAIN IN CALIBRATION A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS) TO DEMONSTRATE COMPLIANCE WITH THE NOX EMISSION LIMIT IN CONDITION NO. 4. THE CEMS SHALL BE INSTALLED AND OPERATING NO LATER THAN 90 DAYS AFTER THE INITIAL START-UP OF THE BOILER, IN ACCORDANCE WITH AN APPROVED AQMD RULE 218 CEMS PLAN APPLICATION. THE OPERATOR SHALL NOT INSTALL THE CEMS PRIOR TO RECEIVING INITIAL APPROVAL FROM THE AQMD. THE CEMS SHALL UNDERGO A SERIES OF CERTIFICATION TESTS WITHIN 90 DAYS OF ITS INSTALLATION.

THE CEMS SHALL MEASURE AND RECORD OVER A FIFTEEN-MINUTE AVERAGING TIME PERIOD, THE NOX AND O₂ CONCENTRATIONS, ON A DRY BASIS, OF THE BOILER EXHAUST. THE CEMS SHALL ALSO CONVERT THE ACTUAL NOX CONCENTRATION TO CORRECTED CONCENTRATION AT 15% OXYGEN, ON A DRY BASIS, AND CONTINUOUSLY RECORD THE CORRECTED STACK NOX CONCENTRATION. THE OPERATOR SHALL MAINTAIN MAINTENANCE AND EMISSION RECORDS.
[RULE 218, RULE 1146]
8. THE BOILER SHALL BE EQUIPPED WITH A NON-RESETTABLE TOTALIZING GAS METER TO INDICATE THE TOTAL NATURAL GAS CONSUMPTION BY THE EQUIPMENT.
[RULE 1303(b)(2)-OFFSETS, RULE 1304]
9. THE NATURAL GAS CONSUMPTION FOR THIS EQUIPMENT SHALL NOT EXCEED 42,160,000 CUBIC FEET IN ANY ONE CALENDAR MONTH.
[RULE 1303(b)(2)-OFFSETS, RULE 1304]

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIV. APPLICATION PROCESSING AND CALCULATIONS	PAGES	PAGE
	3	24
	APPL. NO.	DATE
	509331, 509332, 509333, 509334	7/13/10
	PROCESSED BY	CHECKED BY
	V. Lee	

10. THE OWNER OR OPERATOR OF THIS EQUIPMENT SHALL CONDUCT SOURCE TESTS ON THE EQUIPMENT UNDER THE FOLLOWING CONDITIONS:
- A. SOURCE TESTING SHALL BE CONDUCTED WITHIN 60 DAYS AFTER INITIAL START-UP OR WITHIN 60 DAYS AFTER RECEIPT OF THIS PERMIT, UNLESS OTHERWISE APPROVED IN WRITING BY THE EXECUTIVE OFFICER.
 - B. THE SOURCE TESTS SHALL BE PERFORMED TO VERIFY COMPLIANCE WITH THE NOX AND CO EMISSION LIMITS SPECIFIED IN CONDITION NOS. 4 AND 5, RESPECTIVELY.
 - C. THE SOURCE TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH SCAQMD METHOD 100.1.
 - D. THE TESTS SHALL BE CONDUCTED WHILE THE BOILER IS OPERATING AT MAXIMUM, MINIMUM, AND NORMAL FIRING RATES. THE SAMPLING TIMES SHALL BE AT LEAST 15 CONSECUTIVE MINUTES FOR MAXIMUM AND MINIMUM LOADS AND AT LEAST ONE HOUR FOR NORMAL OPERATING LOAD.
 - E. WRITTEN NOTICE OF THE SOURCE TESTS SHALL BE SUBMITTED TO THE DISTRICT (ADDRESSED TO ATTN: VICKY LEE, SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, P.O. BOX 4941, DIAMOND BAR, CA 91765) AT LEAST 14 DAYS PRIOR TO TESTING SO THAT AN OBSERVER MAY BE PRESENT.
 - F. TWO COMPLETE COPIES OF THE SOURCE TEST REPORTS SHALL BE SUBMITTED TO THE DISTRICT (ADDRESSED TO ATTN: VICKY LEE, SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, P.O. BOX 4941, DIAMOND BAR, CA 91765), REFERENCING APPLICATION NOS. 509331, 509333, AND 509334, WITHIN 45 DAYS AFTER THE TEST IS COMPLETED. THE REPORT SHALL INCLUDE, BUT NOT BE LIMITED TO EMISSIONS RATES IN POUNDS PER HOUR AND CONCENTRATIONS IN PPMV AT THE OUTLET OF THE BOILER, MEASURED ON A DRY BASIS AT 3% OXYGEN. THE FOLLOWING OPERATING DATA SHALL ALSO BE INCLUDED FOR EACH FIRING RATE:
 - I. THE EXHAUST FLOW RATES, IN ACTUAL CUBIC FEET PER MINUTE (ACFM),
 - II. THE FIRING RATES, IN BTU PER HOUR,
 - III. THE EXHAUST TEMPERATURE, IN DEGREES F,
 - IV. THE OXYGEN CONTENT OF THE EXHAUST GASES, IN PERCENT, AND
 - V. THE FUEL FLOW RATE.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIV. APPLICATION PROCESSING AND CALCULATIONS	PAGES	PAGE
	4	24
	APPL. NO.	DATE
	509331, 509332, 509333, 509334	7/13/10
	PROCESSED BY	CHECKED BY
	V. Lee	

11. A CONTRACTOR APPROVED UNDER THE DISTRICT LABORATORY APPROVAL PROGRAM IN THE REQUIRED TEST METHODS FOR CRITERIA POLLUTANTS TO BE MEASURED, AND IN COMPLIANCE WITH RULE 304 (NO CONFLICT OF INTEREST) SHALL CONDUCT THE TESTS.
[RULE 304, RULE 1146]
12. SAMPLING FACILITIES SHALL COMPLY WITH THE DISTRICT GUIDELINES FOR CONSTRUCTION OF SAMPLING AND TESTING FACILITIES, PURSUANT TO RULE 217.
[RULE 217]
13. THIS BOILER SHALL BE OPERATED IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS OF RULE 1146.
[RULE 1146]
14. THE OPERATOR SHALL MAINTAIN ADEQUATE RECORDS TO VERIFY COMPLIANCE WITH ALL CONDITIONS SPECIFIED IN THIS PERMIT. ALL RECORDS REQUIRED BY THIS PERMIT SHALL BE RETAINED AT THE FACILITY FOR A MINIMUM OF FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 3004]
15. THE OPERATOR SHALL NOT OPERATE THIS EQUIPMENT UNTIL THE OPERATION OF THE BOILER BEING REPLACED, PERMITTED UNDER [*G6772 for Boiler No. 1, F53892 for Boiler No. 2, F53899 for Boiler No. 3*] IS PERMANENTLY REMOVED FROM SERVICE.
[RULE 1304(c)(2)]

Emissions and Requirements:

16. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
 - NO_x: 9 PPMV, RULE 1146
 - CO: 400 PPMV, RULE 1146
 - CO: 2000 PPMV, RULE 407
 - SO_x: 500 PPMV, RULE 407
 - PM: 0.1 GR/SCF, RULE 409

BACKGROUND

California Institute of Technology ("Cal Tech") (ID 800387) is a private university. The facility is Title V, but not RECLAIM. The renewal Title V facility permit was issued on 11/28/06.

On 3/23/10, the facility submitted applications for (1) permits to construct three new identical replacement boilers, rated at 66.2 MMBtu/hr, which will meet the new 9 ppm NO_x limit that will be required by Rule 1146, and (2) a minor Title V revision application for the project. (The 9 ppm NO_x level is also BACT for new boilers with this rating.)

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIV. APPLICATION PROCESSING AND CALCULATIONS	PAGES 5	PAGE 24
	APPL. NO. 509331, 509332, 509333, 509334	DATE 7/13/10
	PROCESSED BY V. Lee	CHECKED BY

A/N	Proposed	Recommended Disposition
509331	P/C for new CB-Nebraska boiler to replace existing Boiler No. 1, G6772 (A/N 446735)	Approve after completion of EPA minor Title V revision review.
509333	P/C for new CB-Nebraska boiler to replace existing Boiler No. 2, F53892 (A/N 404164)	Same.
509334	P/C for new CB-Nebraska boiler to replace existing Boiler No. 3, F53899 (A/N 404165)	Same.
509332	Minor Title V Revision	Same.

The NSR tracking system does not provide the “concurrent facility modification” offset exemption (Rule 1304(c)(2)) as an option on the offset exemption drop-down list for applications for new equipment. Consequently, to use this exemption, each P/C application was accepted not as an application for new equipment, but as an application to modify the boiler that it will replace. As explained under “Concurrent Facility Modification” Exemption, below, each new boiler is required to emit less emissions for all criteria pollutants than the boiler it will replace.

The applications for the three boilers were initially accepted for identical equipment (full fee for A/N 509331, and 50% fee for A/N 509333 and 509334). Although all three new boilers are identical, the evaluations for the three boilers are **not** the same, because Boiler Nos. 1 and 2 will replace 63 MMBtu/hr boilers, but Boiler No. 3 will replace a 74.9 MMBtu/hr boiler. Therefore, the fee sheet for A/N 509334 for Boiler No. 3 will be adjusted to show this is not an identical boiler and the facility will receive an invoice for the other 50% (\$2574.47).

The Team J permitting policy requires boilers rated at greater than 10 MMBTU/hr to be issued a Permit to Construct, instead of a Permit to Construct/Operate.

Note: A/N 509331 is the master file.

PROCESS DESCRIPTION

The three proposed boilers, CB Nebraska, Model No. NB-201D-55 are each rated at 66.2 MMBtu/hr and equipped with a low NOx burner and flue gas recirculation system. They are guaranteed to meet 9 ppm NOx at 3% O₂ limit that will be required by Rule 1146. They will replace the three existing boilers (G6772, F53892, F53899), which had been modified to meet the 30 ppm at 3% O₂ limit currently required by Rule 1146 but cannot be further modified to meet the 9 ppm NOx at 3% O₂. Existing Boiler Nos. 1 and 2 are rated at 63 MMBtu/hr and existing Boiler No. 3 is rated at 74.9 MMBtu/hr. The boilers are used to heat the buildings via hot water exchangers located in the buildings and to provide steam to the clean steam generators in the laboratory to produce clean steam for laboratory use.

The new boilers will be installed in the same locations as the existing boilers in the Central Plant Building. Boiler No. 1 is scheduled to be replaced this summer, and Boilers No. 2 and 3 are scheduled to be replaced at different times next summer.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIV. APPLICATION PROCESSING AND CALCULATIONS	PAGES	PAGE
	6	24
	APPL. NO.	DATE
	509331, 509332, 509333, 509334	7/13/10
	PROCESSED BY	CHECKED BY
	V. Lee	

EMISSIONS CALCULATIONS

1. A/N 509331—New Boiler No. 1

a. G6772 (A/N 446735)—63 MMBtu/hr Boiler to be Replaced

The existing boiler is currently permitted under G6772 (A/N 446735). The corrected emissions for CO, NO_x, PM (and PM₁₀), ROG, and SO_x are as follows. For explanation of the corrected emissions, see memo to file, dated 7/13/10.

Operating Schedule: 52 wk/yr, 7 days/wk, 24 hr/day

CO, lb/hr = 18.93 lb/hr *(corrected emissions)*
 lb/day = (18.93 lb/hr) (24 hr/day) = 454.32 lb/day
 30 DA = 454 lb/day

NO_x, lb/hr = 2.33 lb/hr *(corrected emissions)*
 lb/day = (2.33 lb/hr) (24 hr/day) = 55.92 lb/day
 30 DA = 56 lb/day

PM₁₀, lb/hr = 0.45 lb/hr *(corrected emissions)*
 lb/day = (0.45 lb/hr) (24 hr/day) = 10.8 lb/day
 30 DA = 11 lb/day

ROG, lb/hr = 0.42 lb/hr *(corrected emissions)*
 lb/day = (0.42 lb/hr) (24 hr/day) = 10.08 lb/day
 30 DA = 10 lb/day

SO_x, lb/hr = 0.05 lb/hr *(corrected emissions)*
 lb/day = (0.05 lb/hr) (24 hr/day) = 1.2 lb/day
 30 DA = 1 lb/day

b. A/N 509331—New 66.2 MMBtu/hr Boiler

Operating Schedule: 52 wk/yr, 7 days/wk, 22.29 hr/day

Note: As discussed below under “Concurrent Facility Modification” Exemption, this offset exemption requires the new Boiler No. 1 (66.2 MMBtu/hr) to emit less emissions for all criteria pollutants than existing Boiler No. 1 (63 MMBtu/hr). An operating schedule of 52 wk/yr, 7 days/wk, **22.29 hr/day** would satisfy this requirement. This reduction in operating schedule is implemented by the gas usage limit in condition no. 9.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIV. APPLICATION PROCESSING AND CALCULATIONS	PAGES	PAGE
	7	24
	APPL. NO.	DATE
	509331, 509332, 509333, 509334	7/13/10
	PROCESSED BY	CHECKED BY
	V. Lee	

This operating schedule and associated gas usage limit also is required for new Boiler No. 2 (66.2 MMBtu/hr) to ensure less emissions than existing Boiler No. 2 (63 MMBtu/hr). This operating schedule and associated gas usage limit has been requested by the facility for new Boiler No. 3 (66.2 MMBtu/hr) to keep all three new boilers identical, even though its emissions would have been less than those for existing Boiler No. 3 (72.4 MMBtu/hr) even without the limits.

The 9 ppmv NO_x is required by Rule 1146 and BACT, and the 100 ppmv CO is required by BACT. Nat-Com Register Burner Specification for Model P-67-G-29-1722 provided a guarantee for NO_x of 9 ppm and CO of 100 ppm, both corrected to 3% O₂.

AQMD AER provides default emission factors for natural gas fired boilers for ROG, PM, and SO_x.

$$\begin{aligned} \text{CO, lbs/hr} &= (66,200,000 \text{ Btu/hr}) (8710 \text{ dscf}/10^6 \text{ Btu}) (100 \text{ ppm CO BACT}/10^6) \\ &\quad (20.9/(20.9-3.0)) (28 \text{ lbs CO}/379 \text{ scf}) = 4.97 \text{ lb/hr} \\ \text{lbs/day} &= (4.97 \text{ lb/hr})(22.29 \text{ hr/day}) = 110.78 \text{ lb/day} \\ 30 \text{ DA} &= 111 \text{ lb/day} \end{aligned}$$

$$\begin{aligned} \text{NO}_x, \text{ lbs/hr} &= (66,200,000 \text{ Btu/hr}) (8710 \text{ dscf}/10^6 \text{ Btu}) \\ &\quad (9 \text{ ppm per BACT \& Rule 1146}/10^6) \\ &\quad (20.9/(20.9-3.0)) (46 \text{ lbs NO}_x/379 \text{ scf}) = 0.74 \text{ lb/hr} \\ \text{lbs/day} &= (0.74 \text{ lb/hr})(22.29 \text{ hr/day}) = 16.49 \text{ lb/day} \\ 30 \text{ DA} &= 16 \text{ lb/day} \end{aligned}$$

For combustion emissions, the standard assumption is PM₁₀ = PM.

$$\begin{aligned} \text{PM}_{10}, \text{ lbs/hr} &= (66,200,000 \text{ Btu/hr}) (\text{cf}/1050 \text{ Btu}) (7.6 \text{ lb PM AER}/10^6 \text{ cf}) = 0.48 \text{ lb/hr} \\ \text{lbs/day} &= (0.48 \text{ lb/hr})(22.29 \text{ hr/day}) = 10.70 \text{ lb/day} \\ 30 \text{ DA} &= 11 \text{ lbs/day} \end{aligned}$$

$$\begin{aligned} \text{ROG, lbs/hr} &= (66,200,000 \text{ Btu/hr}) (\text{cf}/1050 \text{ Btu}) (5.5 \text{ lb ROG AER}/10^6 \text{ cf}) = 0.35 \text{ lb/hr} \\ \text{lbs/day} &= (0.35 \text{ lb/hr})(22.29 \text{ hr/day}) = 7.8 \text{ lbs/day} \\ 30 \text{ DA} &= 8 \text{ lb/day} \end{aligned}$$

$$\begin{aligned} \text{SO}_x, \text{ lbs/hr} &= (66,200,000 \text{ Btu/hr}) (\text{cf}/1050 \text{ Btu}) (0.6 \text{ lb SO}_x \text{ AER}/10^6 \text{ cf}) = 0.04 \text{ lb/hr} \\ \text{lbs/day} &= (0.04 \text{ lb/hr})(22.29 \text{ hr/day}) = 0.89 \text{ lb/day} \\ 30 \text{ DA} &= 1.0 \text{ lb/day} \end{aligned}$$

- c. Change in Emissions
CO = 111 lb/day - 454 lb/day = - 343 lb/day

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIV. APPLICATION PROCESSING AND CALCULATIONS	PAGES	PAGE
	8	24
	APPL. NO.	DATE
	509331, 509332, 509333, 509334	7/13/10
	PROCESSED BY	CHECKED BY
	V. Lee	

$$\text{NO}_x = 16 \text{ lb/day} - 56 \text{ lb/day} = -40 \text{ lb/day}$$

$$\text{PM}_{10} = 11 \text{ lb/day} - 11 \text{ lb/day} = 0 \text{ lb/day}$$

$$\text{ROG} = 8 \text{ lb/day} - 10 \text{ lb/day} = -2 \text{ lb/day}$$

$$\text{SO}_x = 1 \text{ lb/day} - 1 \text{ lb/day} = 0 \text{ lb/day}$$

2. **A/N 509333—New Boiler No. 2**

a. **F53892 (A/N 404164) — 63 MMBtu/hr Boiler to be Replaced**

The existing boiler is currently permitted under F53892 (A/N 404164). The operating schedule and corrected emissions for CO, NO_x, PM (and PM₁₀), ROG, and SO_x are the same as for Boiler No. 1, G6772 (A/N 446735). (For explanation of the corrected emissions, see memo to file, dated 7/13/10.)

b. **A/N 509333—New 66.2 MMBtu/Hr Boiler**

Same as A/N 509331 (identical boiler), above.

c. **Change in Emissions**

Same as A/N 509331, above.

3. **A/N 509334—New Boiler No. 3**

a. **F53899 (A/N 404165)—74.9 MMBtu/hr Boiler to be Replaced**

The existing boiler is currently permitted under F53899 (A/N 404165). The corrected emissions for CO, NO_x, PM (and PM₁₀), SO_x are as follows. ROG emissions do not need to be corrected. For explanation of the corrected emissions, see memo to file, dated 7/13/10.

Operating Schedule: 52 wk/yr, 7 days/wk, 24 hr/day

$$\begin{aligned} \text{CO, lb/hr} &= 22.51 \text{ lb/hr} && \text{(corrected emissions)} \\ \text{lb/day} &= (22.51 \text{ lb/hr}) (24 \text{ hr/day}) = 540.24 \text{ lb/day} \\ 30 \text{ DA} &= 540 \text{ lb/day} \end{aligned}$$

$$\begin{aligned} \text{NO}_x, \text{ lb/hr} &= 2.77 \text{ lb/hr} && \text{(corrected emissions)} \\ \text{lb/day} &= (2.77 \text{ lb/hr}) (24 \text{ hr/day}) = 66.48 \text{ lb/day} \\ 30 \text{ DA} &= 66 \text{ lb/day} \end{aligned}$$

$$\begin{aligned} \text{PM}_{10}, \text{ lb/hr} &= 0.54 \text{ lb/hr} && \text{(corrected emissions)} \\ \text{lb/day} &= (0.54 \text{ lb/hr}) (24 \text{ hr/day}) = 12.96 \text{ lb/day} \\ 30 \text{ DA} &= 13 \text{ lb/day} \end{aligned}$$

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIV. APPLICATION PROCESSING AND CALCULATIONS	PAGES	PAGE
	9	24
	APPL. NO.	DATE
	509331, 509332, 509333, 509334	7/13/10
	PROCESSED BY	CHECKED BY
V. Lee		

ROG, lb/hr = 0.5 lb/hr
lb/day = (0.5 lb/hr) (24 hr/day) = 12 lb/day
30 DA = 12 lb/day

SOx, lb/hr = 0.06 lb/hr *(corrected emissions)*
lb/day = (0.06 lb/hr) (24 hr/day) = 1.44 lb/day
30 DA = 1 lb/day

b. A/N 509334—New 66.2 MMBtu/Hr Boiler
Same as A/N 509331 (identical boiler), above.

c. Change in Emissions
CO = 111 lb/day - 540 lb/day = - 429 lb/day

NOx = 16 lb/day - 66 lb/day = - 50 lb/day

PM₁₀ = 11 lb/day - 13 lb/day = - 2 lb/day

ROG = 8 lb/day - 12 lb/day = - 4 lb/day

SOx = 1 lb/day - 1 lb/day = 0 lb/day

EVALUATION OF COMPLIANCE WITH MAJOR RULES

The operation of the new boilers are expected to comply with all applicable SCAQMD rules and regulations as follows:

Rule 212—Standards for Approving Permits

Public notice is **not** required for the installation of the boilers pursuant to paragraph (c)(1), as discussed below:

(c)(1): Public notice is required for any new or modified equipment under Regulation XXX (Title V) that may emit air contaminants located within 1000 feet from the outer boundary of a school. This subdivision shall not apply to a modification of an existing facility if the modification will result in a reduction of emissions of air contaminants from the facility and no increase in health risk at any receptor location.

The E & C Policies & Procedures No. E2006-01 regarding Rule Implementation Guidance, Rule 212 Public Notices, dated 12/19/06, provides the following clarification and guidance on determining the applicability of public notice requirements to a facility modification. Under Rule 212(c)(1), a modification to an existing facility will trigger the public notice requirement unless the modification will result in a reduction of emissions

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIV. APPLICATION PROCESSING AND CALCULATIONS	PAGES	PAGE
	10	24
	APPL. NO.	DATE
	509331, 509332, 509333, 509334	7/13/10
	PROCESSED BY	CHECKED BY
	V. Lee	

of air contaminants from the facility and it can be shown that no increase in health risk will occur at any receptor location. For implementation purposes, there is no increase in health risk at any receptor location if the following criteria are met.

1. The modification does not result in any emissions being released closer to any school located within 1,000 feet from the facility.
2. The modified facility has a lower allowable potential to emit (the lower of equipment design or permit limit) for all criteria air contaminants (CO, NO_x, PM₁₀, SO_x and VOC) than the pre-modified facility.
3. The maximum risk (MICR, HIA, and HIC) from the modified facility is no greater than the maximum risk (MICR, HIA and HIC) from the pre-modified facility.

The applicant determined that the new boilers will be located **91 feet** from Polytechnic School, 1030 E. California Blvd., Pasadena 91106. Polytechnic School is a private school for kindergarten to 12th grade with approximately 857 students. Consequently, public notice will be required unless the facility modification meets the criteria for exemption. If all three new boilers had a lower rating than the three existing boilers, then it can be easily shown that the exemption criteria are met. However, three 66.6 MMBtu/hr boilers, each with a gas usage limit, are replacing two 63 MMBtu/hr boilers and one 74.9 MMBtu/hr boiler, each without a gas usage limit.

The first criterion is that the modification will not result in any emissions being released closer to any school located within 1000 feet of the facility. This criterion is met because each new boiler will be installed in the same location as the boiler it will replace.

The second criterion is that the modified facility has a lower allowable potential to emit (the lower of equipment design or permit limit) for all criteria air contaminants (CO, NO_x, PM₁₀, SO_x and VOC) than the pre-modified facility. The following table shows this criterion is met.

Contaminant	Pre-Modified Facility Potential to Emit	Modified Facility Potential to Emit	Modified Facility < Pre-Modified Facility?
CO	454.32 lb/day x 2 boilers [Boilers 1 & 2] + 540.24 lb/day [Boiler 3] = 1448.88 lb/day	110.78 lb/day x 3 boilers [Boilers 1, 2, 3] = 332.34 lb/day	Yes
NO _x	55.92 lb/day x 2 boilers [Boilers 1 & 2] + 66.48 lb/day [Boiler 3] = 178.32	16.49 lb/day x 3 boilers [Boilers 1, 2, 3] = 49.47 lb/day	Yes

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIV. APPLICATION PROCESSING AND CALCULATIONS	PAGES	PAGE
	11	24
	APPL. NO.	DATE
	509331, 509332, 509333, 509334	7/13/10
	PROCESSED BY	CHECKED BY
	V. Lee	

	lb/day		
PM ₁₀	10.8 lb/day x 2 boilers [Boilers 1 & 2] + 12.96 lb/day [Boiler 3] = 34.56 lb/day	10.70 lb/day x 3 boilers [Boilers 1, 2, 3] = 32.10 lb/day	Yes
ROG	10.08 lb/day x 2 boilers [Boilers 1 & 2] + 12 lb/day (Boiler 3) = 32.16 lb/day	7.8 lb/day x 3 boilers [Boilers 1, 2, 3] = 23.4 lb/day	Yes
SO _x	1.2 lb/day x 2 boilers [Boilers 1 & 2] + 1.44 lb/day [Boiler 3] = 3.84 lb/day	0.89 lb/day x 3 boilers [Boilers 1, 2, 3] = 2.67 lb/day	Yes

The third criterion is that the maximum risk (MICR, HIA, and HIC) from the modified facility is no greater than the maximum risk (MICR, HIA and HIC) from the pre-modified facility. (The Tier 2 risk assessments performed for the pre-modified facility and the modified facility are discussed under Rule 1401—New Source Review of Toxic Air Contaminants, below.) The following table shows this criterion is met.

Contaminant	Pre-Modified Facility	Modified Facility	Modified Facility < Pre-Modified Facility?
MICR	1.66E-07 x 2 boilers [Boilers 1 & 2] + 1.98E-07 [Boiler 3] = 5.3E-07	1.62E-07 x 3 boilers [Boilers 1, 2, 3] = 4.86E-07	Yes
HIA	1.34E-02 x 2 boilers [Boilers 1 & 2] + 1.60E-02 [Boiler 3] = 4.28E-02	1.41E-02 x 3 boilers [Boilers 1, 2, 3] = 4.23E-02	Yes
HIC	2.27E-03 x 2 boilers [Boilers 1 & 2] + 2.70E-03 [Boiler 3] = 7.24E-03	2.21E-03 x 3 boilers [Boilers 1, 2, 3] = 6.63E-03	Yes

This subdivision does not require public notice because the above criteria are met.

(c)(2): Public notice is required for any new or modified facility which has on-site emission increases exceeding any of the daily maximums specified in subdivision (g) of this rule. This subdivision does not require public notice because the daily emissions for all criteria pollutants from each new boiler will be less than the daily emissions from the boiler it replaces.

(c)(3): Public notice is required for any new or modified equipment under Regulation XXX with increases in emissions of toxic contaminants for which a person may be exposed to a maximum individual cancer risk greater than, or equal to one in a million during a

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIV. APPLICATION PROCESSING AND CALCULATIONS	PAGES	PAGE
	12	24
	APPL. NO.	DATE
	509331, 509332, 509333, 509334	7/13/10
	PROCESSED BY	CHECKED BY
	V. Lee	

lifetime (70 years) for facilities with more than one equipment under Regulation XXX, unless the applicant demonstrates to the satisfaction of the Executive Officer that the total facility-wide maximum individual cancer risk is below ten in a million using the risk assessment procedures and toxic air contaminants specified under Rule 1402.

This subdivision does not require public notice because the total risk for each new boiler will result in a MICR that is less than one in a million.

Rule 218—Continuous Emission Monitoring

Subparagraph (c)(1)(A)—The owner or operator of any equipment subject to this Rule shall submit to the Executive Officer (specifically, Source Test Engineering) an “Application for CEMS.” The application shall require an initial approval by the Executive Officer prior to installation of a new CEMS. Cal Tech will submit applications.

Within 90 days of installation of the CEMS (sampling interface, analyzer, and data acquisition system), a person operating or using CEMS shall undertake a series of certification tests. If the equipment served by the CEMS is not operating at the time of complete CEMS installation, then the CEMS shall undergo a series of certification tests within 90 days from the next start-up of the equipment served by the CEMS. Thus, the CEMS is required to be installed no later than 90 days of the start-up of the boiler so the certification tests may be undertaken. These requirements are incorporated in condition no. 7.

Rule 401—Visible Emissions

With proper operation and maintenance, visible emissions are not expected from the operation of the boilers.

Rule 402—Nuisance

With proper operation and maintenance, the boilers are not likely to create a public nuisance. A search of the District’s complaints database for the last five years indicates no public complaints have been filed.

Rule 407—Liquid and Gaseous Air Contaminants

The boilers are expected to comply with the BACT limit of 100 ppmv CO, which supersedes the CO concentration limit of 2000 ppmv required by this rule. See BACT discussion, below.

Rule 409—Combustion Contaminants

With the use of natural gas as fuel, the operation of the boilers is anticipated to comply with the limit of 0.1 grains per cubic foot of gas corrected to 12 percent of carbon dioxide.

Rule 431.1—Sulfur Content of Gaseous Fuels

Compliance is anticipated as the facility purchases natural gas from a gas utility required to sell natural gas with less than 16 ppmv of sulfur compounds calculated as H₂S.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIV. APPLICATION PROCESSING AND CALCULATIONS	PAGES	PAGE
	13	24
	APPL. NO.	DATE
	509331, 509332, 509333, 509334	7/13/10
	PROCESSED BY	CHECKED BY
	V. Lee	

Rule 1146—Emissions of Oxides of Nitrogen from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters

Paragraph (a)—This rule is applicable to boilers of equal to or greater than 5 MMBtu/hr rated heat input capacity, including the three existing boilers (G6772, F53892, F53899) and the three replacement boilers under evaluation.

Paragraph (b)(8)—“Group III Unit” includes all boilers operated at universities greater than or equal to 5 MMBtu/hr. These include the three existing boilers (two 63 MMBtu/hr and one 74.9 MMBtu/hr) and the three replacement boilers (66.2 MMBtu/hr each) under evaluation.

Subparagraph (c)(1)(A)--Table 1146-1 sets forth the standard compliance limits and schedules. All boilers fired on gaseous fuels are required to meet 30 ppm by September 5, 2008. The three existing boilers (G6772, F53892, F53899) meet the 30 ppm limit, which is required by permit condition. Thus, they may be operated until the three replacement boilers are installed and operational according to the schedule set forth in subparagraph (c)(1)(I) (see discussion below).

Subparagraph (c)(1)(I)--Subparagraph (c)(1)(I) is applicable to Group III units, 75% or more of units (by heat input). Seventy-five percent or more of units (by heat input) for the three existing boilers equal 151 MMBtu/hr [calculated as 75% x (63 MMBtu/hr + 63 MMBtu/hr + 74.9 MMBtu/hr)]. Since 151 MMBtu/hr is greater than the sum of the heat input of any two existing boilers, all three existing boilers are subject to subparagraph (c)(1)(I).

The applicable requirements listed in subparagraph (c)(1)(I) are shown below:

Rule Reference	Category	Limit	Submit Compliance Plan on or before	Submit Application for Permit to Construct on or before	Unit Shall be in Full Compliance on or before
(c)(1)(I)	Group III Units 75% or more of units (by heat input)	9 ppm or 0.011 lbs/10 ⁶ Btu	January 1, 2011	January 1, 2012	January 1, 2013

Cal Tech submitted the Rule 1146 compliance plan application, A/N 505174, on 12/17/09, which was before the January 1, 2011 deadline. The compliance plan application was approved on 2/23/10. Cal Tech proposed to meet the 9 ppm NOx limit by replacing the three existing boilers before the January 1, 2013 deadline. The applications for permits to construct the three replacement boilers under evaluation were submitted on 3/23/10, which is before the January 1, 2012 deadline.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIV. APPLICATION PROCESSING AND CALCULATIONS	PAGES	PAGE
	14	24
	APPL. NO.	DATE
	509331, 509332, 509333, 509334	7/13/10
	PROCESSED BY	CHECKED BY
	V. Lee	

The applications for the replacement boilers include a copy of the Register Burner Specification for the Nat-Com Model P-67-G-29-1722, which provides a guarantee for a NOx performance of 9 ppm, corrected to 3% O₂. As discussed below, BACT also requires an emission limit of 9 ppm, corrected to 3% O₂. Thus, condition no. 4 will limit NOx to 9 ppmv. Condition no. 10 will require an initial source test to demonstrate compliance with this NOx emission level.

Paragraph (c)(4)—The CO limit is 400 ppmv, corrected to 3% O₂. The three existing boilers (G6772, F53892, F53899) meet the 400 ppm limit, which is required by permit condition. Thus, they may be operated until the three replacement boilers are installed and operational according to the schedule set forth in subparagraph (c)(1)(I) (see discussion above).

For the three replacement boilers, this limit is superseded by the more stringent BACT standard of 100 ppmv for watertube boilers. (See BACT discussion, below.)

Paragraph (c)(6)—Any unit(s) with a rated heat input capacity greater than or equal to 40 million Btu per hour and an annual heat input greater than 200×10^9 Btu per year shall have a continuous in-stack nitrogen oxides monitor or equivalent verification system in compliance with 40 CFR part 60 Appendix B Specification 2. Maintenance and emission records shall be maintained and made accessible for a period of two years to the Executive Officer.

The three existing boilers (G6772, F53892, F53899) are each equipped with a CEMS and may be operated until the three replacement boilers are installed and operational according to the schedule set forth in subparagraph (c)(1)(I) (see discussion above).

Each replacement boiler will be required to be equipped with a NOx CEMS because each boiler is rated greater than or equal to 40 MMBtu/hr and the annual heat input is greater than 200×10^9 Btu/yr [calculated as $(66.2 \times 10^6 \text{ Btu/hr}) (8760 \text{ hr/yr}) = 579.9 \times 10^9$ Btu/yr]. Condition no. 7 sets forth the requirements for the NOx CEMS.

Rule 3004(a)(4)(E) requires Title V facilities to keep all records of required monitoring data specified in permits, regulatory requirements and District monitoring protocols or rules for a period of at least five years from the date of the monitoring sample, measurement, report, or application. This is more stringent than the two years required by Rule 1146(c)(6). Condition no. 7 requires maintenance and emission records for the CEMS to be maintained. Condition no. 14 requires all records required by this permit to be made accessible for a period of five years.

Paragraph (c)(7)—Any owner or operator that has installed or modified a Group III natural gas fired unit prior to September 5, 2008 complying with the applicable BACT emission limit

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIV. APPLICATION PROCESSING AND CALCULATIONS	PAGES	PAGE
	15	24
	APPL NO	DATE
	509331, 509332, 509333, 509334	7/13/10
	PROCESSED BY	CHECKED BY
	V. Lee	

of 12 ppm or less of NOx may defer compliance with subparagraphs (c)(1)(I) or (c)(1)(J) until the unit's burner(s) replacement. This paragraph is not applicable to the three existing boilers, which have not been modified to meet the 12 ppm NOx level.

Paragraph (c)(9)—This paragraph sets forth the requirements for the Rule 1146 compliance plan application. As explained above, Cal Tech is in compliance with these requirements because the compliance plan application, A/N 505174, was submitted on 12/17/09 and approved on 2/23/10.

Paragraph (d)(3)—All parts per million emission limits specified in subdivision (c) are referenced at 3 percent volume stack gas oxygen on a dry basis averaged over a period of 15 consecutive minutes. Accordingly, condition no. 7 states the CEMS shall measure and record the NOx and O₂ concentrations over a 15-minute averaging time period. This 15-minute averaging time period, not the one-hour averaging period required to demonstrate BACT (see discussion below), is applicable because the compliance monitoring that takes place subsequent to the initial source test is a Rule 1146 requirement.

Paragraph (d)(4)—Compliance with the NOx and CO emission requirements of paragraph (c)(1) shall be determined using a District approved contractor under the Laboratory Approval Program according to the following procedures:

- (A) District Source Test Method 100.1—Instrumental Analyzer Procedures for Continuous Gaseous Emission Sampling (March 1989), or
- ...
- (F) a continuous in-stack nitrogen oxide monitor or equivalent verification system as specified in paragraph (c)(6).

Condition no. 10 sets forth the requirements for the initial source test for NOx and CO for BACT compliance. The requirements include the use of Method 100.1 and a LAP-approved contractor.

Subsequent to the initial source testing, the NOx CEMS will be used to determine compliance with the NOx limit. For compliance with CO limit, see discussion on paragraph (d)(9) below.

Paragraph (d)(6)—Compliance with the NOx emission requirements in paragraph (d)(4) shall be conducted once:

- (A) every three years for units with a rated heat input greater than or equal to 10 million Btu per hour, except for units subject to paragraph (c)(6).

This requirement is not applicable to the boilers as they are each equipped with a NOx CEMS. For compliance with CO limit, see discussion on paragraph (d)(9) below.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIV. APPLICATION PROCESSING AND CALCULATIONS	PAGES	PAGE
	16	24
	APPL. NO.	DATE
	509331, 509332, 509333, 509334	7/13/10
	PROCESSED BY	CHECKED BY
	V. Lee	

Paragraph (d)(7)—Provided the emissions test is conducted within the same calendar year as the test required in paragraph (d)(6), an owner or operator may use the following emissions tests to comply with paragraph (d)(6):

- (B) Relative accuracy testing for continuous emissions monitoring verification pursuant to Rule 218.1 or 40 CFR part 60 Appendix B Specification 2.

After the initial source test, the boilers will be subject to this RATA testing requirement for NOx. Condition no. 13 requires compliance with all applicable requirements of Rule 1146.

Paragraph (d)(8)—Any owner or operator of units subject to this rule shall check NOx emissions with a portable NOx, CO and oxygen analyzer according to the Protocol for the Periodic Monitoring of Nitrogen Oxides, Carbon Monoxide, and Oxygen from Units Subject to South Coast Air Quality Management District Rules 1146 and 1146.1 according to the following schedule:

- (A) On or after July 1, 2009, the owner or operator of units subject to paragraph (c)(1) shall check NOx emissions at least monthly or every 750 unit operating hours, whichever occurs later.

I consulted Supervising Inspector Mark VonDerAu, who is teaching the training classes on the operation of the portable analyzer. He explained that, although not explicit in the rule, Program Supervisor Gary Quinn stated the internal policy is to not require portable testing for boilers equipped with NOx CEMS because the NOx CEMS is considered to be a more stringent requirement than the portable analyzer. Condition no. 13 requires compliance with all applicable requirements of Rule 1146.

Paragraph (d)(9)—An owner or operator shall opt to comply with the requirements as applied to CO emissions specified in paragraph (d)(8) or subparagraph:

- (A) (d)(6)(A) for units greater than or equal to 10 mmbtu/hr.

Condition no. 13 requires compliance with all applicable requirements of Rule 1146. For the existing boilers, the facility has opted to source test for CO every three years pursuant to Rule 1146(d)(6)(A), instead of the portable analyzer testing pursuant to Rule 1146(d)(8).

Regulation XIII—New Source Review

- Rule 1303(a)—BACT
Part B of the BACT Guidelines--LAER/BACT Determinations for Major Polluting Sources--have not been kept up to date. Therefore, Part D—BACT Guidelines for Non-Major Polluting Facilities will be consulted. The BACT guidelines, dated 10-3-2008 Rev. 1, for Equipment or Process: Boiler; Subcategory: Natural Gas or Propane Fired, ≥ 20 MM Btu/Hr, set forth the emissions limits for NOx, SOx, CO, and PM₁₀.

As shown below, the emission levels are anticipated to comply with BACT requirements.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIV. APPLICATION PROCESSING AND CALCULATIONS	PAGES	PAGE
	17	24
	APPL. NO.	DATE
	509331, 509332, 509333, 509334	7/13/10
	PROCESSED BY	CHECKED BY
	V. Lee	

	NO _x ¹⁾	SO _x	CO	PM ₁₀
BACT Limits— Natural Gas or Propane Fired, ≥ 20 MM Btu/Hr	<u>With Low-NOx Burner:</u> ≤ 9 ppmv dry corrected to 3% O ₂	Natural Gas	≤ 100 ppmv for watertube type, dry corrected to 3% O ₂	Natural Gas
Manufacturer's Guarantee	9 ppmv corrected to 3% O ₂	Natural Gas	100 ppmv, corrected to 3% O ₂	Natural Gas

As discussed under Rule 1146, above, condition no. 4 limits the NO_x to 9 ppmv pursuant to Rule 1146 and BACT for new equipment. Condition no. 5 limits CO to 100 ppmv, as required by BACT for watertube boilers. The Register Burner Specification for the Nat-Com Model P-67-G-29-1722 provides a guarantee for NO_x of 9 ppm and CO of 100 ppm, both corrected to 3% O₂. Condition no. 10 requires an initial source test to demonstrate compliance with these BACT limits.

An e-mail, dated 8/7/07, from then Assistant DEO Mohsen Nazemi to E & C Managers stated: "BACT emission limits on new permits for combustion equipment shall be imposed on a one hour averaging period. A different averaging period (shorter or longer) may be used as permit conditions and for purposes of compliance determination for other applicable rules and regulations (i.e. 15 minute average for Regulations IV, XI, XX, or monthly limits for offsets, etc.)." In accordance with this e-mail, condition 10.D. requires a one-hour test for normal load for the initial source test to demonstrate compliance with the BACT limits. The maximum and minimum load tests may also be required to be one-hour tests, but generally are required to be 15 minutes, pursuant to Rule 1146(d)(3), which specifies that all parts per million emission limits specified in subdivision (c) are referenced at 3 percent volume stack gas oxygen on a dry basis averaged over a period of 15 consecutive minutes.

- Rule 1303(b)(1)—Modeling

As discussed under "Concurrent Facility Modification" Exemption, below, these boilers are exempt from offset requirements, but not modeling requirements.

The anticipated NO_x, CO, and PM₁₀ emissions from each boiler are below the screening analysis thresholds set forth in Rule 1303, Appendix A, Table A-1, as shown below. Therefore, further modeling is not required.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIV. APPLICATION PROCESSING AND CALCULATIONS	PAGES 18	PAGE 24
	APPL. NO. 509331, 509332, 509333, 509334	DATE 7/13/10
	PROCESSED BY V. Lee	CHECKED BY

	Rule 1303 Appendix A, Table A-1 Screening Values for Emissions, lbs/hr, for > 30 & ≤ 40 MMBTU/hr Heat Input Capacity. ¹	Actual Emissions, lbs/hr	Compliance
NO _x	1.31	0.74	Yes
CO	72.1	4.97	Yes
PM ₁₀	7.9	0.48	Yes

¹ The heat input capacity for the boilers is 66.2 MMBtu/hr, which fall above this category. As this is the highest category provided in Table A-1, however, it will be used to screen the boilers.

- Rule 1303(b)(2)--Offsets

Facility PTEs Corrected in NSR Database

The corrected facility PTEs are as follows: (1) CO, 1493 lb/day; (2) NO_x, 218 lb/day; (3) PM₁₀, 34 lb/day; (4) ROG, 84 lb/day; and (5) SO_x, 7 lb/day. For explanation of corrected facility PTEs, see memo to file, dated 7/13/10.

Rule 1304 Offset Exemptions

The three proposed boilers either will meet the requirements of a Rule 1304 offset exemption (other than the 4 tpy offset exemption (Rule 1304(d)(2)(A)), or the facility will be required to provide emission reduction credits (ERCs) for NO_x, PM₁₀, and ROG.

"Replacement" Exemption

Rule 1304(a)(1) provides an exemption from modeling and offset requirements for "replacements." This exemption applies where the source is replacing a functionally identical source or is a functionally identical modification to a source and there is no increase in maximum rating, and the potential to emit of any air contaminant will not be greater from the new source than from the replaced source, when the replaced source was operated at the same conditions and as if current BACT were applied. This exemption does not apply to Boilers No. 1 and 2 because the 63 MMBtu/hr boilers will be replaced by new 66.2 MMBtu/hr boilers. This exemption does apply to Boiler No. 3 because the 74.9 MMBtu/hr boiler will be replaced by a new 66.2 MMBtu/hr boiler. The "concurrent facility modification" exemption, however, applies to all three boilers as discussed below.

"Concurrent Facility Modification" Exemption

Rule 1304(c)(2) provides an exemption from offset requirements for "concurrent facility modification." This exemption applies where the source is part of a concurrent facility modification with emission reductions occurring after the submittal of an application for a permit to construct a new or modified source, but before the start of operation of the source, provided that it results in a net emission decrease, as determined by Rule 1306, and that the same emission reductions are not:

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIV. APPLICATION PROCESSING AND CALCULATIONS	PAGES	PAGE
	19	24
	APPL NO	DATE
	509331, 509332, 509333, 509334	7/13/10
	PROCESSED BY	CHECKED BY
	V. Lee	

- (A) required by a Control Measure of the AQMP which has been assigned a target implementation date; or
- (B) required by a proposed District rule for which the first public workshop to consider such a rule has been conducted. The exclusion shall remain in effect for 12 months from the date of the workshop, or until the Executive Officer or designee determines that the proposed rule is abandoned; or
- (C) required by an adopted federal, State, or District rule, regulation or statute; or
- (D) from a category of equipment included in a demonstration program required by a District rule or regulation.

On 6/23/10, AQAC Gary Turner was consulted regarding the application of the “concurrent facility modification” exemption to the three boilers under evaluation. First, the emissions reductions are required to occur after the submittal of an application for a permit to construct a new source, but before the start of operation of the new source. The applications for a permit to construct the three new replacement boilers have all been submitted. The emission reductions from the removal of the existing boilers will occur after the permits to construct are issued. However, Boiler No. 1 will be replaced later this summer, but Boilers No. 2 and 3 will be replaced at different times next summer. If all three existing boilers were shut down at the same time, then this exemption would apply to the three boilers collectively. Since the boilers will be shut down and replaced at different times, this exemption applies to each boiler individually. Condition no. 15 specifies that each new boiler shall not be operated, until the boiler it replaces is permanently removed from service.

Second, each replacement is required to result in a net emission decrease as determined by Rule 1306. The calculation methodology listed in Rule 1306(d)(2) is to be used in determining emission reductions from equipment removed. Rule 1306(d)(2) specifies that the net emissions increase after the modification shall be calculated pursuant to Rule 1306(b) which is the post-modification potential to emit minus either: (A) the permitted or allowable pre-modification potential to emit; or (B) the actual emissions calculated pursuant to Rule 1306(c)(1) if the source was never subject to Rule 213 or Regulation XIII. The emissions from the existing boilers will be based on (A) the permitted or allowable pre-modification potential to emit, because the three boilers have been subject to Regulation XIII—New Source Review. The initial P/Os for Boilers No. 1 and 2 (P29373, P29374) and Boiler No. 3 P62582 were issued on 1/31/69 and 7/29/75, respectively, before the start of NSR on 10/8/76. However, all three boilers were modified to meet the Rule 1146 emissions limits of 30 ppm NO_x and 400 ppm CO, both corrected to 3% O₂, pursuant to D79921, D79922, and D79923. Since the P/C’s for these modifications were issued in 1992 and the P/O’s in 1994, these three boilers have been subject to NSR.

Each new boiler is required to emit less emission for all criteria pollutants than the boiler it replaces: (1) new Boiler No. 1 (66.2 MMBtu/hr) versus existing Boiler No. 1 (63 MMBtu/hr); (2) new Boiler No. 2 (66.2 MMBtu/hr) versus existing Boiler No. 2 (63 MMBtu/hr); and (3) new Boiler No. 3 (66.2 MMBtu/hr) versus existing Boiler No. 3 (74.9 MMBtu/hr). To ensure that

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIV. APPLICATION PROCESSING AND CALCULATIONS	PAGES	PAGE
	20	24
	APPL. NO.	DATE
	509331, 509332, 509333, 509334	7/13/10
	PROCESSED BY	CHECKED BY
V. Lee		

new Boiler Nos. 1 and 2 will emit less emissions than existing Boiler Nos. 1 and 2, the two new boilers will be subject to a reduced operating schedule of 52 wk/yr, 7 days/wk, 22.29 hr/day. The facility requested the same reduced operating schedule for new Boiler No. 3 to keep all three new boilers identical, even though new Boiler No. 3 will emit less emissions than existing Boiler No. 3 even without the limits.

The following shows that each boiler replacement results in a net emission decrease for all criteria pollutants. The daily emission rates for the new boilers and the existing boilers are from the Emissions Calculations, above, with the emissions for the new boilers based on the reduced operating schedule.

Boiler No. 1 Replacement

CO: 110.78 lb/day - 454.32 lb/day = - 343.54 lb/day
NOx: 16.49 lb/day - 55.92 lb/day = - 39.43 lb/day
PM₁₀: 10.7 lb/day - 10.8 lb/day = - 0.1 lb/day
ROG: 7.8 lb/day - 10.08 lb/day = - 2.28 lb/day
SOx: 0.89 lb/day - 1.2 lb/day = - 0.31

Boiler No. 2 Replacement

Same as Boiler No. 1.

Boiler No. 3 Replacement

CO: 110.78 lb/day - 540.24 lb/day = - 429.46 lb/day
NOx: 16.49 lb/day - 66.48 lb/day = - 49.99 lb/day
PM₁₀: 10.7 lb/day - 12.96 lb/day = - 2.26 lb/day
ROG: 7.8 lb/day - 12 lb/day = - 4.2 lb/day
SOx: 0.89 lb/day - 1.44 lb/day = - 0.55 lb/day

The reduction in operating schedule for the new boilers is implemented by the gas usage limit in condition no. 9, which is calculated as follows.

$$(66,200,000 \text{ Btu/hr}) (cf/1050 \text{ Btu}) (22.29 \text{ hrs/day}) (30 \text{ days/month}) = 42,159,943 \text{ cf/month}$$

[For condition no. 9, round up to 42,160,000 cf/month]

Third, the emission reductions may not be required by any of the categories of legal requirements listed. The only legal requirement requiring an emission reduction applicable to the existing boilers is Rule 1146, which requires the NOx emissions to be reduced from 30 ppm (Rule 1146(c)(1)(A)) to 9 ppm (Rule 1146(c)(1)(I)). Therefore, the emission reduction in NOx realized from replacing each boiler, as proposed, is required to be greater than the emission reduction in NOx realized from modifying each existing boiler to reduce the NOx levels from 30 ppm to 9 ppm.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIV. APPLICATION PROCESSING AND CALCULATIONS	PAGES	PAGE
	21	24
	APPL NO	DATE
	509331, 509332, 509333, 509334	7/13/10
	PROCESSED BY	CHECKED BY
	V. Lee	

Boiler No. 1

As shown above under the second criterion, the reduction in NOx emissions resulting from the replacement of existing Boiler No. 1 (63 MMBtu/hr at 30 ppm NOx) with new Boiler No. 1 (66.2 MMBtu/hr at 9 ppm NOx **with gas usage limit**) is 39.43 lb/day.

The reduction in NOx emissions that would be realized by modifying existing Boiler No. 1 to reduce NOx levels from 30 ppm to 9 ppm, as required by Rule 1146, is as follows:

$$\begin{aligned} \text{NOx, lbs/hr} &= (63,000,000 \text{ Btu/hr}) (8710 \text{ dscf}/10^6 \text{ Btu}) (30 - 9 \text{ ppm NOx}/10^6) \\ &\quad (20.9/(20.9-3.0)) (46 \text{ lbs NOx}/379 \text{ scf}) = 1.63 \text{ lb/hr} \\ \text{lbs/day} &= (1.63 \text{ lb/hr})(24 \text{ hr/day}) = 39.12 \text{ lb/day} \end{aligned}$$

Since the reduction in NOx emissions resulting from replacing Boiler No. 1 (39.43 lb/day) is greater than the reduction in NOx emissions that would be realized from modifying existing Boiler No. 1 to meet Rule 1146 (39.12 lb/day), this third criterion is met for Boiler No. 1.

Boiler No. 2

Same as Boiler No. 1.

Boiler No. 3

As shown above under the second criterion, the reduction in NOx emissions resulting from the replacement of existing Boiler No. 3 (74.9 MMBtu/hr at 30 ppm NOx) with new Boiler No. 3 (66.2 MMBtu/hr at 9 ppm NOx **with gas usage limit**) is 49.99 lb/day.

The reduction in NOx emissions that would be realized by modifying existing Boiler No. 3 to reduce NOx levels from 30 ppm to 9 ppm, as required by Rule 1146, is as follows:

$$\begin{aligned} \text{NOx, lbs/hr} &= (74,900,000 \text{ Btu/hr}) (8710 \text{ dscf}/10^6 \text{ Btu}) (30 - 9 \text{ ppm NOx}/10^6) \\ &\quad (20.9/(20.9-3.0)) (46 \text{ lbs NOx}/379 \text{ scf}) = 1.94 \text{ lb/hr} \\ \text{lbs/day} &= (1.94 \text{ lb/hr})(24 \text{ hr/day}) = 46.56 \text{ lb/day} \end{aligned}$$

Since the reduction in NOx emissions resulting from replacing Boiler No. 3 (49.99 lb/day) is greater than the reduction in NOx emissions that would be realized from modifying existing Boiler No. 3 to meet Rule 1146 (46.56 lb/day), this third criterion is met for Boiler No. 3.

Since all three replacement boilers met the three criteria for the "concurrent facility modification" offset exemption, they are exempt from offset requirements.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIV. APPLICATION PROCESSING AND CALCULATIONS	PAGES	PAGE
	22	24
	APPL. NO.	DATE
	509331, 509332, 509333, 509334	7/13/10
	PROCESSED BY	CHECKED BY
V. Lee		

Rule 1401—New Source Review of Toxic Air Contaminants

Rule 1401 Compliance

A Tier II screening risk assessment was performed for each new identical boiler to determine compliance with Rule 1401. The risk assessment input and results are summarized below.

- Input

Operating Schedule: 52 wk/yr, 7 day/wk, 22.29 hr/day

T-BACT: No.

Distance to nearest residential or sensitive receptor: 27.7 meters (91 ft) from nearest sensitive receptor, Polytechnic School, 1030 E. California, Pasadena

Distance to nearest offsite worker receptor: 417.9 meters (1371 ft) from Pie & Burger Restaurant, 913 E. California, Pasadena

Stack height: 35 ft from the ground to the top of the stack.

Nearest meteorological station: Pasadena

- Results

The Tier 2 risk assessment indicates each boiler will be in compliance with Rule 1401. The results are summarized below.

Health Risk Index	Residential/ Sensitive Receptor Risk	Commercial Receptor Risk	Rule 1401 Standard (no T-BACT)	Complies?
Maximum Individual Cancer (MICR)	1.62×10^{-7}	2.53×10^{-9}	1×10^{-6}	Yes
HIA	1.41×10^{-2}		1	Yes
HIC	2.21×10^{-3}		1	Yes

Rule 212(c)(1) Compliance

As discussed above under Rule 212(c)(1), a modification to an existing facility, located within 1000 feet from the outer boundary of a school, will trigger the public notice requirement unless the modification will result in no increase in health risk at any receptor location, among other requirements. Since Rule 1401 was not adopted until 1990, risk assessments have not been performed previously for the existing boilers. **Therefore, risk assessments will be performed here for the existing boilers to provide health risk results for the Rule 212(c)(1) rule evaluation, above.**

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIV. APPLICATION PROCESSING AND CALCULATIONS	PAGES	PAGE
	23	24
	APPL. NO.	DATE
	509331, 509332, 509333, 509334	7/13/10
	PROCESSED BY	CHECKED BY
	V. Lee	

- For Existing Boiler Nos. 1 and 2

The input parameters are the same as for the new boilers, except the rating is 63 MMBtu/hr (66.2 MMBtu/hr for new boilers), the operating schedule is 24 hr/day (22.29 hr/day for new boilers), and the stack height is 32.5 ft (35 ft for new boilers). The results are shown below.

Health Risk Index	Residential/ Sensitive Receptor Risk	Commercial Receptor Risk
Maximum Individual Cancer (MICR)	1.66×10^{-7}	2.38×10^{-9}
HIA	1.34×10^{-2}	
HIC	2.27×10^{-3}	

- For existing Boiler Nos. 3

The input parameters are the same as for the new boilers, except the rating is 74.9 MMBtu/hr (66.2 MMBtu/hr for new boilers), the operating schedule is 24 hr/day (22.29 hr/day for new boilers), and the stack height is 32.5 ft (35 ft for new boilers). The results are shown below.

Health Risk Index	Residential/ Sensitive Receptor Risk	Commercial Receptor Risk
Maximum Individual Cancer (MICR)	1.98×10^{-7}	2.83×10^{-9}
HIA	1.60×10^{-2}	
HIC	2.70×10^{-3}	

Regulation XXX—Title V Permits

- Rule 3003—Applications

As noted above, this facility is not in the RECLAIM program. The proposed project is considered as a “minor permit revision” to the Title V permit for this facility.

Rule 3000(b)(12)(vi) defines a “minor permit revision” as any Title V permit revision that does not result in an increase in emissions of a pollutant subject to Regulation XIII—New Source Review (non-RECLAIM pollutants) or a hazardous air pollutant (HAP).

The proposed project is not expected to result in an increase in emissions of a pollutant subject to Regulation XIII – New Source Review (on-RECLAIM pollutants) or a hazardous

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING & COMPLIANCE DIV. APPLICATION PROCESSING AND CALCULATIONS	PAGES	PAGE
	24	24
	APPL. NO.	DATE
	509331, 509332, 509333, 509334	7/13/10
	PROCESSED BY	CHECKED BY
	V. Lee	

air pollutant (HAP), and therefore is considered as a “minor permit revision” pursuant to Rule 3000(b)(12)(A)(vi).

This proposed project is the 13th permit revision to the Title V renewal permit issued to this facility on November 28, 2006 as Rev. 2.

Permit Revisions, Emissions Changes and Cumulative Emissions

For table summarizing the permit revisions since the renewal Title V permit was issued, the associated emissions changes, and the total cumulative emissions, see memo to file, dated 7/13/10.

RECOMMENDATION

The proposed project is expected to comply with all applicable District Rules and Regulations. Since the proposed project is considered as a “minor permit revision,” it is exempt from the public participation requirements under Rule 3006(b). A proposed permit incorporating this permit revision will be submitted to EPA for a 45-day review pursuant to Rule 3003(j). If EPA does not have any objections within the review period, a revised Title V permit will be issued to this facility.

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

Facility Equipment and Requirements (Section D)

This section consists of a table listing all permitted equipment at the facility, facility wide requirements, all individual Permits to Construct and Permits to Operate issued to various equipment at the facility, and Rule 219-exempt equipment subject to source-specific requirements. Each permit and Rule 219-exempt equipment will list operating conditions including periodic monitoring requirements, and applicable emission limits and requirements that the equipment is subject to. Also included is the rule origin and authority of each emission limit and permit condition.

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMITTED EQUIPMENT LIST

THE FOLLOWING IS A LIST OF ALL PERMITS TO CONSTRUCT AND PERMITS TO OPERATE AT THIS FACILITY:

Application number	Permit to Operate number	Equipment description
222133	D43676	I C E (50-500 HP) EM ELEC GEN-NAT GAS
222134	D22764	I C E (50-500 HP) EM ELEC GEN-DIESEL
267420	D58610	I C E (50-500 HP) EM ELEC GEN-DIESEL
271879	D64372	I C E (50-500 HP) EM ELEC GEN-DIESEL
292810	D83124	I C E (50-500 HP) EM ELEC GEN-DIESEL
304633	D91737	I C E (50-500 HP) EM ELEC GEN-DIESEL
335460	F15249	I C E (50-500 HP) EM ELEC GEN-DIESEL
346594	F18063	I C E (50-500 HP) EM ELEC GEN-DIESEL
360776	F41928	I C E (50-500 HP) EM ELEC GEN-DIESEL
385178	F41929	I C E (50-500 HP) EM ELEC GEN-DIESEL
385441	F39728	I C E (50-500 HP) EM ELEC GEN-DIESEL
390098	F45731	I C E (>500 HP) EM ELEC GEN-DIESEL
404167	F53900	I C E (50-500 HP) EM ELEC GEN-DIESEL
404168	F54055	I C E (50-500 HP) EM ELEC GEN-DIESEL
408837	F76394	I C E (>500 HP) EM ELEC GEN-DIESEL
430597	F76393	I C E (50-500 HP) EM ELEC GEN-DIESEL
449574	F84102	I C E (50-500 HP) EM ELEC GEN-DIESEL
441638	N16673 <i>Note: See A/N 492430, below.</i>	SERV STAT STORAGE & DISPENSING GASOLINE
404164	F53892	BOILER (>50 MMBTU/HR) COMB GAS-DISTILL
404165	F53899	BOILER (>50 MMBTU/HR) COMB GAS-DISTILL
402552	F92373	TURBINE ENGINE (<=50MW) NAT GAS ONLY
402554	F92374	SELECTIVE CATALYTIC REDUCTION
408819	F92439	STORAGE TANK AMMONIA
473777	F94315	I C E (50-500 HP) EM ELECT GEN-DIESEL
476877	F97113	I C E (50-500 HP) EM ELECT GEN-DIESEL
492430	N23305	SERV STAT STORAGE & DISPENSING GASOLINE
473550	G6134	I C E (50-500 HP) EM ELECT GEN-DIESEL
406489	G6133	I C E (>500 HP) EM ELECT GEN-DIESEL
446735	G6772	BOILER (>50 MMBTU/HR) COMB GAS-DISTILL
507240	G8582	SPRAY BOOTH PAINT AND SOLVENT
509331		BOILER (>50 MMBTU/HR) NAT GAS ONLY
509333		BOILER (>50 MMBTU/HR) NAT GAS ONLY
509334		BOILER (>50 MMBTU/HR) NAT GAS ONLY

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

NOTE: EQUIPMENT LISTED ABOVE THAT HAVE NO CORRESPONDING PERMITS TO OPERATE NUMBER ARE ISSUED PERMITS TO CONSTRUCT. THE ISSUANCE OR DENIAL OF THEIR PERMITS TO OPERATE IS SUBJECT TO ENGINEERING FINAL REVIEW. ANY OTHER APPLICATIONS THAT ARE STILL BEING PROCESSED AND HAVE NOT BEEN ISSUED PERMITS TO CONSTRUCT OR PERMITS TO OPERATE WILL NOT BE FOUND IN THIS TITLE V PERMIT.

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

FACILITY WIDE CONDITION(S)

Condition(s):

1. EXCEPT FOR OPEN ABRASIVE BLASTING OPERATIONS, THE OPERATOR SHALL NOT DISCHARGE INTO THE ATMOSPHERE FROM ANY SINGLE SOURCE OF EMISSIONS WHATSOEVER ANY AIR CONTAMINANT FOR A PERIOD OR PERIODS AGGREGATING MORE THAN THREE MINUTES IN ANY ONE HOUR WHICH IS:
 - A. AS DARK OR DARKER IN SHADE AS THAT DESIGNATED NO. 1 ON THE RINGELMANN CHART, AS PUBLISHED BY THE UNITED STATES BUREAU OF MINES; OR
 - B. OF SUCH OPACITY AS TO OBSCURE AN OBSERVER'S VIEW TO A DEGREE EQUAL TO OR GREATER THAN DOES SMOKE DESCRIBED IN SUBPARAGRAPH (A) OF THIS CONDITION.
[RULE 401]
2. THE OPERATOR SHALL NOT PURCHASE ANY DIESEL FUEL UNLESS THE FUEL IS LOW SULFUR DIESEL FOR WHICH THE SULFUR CONTENT SHALL NOT EXCEED 15 PPMV BY WEIGHT AS SUPPLIED BY THE SUPPLIER.
[RULE 431.2, RULE 1470]5
3. THE OPERATOR SHALL NOT USE NATURAL GAS CONTAINING SULFUR COMPOUNDS, CALCULATED AS H₂S, IN EXCESS OF 16 PPMV. THE OPERATOR SHALL NOT USE OR SELL GASEOUS FUEL CONTAINING SULFUR COMPOUNDS IN EXCESS OF 40 PPMV CALCULATED AS HYDROGEN SULFIDE AVERAGED OVER FOUR HOURS.
[RULE 431.1]

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO OPERATE

Permit No. D43676
A/N 222133

Equipment Description:

INTERNAL COMBUSTION ENGINE, INTERNATIONAL HARVESTER, MODEL NO. V549, SERIAL NO. 125692, NATURAL GAS FUELED, EMERGENCY ELECTRICAL GENERATOR (BECKMAN BEHAVIORAL BIOLOGY), 8 CYLINDERS, 4 CYCLES, NATURALLY ASPIRATED, 172 BHP.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THE IGNITION TIMING OF THIS ENGINE MUST BE INSPECTED ADJUSTED AND CERTIFIED AT A MINIMUM, ONCE EVERY THREE YEARS OF OPERATION. INSPECTIONS ADJUSTMENTS, AND CERTIFICATIONS MUST BE PERFORMED BY A QUALIFIED MECHANIC AND ACCORDING TO THE ENGINE MANUFACTURER'S PROCEDURES.
[RULE 1110.2]
4. THIS ENGINE SHALL NOT OPERATE MORE THAN 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 50 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING PURPOSES.
[RULE 1304(a)-MODELING AND OFFSET]
5. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH ON A MONTHLY BASIS SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:
 - A. EMERGENCY USE HOURS OF OPERATION
 - B. MAINTENANCE AND TESTING HOURS
 - C. OTHER OPERATING HOURS (DESCRIBE THE REASON FOR OPERATION)

IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION THE LOG SHALL BE KEPT FOR A MINIMUM OF THREE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED SOMETIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.
[RULE 1303(b)(2)-OFFSET]

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

6. OPERATION BEYOND THE 50 HOURS PER YEAR ALLOTTED FOR ENGINE MAINTENANCE AND TESTING SHALL BE ALLOWED ONLY IN THE EVENT OF A LOSS OF GRID POWER OR UP TO 30 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE UTILITY DISTRIBUTION COMPANY HAS ORDERED ROTATING OUTAGES IN THE CONTROL AREA WHERE THE ENGINE IS LOCATED OR HAS INDICATED THAT IT EXPECTS TO ISSUE SUCH AN ORDER AT A CERTAIN TIME, AND THE ENGINE IS LOCATED IN A UTILITY SERVICE BLOCK THAT IS SUBJECT TO THE ROTATING OUTAGE. ENGINE OPERATION SHALL BE TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.
[RULE 1304(a)-MODELING AND OFFSET]

Periodic Monitoring:

7. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THIS ENGINE.
[RULE 1110.2, 3004(a)(4)]

Emissions And Requirements:

8. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO OPERATE

Permit No. D22764
A/N 222134

Equipment Description:

INTERNAL COMBUSTION ENGINE, CUMMINS, MODEL NO. NT-855-GS, SERIAL NO. 30103934, DIESEL FUELED, EMERGENCY ELECTRICAL GENERATOR (BRAUN LAB), 6 CYLINDERS, 4 CYCLES, TURBOCHARGED, AFTERCOOLED, 355 BHP.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THE IGNITION TIMING OF THIS ENGINE MUST BE INSPECTED ADJUSTED AND CERTIFIED AT A MINIMUM, ONCE EVERY THREE YEARS OF OPERATION. INSPECTIONS ADJUSTMENTS, AND CERTIFICATIONS MUST BE PERFORMED BY A QUALIFIED MECHANIC AND ACCORDING TO THE ENGINE MANUFACTURER'S PROCEDURES.
[RULE 1110.2]
4. THIS ENGINE SHALL NOT OPERATE MORE THAN 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 20 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING PURPOSES.
[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]
5. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH ON A MONTHLY BASIS SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:
 - A. EMERGENCY USE HOURS OF OPERATION
 - B. MAINTENANCE AND TESTING HOURS
 - C. OTHER OPERATING HOURS (DESCRIBE THE REASON FOR OPERATION)

IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION THE LOG SHALL BE KEPT FOR A MINIMUM OF THREE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

RECORDED SOMETIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.

[RULE 1303(b)(2)-OFFSET, RULE 1470]

6. OPERATION BEYOND THE 20 HOURS PER YEAR ALLOTTED FOR ENGINE MAINTENANCE AND TESTING SHALL BE ALLOWED ONLY IN THE EVENT OF A LOSS OF GRID POWER OR UP TO 30 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE UTILITY DISTRIBUTION COMPANY HAS ORDERED ROTATING OUTAGES IN THE CONTROL AREA WHERE THE ENGINE IS LOCATED OR HAS INDICATED THAT IT EXPECTS TO ISSUE SUCH AN ORDER AT A CERTAIN TIME, AND THE ENGINE IS LOCATED IN A UTILITY SERVICE BLOCK THAT IS SUBJECT TO THE ROTATING OUTAGE. ENGINE OPERATION SHALL BE TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.
[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]
7. THIS ENGINE SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.
[RULE 1470]
8. THIS ENGINE SHALL NOT BE USED AS PART OF AN INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO DO SO BY THE UTILITY OR THE GRID OPERATOR.
[RULE 1470]

Periodic Monitoring:

9. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 3004 (A)(4)]

Emissions And Requirements:

10. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM: RULE 1470

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO OPERATE

Permit No. D58610
A/N 267420

Equipment Description:

INTERNAL COMBUSTION ENGINE, CUMMINS, DIESEL-FUELED, EMERGENCY ELECTRICAL GENERATION (SOUTH MUDD), MODEL NO. 6BT5.9-G2, TURBOCHARGED, AFTERCOOLED, 6 CYLINDERS, 166 BHP.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS ENGINE SHALL NOT OPERATE MORE THAN 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 20 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING PURPOSES.
[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]
4. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH ON A MONTHLY BASIS SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:
 - A. EMERGENCY USE HOURS OF OPERATION
 - B. MAINTENANCE AND TESTING HOURS
 - C. OTHER OPERATING HOURS (DESCRIBE THE REASON FOR OPERATION)

IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION THE LOG SHALL BE KEPT FOR A MINIMUM OF THREE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED SOMETIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.
[RULE 1303(b)(2)-OFFSET, RULE 1470]
5. OPERATION BEYOND THE 20 HOURS PER YEAR ALLOTTED FOR ENGINE MAINTENANCE AND TESTING SHALL BE ALLOWED ONLY IN THE EVENT OF A LOSS OF GRID POWER OR UP TO 30

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE UTILITY DISTRIBUTION COMPANY HAS ORDERED ROTATING OUTAGES IN THE CONTROL AREA WHERE THE ENGINE IS LOCATED OR HAS INDICATED THAT IT EXPECTS TO ISSUE SUCH AN ORDER AT A CERTAIN TIME, AND THE ENGINE IS LOCATED IN A UTILITY SERVICE BLOCK THAT IS SUBJECT TO THE ROTATING OUTAGE. ENGINE OPERATION SHALL BE TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.

[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]

6. THIS ENGINE SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.
[RULE 1470]
7. THIS ENGINE SHALL NOT BE USED AS PART OF AN INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO DO SO BY THE UTILITY OR THE GRID OPERATOR.
[RULE 1470]

Periodic Monitoring:

8. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 3004 (A)(4)]

Emissions and Requirements:

9. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM: RULE 1470

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO OPERATE

Permit No. D64372
A/N 271879

Equipment Description:

INTERNAL COMBUSTION ENGINE, JOHN DEERE, DIESEL-FUELED, EMERGENCY ELECTRICAL GENERATION (AVERY CENTER), MODEL NO. 6059T, TURBOCHARGED, AFTERCOOLED, 6 CYLINDERS, 134 BHP.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.

[RULE 204]

2. THIS EQUIPMENT MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.

[RULE 204]

3. THIS ENGINE SHALL NOT OPERATE MORE THAN 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 20 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING PURPOSES.

[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]

4. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH ON A MONTHLY BASIS SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:

A. EMERGENCY USE HOURS OF OPERATION

B. MAINTENANCE AND TESTING HOURS

C. OTHER OPERATING HOURS (DESCRIBE THE REASON FOR OPERATION)

IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION THE LOG SHALL BE KEPT FOR A MINIMUM OF THREE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED SOMETIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.

[RULE 1303(b)(2)-OFFSET, RULE 1470]

5. OPERATION BEYOND THE 20 HOURS PER YEAR ALLOTTED FOR ENGINE MAINTENANCE AND TESTING SHALL BE ALLOWED ONLY IN THE EVENT OF A LOSS OF GRID POWER OR UP TO 30 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE UTILITY DISTRIBUTION

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

COMPANY HAS ORDERED ROTATING OUTAGES IN THE CONTROL AREA WHERE THE ENGINE IS LOCATED OR HAS INDICATED THAT IT EXPECTS TO ISSUE SUCH AN ORDER AT A CERTAIN TIME, AND THE ENGINE IS LOCATED IN A UTILITY SERVICE BLOCK THAT IS SUBJECT TO THE ROTATING OUTAGE. ENGINE OPERATION SHALL BE TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.

[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]

6. THIS ENGINE SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.
[RULE 1470]
7. THIS ENGINE SHALL NOT BE USED AS PART OF AN INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO DO SO BY THE UTILITY OR THE GRID OPERATOR.
[RULE 1470]
8. THE FUEL INJECTION TIMING OF THIS ENGINE SHALL BE SET AND MAINTAINED AT 4 DEGREES RETARDED RELATIVE TO STANDARD TIMING.
[RULE 1303 (a)(1)]

Periodic Monitoring:

9. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 3004 (A)(4)]

Emissions and Requirements:

10. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM: RULE 1470

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO OPERATE

Permit No. D83124
A/N 292810

Equipment Description:

INTERNAL COMBUSTION ENGINE, CATERPILLAR, 6 CYLINDERS, TURBOCHARGED, MODEL NO. 3056 T (100 KW), SERIAL NO. 2010072, DIESEL-FUELED, DRIVING AN EMERGENCY ELECTRICAL GENERATOR (SATELLITE PLANT), 160 BHP.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.

[RULE 204]

2. THIS EQUIPMENT MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.

[RULE 204]

3. THIS ENGINE SHALL NOT OPERATE MORE THAN 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 20 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING PURPOSES.

[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]

4. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH ON A MONTHLY BASIS SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:

A. EMERGENCY USE HOURS OF OPERATION

B. MAINTENANCE AND TESTING HOURS

C. OTHER OPERATING HOURS (DESCRIBE THE REASON FOR OPERATION)

IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION THE LOG SHALL BE KEPT FOR A MINIMUM OF THREE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED SOMETIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.

[RULE 1303(b)(2)-OFFSET, RULE 1470]

5. OPERATION BEYOND THE 20 HOURS PER YEAR ALLOTTED FOR ENGINE MAINTENANCE AND TESTING SHALL BE ALLOWED ONLY IN THE EVENT OF A LOSS OF GRID POWER OR UP TO 30 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE UTILITY DISTRIBUTION

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

COMPANY HAS ORDERED ROTATING OUTAGES IN THE CONTROL AREA WHERE THE ENGINE IS LOCATED OR HAS INDICATED THAT IT EXPECTS TO ISSUE SUCH AN ORDER AT A CERTAIN TIME, AND THE ENGINE IS LOCATED IN A UTILITY SERVICE BLOCK THAT IS SUBJECT TO THE ROTATING OUTAGE. ENGINE OPERATION SHALL BE TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.

[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]

6. THIS ENGINE SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.
[RULE 1470]
7. THIS ENGINE SHALL NOT BE USED AS PART OF AN INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO DO SO BY THE UTILITY OR THE GRID OPERATOR.
[RULE 1470]

Periodic Monitoring:

8. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTING ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 3004 (A)(4)]

Emissions and Requirements:

9. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM: RULE 1470

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO OPERATE

Permit No. D91737
A/N 304633

Equipment Description:

INTERNAL COMBUSTION ENGINE, CATERPILLAR, 8 CYLINDERS, TURBOCHARGED, AFTERCOOLED, MODEL NO. 3208 ATAAC, DIESEL-FUELED, DRIVING AN EMERGENCY ELECTRICAL GENERATOR (MOORE), 292 BHP.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS ENGINE SHALL NOT OPERATE MORE THAN 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 20 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING PURPOSES.
[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]
4. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH ON A MONTHLY BASIS SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:
 - A. EMERGENCY USE HOURS OF OPERATION
 - B. MAINTENANCE AND TESTING HOURS
 - C. OTHER OPERATING HOURS (DESCRIBE THE REASON FOR OPERATION)

IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION THE LOG SHALL BE KEPT FOR A MINIMUM OF THREE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED SOMETIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.
[RULE 1303(b)(2)-OFFSET, RULE 1470]
5. OPERATION BEYOND THE 20 HOURS PER YEAR ALLOTTED FOR ENGINE MAINTENANCE AND TESTING SHALL BE ALLOWED ONLY IN THE EVENT OF A LOSS OF GRID POWER OR UP TO 30 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE UTILITY DISTRIBUTION

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

COMPANY HAS ORDERED ROTATING OUTAGES IN THE CONTROL AREA WHERE THE ENGINE IS LOCATED OR HAS INDICATED THAT IT EXPECTS TO ISSUE SUCH AN ORDER AT A CERTAIN TIME, AND THE ENGINE IS LOCATED IN A UTILITY SERVICE BLOCK THAT IS SUBJECT TO THE ROTATING OUTAGE. ENGINE OPERATION SHALL BE TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.

[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]

6. THIS ENGINE SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.
[RULE 1470]
7. THIS ENGINE SHALL NOT BE USED AS PART OF AN INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO DO SO BY THE UTILITY OR THE GRID OPERATOR.
[RULE 1470]

Periodic Monitoring:

8. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 3004 (A)(4)]

Emissions and Requirements:

9. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM: RULE 1470

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO OPERATE

Permit No. F15249
A/N 335460

Equipment Description:

INTERNAL COMBUSTION ENGINE, CUMMINS, 6 CYLINDERS, TURBOCHARGED, AFTERCOOLED, MODEL NO. LTA10-G1, DIESEL-FUELED, DRIVING AN EMERGENCY ELECTRICAL GENERATOR (MILLIKAN LIBRARY), 380 BHP.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.

[RULE 204]

2. THIS EQUIPMENT MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.

[RULE 204]

3. THIS ENGINE SHALL NOT OPERATE MORE THAN 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 20 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING PURPOSES.

[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]

4. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH ON A MONTHLY BASIS SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:

A. EMERGENCY USE HOURS OF OPERATION

B. MAINTENANCE AND TESTING HOURS

C. OTHER OPERATING HOURS (DESCRIBE THE REASON FOR OPERATION)

IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION THE LOG SHALL BE KEPT FOR A MINIMUM OF THREE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED SOMETIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.

[RULE 1303(b)(2)-OFFSET, RULE 1470]

5. OPERATION BEYOND THE 20 HOURS PER YEAR ALLOTTED FOR ENGINE MAINTENANCE AND TESTING SHALL BE ALLOWED ONLY IN THE EVENT OF A LOSS OF GRID POWER OR UP TO 30 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE UTILITY DISTRIBUTION

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

COMPANY HAS ORDERED ROTATING OUTAGES IN THE CONTROL AREA WHERE THE ENGINE IS LOCATED OR HAS INDICATED THAT IT EXPECTS TO ISSUE SUCH AN ORDER AT A CERTAIN TIME, AND THE ENGINE IS LOCATED IN A UTILITY SERVICE BLOCK THAT IS SUBJECT TO THE ROTATING OUTAGE. ENGINE OPERATION SHALL BE TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.

[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]

6. THIS ENGINE SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.
[RULE 1470]
7. THIS ENGINE SHALL NOT BE USED AS PART OF AN INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO DO SO BY THE UTILITY OR THE GRID OPERATOR.
[RULE 1470]

Periodic Monitoring:

8. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 3004 (A)(4)]

Emissions and Requirements:

9. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM: RULE 1470

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO OPERATE

Permit No. F18063
A/N 346594

Equipment Description:

INTERNAL COMBUSTION ENGINE, GENERAC, 4 CYLINDERS, NATURALLY ASPIRATED, MODEL NO. 5.0NA, DIESEL-FUELED, DRIVING AN EMERGENCY ELECTRICAL GENERATOR (KARMEN ROOF), 75 BHP.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS ENGINE SHALL NOT OPERATE MORE THAN 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 20 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING PURPOSES.
[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]
4. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH ON A MONTHLY BASIS SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:
 - A. EMERGENCY USE HOURS OF OPERATION
 - B. MAINTENANCE AND TESTING HOURS
 - C. OTHER OPERATING HOURS (DESCRIBE THE REASON FOR OPERATION)

IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION THE LOG SHALL BE KEPT FOR A MINIMUM OF THREE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED SOMETIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.
[RULE 1303(b)(2)-OFFSET, RULE 1470]
5. OPERATION BEYOND THE 20 HOURS PER YEAR ALLOTTED FOR ENGINE MAINTENANCE AND TESTING SHALL BE ALLOWED ONLY IN THE EVENT OF A LOSS OF GRID POWER OR UP TO 30 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE UTILITY DISTRIBUTION COMPANY HAS ORDERED ROTATING OUTAGES IN THE CONTROL AREA WHERE THE ENGINE IS

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

LOCATED OR HAS INDICATED THAT IT EXPECTS TO ISSUE SUCH AN ORDER AT A CERTAIN TIME, AND THE ENGINE IS LOCATED IN A UTILITY SERVICE BLOCK THAT IS SUBJECT TO THE ROTATING OUTAGE. ENGINE OPERATION SHALL BE TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.

[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]

6. THIS ENGINE SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.
[RULE 1470]
7. THIS ENGINE SHALL NOT BE USED AS PART OF AN INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO DO SO BY THE UTILITY OR THE GRID OPERATOR.
[RULE 1470]

Periodic Monitoring:

8. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 3004 (A)(4)]

Emissions and Requirements:

9. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM: RULE 1470

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO OPERATE

Permit No. F41928
A/N 360776

Equipment Description:

INTERNAL COMBUSTION ENGINE, GENERAC, MODEL NO. 4.0DTA, DIESEL-FUELED, EMERGENCY ELECTRICAL GENERATION (ALLES KERCKHOFF), 4 CYLINDERS, TURBOCHARGED AND AFTERCOOLED, 91 BHP.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS ENGINE SHALL NOT OPERATE MORE THAN 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 20 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING PURPOSES.
[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]
4. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH ON A MONTHLY BASIS SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:
 - A. EMERGENCY USE HOURS OF OPERATION
 - B. MAINTENANCE AND TESTING HOURS
 - C. OTHER OPERATING HOURS (DESCRIBE THE REASON FOR OPERATION)

IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION THE LOG SHALL BE KEPT FOR A MINIMUM OF THREE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED SOMETIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.
[RULE 1303(b)(2)-OFFSET, RULE 1470]
5. OPERATION BEYOND THE 20 HOURS PER YEAR ALLOTTED FOR ENGINE MAINTENANCE AND TESTING SHALL BE ALLOWED ONLY IN THE EVENT OF A LOSS OF GRID POWER OR UP TO 30 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE UTILITY DISTRIBUTION COMPANY HAS ORDERED ROTATING OUTAGES IN THE CONTROL AREA WHERE THE ENGINE IS

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

LOCATED OR HAS INDICATED THAT IT EXPECTS TO ISSUE SUCH AN ORDER AT A CERTAIN TIME, AND THE ENGINE IS LOCATED IN A UTILITY SERVICE BLOCK THAT IS SUBJECT TO THE ROTATING OUTAGE. ENGINE OPERATION SHALL BE TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.

[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]

6. THIS ENGINE SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.
[RULE 1470]
7. THIS ENGINE SHALL NOT BE USED AS PART OF AN INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO DO SO BY THE UTILITY OR THE GRID OPERATOR.
[RULE 1470]

Periodic Monitoring:

8. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 3004 (A)(4)]

Emissions and Requirements:

9. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM: RULE 1470

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO OPERATE

Permit No. F41929
A/N 385178

Equipment Description:

INTERNAL COMBUSTION ENGINE, PERKINS, MODEL NO. 1006-6T, DIESEL-FUELED, EMERGENCY ELECTRICAL GENERATION (USGS), 6 CYLINDERS, TURBOCHARGED, 166 BHP.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS ENGINE SHALL NOT OPERATE MORE THAN 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 20 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING PURPOSES.
[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]
4. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH ON A MONTHLY BASIS SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:
 - A. EMERGENCY USE HOURS OF OPERATION
 - B. MAINTENANCE AND TESTING HOURS
 - C. OTHER OPERATING HOURS (DESCRIBE THE REASON FOR OPERATION)

IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION THE LOG SHALL BE KEPT FOR A MINIMUM OF THREE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED SOMETIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.
[RULE 1303(b)(2)-OFFSET, RULE 1470]
5. OPERATION BEYOND THE 20 HOURS PER YEAR ALLOTTED FOR ENGINE MAINTENANCE AND TESTING SHALL BE ALLOWED ONLY IN THE EVENT OF A LOSS OF GRID POWER OR UP TO 30 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE UTILITY DISTRIBUTION COMPANY HAS ORDERED ROTATING OUTAGES IN THE CONTROL AREA WHERE THE ENGINE IS LOCATED OR HAS INDICATED THAT IT EXPECTS TO ISSUE SUCH AN ORDER AT A CERTAIN

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

TIME, AND THE ENGINE IS LOCATED IN A UTILITY SERVICE BLOCK THAT IS SUBJECT TO THE ROTATING OUTAGE. ENGINE OPERATION SHALL BE TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.

[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]

6. THIS ENGINE SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.
[RULE 1470]
7. THIS ENGINE SHALL NOT BE USED AS PART OF AN INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO DO SO BY THE UTILITY OR THE GRID OPERATOR.
[RULE 1470]

Periodic Monitoring:

8. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTING ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 3004 (A)(4)]

Emissions and Requirements:

9. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM: RULE 1470

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO OPERATE

Permit No. F39728
A/N 385441

Equipment Description:

INTERNAL COMBUSTION ENGINE, PERKINS, MODEL NO. GA, DIESEL-FUELED, EMERGENCY ELECTRICAL GENERATION (ATS CENTER), 6 CYLINDERS, TURBOCHARGED AND AFTERCOOLED, 325 BHP.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS ENGINE SHALL NOT OPERATE MORE THAN 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 20 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING PURPOSES.
[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]
4. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH ON A MONTHLY BASIS SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:
 - A. EMERGENCY USE HOURS OF OPERATION
 - B. MAINTENANCE AND TESTING HOURS
 - C. OTHER OPERATING HOURS (DESCRIBE THE REASON FOR OPERATION)

IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION THE LOG SHALL BE KEPT FOR A MINIMUM OF THREE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED SOMETIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.
[RULE 1303(b)(2)-OFFSET, RULE 1470]
5. OPERATION BEYOND THE 20 HOURS PER YEAR ALLOTTED FOR ENGINE MAINTENANCE AND TESTING SHALL BE ALLOWED ONLY IN THE EVENT OF A LOSS OF GRID POWER OR UP TO 30 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE UTILITY DISTRIBUTION COMPANY HAS ORDERED ROTATING OUTAGES IN THE CONTROL AREA WHERE THE ENGINE IS

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

LOCATED OR HAS INDICATED THAT IT EXPECTS TO ISSUE SUCH AN ORDER AT A CERTAIN TIME, AND THE ENGINE IS LOCATED IN A UTILITY SERVICE BLOCK THAT IS SUBJECT TO THE ROTATING OUTAGE. ENGINE OPERATION SHALL BE TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.

[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]

6. THIS ENGINE SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.
[RULE 1470]
7. THIS ENGINE SHALL NOT BE USED AS PART OF AN INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO DO SO BY THE UTILITY OR THE GRID OPERATOR.
[RULE 1470]

Periodic Monitoring:

8. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 3004 (A)(4)]

Emissions and Requirements:

9. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM: RULE 1470

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO OPERATE

Permit No. F45731
A/N 390098

Equipment Description:

INTERNAL COMBUSTION ENGINE, CUMMINS, MODEL NO. QST30-G1, DIESEL-FUELED, EMERGENCY ELECTRICAL GENERATION (BROAD LABORATORY), 12 CYLINDERS, TURBOCHARGED AND AFTERCOOLED, 1135 BHP.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS ENGINE SHALL NOT OPERATE MORE THAN 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 20 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING PURPOSES.
[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]
4. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH ON A MONTHLY BASIS SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:
 - A. EMERGENCY USE HOURS OF OPERATION
 - B. MAINTENANCE AND TESTING HOURS
 - C. OTHER OPERATING HOURS (DESCRIBE THE REASON FOR OPERATION)

IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION THE LOG SHALL BE KEPT FOR A MINIMUM OF THREE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED SOMETIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.
[RULE 1303(b)(2)-OFFSET, RULE 1470]
5. OPERATION BEYOND THE 20 HOURS PER YEAR ALLOTTED FOR ENGINE MAINTENANCE AND TESTING SHALL BE ALLOWED ONLY IN THE EVENT OF A LOSS OF GRID POWER OR UP TO 30 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE UTILITY DISTRIBUTION COMPANY HAS ORDERED ROTATING OUTAGES IN THE CONTROL AREA WHERE THE ENGINE IS

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

LOCATED OR HAS INDICATED THAT IT EXPECTS TO ISSUE SUCH AN ORDER AT A CERTAIN TIME, AND THE ENGINE IS LOCATED IN A UTILITY SERVICE BLOCK THAT IS SUBJECT TO THE ROTATING OUTAGE. ENGINE OPERATION SHALL BE TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.

[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]

6. THIS ENGINE SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.
[RULE 1470]
7. THIS ENGINE SHALL NOT BE USED AS PART OF AN INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO DO SO BY THE UTILITY OR THE GRID OPERATOR.
[RULE 1470]

Periodic Monitoring:

8. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTING ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 3004 (A)(4)]

Emissions and Requirements:

9. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM: RULE 1470

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO OPERATE

Permit No. F53900
A/N 404167

Equipment Description:

INTERNAL COMBUSTION ENGINE, JOHN DEERE, MODEL NO. 4045D (53 KVA), DIESEL-FUELED, EMERGENCY ELECTRICAL GENERATION (POWELL BOOTH), 4 CYLINDERS, NATURALLY ASPIRATED, 71 BHP.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS ENGINE SHALL NOT OPERATE MORE THAN 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 20 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING PURPOSES.
[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]
4. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH ON A MONTHLY BASIS SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:
 - A. EMERGENCY USE HOURS OF OPERATION
 - B. MAINTENANCE AND TESTING HOURS
 - C. OTHER OPERATING HOURS (DESCRIBE THE REASON FOR OPERATION)

IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION THE LOG SHALL BE KEPT FOR A MINIMUM OF THREE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED SOMETIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.
[RULE 1303(b)(2)-OFFSET, RULE 1470]
5. OPERATION BEYOND THE 20 HOURS PER YEAR ALLOTTED FOR ENGINE MAINTENANCE AND TESTING SHALL BE ALLOWED ONLY IN THE EVENT OF A LOSS OF GRID POWER OR UP TO 30 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE UTILITY DISTRIBUTION

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

COMPANY HAS ORDERED ROTATING OUTAGES IN THE CONTROL AREA WHERE THE ENGINE IS LOCATED OR HAS INDICATED THAT IT EXPECTS TO ISSUE SUCH AN ORDER AT A CERTAIN TIME, AND THE ENGINE IS LOCATED IN A UTILITY SERVICE BLOCK THAT IS SUBJECT TO THE ROTATING OUTAGE. ENGINE OPERATION SHALL BE TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.

[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]

6. THIS ENGINE SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.
[RULE 1470]
7. THIS ENGINE SHALL NOT BE USED AS PART OF AN INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO DO SO BY THE UTILITY OR THE GRID OPERATOR.
[RULE 1470]

Periodic Monitoring:

8. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 3004 (A)(4)]

Emissions and Requirements:

9. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM: RULE 1470

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO OPERATE

Permit No. F54055
A/N 404168

Equipment Description:

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL NO. 3208 ATAAC, DIESEL-FUELED, EMERGENCY ELECTRICAL GENERATION (BECKMAN INSTITUTE), 8 CYLINDERS, FOUR CYCLE, TURBOCHARGED AND AFTERCOOLED, 300 BHP.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS ENGINE SHALL NOT OPERATE MORE THAN 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 20 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING PURPOSES.
[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]
4. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH ON A MONTHLY BASIS SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:
 - A. EMERGENCY USE HOURS OF OPERATION
 - B. MAINTENANCE AND TESTING HOURS
 - C. OTHER OPERATING HOURS (DESCRIBE THE REASON FOR OPERATION)

IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION THE LOG SHALL BE KEPT FOR A MINIMUM OF THREE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED SOMETIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.
[RULE 1303(b)(2)-OFFSET, RULE 1470]
5. OPERATION BEYOND THE 20 HOURS PER YEAR ALLOTTED FOR ENGINE MAINTENANCE AND TESTING SHALL BE ALLOWED ONLY IN THE EVENT OF A LOSS OF GRID POWER OR UP TO 30 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE UTILITY DISTRIBUTION

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

COMPANY HAS ORDERED ROTATING OUTAGES IN THE CONTROL AREA WHERE THE ENGINE IS LOCATED OR HAS INDICATED THAT IT EXPECTS TO ISSUE SUCH AN ORDER AT A CERTAIN TIME, AND THE ENGINE IS LOCATED IN A UTILITY SERVICE BLOCK THAT IS SUBJECT TO THE ROTATING OUTAGE. ENGINE OPERATION SHALL BE TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.

[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]

6. THIS ENGINE SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.
[RULE 1470]
7. THIS ENGINE SHALL NOT BE USED AS PART OF AN INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO DO SO BY THE UTILITY OR THE GRID OPERATOR.
[RULE 1470]
8. THE FUEL INJECTION TIMING OF THIS ENGINE SHALL BE SET AND MAINTAINED AT 4 DEGREES RETARDED RELATIVE TO STANDARD TIMING.
[RULE 1303 (a)(1)]
9. THE IGNITION TIMING OF THIS ENGINE MUST BE INSPECTED ADJUSTED AND CERTIFIED AT A MINIMUM, ONCE EVERY THREE YEARS OF OPERATION. INSPECTIONS ADJUSTMENTS, AND CERTIFICATIONS MUST BE PERFORMED BY A QUALIFIED MECHANIC AND ACCORDING TO THE ENGINE MANUFACTURER'S PROCEDURES.
[RULE 1110.2]

Periodic Monitoring:

10. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 3004 (A)(4)]

Emissions and Requirements:

11. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM: RULE 1470

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO OPERATE

Permit No. F76394
A/N 408837

Equipment Description:

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL NO. 3412DISTA, DIESEL-FUELED, EMERGENCY ELECTRICAL GENERATION (KERCKHOFF BLDG. #27), 12 CYLINDERS, TURBOCHARGED AND AFTERCOOLED, 1114 BHP.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.

[RULE 204]

2. THIS EQUIPMENT MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.

[RULE 204]

3. THIS ENGINE SHALL NOT OPERATE MORE THAN 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 20 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING PURPOSES.

[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]

4. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH ON A MONTHLY BASIS SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:

A. EMERGENCY USE HOURS OF OPERATION

B. MAINTENANCE AND TESTING HOURS

C. OTHER OPERATING HOURS (DESCRIBE THE REASON FOR OPERATION)

IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION THE LOG SHALL BE KEPT FOR A MINIMUM OF THREE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED SOMETIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.

[RULE 1303(b)(2)-OFFSET, RULE 1470]

5. OPERATION BEYOND THE 20 HOURS PER YEAR ALLOTTED FOR ENGINE MAINTENANCE AND TESTING SHALL BE ALLOWED ONLY IN THE EVENT OF A LOSS OF GRID POWER OR UP TO 30 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE UTILITY DISTRIBUTION

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

COMPANY HAS ORDERED ROTATING OUTAGES IN THE CONTROL AREA WHERE THE ENGINE IS LOCATED OR HAS INDICATED THAT IT EXPECTS TO ISSUE SUCH AN ORDER AT A CERTAIN TIME, AND THE ENGINE IS LOCATED IN A UTILITY SERVICE BLOCK THAT IS SUBJECT TO THE ROTATING OUTAGE. ENGINE OPERATION SHALL BE TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.

[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]

6. THIS ENGINE SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.
[RULE 1470]
7. THIS ENGINE SHALL NOT BE USED AS PART OF AN INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO DO SO BY THE UTILITY OR THE GRID OPERATOR.
[RULE 1470]

Periodic Monitoring:

8. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 3004 (A)(4)]

Emissions and Requirements:

9. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM: RULE 1470

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO OPERATE

Permit No. F76393
A/N 430597

Equipment Description:

INTERNAL COMBUSTION ENGINE, PERKINS, MODEL NO. 1004-40T, DIESEL-FUELED, EMERGENCY ELECTRICAL GENERATION (PARKING GARAGE), 4 CYLINDERS, TURBOCHARGED, 95 BHP.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS ENGINE SHALL NOT OPERATE MORE THAN 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 30 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING PURPOSES.
[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]
4. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH ON A MONTHLY BASIS SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:
 - A. EMERGENCY USE HOURS OF OPERATION
 - B. MAINTENANCE AND TESTING HOURS
 - C. OTHER OPERATING HOURS (DESCRIBE THE REASON FOR OPERATION)

IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION THE LOG SHALL BE KEPT FOR A MINIMUM OF THREE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED SOMETIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.
[RULE 1303(b)(2)-OFFSET, RULE 1470]
5. OPERATION BEYOND THE 30 HOURS PER YEAR ALLOTTED FOR ENGINE MAINTENANCE AND TESTING SHALL BE ALLOWED ONLY IN THE EVENT OF A LOSS OF GRID POWER OR UP TO 30 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE UTILITY DISTRIBUTION COMPANY HAS ORDERED ROTATING OUTAGES IN THE CONTROL AREA WHERE THE ENGINE IS LOCATED OR HAS INDICATED THAT IT EXPECTS TO ISSUE SUCH AN ORDER AT A CERTAIN

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

TIME, AND THE ENGINE IS LOCATED IN A UTILITY SERVICE BLOCK THAT IS SUBJECT TO THE ROTATING OUTAGE. ENGINE OPERATION SHALL BE TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.

[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]

6. THIS ENGINE SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.
[RULE 1470]
7. THIS ENGINE SHALL NOT BE USED AS PART OF AN INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO DO SO BY THE UTILITY OR THE GRID OPERATOR.
[RULE 1470]

Periodic Monitoring:

8. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTING ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 3004 (A)(4)]

Emissions and Requirements:

9. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM: RULE 1470

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO OPERATE

Permit No. F84102
A/N 449574

Equipment Description:

INTERNAL COMBUSTION ENGINE, JOHN DEERE, MODEL NO. 6068HF475E, DIESEL-FUELED, EMERGENCY ELECTRICAL GENERATION (SOUTH HOUSES), 6 CYLINDERS, TURBOCHARGED AND AFTERCOOLED, 314 BHP.

Conditions:

1. OPERATION OF THIS EQUIPMENT MUST BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.

[RULE 204]

2. THIS EQUIPMENT MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.

[RULE 204]

3. THIS ENGINE SHALL NOT OPERATE MORE THAN 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 50 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING PURPOSES.

[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]

4. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH ON A MONTHLY BASIS SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:

A. EMERGENCY USE HOURS OF OPERATION

B. MAINTENANCE AND TESTING HOURS

C. OTHER OPERATING HOURS (DESCRIBE THE REASON FOR OPERATION)

IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION THE LOG SHALL BE KEPT FOR A MINIMUM OF THREE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED SOMETIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.

[RULE 1303(b)(2)-OFFSET, RULE 1470]

5. OPERATION BEYOND THE 50 HOURS PER YEAR ALLOTTED FOR ENGINE MAINTENANCE AND TESTING SHALL BE ALLOWED ONLY IN THE EVENT OF A LOSS OF GRID POWER OR UP TO 30 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE UTILITY DISTRIBUTION COMPANY HAS ORDERED ROTATING OUTAGES IN THE CONTROL AREA WHERE THE ENGINE IS

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

LOCATED OR HAS INDICATED THAT IT EXPECTS TO ISSUE SUCH AN ORDER AT A CERTAIN TIME, AND THE ENGINE IS LOCATED IN A UTILITY SERVICE BLOCK THAT IS SUBJECT TO THE ROTATING OUTAGE. ENGINE OPERATION SHALL BE TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.

[RULE 1304(a)-MODELING AND OFFSET, RULE 1470]

6. THIS ENGINE SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.
[RULE 1470]
7. THIS ENGINE SHALL NOT BE USED AS PART OF AN INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO DO SO BY THE UTILITY OR THE GRID OPERATOR.
[RULE 1470]

Periodic Monitoring:

8. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTING ELAPSED TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 3004 (A)(4)]

Emissions and Requirements:

9. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM: RULE 1470

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

**NOTE: SEE PERMIT TO CONSTRUCT/OPERATE
FOR A/N 492430.**

PERMIT TO OPERATE

Permit No. N16673
A/N 441638

Equipment Description:

Fuel Storage and Dispensing Facility Consisting of:

1. 2 -GASOLINE NOZZLES DISPENSING 2 PRODUCTS, EQUIPPED WITH PHASE II VAPOR RECOVERY SYSTEM, BALANCE RETRACTOR (G-70-52-AM).
2. 1 -DUAL COMPARTMENT UNDERGROUND GASOLINE STORAGE TANK, 12,000-GALLON CAPACITY, METHANOL COMPATIBLE, CONSISTING OF:
 - A. ONE 6,000-GALLON GASOLINE COMPARTMENT TANK, EQUIPPED WITH PHASE I VAPOR RECOVERY SYSTEM, CNI MANUFACTURING (VR-104-A).
 - B. ONE 6,000-GALLON GASOLINE COMPARTMENT TANK, EQUIPPED WITH PHASE I VAPOR RECOVERY SYSTEM, CNI MANUFACTURING (VR-104-A).

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT WAS ISSUED, UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. EXCEPT FOR DIESEL TRANSFERS, PHASE I VAPOR RECOVERY SYSTEMS SHALL BE IN FULL OPERATION WHENEVER FUEL IS BEING TRANSFERRED INTO STORAGE TANKS.
[RULE 461]
4. EXCEPT FOR DIESEL TRANSFERS, PHASE II VAPOR RECOVERY SYSTEMS SHALL BE IN FULL OPERATION WHENEVER FUEL IS BEING TRANSFERRED INTO MOTOR VEHICLES, AS DEFINED IN RULE 461.
[RULE 461]
5. ALL PHASE I AND PHASE II VAPOR RECOVERY EQUIPMENT AT THIS FACILITY SHALL BE INSTALLED, OPERATED AND MAINTAINED TO MEET ALL CALIFORNIA AIR RESOURCES BOARD CERTIFICATION REQUIREMENTS.

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

[RULE 461, RULE 1303 (a)(1)]

6. THE PHASE II VAPOR RECOVERY SYSTEM SHALL BE INSTALLED, OPERATED, AND MAINTAINED SUCH THAT THE MAXIMUM ALLOWABLE PRESSURE THROUGH THE SYSTEM INCLUDING NOZZLE, VAPOR HOSE, SWIVELS, AND UNDERGROUND PIPING DOES NOT EXCEED THE DYNAMIC BACK PRESSURES DESCRIBED BY THE CALIFORNIA AIR RESOURCES BOARD EXECUTIVE ORDER BY WHICH THE SYSTEM WAS CERTIFIED:

NITROGEN FLOWRATES (CFH)	DYNAMIC BACK PRESSURE (INCHES OF WATER)
60	0.35
80	0.62

DYNAMIC BACK PRESSURE TESTS SHALL BE CONDUCTED TO DETERMINE THE PHASE II SYSTEM VAPOR RECOVERY BACK PRESSURES. THE TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH CARB TEST PROCEDURE METHOD TP-201.4. RESULTS SHALL BE SUBMITTED TO THE DISTRICT, OFFICE OF ENGINEERING AND COMPLIANCE, WITHIN SEVENTY-TWO (72) HOURS OF TESTS.

THE AQMD SHALL BE NOTIFIED BY E-MAIL AT R461TESTING@AQMD.GOV OR BY FACSIMILE AT TELEPHONE NUMBER (909) 396-3606 AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO TESTING. SUCH NOTIFICATION SHALL INCLUDE THE NAME OF THE OWNER OR OPERATOR; THE NAME OF THE CONTRACTORS; THE LOCATION OF THE FACILITY; AND THE SCHEDULED START AND COMPLETION DATES OF THE DYNAMIC BACK PRESSURE TEST.

[RULE 461]

7. A STATIC PRESSURE LEAK DECAY TEST SHALL BE CONDUCTED TO DEMONSTRATE THAT THE STORAGE TANKS, THE REMOTE AND/OR NOZZLE VAPOR RECOVERY CHECK VALVES, ASSOCIATED VAPOR RETURN PIPING AND FITTINGS ARE FREE FROM VAPOR LEAKS. THE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH CARB TEST PROCEDURE METHOD TP-201.3. RESULTS SHALL BE SUBMITTED TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE, WITHIN SEVENTY-TWO (72) HOURS OF TEST.

THE AQMD SHALL BE NOTIFIED BY E-MAIL AT R461TESTING@AQMD.GOV OR BY FACSIMILE AT TELEPHONE NUMBER (909) 396-3606 AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO TESTING. SUCH NOTIFICATION SHALL INCLUDE THE NAME OF THE OWNER OR OPERATOR; THE NAME OF THE CONTRACTORS; THE LOCATION OF THE FACILITY; AND THE SCHEDULED START AND COMPLETION DATES OF THE STATIC PRESSURE LEAK DECAY TEST.

[RULE 461]

8. IF THE CARB EXECUTIVE ORDER REQUIRES THE INSTALLATION OF A LIQUID REMOVAL DEVICE, A LIQUID REMOVAL RATE TEST SHALL BE CONDUCTED TO DEMONSTRATE THE REMOVAL OF GASOLINE FROM THE VAPOR PASSAGE OF THE COAXIAL HOSE. THE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH CARB TEST PROCEDURE METHOD TP-201.6. RESULTS SHALL BE SUBMITTED TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE, WITHIN SEVENTY-TWO (72) HOURS OF TEST.

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

THE SCAQMD SHALL BE NOTIFIED BY E-MAIL AT R461TESTING@AQMD.GOV OR BY FACSIMILE AT TELEPHONE NUMBER (909) 396-3606 AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO TESTING. SUCH NOTIFICATION SHALL INCLUDE THE NAME OF THE OWNER OR OPERATOR; THE NAME OF THE CONTRACTORS; THE LOCATION OF THE FACILITY; AND THE SCHEDULED START AND COMPLETION DATES OF THE LIQUID REMOVAL RATE TEST.
[RULE 461]

9. THE TESTING FOR THE ABOVE MENTIONED TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH THE MOST RECENT RULE 461 AMENDMENT OR CARB EXECUTIVE ORDER REQUIREMENTS, WHICHEVER IS MORE STRINGENT.
[RULE 461]
10. ALL RECORDS AND TEST RESULTS THAT ARE REQUIRED TO BE MAINTAINED BY RULE 461 SHALL BE KEPT ON SITE FOR FOUR YEARS AND MADE AVAILABLE TO DISTRICT REPRESENTATIVES UPON REQUEST.
[RULE 461]
11. AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO BACK-FILLING ANY UNDERGROUND STORAGE TANK OR PIPING, THE SCAQMD SHALL BE NOTIFIED BY E-MAIL AT R461BACKFILL@AQMD.GOV OR BY FACSIMILE AT TELEPHONE NUMBER (909) 396-3606. SUCH NOTIFICATION SHALL INCLUDE THE NAME OF THE OWNER OR OPERATOR; THE NAME OF THE CONTRACTORS; THE LOCATION OF THE FACILITY; AND THE SCHEDULED START AND COMPLETION DATES OF THE BACK-FILLING PROCEDURE. THE BACK-FILLING PROCEDURE SHALL NOT COMMENCE UNTIL INSPECTED BY A DISTRICT REPRESENTATIVE.
[RULE 461]
12. A PRESSURE INTEGRITY TEST OF THE DROP TUBE/DRAIN VALVE ASSEMBLY SHALL BE CONDUCTED TO QUANTIFY THE PRESSURE INTEGRITY OF BOTH THE DROP TUBE AND DRAIN VALVE SEAL. THE TEST SHALL BE CONDUCTED AS A REVERIFICATION TEST AND THE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH TEST PROCEDURE METHOD TP-201.IC. RESULTS SHALL BE SUBMITTED TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE, WITHIN SEVENTY-TWO (72) HOURS OF TEST.

THE AQMD SHALL BE NOTIFIED BY E-MAIL AT R461TESTING@AQMD.GOV OR BY FACSIMILE AT TELEPHONE NUMBER (909) 396-3606 AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO TESTING. SUCH NOTIFICATION SHALL INCLUDE THE NAME OF THE OWNER AND OPERATOR; THE NAME OF THE CONTRACTOR; THE LOCATION OF THE FACILITY; AND THE SCHEDULED START AND COMPLETION DATES OF THE PRESSURE INTEGRITY TEST OF DROP TUBE/DRAIN VALVE ASSEMBLY.
[RULE 461]

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

13. A LEAK RATE AND CRACKING PRESSURE TEST OF PRESSURE/VACUUM RELIEF VENT VALVES SHALL BE CONDUCTED WITHIN THIRTY DAYS (30) AFTER THE START OF OPERATION OF THE CNI MANUFACTURING PHASE I EVR EQUIPMENT AND AT LEAST ONCE EVERY THREE (3) YEARS THEREAFTER TO DETERMINE THE PRESSURE AND VACUUM AT WHICH THE PRESSURE/VACUUM VENT VALVE ACTUATES, AND TO DETERMINE THE VOLUMETRIC LEAK RATE AT A GIVEN PRESSURE. THE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH THE TEST PROCEDURE METHOD TP-201.1E. RESULTS SHALL BE SUBMITTED TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE, WITHIN SEVENTY-TWO (72) HOURS OF TEST. THIS TEST RESULT SHALL BE KEPT ON SITE FOR THREE (3) YEARS AND MADE AVAILABLE TO DISTRICT REPRESENTATIVES UPON REQUEST.

THE AQMD SHALL BE NOTIFIED BY E-MAIL AT R461TESTING@AQMD.GOV OR BY FACSIMILE AT TELEPHONE NUMBER (909) 396-3606 AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO TESTING. SUCH NOTIFICATION SHALL INCLUDE THE NAME OF THE OWNER OR OPERATOR; THE NAME OF THE CONTRACTOR; THE LOCATION OF THE FACILITY; AND THE SCHEDULED START AND COMPLETION DATES OF THE LEAK RATE AND CRACKING PRESSURE TEST OF PRESSURE/VACUUM RELIEF VENT VALVES.
[RULE 461]

14. A STATIC TORQUE TEST OF ROTATABLE PHASE I ADAPTORS SHALL BE CONDUCTED AS A REVERIFICATION TEST TO QUANTIFY THE AMOUNT OF STATIC TORQUE REQUIRED TO START THE ROTATION OF THE ROTATABLE PHASE I ADAPTORS. THE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH THE TEST PROCEDURE METHOD OUTLINED IN TP-201.1B. RESULTS SHALL BE SUBMITTED TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE, WITHIN SEVENTY-TWO (72) HOURS OF TEST.

THE AQMD SHALL BE NOTIFIED BY E-MAIL AT R461TESTING@AQMD.GOV OR BY FACSIMILE AT TELEPHONE NUMBER (909) 396-3606 AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO TESTING. SUCH NOTIFICATION SHALL INCLUDE THE NAME OF THE OWNER OR OPERATOR; THE NAME OF THE CONTRACTOR; THE LOCATION OF THE FACILITY; AND THE SCHEDULED START AND COMPLETION DATES OF THE STATIC TORQUE TEST OF ROTATABLE PHASE I ADAPTORS.
[RULE 461]

Periodic Monitoring:

15. THE OPERATOR SHALL HAVE A PERSON THAT HAS BEEN TRAINED IN ACCORDANCE WITH RULE 461(d)(5) CONDUCT A SEMI-ANNUAL INSPECTION OF THE GASOLINE TRANSFER AND DISPENSING EQUIPMENT. THE FIRST INSPECTION SHALL BE IN ACCORDANCE WITH RULE 461, ATTACHMENT C, THE SECOND INSPECTION SHALL BE IN ACCORDANCE WITH RULE 461, ATTACHMENT D, AND THE SUBSEQUENT INSPECTIONS SHALL ALTERNATE PROTOCOLS. THE OPERATOR SHALL KEEP RECORDS OF THE INSPECTION AND THE REPAIRS IN ACCORDANCE TO RULE 461 AND SECTION K OF THIS PERMIT.
[RULE 3004 (a)(4)]

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

Emissions And Requirements:

16. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS :

VOC: RULE 461

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO OPERATE

Note: This boiler will be replaced by new boiler, A/N 509333.

Permit No. F53892
A/N 404164

Equipment Description:

BOILER, NO. 2, BABCOCK AND WILCOX, WATERTUBE TYPE, MODEL NO. FM10-70B (CONTRACT #FMD-1362), WITH A 63,000,000 BTU PER HOUR NATURAL GAS AND FUEL OIL FIRED LO-NOX BURNER, FABER, MODEL NO. WB-1-26, WITH A 40 HP COMBUSTION AIR BLOWER, 15 HP RECIRCULATION FAN, AND A FORCED FLUE GAS RECIRCULATION SYSTEM.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS BOILER SHALL EMIT NO MORE THAN 30 PPM FOR OXIDES OF NITROGEN (NOX), CALCULATED AS NO₂ AND 400 PPM OF CARBON MONOXIDE (CO), ALL MEASURED BY VOLUME, ON A DRY BASIS, AT 3% O₂.
[RULE 1303 (b)(2), RULE 1146]
4. THE FLUE GAS RECIRCULATION SYSTEM SHALL BE IN FULL USE WHENEVER THE BOILER IS IN OPERATION.
[RULE 1146, RULE 1303 (b)(2)]
5. THE OPERATOR SHALL COMPLY WITH RULE 218 BY OPERATING AN OXIDES OF NITROGEN CONTINUOUS EMISSIONS MONITORING SYSTEM.
[RULE 218, RULE 1146]

Periodic Monitoring:

6. THE OPERATOR SHALL CONDUCT AN INSPECTION FOR VISIBLE EMISSION FROM ALL STACKS AND OTHER EMISSION POINTS OF THIS EQUIPMENT WHENEVER THIS EQUIPMENT HAS COMBUSTED ONE MILLION GALLONS OF DIESEL FUEL, TO BE COUNTED CUMULATIVELY OVER A FIVE YEAR PERIOD. THE INSPECTION SHALL BE CONDUCTED WHILE THE EQUIPMENT IS IN OPERATION AND DURING DAYLIGHT HOURS. IF ANY VISIBLE EMISSIONS (NOT INCLUDING CONDENSED WATER VAPOR) ARE DETECTED THAT LAST MORE THAN THREE MINUTES IN ANY ONE HOUR, THE OPERATOR SHALL EITHER:
 - A. TAKE CORRECTIVE ACTION(S) THAT ELIMINATES THE VISIBLE EMISSIONS WITHIN 24 HOURS AND REPORT THE VISIBLE EMISSIONS AS A POTENTIAL DEVIATION IN THE SAME

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

FASHION AS DEVIATIONS ARE REQUIRED TO BE REPORTED IN SECTION K OF THIS PERMIT;
OR

- B. HAVE A CARB-CERTIFIED SMOKE READER DETERMINE COMPLIANCE WITH THE OPACITY STANDARD, USING EPA METHOD 9 OR THE PROCEDURES IN THE CARB MANUAL "VISIBLE EMISSION EVALUATION", WITHIN THREE BUSINESS DAYS AND REPORT ANY DEVIATIONS TO AQMD.

IN ADDITION, THE OPERATOR SHALL KEEP THE RECORDS IN ACCORDANCE WITH THE RECORDKEEPING REQUIREMENTS IN SECTION K OF THIS PERMIT AND THE FOLLOWING RECORDS:

- A. STACK OR EMISSION POINT IDENTIFICATION;
B. DESCRIPTION OF ANY CORRECTIVE ACTIONS TAKEN TO ABATE VISIBLE EMISSIONS;
C. DATE AND TIME VISIBLE EMISSION WAS ABATED; AND
D. VISIBLE EMISSION OBSERVATION RECORDED BY A CERTIFIED SMOKE READER.
[RULE 3004 (a)(4)]

Emissions And Requirements:

7. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

NOX: 30 PPMV, RULE 1146
CO: 2000 PPMV, RULE 407
CO: 400 PPMV, RULE 1146
SOX: 500 PPMV, RULE 407
PM: 0.1 GR/SCF, RULE 409

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO OPERATE

Note: This boiler will be replaced by new boiler, A/N 509334.

Permit No. F53899
A/N 404165

Equipment Description:

BOILER BABCOCK AND WILCOX, WATERTUBE TYPE, MODEL NO. FM10-70B (CONTRACT #FMD-2354), WITH A 74,900,000 BTU PER HOUR NATURAL GAS AND FUEL OIL FIRED LO-NOX BURNER, FABER, MODEL NO. WB-1-28-FGR, WITH A 40 HP COMBUSTION AIR BLOWER, 20 HP RECIRCULATION FAN, AND A FORCED FLUE GAS RECIRCULATION SYSTEM.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS BOILER SHALL EMIT NO MORE THAN 30 PPM FOR OXIDES OF NITROGEN (NOX), CALCULATED AS NO₂ AND 400 PPM OF CARBON MONOXIDE (CO), ALL MEASURED BY VOLUME, ON A DRY BASIS, AT 3% O₂.
[RULE 1303 (b)(2), RULE 1146]
4. THE FLUE GAS RECIRCULATION SYSTEM SHALL BE IN FULL USE WHENEVER THE BOILER IS IN OPERATION.
[RULE 1146, RULE 1303 (b)(2)]
5. THE OPERATOR SHALL COMPLY WITH RULE 218 BY OPERATING AN OXIDES OF NITROGEN CONTINUOUS EMISSIONS MONITORING SYSTEM.
[RULE 218, RULE 1146]

Periodic Monitoring:

6. THE OPERATOR SHALL CONDUCT AN INSPECTION FOR VISIBLE EMISSION FROM ALL STACKS AND OTHER EMISSION POINTS OF THIS EQUIPMENT WHENEVER THIS EQUIPMENT HAS COMBUSTED ONE MILLION GALLONS OF DIESEL FUEL, TO BE COUNTED CUMULATIVELY OVER A FIVE YEAR PERIOD. THE INSPECTION SHALL BE CONDUCTED WHILE THE EQUIPMENT IS IN OPERATION AND DURING DAYLIGHT HOURS. IF ANY VISIBLE EMISSIONS (NOT INCLUDING CONDENSED WATER VAPOR) ARE DETECTED THAT LAST MORE THAN THREE MINUTES IN ANY ONE HOUR, THE OPERATOR SHALL EITHER:
 - A. TAKE CORRECTIVE ACTION(S) THAT ELIMINATES THE VISIBLE EMISSIONS WITHIN 24 HOURS AND REPORT THE VISIBLE EMISSIONS AS A POTENTIAL DEVIATION IN THE SAME FASHION AS DEVIATIONS ARE REQUIRED TO BE REPORTED IN SECTION K OF THIS PERMIT;

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

OR

- B. HAVE A CARB-CERTIFIED SMOKE READER DETERMINE COMPLIANCE WITH THE OPACITY STANDARD, USING EPA METHOD 9 OR THE PROCEDURES IN THE CARB MANUAL "VISIBLE EMISSION EVALUATION", WITHIN THREE BUSINESS DAYS AND REPORT ANY DEVIATIONS TO AQMD.

IN ADDITION, THE OPERATOR SHALL KEEP THE RECORDS IN ACCORDANCE WITH THE RECORDKEEPING REQUIREMENTS IN SECTION K OF THIS PERMIT AND THE FOLLOWING RECORDS:

- A. STACK OR EMISSION POINT IDENTIFICATION;
- B. DESCRIPTION OF ANY CORRECTIVE ACTIONS TAKEN TO ABATE VISIBLE EMISSIONS;
- C. DATE AND TIME VISIBLE EMISSION WAS ABATED; AND
- D. VISIBLE EMISSION OBSERVATION RECORDED BY A CERTIFIED SMOKE READER.

[RULE 3004 (a)(4)]

Emissions And Requirements:

7. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

NOX: 30 PPMV, RULE 1146
CO: 2000 PPMV, RULE 407
CO: 400 PPMV, RULE 1146
SOX: 500 PPMV, RULE 407
PM: 0.1 GR/SCF, RULE 409

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO OPERATE

**Permit No. F92373
 A/N 402552**

Equipment Description:

COMBINED CYCLE COGENERATION SYSTEM (CENTRAL PLANT) CONSISTING OF:

1. GAS TURBINE, SOLAR MARS, MODEL NO. MARS 100S T 15,000, SERIAL NO. MG 02746, 126.1 MMBTU PER HOUR, NATURAL GAS, DRIVING A 10-MW ELECTRICAL GENERATOR, AND
2. EXHAUST HEAT RECOVERY STEAM GENERATOR (HRSG), ENERGY RECOVERY INTERNATIONAL (ERI), MODEL NO. VC-3-4214-SH, WITH NO SUPPLEMENTAL FIRING.

Conditions:

- 1) OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
 [RULE 204]

- 2) THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
 [RULE 204]

- 3) EMISSIONS FROM THIS EQUIPMENT SHALL NOT EXCEED THE FOLLOWING:

NOx : 2.5 PPMV @ 15% O₂
 CO : 6 PPMV @ 15% O₂
 ROG : 4.5 PPMV @ 15% O₂

[RULE 1303(a)(1)--BACT, RULE 1303(b)(2)--OFFSET]

- 4) THE OPERATOR SHALL CONDUCT SOURCE TEST(S) FOR THE POLLUTANT(S) IDENTIFIED BELOW.

POLLUTANT(S) TO BE TESTED	REQUIRED TEST METHOD(S)	AVG. TIME	TEST LOCATION
SOX EMISSIONS	APPROVED DISTRICT METHOD	DISTRICT APPROVED AVG. TIME	FUEL SAMPLE
ROG EMISSIONS	APPROVED DISTRICT METHOD	1 HOUR	SCR OUTLET
PM EMISSIONS	APPROVED DISTRICT METHOD	DISTRICT APPROVED AVG. TIME	SCR OUTLET

AFTER THE INITIAL SOURCE TEST, THE TEST(S) SHALL BE CONDUCTED AT LEAST ONCE EVERY THREE YEARS.

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

THE TEST(S) SHALL BE CONDUCTED IN ACCORDANCE WITH A DISTRICT APPROVED SOURCE TEST PROTOCOL.

THE TEST(S) SHALL DETERMINE THE OXYGEN LEVELS IN THE EXHAUST. IN ADDITION, THE TEST SHALL RECORD THE FUEL FLOW RATE (CFH), THE FLUE GAS FLOW RATE, AND THE TURBINE GENERATING OUTPUT IN MW.

THE TEST SHALL BE CONDUCTED WHEN THE GAS TURBINE IS OPERATING AT 100 PERCENT OF MAXIMUM HEAT INPUT. THE TEST SHALL BE CONDUCTED TO DEMONSTRATE COMPLIANCE WITH THE LIMIT SPECIFIED BY CONDITION NO. 3 FOR ROG AND THE LIMITS SET FORTH UNDER EMISSIONS AND REQUIREMENTS, BELOW, FOR SOX AND PM.

THE SOURCE TEST RESULTS SHALL BE KEPT ON THE PREMISES FOR AT LEAST FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.

[40 CFR 60 SUBPART GG, RULE 1303(b)(2)--OFFSET, RULE 3004(a)(4)—Periodic Monitoring]

- 5) THE OPERATOR SHALL PROVIDE TO THE DISTRICT A SOURCE TEST REPORT IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:

EMISSION DATA SHALL BE EXPRESSED IN TERMS OF CONCENTRATION (PPMV), CORRECTED TO 15 PERCENT OXYGEN (DRY BASIS), MASS RATE (LBS/HR), AND LBS/MM CUBIC FEET. IN ADDITION, SOLID PM EMISSIONS, IF REQUIRED TO BE TESTED, SHALL ALSO BE REPORTED IN TERMS OF GRAINS PER DSCF.

ALL EXHAUST FLOW RATE SHALL BE EXPRESSED IN TERMS OF DRY STANDARD CUBIC FEET PER MINUTE (DSCFM) AND DRY ACTUAL CUBIC FEET PER MINUTE (DACFM).

ALL MOISTURE CONCENTRATION SHALL BE EXPRESSED IN TERMS OF PERCENT CORRECTED TO 15 PERCENT OXYGEN.

SOURCE TEST RESULTS SHALL ALSO INCLUDE THE OXYGEN LEVELS IN THE EXHAUST, THE FUEL FLOW RATE (CFH), THE FLUE GAS TEMPERATURE, AND THE GENERATOR POWER OUTPUT (MW) UNDER WHICH THE TEST WAS CONDUCTED.

THE SOURCE TEST RESULTS SHALL BE KEPT ON THE PREMISES FOR AT LEAST FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.

[40 CFR 60 SUBPART GG, RULE 1303(b)(2)--OFFSET, RULE 3004(a)(4)—Periodic Monitoring]

- 6) THE OPERATOR SHALL INSTALL AND MAINTAIN A CEMS TO CONTINUOUSLY MEASURE THE FOLLOWING PARAMETERS:

CO AND NO_x CONCENTRATION IN PPMV.

CONCENTRATIONS SHALL BE CORRECTED TO 15 PERCENT OXYGEN ON A DRY BASIS.

THE CEMS WILL CONVERT THE ACTUAL CO AND NO_x CONCENTRATIONS TO MASS EMISSION RATES (LBS/HR) AND RECORD THE HOURLY EMISSION RATES ON A CONTINUOUS BASIS.

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

THE CEMS SHALL BE INSTALLED AND OPERATED, IN ACCORDANCE WITH AN APPROVED AQMD RULE 218 CEMS PLAN APPLICATION.

THE CEMS SHALL BE INSTALLED AND OPERATED TO MEASURE CO AND NO_x CONCENTRATION OVER A 15 MINUTE AVERAGING TIME PERIOD.

THE MONITORING RECORDS SHALL BE MAINTAINED FOR AT LEAST FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.

[RULE 218, RULE 1303(a)(1)—BACT, RULE 1303(b)(2)--OFFSET]

- 7) THE 2.5 PPM NO_x EMISSION LIMIT SHALL NOT APPLY DURING TURBINE STARTUP AND SHUTDOWN PERIODS. STARTUP TIME SHALL NOT EXCEED 60 MINUTES PER STARTUP AND THE NUMBER OF STARTUPS SHALL NOT EXCEED 25 PER CALENDAR YEAR. SHUTDOWN TIME SHALL NOT EXCEED 30 MINUTES PER SHUTDOWN AND THE NUMBER OF SHUTDOWNS SHALL NOT EXCEED 25 PER CALENDAR YEAR. WRITTEN RECORDS OF START-UPS AND SHUTDOWNS SHALL BE MAINTAINED FOR AT LEAST FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.

[RULE 1303(a)(1)--BACT]

- 8) THE 6 PPM CO EMISSION LIMIT SHALL NOT APPLY DURING TURBINE STARTUP AND SHUTDOWN PERIODS. STARTUP TIME SHALL NOT EXCEED 60 MINUTES PER STARTUP AND THE NUMBER OF STARTUPS SHALL NOT EXCEED 25 PER CALENDAR YEAR. SHUTDOWN TIME SHALL NOT EXCEED 30 MINUTES PER SHUTDOWN AND THE NUMBER OF SHUTDOWNS SHALL NOT EXCEED 25 PER CALENDAR YEAR. WRITTEN RECORDS OF START-UPS AND SHUTDOWNS SHALL BE MAINTAINED FOR AT LEAST FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.

[RULE 1303(a)(1)--BACT]

- 9) THE 2.5 PPMV NO_x EMISSION LIMIT IS AVERAGED OVER 60 MINUTES AT 15 PERCENT OXYGEN, DRY.

[RULE 1303(a)(1)--BACT]

- 10) THE 6 PPMV CO EMISSION LIMIT IS AVERAGED OVER 60 MINUTES AT 15 PERCENT OXYGEN, DRY.

[RULE 1303(a)(1)--BACT]

- 11) FOR THE PURPOSES OF DETERMINING COMPLIANCE WITH DISTRICT RULE 475, COMBUSTION CONTAMINANT EMISSIONS MAY EXCEED THE CONCENTRATION LIMIT OR THE MASS EMISSION LIMIT LISTED, BUT NOT BOTH LIMITS AT THE SAME TIME.

[RULE 475]

- 12) THE OPERATOR SHALL VENT THIS EQUIPMENT TO THE SCR CONTROL WHENEVER THE TURBINE IS IN OPERATION.

[RULE 1303(a)(1)--BACT]

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

- 13) THE OPERATOR SHALL LIMIT THE NATURAL GAS USAGE TO NO LESS THAN 4575 LBS/HR DURING NORMAL OPERATION. NORMAL OPERATION SHALL NOT INCLUDE START-UP, SHUTDOWN AND MAINTENANCE PERIODS.
[RULE 1303(a)(1)--BACT]

- 14) THE OPERATOR SHALL MAINTAIN CONTINUOUS RECORDS OF THE NATURAL GAS USAGE TO DEMONSTRATE COMPLIANCE WITH CONDITION NO. 13. SUCH RECORDS SHALL BE KEPT ON THE PREMISES FOR AT LEAST FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1303(a)(1)--BACT]

Emissions and Requirements:

NOx: 92 PPMV, 40CFR60 SUBPART GG
NOx: 2.5 PPMV, RULE 1303-BACT
CO: 6 PPMV, RULE 1303-BACT
CO: 2000 PPMV, RULE 407
SOx: 150 PPMV, 40CFR60 SUBPART GG
PM: 0.1 GR/SCF, RULE 409
PM: 0.01 GR/SCF; 11 LBS/HR, RULE 475

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO OPERATE

Permit No. F92374
A/N 402554

Equipment Description:

AIR POLLUTION CONTROL SYSTEM (CENTRAL PLANT) CONSISTING OF:

1. REACTOR, NOX SELECTIVE CATALYTIC REDUCTION (SCR), CRI CATALYST, WITH CAT VNX VANADIA-TITANIA CATALYST,
2. REACTOR, CO OXIDATION CATALYST, ENGELHARD, WITH CAMEL METAL CO OXIDATION TYPE CATALYST, AND
3. AMMONIA INJECTION SYSTEM.

Conditions:

- 1) OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
- 2) THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
- 3) NH₃ EMISSIONS FROM THIS EQUIPMENT SHALL NOT EXCEED 5 PPMV @ 15% O₂.
[RULE 1303(a)(1)--BACT]
- 4) THE OPERATOR SHALL INSTALL AND MAINTAIN A TEMPERATURE GAUGE TO ACCURATELY INDICATE THE TEMPERATURE IN THE EXHAUST AT THE INLET TO THE SCR REACTOR. THE OPERATOR SHALL ALSO INSTALL AND MAINTAIN A DEVICE TO CONTINUOUSLY RECORD THE PARAMETER BEING MEASURED. THE MEASURING DEVICE OR GAUGE SHALL BE ACCURATE TO WITHIN PLUS OR MINUS 5 PERCENT, AND SHALL BE CALIBRATED ONCE EVERY TWELVE MONTHS.
[RULE 3004(a)(4)—Periodic Monitoring]
- 5) THE OPERATOR SHALL CONDUCT SOURCE TEST(S) FOR THE POLLUTANT(S) IDENTIFIED BELOW:

POLLUTANT(S) TO BE TESTED	REQUIRED TEST METHOD(S)	AVG. TIME	TEST LOCATION
NH3 EMISSIONS	DISTRICT METHOD 207.1 OR EPA METHOD 17	1 HOUR	SCR OUTLET

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

THE TEST SHALL BE CONDUCTED AT LEAST TWICE EVERY YEAR FOR THE PERIOD STARTING JUNE 12, 2009. IF TWO CONSECUTIVE TESTS IN THAT PERIOD DEMONSTRATE COMPLIANCE, THEN THE TEST SHALL BE CONDUCTED AT LEAST ONCE EVERY YEAR THEREAFTER. THE NOX CONCENTRATION, AS DETERMINED BY THE CEMS, SHALL BE SIMULTANEOUSLY RECORDED DURING THE AMMONIA SLIP TEST. IF THE CEMS IS INOPERABLE, A TEST SHALL BE CONDUCTED TO DETERMINE THE NOX EMISSIONS USING DISTRICT METHOD 100.1 MEASURED OVER A 60 MINUTE AVERAGING TIME PERIOD.

THE TEST SHALL BE CONDUCTED WHEN THE GAS TURBINE IS OPERATING AT 100 PERCENT OF MAXIMUM HEAT INPUT. THE TEST SHALL BE CONDUCTED TO DEMONSTRATE COMPLIANCE WITH THE LIMIT SPECIFIED IN CONDITION NO. 3.
[RULE 1303(a)(1)--BACT]

- 6) THE OPERATOR MAY, AT HIS DISCRETION, CHOSE NOT TO USE AMMONIA INJECTION IF THE FOLLOWING REQUIREMENT IS MET:

THE INLET EXHAUST TEMPERATURE TO THE SCR IS 400 DEGREES F OR LESS, NOT TO EXCEED 60 MINUTES DURING A STARTUP.
[RULE 1303(a)(1)--BACT]

- 7) THE 5 PPMV NH3 EMISSION LIMITS IS AVERAGED OVER 60 MINUTES AT 15 PERCENT O2, DRY.
[RULE 1303(a)(1)--BACT]

- 8) ALL RECORDS REQUIRED BY THIS PERMIT SHALL BE MAINTAINED FOR AT LEAST FIVE YEARS AND SHALL BE MADE AVAILABLE TO THE DISTRICT UPON REQUEST.
[RULE 3004(a)(4)—Periodic Monitoring]

Emissions and Requirements:

NH3: 5 PPMV, RULE 1303-BACT

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO OPERATE

Permit No. F92439
A/N 408819

Equipment Description:

STORAGE TANK, ABOVEGROUND, AQUEOUS AMMONIA, 6'-4" DIA. X 23'-0" L., 5000 GALLON CAPACITY, WITH A VAPOR RETURN LINE.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS TANK SHALL STORE AQUEOUS AMMONIA SOLUTIONS WHICH CONTAIN 19 PERCENT BY WEIGHT OF AMMONIA OR LESS.
[RULE 1303(b)(2)—OFFSETS]
4. THE MAXIMUM QUANTITY OF AQUEOUS AMMONIA LOADED INTO THIS STORAGE TANK SHALL NOT EXCEED 5000 GALLONS IN ANY ONE MONTH.
[RULE 1303(b)(2)—OFFSETS]
5. THE OPERATOR SHALL INSTALL AND MAINTAIN PRESSURE RELIEF VALVE(S) WITH A MINIMUM PRESSURE SET AT 25 PSIG.
[RULE 1303(a)(1)—BACT]
6. THIS TANK SHALL NOT BE FILLED UNLESS THE DISPLACED VAPORS ARE RETURNED TO THE UNLOADING VEHICLE THROUGH A GAS TIGHT VAPOR LINE.
[RULE 1303(a)(1)—BACT]
7. THE VAPOR RETURN SYSTEM SHALL BE IN FULL USE DURING THE LOADING OPERATION TO ENSURE COMPLETE RETURN OF THE DISPLACED VAPOR FROM THE TANK TO THE DELIVERY VEHICLE.
[RULE 1303(a)(1)—BACT]
8. THE OPERATOR SHALL MAINTAIN ADEQUATE RECORDS TO DEMONSTRATE COMPLIANCE WITH CONDITION NOS. 3 AND 4. SUCH RECORDS SHALL BE KEPT ON THE PREMISES FOR AT LEAST FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1303(a)(1)—BACT]

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO CONSTRUCT/OPERATE

Permit No. F94315
A/N 473777

Equipment Description:

INTERNAL COMBUSTION ENGINE, JOHN DEERE, MODEL NO. 4045HF285J, DIESEL FUELED, FOUR CYCLE, FOUR CYLINDER, TURBOCHARGED AND AFTERCOOLED, RATED AT 126 BHP, DRIVING AN EMERGENCY ELECTRICAL GENERATOR, 94 KW (WATSON BLDG.).

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS ENGINE SHALL NOT BE OPERATED MORE THAN A TOTAL OF 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 50 HOURS FOR MAINTENANCE AND PERFORMANCE TESTING.
[RULE 1304(a)(4)-MODELING AND OFFSET EXEMPTION, RULE 1303(a)(1)-BACT, RULE 1470, RULE 1110.2]
4. THE OPERATION OF THIS ENGINE BEYOND THE 50 HOURS PER YEAR ALLOTTED FOR MAINTENANCE AND PERFORMANCE TESTING SHALL BE ALLOWED ONLY IN THE EVENT OF A LOSS OF GRID POWER OR UP TO 30 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE UTILITY DISTRIBUTION COMPANY HAS ORDERED ROTATING OUTAGES IN THE CONTROL AREA WHERE THE ENGINE IS LOCATED OR HAS INDICATED THAT IT EXPECTS TO ISSUE SUCH AN ORDER AT A CERTAIN TIME, AND THE ENGINE IS LOCATED IN A UTILITY SERVICE BLOCK THAT IS SUBJECT TO THE ROTATING OUTAGE. ENGINE OPERATION SHALL BE TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.
[RULE 1303(a)(1)-BACT, RULE 1304(a)(4)-MODELING AND OFFSET EXEMPTION, RULE 1470]
5. THIS ENGINE SHALL NOT BE USED AS PART OF A DEMAND RESPONSE PROGRAM USING AN INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ITS ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO DO SO BY THE UTILITY OR THE GRID OPERATOR.
[RULE 1303(a)(1)-BACT, RULE 1470]
6. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH ON A MONTHLY BASIS SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:
 - A. EMERGENCY USE HOURS OF OPERATION,

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

- B. MAINTENANCE AND TESTING HOURS, AND
- C. OTHER OPERATING HOURS, WITH A DESCRIPTION OF THE REASON FOR OPERATION

IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION. THE LOG SHALL BE KEPT FOR A MINIMUM OF FIVE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED SOME TIME DURING THE FIRST 15 DAYS OF JANUARY EACH YEAR.
[RULE 1110.2, RULE 1303(b)(2)—OFFSET, RULE 1470]

- 7. THE OPERATOR SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.
[RULE 431.2, RULE 1470]
- 8. THE OPERATOR SHALL ONLY USE LOW SULFUR FUEL WITH A SULFUR CONTENT OF 15 PPM OR LESS BY WEIGHT.
[RULE 431.2, RULE 1470]
- 9. MATERIAL SAFETY DATA SHEETS FOR THE DIESEL FUEL USED IN THIS ENGINE SHALL BE KEPT CURRENT AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 431.2, RULE 1470]

Periodic Monitoring:

- 10. THE OPERATOR SHALL INSTALL AND MAINTAIN AN OPERATIONAL NON-RESETTABLE ELAPSED OPERATING TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 1110.2, RULE 1470, RULE 3004(a)(4)-Periodic Monitoring]

Emissions and Requirements:

- 11. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM: RULE 1470

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO CONSTRUCT/OPERATE

Permit No. F97113
A/N 476877

Equipment Description:

INTERNAL COMBUSTION ENGINE, JOHN DEERE, MODEL NO. 6068HF485T DIESEL FUELED, FOUR CYCLE, SIX CYLINDER, TURBOCHARGED AND AFTERCOOLED, RATED AT 315 BHP, DRIVING AN EMERGENCY ELECTRICAL GENERATOR (CAHILL BLDG.).

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS ENGINE SHALL NOT BE OPERATED MORE THAN A TOTAL OF 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 50 HOURS FOR MAINTENANCE AND PERFORMANCE TESTING.
[RULE 1304(a)(4)-MODELING AND OFFSET EXEMPTION, RULE 1303(a)(1)-BACT, RULE 1470, RULE 1110.2]
4. THE OPERATION OF THIS ENGINE BEYOND THE 50 HOURS PER YEAR ALLOTTED FOR MAINTENANCE AND PERFORMANCE TESTING SHALL BE ALLOWED ONLY IN THE EVENT OF A LOSS OF GRID POWER OR UP TO 30 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE UTILITY DISTRIBUTION COMPANY HAS ORDERED ROTATING OUTAGES IN THE CONTROL AREA WHERE THE ENGINE IS LOCATED OR HAS INDICATED THAT IT EXPECTS TO ISSUE SUCH AN ORDER AT A CERTAIN TIME, AND THE ENGINE IS LOCATED IN A UTILITY SERVICE BLOCK THAT IS SUBJECT TO THE ROTATING OUTAGE. ENGINE OPERATION SHALL BE TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.
[RULE 1303(a)(1)-BACT, RULE 1304(a)(4)-MODELING AND OFFSET EXEMPTION, RULE 1470]
5. THIS ENGINE SHALL NOT BE OPERATED FOR NON-EMERGENCY USE BETWEEN THE HOURS OF 7:30 A.M. AND 3:30 P.M. ON DAYS WHEN SCHOOL IS IN SESSION.
[RULE 1470]
6. THIS ENGINE SHALL NOT BE USED AS PART OF A DEMAND RESPONSE PROGRAM USING AN INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ITS ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO DO SO BY THE UTILITY OR THE GRID OPERATOR.
[RULE 1303(a)(1)-BACT, RULE 1470]

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

7. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH ON A MONTHLY BASIS SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:
- A. EMERGENCY USE HOURS OF OPERATION,
 - B. MAINTENANCE AND TESTING HOURS, AND
 - C. OTHER OPERATING HOURS, WITH A DESCRIPTION OF THE REASON FOR OPERATION

IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION. THE LOG SHALL BE KEPT FOR A MINIMUM OF FIVE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED SOME TIME DURING THE FIRST 15 DAYS OF JANUARY EACH YEAR.
[RULE 1110.2, RULE 1303(b)(2)—OFFSET, RULE 1470]

8. THE OPERATOR SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.
[RULE 431.2, RULE 1470]
9. THE OPERATOR SHALL ONLY USE LOW SULFUR FUEL WITH A SULFUR CONTENT OF 15 PPM OR LESS BY WEIGHT.
[RULE 431.2, RULE 1470]
10. MATERIAL SAFETY DATA SHEETS FOR THE DIESEL FUEL USED IN THIS ENGINE SHALL BE KEPT CURRENT AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 431.2, RULE 1470]

Periodic Monitoring:

11. THE OPERATOR SHALL INSTALL AND MAINTAIN AN OPERATIONAL NON-RESETTABLE ELAPSED OPERATING TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 1110.2, RULE 1470, RULE 3004(a)(4)-Periodic Monitoring]

Emissions and Requirements:

12. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM: RULE 1470

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO CONSTRUCT/OPERATE

Permit No. N23305
A/N 492430

Equipment Description:

Fuel Storage and Dispensing Facility Consisting of:

1. 1 - GASOLINE BELLOWS-LESS NOZZLE DISPENSING 1 PRODUCT, EQUIPPED WITH PHASE II VAPOR RECOVERY SYSTEM, HEALY PHASE II EVR NOT INCLUDING ISD (VR-201-H).
2. 1 - DUAL COMPARTMENT UNDERGROUND GASOLINE/DIESEL STORAGE TANK, 12,000 GALLON CAPACITY, 1 METHANOL COMPATIBLE, CONSISTING OF:
 - A. ONE 6,000 GALLON GASOLINE COMPARTMENT, EQUIPPED WITH PHASE I VAPOR RECOVERY SYSTEM CNI MANUFACTURING (VR-104-A/D).
 - B. ONE 6,000 GALLON DIESEL COMPARTMENT, NOT EQUIPPED WITH PHASE I VAPOR RECOVERY SYSTEM.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT WAS ISSUED, UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. ALL PERMIT CONDITIONS APPLICABLE TO THE EQUIPMENT DESCRIBED IN THE PREVIOUS PERMIT TO OPERATE N16673 SHALL REMAIN IN EFFECT UNTIL THE NEW OR MODIFIED EQUIPMENT IS CONSTRUCTED AND OPERATED AS DESCRIBED IN THIS NEW PERMIT. THIS PERMIT TO CONSTRUCT/OPERATE SHALL BECOME INVALID IF THE MODIFICATION AS DESCRIBED IN THE EQUIPMENT DESCRIPTION HAS NOT BEEN COMPLETED WITHIN ONE YEAR FROM THE ISSUE DATE. IF THE MODIFICATION HAS NOT BEEN COMPLETED WITHIN ONE YEAR FROM THE ISSUE DATE OF THE PERMIT, A WRITTEN REQUEST SHALL BE SUBMITTED TO THE AQMD (ATTENTION: RANDY MATSUYAMA) TO REINSTATE THE PREVIOUSLY INACTIVATED PERMIT TO OPERATE. A NEW APPLICATION SHALL BE FILED IF THERE ARE PLANS TO CONTINUE WITH THE MODIFICATION. FURTHERMORE, THIS CONDITION DOES NOT ALLOW ANY TIME EXTENSIONS TO ANY MODIFICATIONS REQUIRED BY THE CALIFORNIA AIR RESOURCES BOARD OR AQMD.
[RULE 461]
4. EXCEPT FOR DIESEL TRANSFERS, PHASE I VAPOR RECOVERY SYSTEMS SHALL BE IN FULL OPERATION WHENEVER FUEL IS BEING TRANSFERRED INTO STORAGE TANKS.

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

[RULE 461]

5. EXCEPT FOR DIESEL TRANSFERS, PHASE II VAPOR RECOVERY SYSTEMS SHALL BE IN FULL OPERATION WHENEVER FUEL IS BEING TRANSFERRED INTO MOTOR VEHICLES, AS DEFINED IN RULE 461.
[RULE 461]
6. ALL PHASE I AND PHASE II VAPOR RECOVERY EQUIPMENT AT THIS FACILITY SHALL BE INSTALLED, OPERATED AND MAINTAINED TO MEET ALL CALIFORNIA AIR RESOURCES BOARD CERTIFICATION REQUIREMENTS.
[RULE 461]
7. THE DISTRICT AT ITS DISCRETION MAY WISH TO WITNESS THE INSTALLATION AND/OR PERFORMANCE TESTING OF THE HEALY PHASE II EVR SYSTEM NOT INCLUDING ISD: AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO THE INSTALLATION AND PERFORMANCE TESTING OF THE HEALY PHASE II EVR SYSTEM NOT INCLUDING ISD, THE APPLICANT SHALL NOTIFY THE AQMD AT TELEPHONE NUMBER (866) 770-9140.
[RULE 461]
8. NEW EQUIPMENT INSTALLATIONS AND SUBSEQUENT SERVICE AND REPAIRS FOR ANY CERTIFIED COMPONENT FOR WHICH THIS PERMIT WAS ISSUED, SHALL ONLY BE PERFORMED BY A CURRENT AND CERTIFIED PERSON WHO HAS SUCCESSFULLY COMPLETED THE MANUFACTURER'S TRAINING COURSE AND APPROPRIATE INTERNATIONAL CODE COUNCIL (ICC) CERTIFICATION. COMPLETION OF ANY AQMD TRAINING COURSE DOES NOT CONSTITUTE AS A SUBSTITUTE FOR THIS REQUIREMENT. PROOF OF SUCCESSFUL COMPLETION OF ANY MANUFACTURER TRAINING COURSE SHALL BE WITH THE MANUFACTURER.
[RULE 461]
9. AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO BACK-FILLING ANY UNDERGROUND STORAGE TANK OR PIPING, THE SCAQMD SHALL BE NOTIFIED BY E-MAIL AT R461BACKFILL@AQMD.GOV OR BY FACSIMILE AT TELEPHONE NUMBER (909) 396-3606. SUCH NOTIFICATION SHALL INCLUDE THE NAME OF THE OWNER OR OPERATOR; THE NAME OF THE CONTRACTORS; THE LOCATION OF THE FACILITY; AND THE SCHEDULED START AND COMPLETION DATES OF THE BACK-FILLING PROCEDURE. THE BACK-FILLING PROCEDURE SHALL NOT COMMENCE UNTIL INSPECTED BY A DISTRICT REPRESENTATIVE.
[RULE 461]
10. DEPENDING ON THE SYSTEM CONFIGURATION, A LEAK RATE TEST OF DROP TUBE/DRAIN VALVE ASSEMBLY SHALL BE CONDUCTED TO QUANTIFY THE PRESSURE INTEGRITY OF BOTH THE DROP TUBE AND DRAIN VALVE SEAL OR A LEAK RATE TEST OF DROP TUBE OVERFILL PREVENTION DEVICE AND DRAIN VALVE SHALL BE CONDUCTED TO QUANTIFY THE PRESSURE INTEGRITY OF THE DROP TUBE OVERFILL PREVENTION DEVICE AND THE PRESSURE INTEGRITY OF THE SPILL CONTAINER DRAIN VALVE. EITHER TEST SHALL BE CONDUCTED AS A PERFORMANCE TEST AND AS A REVERIFICATION TEST. THE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH TEST PROCEDURE METHOD TP-201.1C (OCTOBER 8, 2003) OR TP-201.1D (OCTOBER 8, 2003), RESPECTIVELY. RESULTS SHALL BE SUBMITTED TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE, WITHIN SEVENTY-TWO (72) HOURS OF TEST.
[RULE 461]

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

11. A LEAK RATE AND CRACKING PRESSURE TEST OF PRESSURE/VACUUM RELIEF VENT VALVES SHALL BE CONDUCTED WITHIN TEN DAYS (10) AFTER THE START OF OPERATION OF THE CNI MANUFACTURING PHASE I EVR EQUIPMENT AND AT LEAST ONCE EVERY THREE (3) YEARS THEREAFTER TO DETERMINE THE PRESSURE AND VACUUM AT WHICH THE PRESSURE/VACUUM VENT VALVE ACTUATES, AND TO DETERMINE THE VOLUMETRIC LEAK RATE AT A GIVEN PRESSURE. THE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH THE TEST PROCEDURE METHOD TP-201.1E (OCTOBER 8, 2003). RESULTS SHALL BE SUBMITTED TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE, WITHIN SEVENTY-TWO (72) HOURS OF TEST. THIS TEST RESULT SHALL BE KEPT ON SITE FOR THREE (3) YEARS AND MADE AVAILABLE TO DISTRICT REPRESENTATIVES UPON REQUEST.
[RULE 461]
12. A STATIC TORQUE TEST OF ROTATABLE PHASE I ADAPTORS SHALL BE CONDUCTED TO QUANTIFY THE AMOUNT OF STATIC TORQUE REQUIRED TO START THE ROTATION OF THE ROTATABLE PHASE I ADAPTORS. THE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH THE TEST PROCEDURE METHOD OUTLINED IN TP-201.1B (OCTOBER 8, 2003) AS A PERFORMANCE TEST AND AS A REVERIFICATION TEST. RESULTS SHALL BE SUBMITTED TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE, WITHIN SEVENTY-TWO (72) HOURS OF TEST.
[RULE 461]
13. THE PHASE II VAPOR RECOVERY SYSTEM SHALL BE INSTALLED, OPERATED, AND MAINTAINED SUCH THAT THE MAXIMUM ALLOWABLE PRESSURE THROUGH THE RISER, AND UNDERGROUND PIPING DOES NOT EXCEED THE DYNAMIC BACK PRESSURE DESCRIBED BY THE CALIFORNIA AIR RESOURCES BOARD EXECUTIVE ORDER BY WHICH THE SYSTEM WAS CERTIFIED:

NITROGEN FLOWRATES
(CFH)
60

DYNAMIC BACK PRESSURE
(INCHES OF WATER)
0.50

DYNAMIC BACK PRESSURE TESTS SHALL BE CONDUCTED TO DETERMINE THE PHASE II SYSTEM VAPOR RECOVERY BACK PRESSURES. THE TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH CARB TEST PROCEDURE TP-201.4, METHODOLOGY 4 AND 6 (JULY 3, 2002); AS A PERFORMANCE TEST. THIS TEST SHALL BE A ONE-TIME TEST AND THE RESULTS KEPT PERMANENTLY ON SITE. RESULTS SHALL BE SUBMITTED TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE, WITHIN SEVENTY-TWO (72) HOURS OF TESTS.
[RULE 461]

14. A STATIC PRESSURE LEAK DECAY TEST SHALL BE CONDUCTED TO DEMONSTRATE THAT THE STORAGE TANKS, THE REMOTE AND/OR NOZZLE VAPOR RECOVERY CHECK VALVES, ASSOCIATED VAPOR RETURN PIPING AND FITTINGS ARE FREE FROM VAPOR LEAKS. THE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH CARB TEST PROCEDURE METHOD TP-201.3 (MARCH 17, 1999) AS A PERFORMANCE TEST AND AS A REVERIFICATION TEST. RESULTS SHALL BE SUBMITTED TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE, WITHIN SEVENTY-TWO (72) HOURS OF TEST.
[RULE 461]

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

15. A STATIC PRESSURE PERFORMANCE TEST FOR THE HEALY CLEAN AIR SEPARATOR USING BOTH THE VACUUM DECAY PROCEDURE AND THE POSITIVE PRESSURE PROCEDURE SHALL BE CONDUCTED TO QUANTIFY THE VAPOR TIGHTNESS OF THE HEALY CLEAN AIR SEPARATOR TANK PRESSURE MANAGEMENT SYSTEM. THESE TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH EXHIBIT 4 OF CARB EXECUTIVE ORDER VR-201-H AS A PERFORMANCE TEST AND AS A REVERIFICATION TEST. RESULTS SHALL BE SUBMITTED TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE WITHIN SEVENTY-TWO (72) HOURS OF TEST.
[RULE 461]
16. A VAPOR TO LIQUID VOLUME RATIO TEST SHALL BE CONDUCTED TO QUANTIFY THE VAPOR TO LIQUID (V/L) VOLUMETRIC RATIO OF THE HEALY CLEAN AIR SEPARATOR SYSTEM. THE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH EXHIBIT 5 OF CARB EXECUTIVE ORDER VR-201-H AS A PERFORMANCE TEST AND AS A REVERIFICATION TEST. RESULTS SHALL BE SUBMITTED TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE WITHIN SEVENTY-TWO (72) HOURS OF TEST.
[RULE 461]
17. A NOZZLE BAG TEST SHALL BE CONDUCTED ON THE HEALY PHASE II EVR NOZZLES TO VERIFY THE INTEGRITY OF THE VAPOR VALVE. THE TEST SHALL BE CONDUCTED ON ANY NEWLY INSTALLED OR REPLACED HEALY PHASE II EVR NOZZLES AND IN ACCORDANCE WITH EXHIBIT 7 OF CARB EXECUTIVE ORDER VR-201-H. RESULTS SHALL BE SUBMITTED TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE WITHIN SEVENTY-TWO (72) HOURS OF TEST.
[RULE 461]
18. THE STATIC PRESSURE LEAK DECAY TEST TP-201.3, SHALL BE CONDUCTED IN ACCORDANCE WITH EXHIBIT 8 OF CARB EXECUTIVE ORDER VR-201-H. VERIFICATION OF COMPLETING EACH STEP AS OUTLINED SHALL BE DOCUMENTED BY SUBMITTING A COPY OF EXHIBIT 8 TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE WITHIN SEVENTY-TWO (72) HOURS OF TEST.
[RULE 461]
19. UNLESS AQMD RULE 461 REQUIRES A MORE FREQUENT TESTING OR INSPECTION SCHEDULE, THE OWNER/OPERATOR SHALL BE RESPONSIBLE TO PERFORM THE SCHEDULED WEEKLY, QUARTERLY, AND ANNUAL INSPECTIONS AS OUTLINED IN THE ARB APPROVED INSTALLATION, OPERATION, AND MAINTENANCE MANUAL FOR THE HEALY PHASE II EVR SYSTEMS, AS WELL AS ALL THE REQUIRED VAPOR RECOVERY SYSTEM TESTS AS PER THE CURRENT AND APPROPRIATE ARB EXECUTIVE ORDER.
[RULE 461]
20. A CARB CERTIFIED PHASE II ENHANCED VAPOR RECOVERY SYSTEM SHALL BE FULLY PERMITTED, INSTALLED, AND TESTED BY OCTOBER 1, 2008. FAILURE TO ACHIEVE THIS CONDITION BY OCTOBER 1, 2008, SHALL RESULT IN THE OWNER/OPERATOR TO FILE A DISTRICT APPROVED COMPLIANCE PLAN OUTLINING THE INCREMENTS OF PROGRESS TOWARDS COMPLETING THE INSTALLATION OF A CARB CERTIFIED PHASE II ENHANCED VAPOR RECOVERY SYSTEM BY APRIL 1, 2009.
[RULE 461]

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

21. IF THE OWNER/OPERATOR PLANS TO PERMANENTLY CEASE ALL GASOLINE DISPENSING OPERATIONS BEFORE APRIL 1, 2009, A COMPLIANCE PLAN SHALL BE FILED DECLARING TO IRREVOCABLY SURRENDER THEIR PERMIT TO OPERATE.
[RULE 461]
22. THE AQMD SHALL BE NOTIFIED BY E-MAIL AT R461TESTING@AQMD.GOV OR BY FACSIMILE AT TELEPHONE NUMBER (909) 396-3606 AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO ANY OF THE ABOVE MENTIONED TESTING REQUIREMENTS. SUCH NOTIFICATION SHALL INCLUDE THE NAME OF THE OWNER OR OPERATOR; THE NAME OF THE CONTRACTOR; THE LOCATION OF THE FACILITY; AND THE SCHEDULED START AND COMPLETION DATES OF THE TESTS TO BE PERFORMED.
[RULE 461]
23. THE TESTING FOR THE ABOVE MENTIONED TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH THE MOST RECENT RULE 461 AMENDMENT OR CARB EXECUTIVE ORDER REQUIREMENTS, WHICHEVER IS MORE STRINGENT.
[RULE 461]
24. ALL RECORDS AND TEST RESULTS THAT ARE REQUIRED TO BE MAINTAINED BY RULE 461 SHALL BE KEPT ON SITE FOR FOUR YEARS AND MADE AVAILABLE TO DISTRICT REPRESENTATIVES UPON REQUEST.
[RULE 461]
25. SHOULD THE FACILITY DISPENSE MORE THAN 600,000 GALLONS OF GASOLINE PER CALENDAR YEAR AND IF THE FACILITY UNDERGOES A MAJOR MODIFICATION AS DEFINED BY CARB'S ADVISORY LETTER NUMBER 336, "ENHANCED VAPOR RECOVERY IMPLEMENTATION UPDATE" DATED APRIL 15, 2005; THE OPERATOR SHALL IMMEDIATELY CEASE ALL GASOLINE DISPENSING OPERATIONS AND FILE AN APPLICATION FOR A NEW PERMIT TO CONSTRUCT/OPERATE TO INSTALL A CARB CERTIFIED ISD SYSTEM. GASOLINE DISPENSING OPERATIONS SHALL NOT RESUME UNTIL THE ISD SYSTEM HAS BEEN GRANTED A PERMIT TO CONSTRUCT/OPERATE AND HAS BEEN FULLY INSTALLED, TESTED, AND OPERATIVE.
26. SHOULD THE FACILITY DISPENSE MORE THAN 600,000 GALLONS OF GASOLINE IN ANY CALENDAR YEAR AND IF THE FACILITY DOES NOT UNDERGO A MAJOR MODIFICATION AS DEFINED BY CARB'S ADVISORY LETTER NUMBER 336, "ENHANCED VAPOR RECOVERY IMPLEMENTATION UPDATE" DATED APRIL 15, 2005; THE OPERATOR SHALL FILE AN APPLICATION FOR A NEW PERMIT TO CONSTRUCT/OPERATE TO INSTALL A CARB CERTIFIED ISD SYSTEM. THE ISD SYSTEM SHALL BE FULLY INSTALLED, TESTED, AND OPERATIVE BASED ON THE FOLLOWING TABLE:

<u>GASOLINE THROUGHPUT PER CALENDAR YEAR</u>	<u>DATE</u>
GREATER THAN 1.8 MILLION GALLONS	SEPTEMBER 1, 2009
BETWEEN 600,000 AND 1.8 MILLION GALLONS	SEPTEMBER 1, 2010

[RULE 461]

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

Periodic Monitoring:

27. THE OPERATOR SHALL HAVE A PERSON THAT HAS BEEN TRAINED IN ACCORDANCE WITH RULE 461(d)(5) CONDUCT A SEMI-ANNUAL INSPECTION OF THE GASOLINE TRANSFER AND DISPENSING EQUIPMENT. THE FIRST INSPECTION SHALL BE IN ACCORDANCE WITH RULE 461, ATTACHMENT B, THE SECOND INSPECTION SHALL BE IN ACCORDANCE WITH RULE 461, ATTACHMENT C, AND THE SUBSEQUENT INSPECTIONS SHALL ALTERNATE PROTOCOLS. THE OPERATOR SHALL KEEP RECORDS OF THE INSPECTION AND THE REPAIRS IN ACCORDANCE TO RULE 461 AND SECTION K OF THIS PERMIT.
[RULE 3004 (a)(4)]

Emissions And Requirements:

28. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
- VOC: RULE 461
VOC: RULE 1170

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO OPERATE

Permit No. G6134
A/N 473550

Equipment Description:

INTERNAL COMBUSTION ENGINE, CUMMINS, MODEL NO. 6BT5.9-G2, DIESEL FUELED, 6 CYLINDERS, TURBOCHARGED, AFTERCOOLED, RATED AT 166 BHP, EQUIPPED WITH DIESEL PARTICULATE FILTER SYSTEM, CLEANAIR SYSTEMS, PERMIT™ MODEL FCA225, AND A HIBACK DATA LOGGING AND ALARM SYSTEM WITH BACK PRESSURE MONITOR (SOUTH MUDD BLDG).

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS ENGINE SHALL NOT BE OPERATED MORE THAN A TOTAL OF 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 75 HOURS FOR MAINTENANCE AND PERFORMANCE TESTING PURPOSES.
[RULE 1304(a)(4)-MODELING AND OFFSET EXEMPTION, RULE 1470, RULE 1110.2]
4. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH ON A MONTHLY BASIS SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:
 - A. EMERGENCY USE HOURS OF OPERATION,
 - B. MAINTENANCE AND TESTING HOURS, AND
 - C. OTHER OPERATING HOURS, WITH A DESCRIPTION OF THE REASON FOR OPERATION.

IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION. THE LOG SHALL BE KEPT FOR A MINIMUM OF FIVE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED SOME TIME DURING THE FIRST 15 DAYS OF JANUARY EACH YEAR.
[RULE 1110.2, RULE 1303(b)(2)—OFFSET, RULE 1470]

5. OPERATION OF THIS ENGINE BEYOND THE 75 HOURS PER YEAR ALLOTTED FOR ENGINE MAINTENANCE AND PERFORMANCE TESTING SHALL BE ALLOWED ONLY IN THE EVENT OF A LOSS OF GRID POWER OR UP TO 30 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE UTILITY DISTRIBUTION COMPANY HAS ORDERED ROTATING OUTAGES IN THE CONTROL AREA WHERE THE ENGINE IS LOCATED OR HAS INDICATED THAT IT EXPECTS TO ISSUE SUCH AN ORDER AT A CERTAIN TIME, AND THE ENGINE IS LOCATED IN A UTILITY SERVICE BLOCK

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

THAT IS SUBJECT TO THE ROTATING OUTAGE. ENGINE OPERATION SHALL BE TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.

[RULE 1304(a)(4)-MODELING AND OFFSET EXEMPTION, RULE 1470]

6. THIS ENGINE SHALL NOT BE OPERATED FOR NON-EMERGENCY USE BETWEEN THE HOURS OF 7:30 A.M. AND 3:30 P.M. ON DAYS WHEN SCHOOL IS IN SESSION.
[RULE 1470]
7. THE OPERATOR SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.
[RULE 431.2, RULE 1470]
8. THIS ENGINE SHALL NOT BE USED AS PART OF A DEMAND RESPONSE PROGRAM USING AN INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ITS ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO DO SO BY THE UTILITY OR THE GRID OPERATOR.
[RULE 1470]
9. THIS EQUIPMENT SHALL NOT BE OPERATED UNLESS IT IS VENTED TO A DIESEL PARTICULATE FILTER SYSTEM WHICH IS IN FULL OPERATION AND IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 1470]
10. THE OPERATOR SHALL OPERATE THE DIESEL PARTICULATE FILTER SYSTEM ONLY WITH AN OPERATIONAL HIBACK DATA LOGGING AND ALARM SYSTEM WITH BACK PRESSURE MONITOR AND TEMPERATURE MONITOR.
[RULE 1470]
11. THE HIBACK DATA LOGGING AND ALARM SYSTEM SHALL BE PROGRAMMED TO PROVIDE A RED WARNING SIGNAL AND AN AUDIBLE ALARM, WHENEVER THE ENGINE BACKPRESSURE REACHES THE MAXIMUM BACKPRESSURE LIMIT OF 3 INCHES OF MERCURY (HG). IN OPERATION, THE ENGINE BACKPRESSURE SHALL NOT EXCEED 3 INCHES OF MERCURY (HG).
[RULE 1470]
12. THE ENGINE SHALL BE OPERATED AT THE LOAD LEVEL REQUIRED TO ACHIEVE AN ENGINE EXHAUST GAS TEMPERATURE OF 572 DEGREES FAHRENHEIT (300 DEGREES CENTIGRADE) FOR PASSIVE REGENERATION OF THE DIESEL PARTICULATE FILTER FOR AT LEAST 30% OF THE OPERATING TIME.
[RULE 1470]
13. THIS ENGINE SHALL NOT BE OPERATED BELOW THE PASSIVE REGENERATION TEMPERATURE SPECIFIED IN CONDITION NO. 12 FOR MORE THAN 240 CONSECUTIVE MINUTES.
[RULE 1470]
14. THE OPERATOR SHALL REGENERATE THE DIESEL PARTICULATE FILTER AFTER EVERY 12 COLD STARTS OR WHENEVER A YELLOW WARNING SIGNAL INDICATING THE BACKPRESSURE IS 10% BELOW THE MAXIMUM BACKPRESSURE LIMIT SPECIFIED IN CONDITION NO. 11 IS RECEIVED FROM THE HIBACK ALARM SYSTEM, WHICHEVER OCCURS FIRST. IN ORDER TO ACHIEVE FILTER REGENERATION, THE OPERATOR SHALL OPERATE THE ENGINE AT THE LOAD

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

REQUIRED TO ACHIEVE AN EXHAUST TEMPERATURE ABOVE 572 DEGREES FAHRENHEIT (300 DEGREES C) UNTIL THE BACKPRESSURE MONITORING SYSTEM INDICATES A NORMAL BACK PRESSURE READING.

[RULE 1470]

15. THE DIESEL PARTICULATE FILTER SHALL BE CLEANED WHENEVER THE BACKPRESSURE REACHES THE MAXIMUM BACKPRESSURE LIMIT SPECIFIED IN CONDITION NO. 11. CLEANING SHALL BE PERFORMED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS IN THE INSTALLATION AND MAINTENANCE MANUAL.
[RULE 1470]
16. AFTER EVERY 200 HOURS OF NORMAL ENGINE OPERATION, THE OPERATOR SHALL INSPECT THE INTEGRITY OF THE DIESEL PARTICULATE FILTER AND, IF NECESSARY, REPLACE IT.
[RULE 1470]
17. THE OPERATOR SHALL MAINTAIN RECORDS OF DIESEL PARTICULATE FILTER INSPECTIONS, REPLACEMENTS AND CLEANING FOR A MINIMUM OF FIVE YEARS. THE RECORDS SHALL BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1470]
18. THE OPERATOR SHALL MAINTAIN MONTHLY RECORDS OF EXHAUST TEMPERATURE, ENGINE BACK PRESSURE, DATE AND TIME FOR THE DUTY CYCLE OF THE ENGINE AS RECORDED BY THE HIBACK DATA LOGGING AND ALARM SYSTEM FOR A MINIMUM OF FIVE YEARS. THESE RECORDS SHALL BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1470]
19. THE OPERATOR SHALL ONLY USE LOW SULFUR FUEL WITH A SULFUR CONTENT OF 15 PPM OR LESS BY WEIGHT.
[RULE 431.2, RULE 1470]
20. MATERIAL SAFETY DATA SHEETS FOR THE DIESEL FUEL USED IN THIS ENGINE SHALL BE KEPT CURRENT AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 431.2, RULE 1470]

Periodic Monitoring:

21. THE OPERATOR SHALL INSTALL AND MAINTAIN AN OPERATIONAL NON-RESETTABLE ELAPSED OPERATING TIME METER TO ACCURATELY INDICATE THE ELAPSED OPERATING TIME OF THE ENGINE.
[RULE 1110.2, RULE 1470, RULE 3004(a)(4)-Periodic Monitoring]

Emissions and Requirements:

22. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM: RULE 1470

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO OPERATE

Permit No. G6133
A/N 406489

Equipment Description:

INTERNAL COMBUSTION ENGINE, CUMMINS, MODEL NO. N14-G2, DIESEL-FUELED, FOUR-CYCLE, 6 CYLINDERS, TURBOCHARGED, AFTERCOOLED, RATED AT 535 BHP, EQUIPPED WITH A DIESEL PARTICULATE FILTER SYSTEM, CLEANAIR SYSTEMS, PERMIT™ MODEL FCA225, AND A HIBACK DATA LOGGING AND ALARM SYSTEM WITH BACK PRESSURE MONITOR, DRIVING AN EMERGENCY ELECTRICAL GENERATOR, 399 KW (CENTRAL PLANT).

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS ENGINE SHALL NOT BE OPERATED MORE THAN A TOTAL OF 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 50 HOURS FOR MAINTENANCE AND PERFORMANCE TESTING.
[RULE 1110.2, RULE 1470, RULE 1303(A)(1)-BACT, RULE 1304(A)(4)-MODELING AND OFFSET EXEMPTION]
4. THE OPERATION OF THIS ENGINE BEYOND THE 50 HOURS PER YEAR ALLOTTED FOR MAINTENANCE AND PERFORMANCE TESTING SHALL BE ALLOWED ONLY IN THE EVENT OF A LOSS OF GRID POWER OR UP TO 30 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT THE UTILITY DISTRIBUTION COMPANY HAS ORDERED ROTATING OUTAGES IN THE CONTROL AREA WHERE THE ENGINE IS LOCATED OR HAS INDICATED THAT IT EXPECTS TO ISSUE SUCH AN ORDER AT A CERTAIN TIME, AND THE ENGINE IS LOCATED IN A UTILITY SERVICE BLOCK THAT IS SUBJECT TO THE ROTATING OUTAGE. ENGINE OPERATION SHALL BE TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.
[RULE 1303(A)(1)-BACT, RULE 1304(A)(4)-MODELING AND OFFSET EXEMPTION, RULE 1470]
5. THIS ENGINE SHALL NOT BE OPERATED FOR NON-EMERGENCY USE BETWEEN THE HOURS OF 7:30 A.M. AND 3:30 P.M. ON DAYS WHEN SCHOOL IS IN SESSION.
[RULE 1470]
6. THIS ENGINE SHALL NOT BE USED AS PART OF A DEMAND RESPONSE PROGRAM USING AN INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ITS ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO DO SO BY THE UTILITY OR THE GRID OPERATOR.

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

[RULE 1303(A)(1)-BACT, RULE 1470]

7. AN ENGINE OPERATING LOG SHALL BE MAINTAINED WHICH ON A MONTHLY BASIS SHALL LIST ALL ENGINE OPERATIONS IN EACH OF THE FOLLOWING AREAS:
- A. EMERGENCY USE HOURS OF OPERATION,
 - B. MAINTENANCE AND TESTING HOURS, AND
 - C. OTHER OPERATING HOURS, WITH A DESCRIPTION OF THE REASON FOR OPERATION.

IN ADDITION, EACH TIME THE ENGINE IS STARTED MANUALLY, THE LOG SHALL INCLUDE THE DATE OF OPERATION AND THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION. THE LOG SHALL BE KEPT FOR A MINIMUM OF FIVE CALENDAR YEARS PRIOR TO THE CURRENT YEAR AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR SHALL BE RECORDED SOME TIME DURING THE FIRST 15 DAYS OF JANUARY EACH YEAR.

[RULE 1110.2, RULE 1303(B)(2)—OFFSET, RULE 1470]

8. THE OPERATOR SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF RULE 1470.
[RULE 1470]
9. THIS EQUIPMENT SHALL NOT BE OPERATED UNLESS IT IS VENTED TO A DIESEL PARTICULATE FILTER SYSTEM WHICH IS IN FULL OPERATION AND IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 1470]
10. THE OPERATOR SHALL OPERATE THE DIESEL PARTICULATE FILTER SYSTEM ONLY WITH AN OPERATIONAL HIBACK DATA LOGGING AND ALARM SYSTEM WITH BACK PRESSURE MONITOR AND TEMPERATURE MONITOR.
[RULE 1470]
11. THE HIBACK DATA LOGGING AND ALARM SYSTEM SHALL BE PROGRAMMED TO PROVIDE A RED WARNING SIGNAL AND AN AUDIBLE ALARM, WHENEVER THE ENGINE BACKPRESSURE REACHES THE MAXIMUM BACKPRESSURE LIMIT OF 41 INCHES OF WATER. IN OPERATION, THE ENGINE BACKPRESSURE SHALL NOT EXCEED 41 INCHES OF WATER.
[RULE 1470]
12. THE ENGINE SHALL BE OPERATED AT THE LOAD LEVEL REQUIRED TO ACHIEVE AN ENGINE EXHAUST GAS TEMPERATURE OF 572 DEGREES FAHRENHEIT (300 DEGREES CENTIGRADE) FOR PASSIVE REGENERATION OF THE DIESEL PARTICULATE FILTER FOR AT LEAST 30% OF THE OPERATING TIME.
[RULE 1470]
13. THIS ENGINE SHALL NOT BE OPERATED BELOW THE PASSIVE REGENERATION TEMPERATURE SPECIFIED IN CONDITION NO. 12 FOR MORE THAN 240 CONSECUTIVE MINUTES.
[RULE 1470]
14. THE OPERATOR SHALL REGENERATE THE DIESEL PARTICULATE FILTER AFTER EVERY 12 COLD STARTS OR WHENEVER A YELLOW WARNING SIGNAL INDICATING THE BACKPRESSURE IS 10% BELOW THE MAXIMUM BACKPRESSURE LIMIT SPECIFIED IN CONDITION NO. 11 IS RECEIVED FROM THE HIBACK ALARM SYSTEM, WHICHEVER OCCURS FIRST. IN ORDER TO

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

ACHIEVE FILTER REGENERATION, THE OPERATOR SHALL OPERATE THE ENGINE AT THE LOAD REQUIRED TO ACHIEVE AN EXHAUST TEMPERATURE ABOVE 572 DEGREES FAHRENHEIT (300 DEGREES C) UNTIL THE BACKPRESSURE MONITORING SYSTEM INDICATES A NORMAL BACK PRESSURE READING.

[RULE 1470]

15. THE DIESEL PARTICULATE FILTER SHALL BE CLEANED WHENEVER THE BACKPRESSURE REACHES THE MAXIMUM BACKPRESSURE LIMIT SPECIFIED IN CONDITION NO. 11. CLEANING SHALL BE PERFORMED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS IN THE INSTALLATION AND MAINTENANCE MANUAL.
[RULE 1470]
16. AFTER EVERY 200 HOURS OF NORMAL ENGINE OPERATION, THE OPERATOR SHALL INSPECT THE INTEGRITY OF THE DIESEL PARTICULATE FILTER AND, IF NECESSARY, REPLACE IT.
[RULE 1470]
17. THE OPERATOR SHALL MAINTAIN RECORDS OF DIESEL PARTICULATE FILTER INSPECTIONS, REPLACEMENTS AND CLEANING FOR A MINIMUM OF FIVE YEARS. THE RECORDS SHALL BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1470]
18. THE OPERATOR SHALL MAINTAIN MONTHLY RECORDS OF EXHAUST TEMPERATURE, ENGINE BACK PRESSURE, DATE AND TIME FOR THE DUTY CYCLE OF THE ENGINE AS RECORDED BY THE HIBACK DATA LOGGING AND ALARM SYSTEM FOR A MINIMUM OF FIVE YEARS. THESE RECORDS SHALL BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1470]
19. THE OPERATOR SHALL ONLY USE LOW SULFUR FUEL WITH A SULFUR CONTENT OF 15 PPM OR LESS BY WEIGHT.
[RULE 431.2, RULE 1470]
20. MATERIAL SAFETY DATA SHEETS FOR THE DIESEL FUEL USED IN THIS ENGINE SHALL BE KEPT CURRENT AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 431.2, RULE 1470]

Periodic Monitoring:

21. AN OPERATIONAL NON-RESETTABLE ELAPSED OPERATING TIME METER SHALL BE INSTALLED AND MAINTAINED TO INDICATE THE ENGINE ELAPSED OPERATING TIME.
[RULE 1110.2, RULE 1470, RULE 3004(a)(4)-Periodic Monitoring]

Emissions and Requirements:

22. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM: RULE 1470

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO OPERATE

Note: This boiler will be replaced by new boiler, A/N 509331.

Permit No. G6772
A/N 446735

Equipment Description:

BOILER, NO. 1, BABCOCK AND WILCOX, WATERTUBE TYPE, MODEL NO. FM10-70B, WITH A 63,000,000 BTU PER HOUR NATURAL GAS FIRED LOW NOX BURNER, COEN, MODEL NO. FIR-63, WITH A 40 HP COMBUSTION AIR BLOWER, 15 HP RECIRCULATION FAN AND A FORCED FLUE GAS RECIRCULATION SYSTEM.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS EQUIPMENT SHALL BE FIRED ON NATURAL GAS.
[RULE 1146]
4. THIS BOILER SHALL EMIT NO MORE THAN 30 PPM OF OXIDES OF NITROGEN, CALCULATED AS NO₂, AND 400 PPM OF CARBON MONOXIDE, ALL MEASURED BY VOLUME ON A DRY BASIS AT 3% O₂.
[RULE 1146]
5. AN OPERATIONAL NON-RESETTABLE TOTALIZING FUEL METER SHALL BE INSTALLED AND MAINTAINED ON THIS EQUIPMENT TO RECORD THE FUEL USAGE.
[RULE 1146]
6. THE FLUE GAS RECIRCULATION SYSTEM SHALL BE IN FULL OPERATION AND KEPT IN FULL OPERATION WHENEVER THE BOILER IS IN OPERATION.
[RULE 1146]
7. THE OPERATOR SHALL HAVE THE BURNER EQUIPPED WITH A CONTROL SYSTEM TO AUTOMATICALLY REGULATE THE COMBUSTION AIR, FUEL AND RECIRCULATED FLUE GAS AS THE BOILER LOAD VARIES. THE CONTROL SYSTEM SHALL BE ADJUSTED AND TUNED AT LEAST ONCE A YEAR ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS TO MAINTAIN ITS ABILITY TO REPEAT THE SAME PERFORMANCE AT THE SAME FIRING RATE.
[RULE 1146]
8. RECORDS OF SUCH ADJUSTMENTS, TUNE-UPS, AND CALIBRATIONS AS STATED IN CONDITION NO. 7 SHALL BE KEPT FOR AT LEAST TWO YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

[RULE 1146]

9. THE COMBUSTION BURNER SHALL BE INSPECTED AND MAINTAINED PER MANUFACTURER SPECIFICATIONS. RECORDS SHALL BE MAINTAINED FOR THE INSPECTIONS AND MAINTENANCE OF THE BURNER.
[RULE 1146]
10. ALL RECORDS REQUIRED BY THIS PERMIT SHALL BE KEPT FOR A MINIMUM OF TWO YEARS AND BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1146]
11. THIS BOILER SHALL BE OPERATED IN COMPLIANCE WITH THE REQUIREMENTS OF RULE 1146.
[RULE 1146]
12. THE OPERATOR SHALL COMPLY WITH RULE 218 BY OPERATING AN OXIDES OF NITROGEN CONTINUOUS EMISSIONS MONITORING SYSTEM.
[RULE 218, RULE 1146]

Emissions And Requirements:

13. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

NOX: 30 PPMV, RULE 1146
CO: 2000 PPMV, RULE 407
CO: 400 PPMV, RULE 1146
SOX: 500 PPMV, RULE 407
PM: 0.1 GR/SCF, RULE 409

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO CONSTRUCT/OPERATE

Permit No. G8582
A/N 507240

Equipment Description:

SPRAY BOOTH, BLEEKER, FLOOR TYPE, MODEL ASDS-20, 20'-0" W. X 28'-4" L. X 9'-6" H., WITH TWENTY-TWO 20" X 20" EXHAUST FILTERS AND TWO 1.5 H.P. EXHAUST FANS

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THE SPRAY BOOTH SHALL NOT BE OPERATED UNLESS ALL EXHAUST AIR PASSES THROUGH FILTER MEDIA WHICH IS AT LEAST TWO INCHES THICK.
[RULE 1303(a)(1)-BACT]
4. A GAUGE SHALL BE INSTALLED TO INDICATE, IN INCHES OF WATER, THE STATIC PRESSURE DIFFERENTIAL ACROSS THE EXHAUST FILTERS. IN OPERATION, THE PRESSURE DIFFERENTIAL SHALL NOT EXCEED 0.25 INCH OF WATER.
[RULE 1303(a)(1)-BACT]
5. THIS EQUIPMENT SHALL BE OPERATED IN COMPLIANCE WITH RULES 1107, 1136, AND 1171.
[RULE 1107, RULE 1136, RULE 1171]
6. MATERIALS USED IN THIS EQUIPMENT SHALL NOT CONTAIN ANY CARCINOGENIC AIR CONTAMINANTS IDENTIFIED IN RULE 1401, TABLE I, WITH AN EFFECTIVE DATE OF JUNE 5, 2009 OR EARLIER EXCEPT FORMALDEHYDE (CAS NO 50-00-0).
[RULE 1401]
7. THE CONCENTRATION OF FORMALDEHYDE IN THE MATERIALS USED IN THIS EQUIPMENT SHALL NOT EXCEED 1% BY WEIGHT AS SUPPLIED.
[RULE 1401]
8. THE TOTAL QUANTITY OF COATINGS AND SOLVENTS USED IN THIS EQUIPMENT AND IN ASSOCIATED OPERATIONS SHALL NOT EXCEED 6 GALLONS IN ANY ONE DAY. THIS TOTAL QUANTITY INCLUDES MATERIALS CONTAINING FORMALDEHYDE (CAS NO 50-00-0). ASSOCIATED OPERATIONS INCLUDE, BUT ARE NOT LIMITED TO, SURFACE PREPARATION, EQUIPMENT CLEAN-UP, AND THE APPLICATION OF ANY OTHER MATERIALS TO PARTS THAT ARE SUBSEQUENTLY PROCESSED IN THIS EQUIPMENT.
[RULE 1303(b)(2)-OFFSET, RULE 1401]

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

9. MATERIAL SAFETY DATA SHEETS FOR ALL MATERIALS USED AT THIS FACILITY SHALL BE KEPT CURRENT AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1401]
10. THE OPERATOR SHALL COMPLY WITH RULE 109 (RECORDKEEPING FOR VOLATILE ORGANIC COMPOUND EMISSIONS).
[RULE 109]
11. IN ADDITION TO THE RECORDKEEPING REQUIREMENTS OF RULE 109, THE OPERATOR SHALL KEEP ADEQUATE RECORDS FOR THIS EQUIPMENT TO VERIFY THE DAILY COATINGS AND SOLVENTS USAGE. THESE RECORDS SHALL BE PREPARED IN A FORMAT WHICH IS ACCEPTABLE TO THE DISTRICT.
[RULE 1303(b)(2)-OFFSET]
12. THE OPERATOR SHALL MAINTAIN A SINGLE LIST WHICH INCLUDES ONLY THE NAME AND ADDRESS OF EACH PERSON FROM WHOM THE FACILITY ACQUIRED VOC-CONTAINING MATERIAL REGULATED BY THE DISTRICT THAT WAS USED OR STORED AT THE FACILITY DURING THE PRECEDING 12 MONTHS.
[RULE 1303(b)(2)-OFFSET]
13. THE OPERATOR SHALL RETAIN ALL PURCHASE INVOICES FOR ALL VOC CONTAINING MATERIAL USED OR STORED AT THE FACILITY, AND ALL WASTE MANIFESTS FOR ALL WASTE VOC-CONTAINING MATERIAL REMOVED FROM THE FACILITY FOR 24 MONTHS.
[RULE 1303(b)(2)-OFFSET]
14. ALL RECORDS REQUIRED BY THIS PERMIT SHALL BE RETAINED AT THE FACILITY FOR AT LEAST FIVE YEARS AND MADE AVAILABLE TO ANY DISTRICT REPRESENTATIVE UPON REQUEST.
[RULE 109, RULE 1303(b)(2)-OFFSET]
15. THE OPERATOR SHALL NOT OPERATE THIS EQUIPMENT UNTIL THE OPERATION OF THE SPRAY BOOTH BEING REPLACED, PERMITTED UNDER P69655, IS SHUT DOWN.
[RULE 1304(a)(1)]

Periodic Monitoring:

16. THE OPERATOR SHALL DETERMINE AND RECORD THE PRESSURE DROP ACROSS THE FILTER MEDIA ONCE EVERY WEEK.
[RULE 3004 (a)(4)]
17. THE OPERATOR SHALL PERFORM A WEEKLY INSPECTION OF THE EQUIPMENT AND FILTER MEDIA FOR LEAKS, BROKEN OR TORN FILTER MEDIA AND IMPROPERLY INSTALLED FILTER MEDIA. THE OPERATOR SHALL KEEP RECORDS, IN A MANNER APPROVED BY THE DISTRICT, FOR THE FOLLOWING PARAMETER(S) OR ITEM(S):
 - A. THE NAME OF THE PERSON PERFORMING THE INSPECTION AND/OR MAINTENANCE OF THE FILTER MEDIA;
 - B. THE DATE, TIME AND RESULTS OF THE INSPECTION; AND

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

- C. THE DATE, TIME AND DESCRIPTION OF ANY MAINTENANCE OR REPAIRS RESULTING FROM THE INSPECTION.
[RULE 3004 (a)(4)]

Emissions and Requirements:

18. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
- VOC: RULE 109
 - VOC: RULE 1107, SEE APPENDIX B FOR EMISSION LIMITS
 - VOC: RULE 1136, SEE APPENDIX B FOR EMISSION LIMITS
 - VOC: RULE 1171, SEE APPENDIX B FOR EMISSION LIMITS
 - VOC: RULE 481

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO CONSTRUCT

Permit No. *TBD*
A/N 509331

Equipment Description:

BOILER NO. 1, CB-NEBRASKA, WATERTUBE TYPE, MODEL NO. NB-201D-55, WITH A LOW NOX BURNER, NATCOM, MODEL NO. P-67-G-29-1722, NATURAL GAS FIRED, RATED AT 66.2 MMBTU PER HOUR, FLUE GAS RECIRCULATION, AND 100 HP COMBUSTION AIR BLOWER.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS BOILER SHALL BE FIRED WITH NATURAL GAS ONLY.
[RULE 1303(a)(1)-BACT, RULE 1303(b)(2)-OFFSETS]
4. THIS BOILER SHALL EMIT NO MORE THAN 9 PPM OF OXIDES OF NITROGEN (NOX), CALCULATED AS NO₂, MEASURED BY VOLUME ON A DRY BASIS AT 3% O₂.
[RULE 1146, RULE 1303(a)(1)-BACT]
5. THIS BOILER SHALL EMIT NO MORE THAN 100 PPM OF CARBON MONOXIDE (CO), MEASURED BY VOLUME ON A DRY BASIS AT 3% O₂.
[RULE 1303(a)(1)-BACT]
6. THE FLUE GAS RECIRCULATION SYSTEM SHALL BE IN FULL USE WHENEVER THE BOILER IS IN OPERATION.
[RULE 1146, RULE 1303(a)(1)-BACT]
7. THE OPERATOR SHALL INSTALL, OPERATE, AND MAINTAIN IN CALIBRATION A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS) TO DEMONSTRATE COMPLIANCE WITH THE NOX EMISSION LIMIT IN CONDITION NO. 4. THE CEMS SHALL BE INSTALLED AND OPERATING NO LATER THAN 90 DAYS AFTER THE INITIAL START-UP OF THE BOILER, IN ACCORDANCE WITH AN APPROVED AQMD RULE 218 CEMS PLAN APPLICATION. THE OPERATOR SHALL NOT INSTALL THE CEMS PRIOR TO RECEIVING INITIAL APPROVAL FROM THE AQMD. THE CEMS SHALL UNDERGO A SERIES OF CERTIFICATION TESTS WITHIN 90 DAYS OF ITS INSTALLATION.

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

THE CEMS SHALL MEASURE AND RECORD OVER A FIFTEEN-MINUTE AVERAGING TIME PERIOD, THE NOX AND O2 CONCENTRATIONS, ON A DRY BASIS, OF THE BOILER EXHAUST. THE CEMS SHALL ALSO CONVERT THE ACTUAL NOX CONCENTRATION TO CORRECTED CONCENTRATION AT 15% OXYGEN, ON A DRY BASIS, AND CONTINUOUSLY RECORD THE CORRECTED STACK NOX CONCENTRATION. THE OPERATOR SHALL MAINTAIN MAINTENANCE AND EMISSION RECORDS.
[RULE 218, RULE 1146]

8. THE BOILER SHALL BE EQUIPPED WITH A NON-RESETTABLE TOTALIZING GAS METER TO INDICATE THE TOTAL NATURAL GAS CONSUMPTION BY THE EQUIPMENT.
[RULE 1303(b)(2)-OFFSETS, RULE 1304]
9. THE NATURAL GAS CONSUMPTION FOR THIS EQUIPMENT SHALL NOT EXCEED 42,160,000 CUBIC FEET IN ANY ONE CALENDAR MONTH.
[RULE 1303(b)(2)-OFFSETS, RULE 1304]
10. THE OWNER OR OPERATOR OF THIS EQUIPMENT SHALL CONDUCT SOURCE TESTS ON THE EQUIPMENT UNDER THE FOLLOWING CONDITIONS:
 - A. SOURCE TESTING SHALL BE CONDUCTED WITHIN 60 DAYS AFTER INITIAL START-UP OR WITHIN 60 DAYS AFTER RECEIPT OF THIS PERMIT, UNLESS OTHERWISE APPROVED IN WRITING BY THE EXECUTIVE OFFICER.
 - B. THE SOURCE TESTS SHALL BE PERFORMED TO VERIFY COMPLIANCE WITH THE NOX AND CO EMISSION LIMITS SPECIFIED IN CONDITION NOS. 4 AND 5, RESPECTIVELY.
 - C. THE SOURCE TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH SCAQMD METHOD 100.1.
 - D. THE TESTS SHALL BE CONDUCTED WHILE THE BOILER IS OPERATING AT MAXIMUM, MINIMUM, AND NORMAL FIRING RATES. THE SAMPLING TIMES SHALL BE AT LEAST 15 CONSECUTIVE MINUTES FOR MAXIMUM AND MINIMUM LOADS AND AT LEAST ONE HOUR FOR NORMAL OPERATING LOAD.
 - E. WRITTEN NOTICE OF THE SOURCE TESTS SHALL BE SUBMITTED TO THE DISTRICT (ADDRESSED TO ATTN: VICKY LEE, SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, P.O. BOX 4941, DIAMOND BAR, CA 91765) AT LEAST 14 DAYS PRIOR TO TESTING SO THAT AN OBSERVER MAY BE PRESENT.
 - F. TWO COMPLETE COPIES OF THE SOURCE TEST REPORTS SHALL BE SUBMITTED TO THE DISTRICT (ADDRESSED TO ATTN: VICKY LEE, SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, P.O. BOX 4941, DIAMOND BAR, CA 91765), REFERENCING APPLICATION NOS. 509331, 509333, AND 509334, WITHIN 45 DAYS AFTER THE TEST IS COMPLETED. THE REPORT SHALL INCLUDE, BUT NOT BE

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

LIMITED TO EMISSIONS RATES IN POUNDS PER HOUR AND CONCENTRATIONS IN PPMV AT THE OUTLET OF THE BOILER, MEASURED ON A DRY BASIS AT 3% OXYGEN. THE FOLLOWING OPERATING DATA SHALL ALSO BE INCLUDED FOR EACH FIRING RATE:

- I. THE EXHAUST FLOW RATES, IN ACTUAL CUBIC FEET PER MINUTE (ACFM),
- II. THE FIRING RATES, IN BTU PER HOUR,
- III. THE EXHAUST TEMPERATURE, IN DEGREES F,
- IV. THE OXYGEN CONTENT OF THE EXHAUST GASES, IN PERCENT, AND
- V. THE FUEL FLOW RATE.

[RULE 1146, RULE 1303(a)(1)-BACT]

11. A CONTRACTOR APPROVED UNDER THE DISTRICT LABORATORY APPROVAL PROGRAM IN THE REQUIRED TEST METHODS FOR CRITERIA POLLUTANTS TO BE MEASURED, AND IN COMPLIANCE WITH RULE 304 (NO CONFLICT OF INTEREST) SHALL CONDUCT THE TESTS.
[RULE 304, RULE 1146]
12. SAMPLING FACILITIES SHALL COMPLY WITH THE DISTRICT GUIDELINES FOR CONSTRUCTION OF SAMPLING AND TESTING FACILITIES, PURSUANT TO RULE 217.
[RULE 217]
13. THIS BOILER SHALL BE OPERATED IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS OF RULE 1146.
[RULE 1146]
14. THE OPERATOR SHALL MAINTAIN ADEQUATE RECORDS TO VERIFY COMPLIANCE WITH ALL CONDITIONS SPECIFIED IN THIS PERMIT. ALL RECORDS REQUIRED BY THIS PERMIT SHALL BE RETAINED AT THE FACILITY FOR A MINIMUM OF FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 3004]
15. THE OPERATOR SHALL NOT OPERATE THIS EQUIPMENT UNTIL THE OPERATION OF THE BOILER BEING REPLACED, PERMITTED UNDER G6772 IS PERMANENTLY REMOVED FROM SERVICE.
[RULE 1304(c)(2)]

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

Emissions and Requirements:

16. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

NO_x: 9 PPMV, RULE 1146
CO: 400 PPMV, RULE 1146
CO: 2000 PPMV, RULE 407
SO_x: 500 PPMV, RULE 407
PM: 0.1 GR/SCF, RULE 409

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO CONSTRUCT

Permit No. *TBD*
A/N 509333

Equipment Description:

BOILER NO. 2, CB-NEBRASKA, WATERTUBE TYPE, MODEL NO. NB-201D-55, WITH A LOW NOX BURNER, NATCOM, MODEL NO. P-67-G-29-1722, NATURAL GAS FIRED, RATED AT 66.2 MMBTU PER HOUR, FLUE GAS RECIRCULATION, AND 100 HP COMBUSTION AIR BLOWER.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS BOILER SHALL BE FIRED WITH NATURAL GAS ONLY.
[RULE 1303(a)(1)-BACT, RULE 1303(b)(2)-OFFSETS]
4. THIS BOILER SHALL EMIT NO MORE THAN 9 PPM OF OXIDES OF NITROGEN (NOX), CALCULATED AS NO₂, MEASURED BY VOLUME ON A DRY BASIS AT 3% O₂.
[RULE 1146, RULE 1303(a)(1)-BACT]
5. THIS BOILER SHALL EMIT NO MORE THAN 100 PPM OF CARBON MONOXIDE (CO), MEASURED BY VOLUME ON A DRY BASIS AT 3% O₂.
[RULE 1303(a)(1)-BACT]
6. THE FLUE GAS RECIRCULATION SYSTEM SHALL BE IN FULL USE WHENEVER THE BOILER IS IN OPERATION.
[RULE 1146, RULE 1303(a)(1)-BACT]
7. THE OPERATOR SHALL INSTALL, OPERATE, AND MAINTAIN IN CALIBRATION A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS) TO DEMONSTRATE COMPLIANCE WITH THE NOX EMISSION LIMIT IN CONDITION NO. 4. THE CEMS SHALL BE INSTALLED AND OPERATING NO LATER THAN 90 DAYS AFTER THE INITIAL START-UP OF THE BOILER, IN ACCORDANCE WITH AN APPROVED AQMD RULE 218 CEMS PLAN APPLICATION. THE OPERATOR SHALL NOT INSTALL THE CEMS PRIOR TO RECEIVING INITIAL APPROVAL FROM THE AQMD. THE CEMS SHALL UNDERGO A SERIES OF CERTIFICATION TESTS WITHIN 90 DAYS OF ITS INSTALLATION.

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

THE CEMS SHALL MEASURE AND RECORD OVER A FIFTEEN-MINUTE AVERAGING TIME PERIOD, THE NOX AND O2 CONCENTRATIONS, ON A DRY BASIS, OF THE BOILER EXHAUST. THE CEMS SHALL ALSO CONVERT THE ACTUAL NOX CONCENTRATION TO CORRECTED CONCENTRATION AT 15% OXYGEN, ON A DRY BASIS, AND CONTINUOUSLY RECORD THE CORRECTED STACK NOX CONCENTRATION. THE OPERATOR SHALL MAINTAIN MAINTENANCE AND EMISSION RECORDS.
[RULE 218, RULE 1146]

8. THE BOILER SHALL BE EQUIPPED WITH A NON-RESETTABLE TOTALIZING GAS METER TO INDICATE THE TOTAL NATURAL GAS CONSUMPTION BY THE EQUIPMENT.
[RULE 1303(b)(2)-OFFSETS, RULE 1304]
9. THE NATURAL GAS CONSUMPTION FOR THIS EQUIPMENT SHALL NOT EXCEED 42,160,000 CUBIC FEET IN ANY ONE CALENDAR MONTH.
[RULE 1303(b)(2)-OFFSETS, RULE 1304]
10. THE OWNER OR OPERATOR OF THIS EQUIPMENT SHALL CONDUCT SOURCE TESTS ON THE EQUIPMENT UNDER THE FOLLOWING CONDITIONS:
 - A. SOURCE TESTING SHALL BE CONDUCTED WITHIN 60 DAYS AFTER INITIAL START-UP OR WITHIN 60 DAYS AFTER RECEIPT OF THIS PERMIT, UNLESS OTHERWISE APPROVED IN WRITING BY THE EXECUTIVE OFFICER.
 - B. THE SOURCE TESTS SHALL BE PERFORMED TO VERIFY COMPLIANCE WITH THE NOX AND CO EMISSION LIMITS SPECIFIED IN CONDITION NOS. 4 AND 5, RESPECTIVELY.
 - C. THE SOURCE TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH SCAQMD METHOD 100.1.
 - D. THE TESTS SHALL BE CONDUCTED WHILE THE BOILER IS OPERATING AT MAXIMUM, MINIMUM, AND NORMAL FIRING RATES. THE SAMPLING TIMES SHALL BE AT LEAST 15 CONSECUTIVE MINUTES FOR MAXIMUM AND MINIMUM LOADS AND AT LEAST ONE HOUR FOR NORMAL OPERATING LOAD.
 - E. WRITTEN NOTICE OF THE SOURCE TESTS SHALL BE SUBMITTED TO THE DISTRICT (ADDRESSED TO ATTN: VICKY LEE, SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, P.O. BOX 4941, DIAMOND BAR, CA 91765) AT LEAST 14 DAYS PRIOR TO TESTING SO THAT AN OBSERVER MAY BE PRESENT.
 - F. TWO COMPLETE COPIES OF THE SOURCE TEST REPORTS SHALL BE SUBMITTED TO THE DISTRICT (ADDRESSED TO ATTN: VICKY LEE, SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, P.O. BOX 4941, DIAMOND BAR, CA 91765), REFERENCING APPLICATION NOS. 509331, 509333, AND 509334, WITHIN 45 DAYS AFTER THE TEST IS COMPLETED. THE REPORT SHALL INCLUDE, BUT NOT BE

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

LIMITED TO EMISSIONS RATES IN POUNDS PER HOUR AND CONCENTRATIONS IN PPMV AT THE OUTLET OF THE BOILER, MEASURED ON A DRY BASIS AT 3% OXYGEN. THE FOLLOWING OPERATING DATA SHALL ALSO BE INCLUDED FOR EACH FIRING RATE:

- I. THE EXHAUST FLOW RATES, IN ACTUAL CUBIC FEET PER MINUTE (ACFM),
- II. THE FIRING RATES, IN BTU PER HOUR,
- III. THE EXHAUST TEMPERATURE, IN DEGREES F,
- IV. THE OXYGEN CONTENT OF THE EXHAUST GASES, IN PERCENT, AND
- V. THE FUEL FLOW RATE.

[RULE 1146, RULE 1303(a)(1)-BACT]

11. A CONTRACTOR APPROVED UNDER THE DISTRICT LABORATORY APPROVAL PROGRAM IN THE REQUIRED TEST METHODS FOR CRITERIA POLLUTANTS TO BE MEASURED, AND IN COMPLIANCE WITH RULE 304 (NO CONFLICT OF INTEREST) SHALL CONDUCT THE TESTS.
[RULE 304, RULE 1146]
12. SAMPLING FACILITIES SHALL COMPLY WITH THE DISTRICT GUIDELINES FOR CONSTRUCTION OF SAMPLING AND TESTING FACILITIES, PURSUANT TO RULE 217.
[RULE 217]
13. THIS BOILER SHALL BE OPERATED IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS OF RULE 1146.
[RULE 1146]
14. THE OPERATOR SHALL MAINTAIN ADEQUATE RECORDS TO VERIFY COMPLIANCE WITH ALL CONDITIONS SPECIFIED IN THIS PERMIT. ALL RECORDS REQUIRED BY THIS PERMIT SHALL BE RETAINED AT THE FACILITY FOR A MINIMUM OF FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 3004]
15. THE OPERATOR SHALL NOT OPERATE THIS EQUIPMENT UNTIL THE OPERATION OF THE BOILER BEING REPLACED, PERMITTED UNDER F53892 IS PERMANENTLY REMOVED FROM SERVICE.
[RULE 1304(c)(2)]

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

Emissions and Requirements:

16. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

NO_x: 9 PPMV, RULE 1146
CO: 400 PPMV, RULE 1146
CO: 2000 PPMV, RULE 407
SO_x: 500 PPMV, RULE 407
PM: 0.1 GR/SCF, RULE 409

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

PERMIT TO CONSTRUCT

Permit No. *TBD*
A/N 509334

Equipment Description:

BOILER NO. 3, CB-NEBRASKA, WATERTUBE TYPE, MODEL NO. NB-201D-55, WITH A LOW NOX BURNER, NATCOM, MODEL NO. P-67-G-29-1722, NATURAL GAS FIRED, RATED AT 66.2 MMBTU PER HOUR, FLUE GAS RECIRCULATION, AND 100 HP COMBUSTION AIR BLOWER.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS BOILER SHALL BE FIRED WITH NATURAL GAS ONLY.
[RULE 1303(a)(1)-BACT, RULE 1303(b)(2)-OFFSETS]
4. THIS BOILER SHALL EMIT NO MORE THAN 9 PPM OF OXIDES OF NITROGEN (NOX), CALCULATED AS NO₂, MEASURED BY VOLUME ON A DRY BASIS AT 3% O₂.
[RULE 1146, RULE 1303(a)(1)-BACT]
5. THIS BOILER SHALL EMIT NO MORE THAN 100 PPM OF CARBON MONOXIDE (CO), MEASURED BY VOLUME ON A DRY BASIS AT 3% O₂.
[RULE 1303(a)(1)-BACT]
6. THE FLUE GAS RECIRCULATION SYSTEM SHALL BE IN FULL USE WHENEVER THE BOILER IS IN OPERATION.
[RULE 1146, RULE 1303(a)(1)-BACT]
7. THE OPERATOR SHALL INSTALL, OPERATE, AND MAINTAIN IN CALIBRATION A CONTINUOUS EMISSIONS MONITORING SYSTEM (CEMS) TO DEMONSTRATE COMPLIANCE WITH THE NOX EMISSION LIMIT IN CONDITION NO. 4. THE CEMS SHALL BE INSTALLED AND OPERATING NO LATER THAN 90 DAYS AFTER THE INITIAL START-UP OF THE BOILER, IN ACCORDANCE WITH AN APPROVED AQMD RULE 218 CEMS PLAN APPLICATION. THE OPERATOR SHALL NOT INSTALL THE CEMS PRIOR TO RECEIVING INITIAL APPROVAL FROM THE AQMD. THE CEMS SHALL UNDERGO A SERIES OF CERTIFICATION TESTS WITHIN 90 DAYS OF ITS INSTALLATION.

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

THE CEMS SHALL MEASURE AND RECORD OVER A FIFTEEN-MINUTE AVERAGING TIME PERIOD, THE NOX AND O2 CONCENTRATIONS, ON A DRY BASIS, OF THE BOILER EXHAUST. THE CEMS SHALL ALSO CONVERT THE ACTUAL NOX CONCENTRATION TO CORRECTED CONCENTRATION AT 15% OXYGEN, ON A DRY BASIS, AND CONTINUOUSLY RECORD THE CORRECTED STACK NOX CONCENTRATION. THE OPERATOR SHALL MAINTAIN MAINTENANCE AND EMISSION RECORDS.
[RULE 218, RULE 1146]

8. THE BOILER SHALL BE EQUIPPED WITH A NON-RESETTABLE TOTALIZING GAS METER TO INDICATE THE TOTAL NATURAL GAS CONSUMPTION BY THE EQUIPMENT.
[RULE 1303(b)(2)-OFFSETS, RULE 1304]
9. THE NATURAL GAS CONSUMPTION FOR THIS EQUIPMENT SHALL NOT EXCEED 42,160,000 CUBIC FEET IN ANY ONE CALENDAR MONTH.
[RULE 1303(b)(2)-OFFSETS, RULE 1304]
10. THE OWNER OR OPERATOR OF THIS EQUIPMENT SHALL CONDUCT SOURCE TESTS ON THE EQUIPMENT UNDER THE FOLLOWING CONDITIONS:
 - A. SOURCE TESTING SHALL BE CONDUCTED WITHIN 60 DAYS AFTER INITIAL START-UP OR WITHIN 60 DAYS AFTER RECEIPT OF THIS PERMIT, UNLESS OTHERWISE APPROVED IN WRITING BY THE EXECUTIVE OFFICER.
 - B. THE SOURCE TESTS SHALL BE PERFORMED TO VERIFY COMPLIANCE WITH THE NOX AND CO EMISSION LIMITS SPECIFIED IN CONDITION NOS. 4 AND 5, RESPECTIVELY.
 - C. THE SOURCE TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH SCAQMD METHOD 100.1.
 - D. THE TESTS SHALL BE CONDUCTED WHILE THE BOILER IS OPERATING AT MAXIMUM, MINIMUM, AND NORMAL FIRING RATES. THE SAMPLING TIMES SHALL BE AT LEAST 15 CONSECUTIVE MINUTES FOR MAXIMUM AND MINIMUM LOADS AND AT LEAST ONE HOUR FOR NORMAL OPERATING LOAD.
 - E. WRITTEN NOTICE OF THE SOURCE TESTS SHALL BE SUBMITTED TO THE DISTRICT (ADDRESSED TO ATTN: VICKY LEE, SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, P.O. BOX 4941, DIAMOND BAR, CA 91765) AT LEAST 14 DAYS PRIOR TO TESTING SO THAT AN OBSERVER MAY BE PRESENT.
 - F. TWO COMPLETE COPIES OF THE SOURCE TEST REPORTS SHALL BE SUBMITTED TO THE DISTRICT (ADDRESSED TO ATTN: VICKY LEE, SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, P.O. BOX 4941, DIAMOND BAR, CA 91765), REFERENCING APPLICATION NOS. 509331, 509333, AND 509334, WITHIN 45 DAYS AFTER THE TEST IS COMPLETED. THE REPORT SHALL INCLUDE, BUT NOT BE

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

LIMITED TO EMISSIONS RATES IN POUNDS PER HOUR AND CONCENTRATIONS IN PPMV AT THE OUTLET OF THE BOILER, MEASURED ON A DRY BASIS AT 3% OXYGEN. THE FOLLOWING OPERATING DATA SHALL ALSO BE INCLUDED FOR EACH FIRING RATE:

- I. THE EXHAUST FLOW RATES, IN ACTUAL CUBIC FEET PER MINUTE (ACFM),
- II. THE FIRING RATES, IN BTU PER HOUR,
- III. THE EXHAUST TEMPERATURE, IN DEGREES F,
- IV. THE OXYGEN CONTENT OF THE EXHAUST GASES, IN PERCENT, AND
- V. THE FUEL FLOW RATE.

[RULE 1146, RULE 1303(a)(1)-BACT]

11. A CONTRACTOR APPROVED UNDER THE DISTRICT LABORATORY APPROVAL PROGRAM IN THE REQUIRED TEST METHODS FOR CRITERIA POLLUTANTS TO BE MEASURED, AND IN COMPLIANCE WITH RULE 304 (NO CONFLICT OF INTEREST) SHALL CONDUCT THE TESTS.
[RULE 304, RULE 1146]
12. SAMPLING FACILITIES SHALL COMPLY WITH THE DISTRICT GUIDELINES FOR CONSTRUCTION OF SAMPLING AND TESTING FACILITIES, PURSUANT TO RULE 217.
[RULE 217]
13. THIS BOILER SHALL BE OPERATED IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS OF RULE 1146.
[RULE 1146]
14. THE OPERATOR SHALL MAINTAIN ADEQUATE RECORDS TO VERIFY COMPLIANCE WITH ALL CONDITIONS SPECIFIED IN THIS PERMIT. ALL RECORDS REQUIRED BY THIS PERMIT SHALL BE RETAINED AT THE FACILITY FOR A MINIMUM OF FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 3004]
15. THE OPERATOR SHALL NOT OPERATE THIS EQUIPMENT UNTIL THE OPERATION OF THE BOILER BEING REPLACED, PERMITTED UNDER F53899 IS PERMANENTLY REMOVED FROM SERVICE.
[RULE 1304(c)(2)]

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

Emissions and Requirements:

16. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

NO_x: 9 PPMV, RULE 1146
CO: 400 PPMV, RULE 1146
CO: 2000 PPMV, RULE 407
SO_x: 500 PPMV, RULE 407
PM: 0.1 GR/SCF, RULE 409

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

RULE 219 EQUIPMENT

Equipment Description:

RULE 219 EXEMPT EQUIPMENT, REFRIGERATION UNITS

Emissions And Requirements:

1. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

REFRIGERANT:	RULE 1415
REFRIGERANT:	40CFR 82 SUBPART F

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

RULE 219 EQUIPMENT

Equipment Description:

RULE 219 EXEMPT EQUIPMENT, REFRIGERANT RECOVERY AND/OR RECYCLING UNITS.

Emissions And Requirements:

1. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
REFRIGERANT: RULE 1411
REFRIGERANT: 40CFR 82 SUBPART B

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

RULE 219 EQUIPMENT

Equipment Description:

RULE 219 EXEMPT EQUIPMENT, COATING EQUIPMENT, LOW USE OR EMISSIONS

Emissions And Requirements:

1. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

VOC: RULE 1171, SEE APPENDIX B FOR EMISSION LIMITS

VOC: RULE 1136, SEE APPENDIX B FOR EMISSION LIMITS

VOC: RULE 109

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

RULE 219 EQUIPMENT

Equipment Description:

RULE 219 EXEMPT EQUIPMENT, BOILER, > 400,000 BTU/HR BUT < 2 MMBTU/HR.

Emissions And Requirements:

1. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

PM: 0.1 gr/scf, RULE 409
NOx: 30 PPMV, RULE 1146.2
CO: 400 PPMV, RULE 1146.2
CO: 2000 PPMV, RULE 407

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

RULE 219 EQUIPMENT

Equipment Description:

RULE 219 EXEMPT EQUIPMENT, FIRE EXTINGUISHING EQUIPMENT

Emissions And Requirements:

1. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

HALON: RULE 1418

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

RULE 219 EQUIPMENT

Equipment Description:

RULE 219 EXEMPT EQUIPMENT, PRINTING EQUIPMENT, LOW USE OR EMISSIONS, WITH RELATED COATING, LAMINATING AND DRYING EQUIPMENT.

Emissions And Requirements:

1. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

VOC: RULE 1130, SEE APPENDIX B FOR EMISSION LIMITS
VOC: RULE 1171, SEE APPENDIX B FOR EMISSION LIMITS

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

RULE 219 EQUIPMENT

Equipment Description:

RULE 219 EXEMPT EQUIPMENT, COATING EQUIPMENT, PORTABLE, ARCHITECTURAL COATINGS.

Periodic Monitoring:

1. THE OPERATOR SHALL KEEP RECORDS, IN A MANNER APPROVED BY THE DISTRICT, FOR THE FOLLOWING PARAMETER(S) OR ITEM(S):
FOR ARCHITECTURAL APPLICATIONS WHERE NO THINNERS, REDUCERS, OR OTHER VOC CONTAINING MATERIALS ARE ADDED, MAINTAIN SEMI-ANNUAL RECORDS OF ALL COATINGS CONSISTING OF (a) COATING TYPE, (b) VOC CONTENT AS SUPPLIED IN GRAMS PER LITER (g/l) OF MATERIALS FOR LOW-SOLIDS COATINGS, (c) VOC CONTENT AS SUPPLIED IN g/l OF COATING, LESS WATER AND EXEMPT SOLVENT, FOR OTHER COATING.
FOR OTHER ARCHITECTURAL APPLICATIONS WHERE THINNERS, REDUCERS, OR OTHER VOC CONTAINING MATERIALS ARE ADDED, MAINTAIN DAILY RECORDS FOR EACH COATING CONSISTING OF (a) COATING TYPE, (b) VOC CONTENT AS APPLIED IN GRAMS PER LITER (g/l) OF MATERIALS USED FOR LOW-SOLIDS COATINGS, (c) VOC CONTENT AS APPLIED IN g/l OF COATING, LESS WATER AND EXEMPT SOLVENT, FOR OTHER COATING.

[RULE 3004 (a) (4)]

Emissions And Requirements:

2. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
VOC: RULE 1113, SEE APPENDIX B FOR EMISSION LIMITS
VOC: RULE 1171, SEE APPENDIX B FOR EMISSION LIMITS

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

RULE 219 EQUIPMENT

Equipment Description:

RULE 219 EXEMPT EQUIPMENT, NEGATIVE AIR MACHINES

Periodic Monitoring:

1. FOR EACH COMMERCIAL ABATEMENT PROJECT, THE NEGATIVE AIR MACHINE(S) EXHAUST SHALL BE LOCATED A MINIMUM OF 3 METERS (10 FEET) FROM THE NEAREST RECEPTOR (ANY LOCATION WHERE THE PUBLIC CAN BE EXPOSED TO ASBESTOS FIBER EMISSIONS) AND SHALL BE LOCATED AT LEAST 10 FEET ABOVE THE GROUND.
[RULE 1403]
2. FOR EACH COMMERCIAL ABATEMENT PROJECT, LOCATED MORE THAN 3 METERS (10 FEET) BUT LESS THAN 30 METERS (98 FEET) FROM ANY RESIDENTIAL ZONING, THE NEGATIVE AIR MACHINE(S) SHALL NOT EXHAUST MORE THAN A COMBINED TOTAL OF 4.8 MILLION CUBIC FEET OF AIR (THE TOTAL RATED AIR FLOW OF ALL MACHINE(S) IN CUBIC FEET PER MINUTE MULTIPLIED BY THE TOTAL NUMBER OF WORKING HOURS INVOLVING ASBESTOS REMOVAL).
[RULE 1403]
3. FOR EACH COMMERCIAL ABATEMENT PROJECT, LOCATED GREATER THAN OR EQUAL TO 30 METERS (98 FEET) FROM ANY RESIDENTIAL ZONING, THE NEGATIVE AIR MACHINE(S) SHALL NOT EXHAUST AIR IN WHICH THE COMBINED TOTAL AIR VOLUME (THE TOTAL RATED AIR FLOW OF ALL MACHINE(S) IN CUBIC FEET PER MINUTE MULTIPLIED BY THE TOTAL NUMBER OF WORKING HOURS INVOLVING ASBESTOS REMOVAL) WILL EXCEED THE AMOUNT SPECIFIED ON TABLE 1.
[RULE 1403]

Emissions And Requirements:

4. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

ASBESTOS: RULE 1403