



# South Coast Air Quality Management District

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

September 14, 2011

Mr. Gerardo Rios  
Chief - Permit Office  
US EPA, Region IX Air 3  
75 Hawthorne Street  
San Francisco, CA 94105

Dear Mr. Rios:

**Subject: Transmittal of Proposed Title V Renewal Permit  
California Institute of Technology ID 800387**

Enclosed are the proposed Title V renewal permit, permit summary, statement of basis, public notice, and the permit application for California Institute of Technology, located at 650 S. Wilson, Pasadena, CA 91106. With your receipt of the proposed Title V renewal permit, we will note that the EPA's 45-day review period will begin on September 14, 2011.

If you have any questions concerning the proposed Title V renewal permit, please contact Ms. Vicky Lee, Air Quality Engineer, at (909) 396-2284 or by e-mail at vlee1@aqmd.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Brian L. Yeh', is written over a large, light-colored scribble or watermark.

Brian L. Yeh  
Senior Manager  
Mechanical, Chemical, and Public Services

BLY:AYL:JTY:VL

**Enclosures:**

Proposed Title V Renewal Permit  
Permit Summary  
Statement of Basis  
Public Notice  
Permit Application

## **FACILITY PERMIT TO OPERATE**

**CAL INST OF TECH  
650 S WILSON  
PASADENA, CA 91106**

### **NOTICE**

IN ACCORDANCE WITH RULE 206, THIS PERMIT TO OPERATE OR A COPY THEREOF MUST BE KEPT AT THE LOCATION FOR WHICH IT IS ISSUED.

THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA OR THE RULES OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT. THIS PERMIT SHALL NOT BE CONSTRUED AS PERMISSION TO VIOLATE EXISTING LAWS, ORDINANCES, REGULATIONS OR STATUTES OF ANY OTHER FEDERAL, STATE OR LOCAL GOVERNMENTAL AGENCIES.

Barry R. Wallerstein, D. Env.  
EXECUTIVE OFFICER

By \_\_\_\_\_  
Mohsen Nazemi, P.E.  
Deputy Executive Officer  
Engineering & Compliance

## FACILITY PERMIT TO OPERATE CAL INST OF TECH

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**FACILITY PERMIT TO OPERATE  
 CAL INST OF TECH**

**SECTION A: FACILITY INFORMATION**

**LEGAL OWNER &/OR OPERATOR:** CAL INST OF TECH

**LEGAL OPERATOR (if different than owner):**

**EQUIPMENT LOCATION:** 650 S WILSON  
 PASADENA, CA 91106

**MAILING ADDRESS:** 1200 E CALIFORNIA BLVD  
 PASADENA, CA 91125

**RESPONSIBLE OFFICIAL:** WILLIAM J. IRWIN

**TITLE:** SENIOR DIRECTOR OF FACILITIES  
 MANAGEMENT

**TELEPHONE NUMBER:** (626) 395-3727

**CONTACT PERSON:** ART SEIDEN

**TITLE:** SAFETY ENGINEER

**TELEPHONE NUMBER:** (626) 395-2425

**TITLE V PERMIT ISSUED:** November 28, 2006

**TITLE V PERMIT EXPIRATION DATE:** November 27, 2011

TITLE V		RECLAIM	
YES	NOx:	NO	
	SOx:	NO	
	CYCLE:	0	
	ZONE:	COASTAL	

**FACILITY PERMIT TO OPERATE  
CAL INST OF TECH**

**SECTION B: RECLAIM ANNUAL EMISSION ALLOCATION**

**NOT APPLICABLE**

**FACILITY PERMIT TO OPERATE  
CAL INST OF TECH**

**SECTION C: FACILITY PLOT PLAN**

**(TO BE DEVELOPED)**

## 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
222134	D22764	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
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
502626	G10255	I C E (50-500 HP) EM ELEC GEN-DIESEL
509331		BOILER (>50 MMBTU/HR) NAT GAS ONLY
509333		BOILER (>50 MMBTU/HR) NAT GAS ONLY
509334		BOILER (>50 MMBTU/HR) NAT GAS ONLY

**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 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

### 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 USE FUEL OIL CONTAINING SULFUR COMPOUNDS IN EXCESS OF 0.05 PERCENT BY WEIGHT.  
[RULE 431.2]
3. AFTER JUNE 1, 2004, THE OPERATOR SHALL NOT PURCHASE ANY DIESEL FUEL UNLESS THE FUEL IS LOW SULFUR DIESEL FOR WHICH THE SULFUR CONTENT SHALL NOT EXCEED 15 PPM BY WEIGHT AS SUPPLIED BY THE SUPPLIER.  
[RULE 431.2]
4. THE OPERATOR SHALL NOT USE NATURAL GAS CONTAINING SULFUR COMPOUNDS, CALCULATED AS H<sub>2</sub>S, IN EXCESS OF 16 PARTS PER MILLION BY VOLUME (PPMV). THE OPERATOR SHALL NOT USE OTHER GASEOUS FUELS CONTAINING SULFUR COMPOUNDS, CALCULATED AS H<sub>2</sub>S, IN EXCESS OF 40 PPMV AS MEASURED OVER 4 HOURS AVERAGING PERIOD.  
[RULE 431.1]

## 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. 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]

## FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

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 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

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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-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. 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-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. 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-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. 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-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

*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 NO<sub>2</sub> AND 400 PPM OF CARBON MONOXIDE (CO), ALL MEASURED BY VOLUME, ON A DRY BASIS, AT 3% O<sub>2</sub>.  
[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% O<sub>2</sub>  
 CO : 6 PPMV @ 15% O<sub>2</sub>  
 ROG : 4.5 PPMV @ 15% O<sub>2</sub>

[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<sub>x</sub> CONCENTRATION IN PPMV.

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

THE CEMS WILL CONVERT THE ACTUAL CO AND NO<sub>x</sub> CONCENTRATIONS TO MASS EMISSION RATES (LBS/HR) AND RECORD THE HOURLY EMISSION RATES ON A CONTINUOUS BASIS.

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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<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> 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) NH<sub>3</sub> EMISSIONS FROM THIS EQUIPMENT SHALL NOT EXCEED 5 PPMV @ 15% O<sub>2</sub>.  
[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
NH <sub>3</sub> 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,

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- 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](mailto: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]

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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](mailto: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.

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[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 NO<sub>2</sub>, AND 400 PPM OF CARBON MONOXIDE, ALL MEASURED BY VOLUME ON A DRY BASIS AT 3% O<sub>2</sub>.  
[RULE 1146]
5. AN OPERATIONAL NON-RESETTING 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 OPERATE

Permit No. G10255  
A/N 502626

#### Equipment Description:

INTERNAL COMBUSTION ENGINE, CUMMINS, MODEL NO. QST30-G5, DIESEL-FUELED, FOUR- CYCLE, 12 CYLINDERS, TURBOCHARGED, AFTERCOOLED, RATED AT 1490 BHP, EQUIPPED WITH A DIESEL PARTICULATE FILTER SYSTEM, CLEANAIR SYSTEMS, MODEL PERMIT™, AND A HIBACK DATA LOGGING AND ALARM SYSTEM WITH BACK PRESSURE MONITOR, DRIVING AN EMERGENCY ELECTRICAL GENERATOR, 1000 KW (SCHLINGER LABORATORY).

#### 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 COMPLY WITH ALL APPLICABLE REQUIREMENTS OF RULE 431.2 AND RULE 1470.  
[RULE 431.2, RULE 1470]
4. THIS ENGINE SHALL NOT BE OPERATED MORE THAN 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 50 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING AND NO MORE THAN 4.2 HOURS IN ANY ONE MONTH FOR MAINTENANCE AND TESTING.  
[RULE 1110.2, RULE 1470, RULE 1303(a)(1)-BACT, RULE 1304(a)(4)]
5. OPERATING BEYOND THE 50 HOURS PER YEAR ALLOTTED FOR MAINTENANCE AND TESTING PURPOSES 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 1470]
6. AN OPERATIONAL NON-RESETTABLE ELAPSED TIME METER SHALL BE INSTALLED AND MAINTAINED TO INDICATE THE ENGINE ELAPSED OPERATING TIME.  
[RULE 1110.2, RULE 1470, RULE 1303(a)(1)-BACT, RULE 1304(a)(4)]

## FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

7. AN ENGINE OPERATING LOG SHALL BE KEPT AND MAINTAINED, DOCUMENTING THE TOTAL TIME THE ENGINE IS OPERATED EACH MONTH AND SPECIFIC REASON FOR OPERATION AS:
- A. EMERGENCY USE.
  - B. MAINTENANCE AND TESTING.
  - C. OTHER (DESCRIBE THE REASON FOR OPERATING).

IN ADDITION, EACH TIME THE ENGINE IS MANUALLY STARTED, THE LOG SHALL INCLUDE THE DATE OF OPERATION, THE SPECIFIC REASON FOR OPERATION, AND THE TOTALIZING HOUR METER READING (IN HOURS AND TENTHS OF HOURS) AT THE BEGINNING AND END OF OPERATION.

[RULE 1110.2, RULE 1470]

8. ON OR BEFORE JANUARY 15TH OF EACH YEAR, THE OPERATOR SHALL RECORD IN THE ENGINE OPERATING LOG THE FOLLOWING:
- A. THE TOTAL HOURS OF OPERATION FOR THE PREVIOUS CALENDAR YEAR, AND
  - B. THE TOTAL HOURS OF ENGINE OPERATION FOR MAINTENANCE AND TESTING FOR THE PREVIOUS CALENDAR YEAR.

THE ENGINE OPERATING LOG SHALL BE RETAINED ON SITE FOR A MINIMUM OF FIVE CALENDAR YEARS AND SHALL BE MADE AVAILABLE TO THE EXECUTIVE OFFICER OR REPRESENTATIVE UPON REQUEST.

[RULE 1110.2, RULE 1470, RULE 3004]

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 1303(a)(1)-BACT]
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 1303(a)(1)-BACT]
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 32 INCHES OF WATER. IN OPERATION, THE ENGINE BACKPRESSURE SHALL NOT EXCEED 32 INCHES OF WATER.  
[RULE 1303(a)(1)-BACT]
12. THE ENGINE SHALL BE OPERATED AT THE LOAD LEVEL REQUIRED TO ACHIEVE AN ENGINE EXHAUST GAS TEMPERATURE OF 662 DEGREES FAHRENHEIT (350 DEGREES CENTIGRADE) FOR PASSIVE REGENERATION OF THE DIESEL PARTICULATE FILTER FOR AT LEAST 30% OF THE OPERATING TIME.  
[RULE 1303(a)(1)-BACT]
13. THIS ENGINE SHALL NOT BE OPERATED BELOW THE PASSIVE REGENERATION TEMPERATURE SPECIFIED IN CONDITION NO. 12 FOR MORE THAN 240 CONSECUTIVE MINUTES.  
[RULE 1303(a)(1)-BACT]

## FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

14. THE OPERATOR SHALL REGENERATE THE DIESEL PARTICULATE FILTER AFTER EVERY 12 COLD STARTS OR WHENEVER A YELLOW WARNING SIGNAL INDICATING THE BACKPRESSURE IS 26 INCHES OF WATER 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 REQUIRED TO ACHIEVE AN EXHAUST TEMPERATURE ABOVE 662 DEGREES FAHRENHEIT (350 DEGREES C) UNTIL THE BACKPRESSURE MONITORING SYSTEM INDICATES A NORMAL BACK PRESSURE READING.  
[RULE 1303(a)(1)-BACT]
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 1303(a)(1)-BACT]
16. AFTER EVERY 2500 HOURS OF NORMAL ENGINE OPERATION, THE OPERATOR SHALL INSPECT THE INTEGRITY OF THE DIESEL PARTICULATE FILTER AND, IF NECESSARY, REPLACE IT.  
[RULE 1303(a)(1)-BACT]
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 1303(a)(1)-BACT, RULE 3004]
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 1303(a)(1)-BACT, RULE 3004]

### **Emissions and Requirements:**

19. 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

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 NO<sub>2</sub>, MEASURED BY VOLUME ON A DRY BASIS AT 3% O<sub>2</sub>.  
[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% O<sub>2</sub>.  
[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<sub>x</sub>: 9 PPMV, RULE 1146  
CO: 400 PPMV, RULE 1146  
CO: 2000 PPMV, RULE 407  
SO<sub>x</sub>: 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 NO<sub>2</sub>, MEASURED BY VOLUME ON A DRY BASIS AT 3% O<sub>2</sub>.  
[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% O<sub>2</sub>.  
[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<sub>x</sub>: 9 PPMV, RULE 1146  
CO: 400 PPMV, RULE 1146  
CO: 2000 PPMV, RULE 407  
SO<sub>x</sub>: 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 NO<sub>2</sub>, MEASURED BY VOLUME ON A DRY BASIS AT 3% O<sub>2</sub>.  
[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% O<sub>2</sub>.  
[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.

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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<sub>x</sub>: 9 PPMV, RULE 1146  
CO: 400 PPMV, RULE 1146  
CO: 2000 PPMV, RULE 407  
SO<sub>x</sub>: 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, AIR CONDITIONING 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, 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, HALON FIRE EXTINGUISHING EQUIPMENT

**Emissions And Requirements:**

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

HALON: RULE 1418  
HALON: 40 CFR 82 SUBPART H

## **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  
ASBESTOS: 40 CFR 61 SUBPART M

## **FACILITY PERMIT TO OPERATE CAL INST OF TECH**

### **SECTION E: ADMINISTRATIVE CONDITIONS**

The operating conditions in this section shall apply to all permitted equipment at this facility unless superseded by condition(s) listed elsewhere in this permit.

1. The permit shall remain effective unless this permit is suspended, revoked, modified, reissued, denied, or it is expired for nonpayment of permit processing or annual operating fees. [201, 203, 209, 301]
  - a. The permit must be renewed annually by paying annual operating fees, and the permit shall expire if annual operating fees are not paid pursuant to requirements of Rule 301(d). [301(d)]
  - b. The Permit to Construct listed in Section H shall expire one year from the Permit to Construct issuance date, unless a Permit to Construct extension has been granted by the Executive Officer or unless the equipment has been constructed and the operator has notified the Executive Officer prior to the operation of the equipment, in which case the Permit to Construct serves as a temporary Permit to Operate. [202, 205]
  - c. The Title V permit shall expire as specified under Section K of the Title V permit. The permit expiration date of the Title V facility permit does not supercede the requirements of Rule 205. [205, 3004]
2. The operator shall maintain all equipment in such a manner that ensures proper operation of the equipment. [204]
3. This permit does not authorize the emissions of air contaminants in excess of those allowed by Division 26 of the Health and Safety Code of the State of California or the Rules and Regulations of the AQMD. This permit cannot be considered as permission to violate existing laws, ordinances, regulations, or statues of other governmental agencies. [204]
4. The operator shall not use equipment identified in this facility permit as being connected to air pollution control equipment unless they are so vented to the identified air pollution control equipment which is in full use and which has been included in this permit. [204]

## **FACILITY PERMIT TO OPERATE CAL INST OF TECH**

### **SECTION E: ADMINISTRATIVE CONDITIONS**

5. The operator shall not use any equipment having air pollution control device(s) incorporated within the equipment unless the air pollution control device is in full operation. [204]
6. The operator shall maintain records to demonstrate compliance with rules or permit conditions that limit equipment operating parameters, or the type or quantity of material processed. These records shall be made available to AQMD personnel upon request and be maintained for at least five years. [204]
7. The operator shall maintain and operate all equipment to ensure compliance with all emission limits as specified in this facility permit. Compliance with emission limits shall be determined according to the following specifications, unless otherwise specified by AQMD rules or permit conditions: [204]
  - a. For internal combustion engines and gas turbines, measured concentrations shall be corrected to 15 percent stack-gas oxygen content on a dry basis and be averaged over a period of 15 consecutive minutes; [1110.2, 1134]
  - b. For other combustion devices, measured concentrations shall be corrected to 3 percent stack-gas oxygen content on a dry basis and be averaged over a period of 15 consecutive minutes; [1146, 1146.1, 204]
  - c. For non-combustion sources, compliance with emission limits shall be determined and averaged over a period of 60 minutes; [204]
  - d. For the purpose of determining compliance with Rule 407, carbon monoxide (CO) shall be measured on a dry basis and be averaged over 15 consecutive minutes, and sulfur compounds which would exist as liquid or gas at standard conditions shall be calculated as sulfur dioxide (SO<sub>2</sub>) and be averaged over 15 consecutive minutes; [407]
  - e. For the purpose of determining compliance with Rule 409, combustion contaminant emission measurements shall be corrected to 12 percent of carbon dioxide (CO<sub>2</sub>) at standard conditions and averaged over a minimum of 15 consecutive minutes. [409]

## FACILITY PERMIT TO OPERATE CAL INST OF TECH

### SECTION E: ADMINISTRATIVE CONDITIONS

- f. For the purpose of determining compliance with Rule 475, combustion contaminant emission measurements shall be corrected to 3 percent of oxygen (O<sub>2</sub>) at standard conditions and averaged over 15 consecutive minutes or any other averaging time specified by the Executive Officer. [475]
8. The operator shall, when a source test is required by AQMD, provide a source test protocol to AQMD no later than 60 days before the proposed test date. The test shall not commence until the protocol is approved by AQMD. The test protocol shall contain the following information: [204, 304]
  - a. Brief description of the equipment tested.
  - b. Brief process description, including maximum and normal operating temperatures, pressures, throughput, etc.
  - c. Operating conditions under which the test will be performed.
  - d. Method of measuring operating parameters, such as fuel rate and process weight. Process schematic diagram showing the ports and sampling locations, including the dimensions of the ducts and stacks at the sampling locations, and distances of flow disturbances, (e.g. elbows, tees, fans, dampers) from the sampling locations (upstream and downstream).
  - e. Brief description of sampling and analytical methods used to measure each pollutant, temperature, flow rates, and moisture.
  - f. Description of calibration and quality assurance procedures.
  - g. Determination that the testing laboratory qualifies as an "independent testing laboratory" under Rule 304 (conflict of interest).
9. The operator shall submit a report no later than 60 days after conducting a source test, unless otherwise required by AQMD rules or equipment-specific conditions. The report shall contain the following information: [204]
  - a. The results of the source test.

## **FACILITY PERMIT TO OPERATE CAL INST OF TECH**

### **SECTION E: ADMINISTRATIVE CONDITIONS**

- b. Brief description of the equipment tested.
  - c. Operating conditions under which the test was performed.
  - d. Method of measuring operating parameters, such as fuel rate and process weight. Process schematic diagram showing the ports and sampling locations, including the dimensions of the ducts and stacks at the sampling locations, and distances of flow disturbances, (e.g. elbows, tees, fans, dampers) from the sampling locations (upstream and downstream).
  - e. Field and laboratory data forms, strip charts and analyses.
  - f. Calculations for volumetric flow rates, emission rates, control efficiency, and overall control efficiency.
10. The operator shall, when a source test is required, provide and maintain facilities for sampling and testing. These facilities shall comply with the requirements of AQMD Source Test Method 1.1 and 1.2. [217]
11. Whenever required to submit a written report, notification or other submittal to the Executive Officer, AQMD, or the District, the operator shall mail or deliver the material to: Deputy Executive Officer, Engineering and Compliance, AQMD, 21865 E. Copley Drive, Diamond Bar, CA 91765-4182. [204]

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**SECTION F: RECLAIM MONITORING AND SOURCE TESTING REQUIREMENTS**

NOT APPLICABLE

**FACILITY PERMIT TO OPERATE  
CAL INST OF TECH**

**SECTION G: RECORDKEEPING AND REPORTING REQUIREMENTS FOR  
RECLAIM SOURCES**

The Facility shall comply with all applicable reporting and recordkeeping requirements in Regulation XX. These requirements may include but are not limited to the following:

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**SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE**

NONE

*See Section D,*

## FACILITY PERMIT TO OPERATE CAL INST OF TECH

### SECTION I: PLANS AND SCHEDULES

This section lists all plans approved by AQMD for the purposes of meeting the requirements of applicable AQMD rules specified below. The operator shall comply with all conditions specified in the approval of these plans.

Documents pertaining to the plan applications listed below are available for public review at AQMD Headquarters. Any changes to plan applications will require permit modification in accordance with Title V permit revision procedures.

#### List of approved plans:

Application	Rule
505174	1146

NOTE: This section does not list compliance schedules pursuant to the requirements of Regulation XXX - Title V Permits; Rule 3004(a)(10)(C). For equipment subject to a variance, order for abatement, or alternative operating condition granted pursuant to Rule 518.2, equipment specific conditions are added to the equipment in Section D or H of the permit.

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**SECTION J: AIR TOXICS**

NOT APPLICABLE

## FACILITY PERMIT TO OPERATE CAL INST OF TECH

### SECTION K: TITLE V Administration

#### GENERAL PROVISIONS

1. This permit may be revised, revoked, reopened and reissued, or terminated for cause, or for failure to comply with regulatory requirements, permit terms, or conditions. [3004(a)(7)(C)]
2. This permit does not convey any property rights of any sort or any exclusive privilege. [3004(a)(7)(E)]

#### Permit Renewal and Expiration

3. (A) Except for solid waste incineration facilities subject to standards under section 129(e) of the Clean Air Act, this permit shall expire five years from the date that this Title V permit is issued. The operator's right to operate under this permit terminates at midnight on this date, unless the facility is protected by an application shield in accordance with Rule 3002(b), due to the filing of a timely and complete application for a Title V permit renewal, consistent with Rule 3003. [3004(a)(2), 3004(f)]  
  
(B) A Title V permit for a solid waste incineration facility combusting municipal waste subject to standards under Section 129(e) of the Clean Air Act shall expire 12 years from the date of issuance unless such permit has been renewed pursuant to this regulation. These permits shall be reviewed by the Executive Officer at least every five years from the date of issuance. [3004(f)(2)]
4. To renew this permit, the operator shall submit to the Executive Officer an application for renewal at least 180 days, but not more than 545 days, prior to the expiration date of this permit. [3003(a)(6)]

#### Duty to Provide Information

5. The applicant for, or holder of, a Title V permit shall furnish, pursuant to Rule 3002(d) and (e), timely information and records to the Executive Officer or designee within a reasonable time as specified in writing by the Executive Officer or designee. [3004(a)(7)(F)]

#### Payment of Fees

6. The operator shall pay all required fees specified in Regulation III - Fees. [3004(a)(7)(G)]

## FACILITY PERMIT TO OPERATE CAL INST OF TECH

### SECTION K: TITLE V Administration

#### Reopening for Cause

7. The Executive Officer will reopen and revise this permit if any of the following circumstances occur:
- (A) Additional regulatory requirements become applicable with a remaining permit term of three or more years. Reopening is not required if the effective date of the requirement is later than the expiration date of this permit, unless the permit or any of its terms and conditions has been extended pursuant to paragraph (f)(4) of Rule 3004.
  - (B) The Executive Officer or EPA Administrator determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.
  - (C) The Executive Officer or EPA Administrator determines that the permit must be revised or revoked to assure compliance with the applicable requirements. [3005(g)(1)]

#### COMPLIANCE PROVISIONS

8. The operator shall comply with all regulatory requirements, and all permit terms and conditions, except:
- (A) As provided for by the emergency provisions of condition no. 17 or condition no. 18, or
  - (B) As provided by an alternative operating condition granted pursuant to a federally approved (SIP-approved) Rule 518.2.

Any non-compliance with any federally enforceable permit condition constitutes a violation of the Federal Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or revision; or denial of a permit renewal application. Non-compliance may also be grounds for civil or criminal penalties under the California State Health and Safety Code. [3004(a)(7)(A)]

## **FACILITY PERMIT TO OPERATE CAL INST OF TECH**

### **SECTION K: TITLE V Administration**

9. The operator shall allow the Executive Officer or authorized representative, upon presentation of appropriate credentials to:
  - (A) Enter the operator's premises where emission-related activities are conducted, or records are kept under the conditions of this permit;
  - (B) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
  - (C) Inspect at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
  - (D) Sample or monitor at reasonable times, substances or parameters for the purpose of assuring compliance with the facility permit or regulatory requirements. [3004(a)(10)(B)]
  
10. All terms and conditions in this permit, including any provisions designed to limit a facility's potential to emit, are enforceable by the EPA Administrator and citizens under the federal Clean Air Act, unless the term or condition is designated as not federally enforceable. Each day during any portion of which a violation occurs is a separate offense. [3004(g)]
  
11. A challenge to any permit condition or requirement raised by EPA, the operator, or any other person, shall not invalidate or otherwise affect the remaining portions of this permit. [3007(b)]
  
12. The filing of any application for a permit revision, revocation, or termination, or a notification of planned changes or anticipated non-compliance does not stay any permit condition. [3004(a)(7)(D)]
  
13. It shall not be a defense for a person in an enforcement action, including those listed in Rule 3002(c)(2), that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit, except as provided for in "Emergency Provisions" of this section. [3004(a)(7)(H)]

## FACILITY PERMIT TO OPERATE CAL INST OF TECH

### SECTION K: TITLE V Administration

14. The operator shall not build, erect, install, or use any equipment, the use of which, without resulting in a reduction in the total release of air contaminants to atmosphere, reduces or conceals an emission which would otherwise constitute a violation of Chapter 3 (commencing with Section 41700) of Part 4, of Division 26 of the California Health and Safety Code or of AQMD rules. This rule shall not apply to cases in which the only violation involved is of Section 41700 of the California Health and Safety Code, or Rule 402 of AQMD Rules. [408]
15. Nothing in this permit or in any permit shield can alter or affect:
- (A) Under Section 303 of the federal Clean Air Act, the provisions for emergency orders;
  - (B) The liability of the operator for any violation of applicable requirements prior to or at the time of permit issuance;
  - (C) The applicable requirements of the Acid Rain Program, Regulation XXXI;
  - (D) The ability of EPA to obtain information from the operator pursuant to Section 114 of the federal Clean Air Act;
  - (E) The applicability of state or local requirements that are not "applicable requirements", as defined in Rule 3000, at the time of permit issuance but which do apply to the facility, such as toxics requirements unique to the State; and
  - (F) The applicability of regulatory requirements with compliance dates after the permit issuance date. [3004(c)(3)]
16. For any portable equipment that requires an AQMD or state permit or registration, excluding a) portable engines, b) military tactical support equipment and c) AQMD-permitted portable equipment that are not a major source, are not located at the facility for more than 12 consecutive months after commencing operation, and whose operation does not conflict with the terms or conditions of this Title V permit: 1) the facility operator shall keep a copy of the AQMD or state permit or registration; 2) the equipment operator shall comply with the conditions on the permit or registration and all other regulatory requirements; and 3) the facility operator shall treat the permit or registration as a part of its Title V permit, subject to recordkeeping, reporting and certification requirements. [3004(a)(1)]

## FACILITY PERMIT TO OPERATE CAL INST OF TECH

### SECTION K: TITLE V Administration EMERGENCY PROVISIONS

17. An emergency<sup>1</sup> constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limit only if:
- (A) Properly signed, contemporaneous operating records or other credible evidence demonstrate that:
    - (1) An emergency occurred and the operator can identify the cause(s) of the emergency;
    - (2) The facility was operated properly (i.e. operated and maintained in accordance with the manufacturer's specifications, and in compliance with all regulatory requirements or a compliance plan), before the emergency occurred;
    - (3) The operator took all reasonable steps to minimize levels of emissions that exceeded emissions standard, or other requirements in the permit; and,
    - (4) The operator submitted a written notice of the emergency to the AQMD within two working days of the time when the emissions limitations were exceeded due to the emergency. The notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and
  - (B) The operator complies with the breakdown provisions of Rule 430 – Breakdown Provisions, or subdivision (i) of Rule 2004 – Requirements, whichever is applicable. [3002(g), 430, 2004(i)]
18. The operator is excused from complying with any regulatory requirement that is suspended by the Executive Officer during a state of emergency or state of war emergency, in accordance with Rule 118 - Emergencies. [118]

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<sup>1</sup> "Emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the operator, including acts of God, which: (A) requires immediate corrective action to restore normal operation; and (B) causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency; and (C) is not caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

## **FACILITY PERMIT TO OPERATE CAL INST OF TECH**

### **SECTION K: TITLE V Administration RECORDKEEPING PROVISIONS**

19. In addition to any other recordkeeping requirements specified elsewhere in this permit, the operator shall keep records of required monitoring information, where applicable, that include:
- (A) The date, place as defined in the Title V permit, and time of sampling or measurements;
  - (B) The date(s) analyses were performed;
  - (C) The company or entity that performed the analyses;
  - (D) The analytical techniques or methods used;
  - (E) The results of such analyses; and
  - (F) The operating conditions as existing at the time of sampling or measurement. [3004(a)(4)(B)]
20. The operator shall maintain records pursuant to Rule 109 and any applicable material safety data sheet (MSDS) for any equipment claimed to be exempt from a written permit by Rule 219 based on the information in those records. [219(t)]
21. The operator shall keep all records of monitoring data required by this permit or by regulatory requirements for a period of at least five years from the date of the monitoring sample, measurement, report, or application. [3004(a)(4)(E)]

### **REPORTING PROVISIONS**

22. The operator shall comply with the following requirements for prompt reporting of deviations:
- (A) Breakdowns shall be reported as required by Rule 430 – Breakdown Provisions or subdivision (i) of Rule 2004 - Requirements, whichever is applicable.

## FACILITY PERMIT TO OPERATE CAL INST OF TECH

### SECTION K: TITLE V Administration

- (B) Other deviations from permit or applicable rule emission limitations, equipment operating conditions, or work practice standards, determined by observation or by any monitoring or testing required by the permit or applicable rules that result in emissions greater than those allowed by the permit or applicable rules shall be reported within 72 hours (unless a shorter reporting period is specified in an applicable State or Federal Regulation) of discovery of the deviation by contacting AQMD enforcement personnel assigned to this facility or otherwise calling (800) CUT-SMOG.
  - (C) A written report of such deviations reported pursuant to (B), and any corrective actions or preventative measures taken, shall be submitted to AQMD, in an AQMD approved format, within 14 days of discovery of the deviation.
  - (D) All other deviations shall be reported with the monitoring report required by condition no. 23. [3004(a)(5)]
23. Unless more frequent reporting of monitoring results are specified in other permit conditions or in regulatory requirements, the operator shall submit reports of any required monitoring to the AQMD at least twice per year. The report shall include a) a statement whether all monitoring required by the permit was conducted; and b) identification of all instances of deviations from permit or regulatory requirements. A report for the first six calendar months of the year is due by August 31 and a report for the last six calendar months of the year is due by February 28. [3004(a)(4)(F)]
24. The operator shall submit to the Executive Officer and to the Environmental Protection Agency (EPA), an annual compliance certification. For RECLAIM facilities, the certification is due when the Annual Permit Emissions Program (APEP) report is due and shall cover the same reporting period. For other facilities, the certification is due on March 1 for the previous calendar year. The certification need not include the period preceding the date the initial Title V permit was issued. Each compliance certification shall include:
- (A) Identification of each permit term or condition that is the basis of the certification;

## **FACILITY PERMIT TO OPERATE CAL INST OF TECH**

### **SECTION K: TITLE V Administration**

- (B) The compliance status during the reporting period;
- (C) Whether compliance was continuous or intermittent;
- (D) The method(s) used to determine compliance over the reporting period and currently, and
- (E) Any other facts specifically required by the Executive Officer to determine compliance.

The EPA copy of the certification shall be sent to: Director of the Air Division Attn:  
Air-3 USEPA, Region IX 75 Hawthorne St. San Francisco, CA 94105 [3004(a)(10)(E)]

25. All records, reports, and documents required to be submitted by a Title V operator to AQMD or EPA shall contain a certification of accuracy consistent with Rule 3003(c)(7) by a responsible official (as defined in Rule 3000). [3004(a)(12)]

### **PERIODIC MONITORING**

26. All periodic monitoring required by this permit pursuant to Rule 3004(a)(4)(c) is based on the requirements and justifications in the AQMD document "Periodic Monitoring Guidelines for Title V Facilities" or in case-by-case determinations documented in the TitleV application file. [3004(a)(4)]

## FACILITY PERMIT TO OPERATE CAL INST OF TECH

### SECTION K: TITLE V Administration

#### *FACILITY RULES*

*This facility is subject to the following rules and regulations*

With the exception of Rule 402, 473, 477, 1118 and Rules 1401 through 1420, the following rules that are designated as non-federally enforceable are pending EPA approval as part of the state implementation plan. Upon the effective date of that approval, the approved rule(s) will become federally enforceable, and any earlier versions of those rules will no longer be federally enforceable.

<b>RULE SOURCE</b>	<b>Adopted/Amended Date</b>	<b>FEDERAL Enforceability</b>
RULE 109	5-2-2003	Federally enforceable
RULE 1107	1-6-2006	Non federally enforceable
RULE 1107	11-9-2001	Federally enforceable
RULE 1110.2	7-9-2010	Non federally enforceable
RULE 1111	11-6-2009	Federally enforceable
RULE 1113	11-8-1996	Federally enforceable
RULE 1113	6-3-2011	Non federally enforceable
RULE 1134	8-8-1997	Federally enforceable
RULE 1136	6-14-1996	Federally enforceable
RULE 1146	11-17-2000	Federally enforceable
RULE 1146	9-5-2008	Non federally enforceable
RULE 1146.2	5-5-2006	Federally enforceable
RULE 1171	11-7-2003	Federally enforceable
RULE 1171	5-1-2009	Non federally enforceable
RULE 118	12-7-1995	Non federally enforceable
RULE 1303(a)(1)-BACT	12-6-2002	Non federally enforceable
RULE 1303(a)(1)-BACT	5-10-1996	Federally enforceable
RULE 1303(b)(2)-Offset	12-6-2002	Non federally enforceable
RULE 1303(b)(2)-Offset	5-10-1996	Federally enforceable
RULE 1304(a)-Modeling and Offset Exemption	6-14-1996	Federally enforceable
RULE 1403	10-5-2007	Non federally enforceable

## FACILITY PERMIT TO OPERATE CAL INST OF TECH

### SECTION K: TITLE V Administration

<b>RULE SOURCE</b>	<b>Adopted/Amended Date</b>	<b>FEDERAL Enforceability</b>
RULE 1405	1-4-1991	Non federally enforceable
RULE 1411	3-1-1991	Non federally enforceable
RULE 1415	12-3-2010	Non federally enforceable
RULE 1418	9-10-1999	Non federally enforceable
RULE 1470	6-1-2007	Non federally enforceable
RULE 1472	3-7-2008	Non federally enforceable
RULE 204	10-8-1993	Federally enforceable
RULE 217	1-5-1990	Federally enforceable
RULE 218	5-14-1999	Federally enforceable
RULE 218.1	5-14-1999	Federally enforceable
RULE 219	6-1-2007	Non federally enforceable
RULE 219	9-4-1981	Federally enforceable
RULE 3004(a)(4)-Periodic Monitoring	12-12-1997	Federally enforceable
RULE 401	11-9-2001	Non federally enforceable
RULE 401	3-2-1984	Federally enforceable
RULE 402	5-7-1976	Non federally enforceable
RULE 404	2-7-1986	Federally enforceable
RULE 407	4-2-1982	Federally enforceable
RULE 408	5-7-1976	Federally enforceable
RULE 409	8-7-1981	Federally enforceable
RULE 429	12-21-1990	Non federally enforceable
RULE 430	7-12-1996	Non federally enforceable
RULE 431.1	6-12-1998	Federally enforceable
RULE 431.2	5-4-1990	Federally enforceable
RULE 431.2	9-15-2000	Non federally enforceable
RULE 442	12-15-2000	Federally enforceable
RULE 461	3-7-2008	Non federally enforceable
RULE 476	10-8-1976	Federally enforceable
RULE 481	1-11-2002	Federally enforceable
RULE 701	6-13-1997	Federally enforceable
40CFR 60 Subpart GG	2-24-2006	Federally enforceable
40CFR 61 Subpart M	7-20-2004	Federally enforceable

## FACILITY PERMIT TO OPERATE CAL INST OF TECH

### SECTION K: TITLE V Administration

<b>RULE SOURCE</b>	<b>Adopted/Amended Date</b>	<b>FEDERAL Enforceability</b>
40CFR 82 Subpart B	7-14-1992	Federally enforceable
40CFR 82 Subpart F	5-14-1993	Federally enforceable

**FACILITY PERMIT TO OPERATE  
CAL INST OF TECH**

**APPENDIX A: NOX AND SOX EMITTING EQUIPMENT EXEMPT FROM WRITTEN  
PERMIT PURSUANT TO RULE 219**

NONE

## FACILITY PERMIT TO OPERATE CAL INST OF TECH

### APPENDIX B: RULE EMISSION LIMITS [RULE 1107 01-06-2006]

Except as otherwise provided in Rule 1107

(1) **VOC Content of Coatings**

A person shall not apply to metal parts and products subject to the provisions of this rule any coatings, including any VOC-containing materials added to the original coating supplied by the manufacturer, which contain VOC in excess of the limits specified below:

<b>VOC LIMITS</b>								
<b>Less Water and Less Exempt Compounds</b>								
<b>Effective Dates</b>								
<b>Coating</b>	<b>Air-Dried</b>				<b>Baked</b>			
	<b>gm/l</b>		<b>lb/gal</b>		<b>gm/l</b>		<b>lb/gal</b>	
	<b>Current</b>	<b>7/1/07</b>	<b>Current</b>	<b>7/1/07</b>	<b>Current</b>	<b>7/1/07</b>	<b>Current</b>	<b>7/1/07</b>
General One-Component	275	275	2.3	2.3	275	275	2.3	2.3
General Multi-Component	340	340	2.8	2.8	275	275	2.3	2.3
Military Specification	340	340	2.8	2.8	275	275	2.3	2.3
Etching Filler	420	420	3.5	3.5	420	420	3.5	3.5
Solar-Absorbent	420	420	3.5	3.5	360	360	3.0	3.0
Heat-Resistant	420	420	3.5	3.5	360	360	3.0	3.0
Extreme High-Gloss	420	340	3.5	2.8	360	360	3.0	3.0
Metallic	420	420	3.5	3.5	420	420	3.5	3.5

## FACILITY PERMIT TO OPERATE CAL INST OF TECH

### APPENDIX B: RULE EMISSION LIMITS [RULE 1107 01-06-2006]

<b>VOC LIMITS</b>								
<b>Less Water and Less Exempt Compounds</b>								
<b>Effective Dates, cont.</b>								
<b>Coating</b>	<b>Air-Dried</b>				<b>Baked</b>			
	<b>gm/l</b>		<b>lb/gal</b>		<b>gm/l</b>		<b>lb/gal</b>	
	<b>Current</b>	<b>7/1/07</b>	<b>Current</b>	<b>7/1/07</b>	<b>Current</b>	<b>7/1/07</b>	<b>Current</b>	<b>7/1/07</b>
Extreme Performance	420	420	3.5	3.5	360	360	3.0	3.0
Prefabricated Architectural One-Component	420	275	3.5	2.3	275	275	2.3	2.3
Prefabricated Architectural Multi-Component	420	340	3.5	2.8	275	275	2.3	2.3
Touch Up	420	420	3.5	3.5	360	360	3.0	3.0
Repair	420	420	3.5	3.5	360	360	3.0	3.0
Silicone Release	420	420	3.5	3.5	420	420	3.5	3.5
High-Performance Architectural	420	420	3.5	3.5	420	420	3.5	3.5
Camouflage	420	420	3.5	3.5	420	420	3.5	3.5
Vacuum-Metalizing	420	420	3.5	3.5	420	420	3.5	3.5
Mold-Seal	420	420	3.5	3.5	420	420	3.5	3.5
High-Temperature	420	420	3.5	3.5	420	420	3.5	3.5
Electric-Insulating Varnish	420	420	3.5	3.5	420	420	3.5	3.5
Pan Backing	420	420	3.5	3.5	420	420	3.5	3.5
Pretreatment Coatings	420	420	3.5	3.5	420	420	3.5	3.5

## **FACILITY PERMIT TO OPERATE CAL INST OF TECH**

### **APPENDIX B: RULE EMISSION LIMITS [RULE 1107 01-06-2006]**

- (2) A person shall not use VOC-containing materials which have a VOC content of more than 200 grams per liter of material for stripping any coating governed by this rule.

## FACILITY PERMIT TO OPERATE CAL INST OF TECH

### APPENDIX B: RULE EMISSION LIMITS [RULE 1107 11-09-2001]

Except as otherwise provided in Rule 1107

(1) VOC Content of Coatings

A person shall not apply to metal parts and products subject to the provisions of this rule any coatings, including any VOC-containing materials added to the original coating supplied by the manufacturer, which contain VOC in excess of the limits specified below:

<b>VOC LIMITS</b>								
<b>Less Water and Less Exempt Compounds</b>								
<b>Effective Dates</b>								
<b>Coating</b>	<b>Air-Dried</b>				<b>Baked</b>			
	<b>gm/l</b>		<b>lb/gal</b>		<b>gm/l</b>		<b>lb/gal</b>	
	<b>Current</b>	<b>7/1/07</b>	<b>Current</b>	<b>7/1/07</b>	<b>Current</b>	<b>7/1/07</b>	<b>Current</b>	<b>7/1/07</b>
General One-Component	275	275	2.3	2.3	275	275	2.3	2.3
General Multi-Component	340	340	2.8	2.8	275	275	2.3	2.3
Military Specification	340	340	2.8	2.8	275	275	2.3	2.3
Etching Filler	420	420	3.5	3.5	420	420	3.5	3.5
Solar-Absorbent	420	420	3.5	3.5	360	360	3.0	3.0
Heat-Resistant	420	420	3.5	3.5	360	360	3.0	3.0
Extreme High-Gloss	420	340	3.5	2.8	360	360	3.0	3.0
Metallic	420	420	3.5	3.5	420	420	3.5	3.5

## FACILITY PERMIT TO OPERATE CAL INST OF TECH

### APPENDIX B: RULE EMISSION LIMITS [RULE 1107 11-09-2001]

Except as otherwise provided in Rule 1107

(1) VOC Content of Coatings

A person shall not apply to metal parts and products subject to the provisions of this rule any coatings, including any VOC-containing materials added to the original coating supplied by the manufacturer, which contain VOC in excess of the limits specified below:

<b>VOC LIMITS</b>								
<b>Less Water and Less Exempt Compounds</b>								
<b>Effective Dates</b>								
<b>Coating</b>	<b>Air-Dried</b>				<b>Baked</b>			
	<b>gm/l</b>		<b>lb/gal</b>		<b>gm/l</b>		<b>lb/gal</b>	
	<b>Current</b>	<b>7/1/07</b>	<b>Current</b>	<b>7/1/07</b>	<b>Current</b>	<b>7/1/07</b>	<b>Current</b>	<b>7/1/07</b>
General One-Component	275	275	2.3	2.3	275	275	2.3	2.3
General Multi-Component	340	340	2.8	2.8	275	275	2.3	2.3
Military Specification	340	340	2.8	2.8	275	275	2.3	2.3
Etching Filler	420	420	3.5	3.5	420	420	3.5	3.5
Solar-Absorbent	420	420	3.5	3.5	360	360	3.0	3.0
Heat-Resistant	420	420	3.5	3.5	360	360	3.0	3.0
Extreme High-Gloss	420	340	3.5	2.8	360	360	3.0	3.0
Metallic	420	420	3.5	3.5	420	420	3.5	3.5

## FACILITY PERMIT TO OPERATE CAL INST OF TECH

### APPENDIX B: RULE EMISSION LIMITS [RULE 1107 11-09-2001]

<b>VOC LIMITS</b>								
<b>Less Water and Less Exempt Compounds</b>								
<b>Effective Dates, cont.</b>								
<b>Coating</b>	<b>Air-Dried</b>				<b>Baked</b>			
	<b>gm/l</b>		<b>lb/gal</b>		<b>gm/l</b>		<b>lb/gal</b>	
	<b>Cur rent</b>	<b>7/1/07</b>	<b>Current</b>	<b>7/1/07</b>	<b>Current</b>	<b>7/1/07</b>	<b>Current</b>	<b>7/1/07</b>
Extreme Performance	420	420	3.5	3.5	360	360	3.0	3.0
Prefabricated Architectural One-Component	420	275	3.5	2.3	275	275	2.3	2.3
Prefabricated Architectural Multi-Component	420	340	3.5	2.8	275	275	2.3	2.3
Touch Up	420	420	3.5	3.5	360	360	3.0	3.0
Repair	420	420	3.5	3.5	360	360	3.0	3.0
Silicone Release	420	420	3.5	3.5	420	420	3.5	3.5
High-Performance Architectural	420	420	3.5	3.5	420	420	3.5	3.5
Camouflage	420	420	3.5	3.5	420	420	3.5	3.5
Vacuum-Metalizing	420	420	3.5	3.5	420	420	3.5	3.5
Mold-Seal	420	420	3.5	3.5	420	420	3.5	3.5
High-Temperature	420	420	3.5	3.5	420	420	3.5	3.5
Electric-Insulating Varnish	420	420	3.5	3.5	420	420	3.5	3.5
Pan Backing	420	420	3.5	3.5	420	420	3.5	3.5
Pretreatment Coatings	420	420	3.5	3.5	420	420	3.5	3.5

- (2) A person shall not use VOC-containing materials which have a VOC content of more than 200 grams per liter of material for stripping any coating governed by this rule.

## FACILITY PERMIT TO OPERATE CAL INST OF TECH

### APPENDIX B: RULE EMISSION LIMITS [RULE 1113 11-08-1996]

- (1) Except as provided in paragraphs (c)(2), (c)(3), and (c)(4) of Rule 1113, the operator shall not supply, sell, offer for sale, apply, or solicit the application of, any architectural coating which, at the time of sale or manufacture, contains more than 250 grams of VOC per liter of coating (2.08 pounds per gallon), less water, less exempt compounds, and less any colorant added to tint bases, or manufacture, blend, or repackage such a coating for use within the District.
- (2) Except as provided in paragraphs (c)(3) and (c)(4) of Rule 1113, the operator shall not supply, sell, offer for sale, apply, solicit the application of, manufacture, blend, or repackage, for use within the District, any architectural coating listed in the Table of Standards which contains VOC (excluding any colorant added to tint bases) in excess of the corresponding VOC limit specified in the table, after the effective date specified.

### TABLE OF STANDARDS

#### VOC LIMITS

#### Grams of VOC Per Liter of Coating, Less Water And Less Exempt Compounds

COATING	Limit*	Effective Date of Adoption	Effective 1/1/1998	Effective 1/1/1999	Effective 7/1/2001	Effective 1/1/2005	Effective 7/1/2008
Bond Breakers	350						
Clear Wood Finishes							
Varnish	350						
Sanding Sealers	350						
Lacquer	680		550			275	
Concrete-Curing Compounds	350						
Dry-Fog Coatings	400						
Fire-proofing Exterior Coatings	350	450		350			
Fire-Retardant Coatings							
Clear	650						
Pigmented	350						
Flats	250						
Graphic Arts (Sign) Coatings	500				100		50

## FACILITY PERMIT TO OPERATE CAL INST OF TECH

### APPENDIX B: RULE EMISSION LIMITS [RULE 1113 11-08-1996]

Industrial Maintenance						
Primers and Topcoats						
Alkyds	420					
Catalyzed Epoxy	420					
Bituminous Coatings	420					
Materials						
Inorganic Polymers	420					
Vinyl Chloride Polymers	420					
Chlorinated Rubber	420					
Acrylic Polymers	420					
Urethane Polymers	420					
Silicones	420					
Unique Vehicles	420					
Japans/Faux Finishing	350	700		350		
Coatings						
Magnesite Cement Coatings	600			450		
Mastic Coatings	300					
Metallic Pigmented Coatings	500					
Multi-Color Coatings	420		250			
Pigmented Lacquer	680		550		275	
Pre-Treatment Wash Primers	780					
Primers, Sealers, and	350					
Undercoaters						
Quick-Dry Enamels	400					
Roof Coatings	300					
Shellac						
Clear	730					
Pigmented	550					
Stains	350					
Swimming Pool Coatings						
Repair	650					
Other	340					
Traffic Coatings	250		150			
Waterproofing Sealers	400					
Wood Preservatives						
Below-Ground	350					
Other	350					

\* The specified limits remain in effect unless revised limits are listed in subsequent columns in the Table of Standards

### TABLE OF STANDARDS (cont.)

#### VOC LIMITS

#### Grams of VOC Per Liter of Material

COATING	Limit
Low-Solids Coating	120

## **FACILITY PERMIT TO OPERATE CAL INST OF TECH**

### **APPENDIX B: RULE EMISSION LIMITS [RULE 1113 06-03-2011]**

- (1) Except as provided in paragraphs (c)(3), (c)(4), and designated coatings averaged under (c)(6) of Rule 1113, no person shall supply, sell, offer for sale, market, manufacture, blend, repackage, apply, store at a worksite, or solicit the application of any architectural coating within the District:
  - (A) That is listed in the Table of Standards 1 and contains VOC (excluding any colorant added to tint bases) in excess of the corresponding VOC limit specified in the table, after the effective date specified; or
  - (B) That is not listed in the Table of Standards 1, and contains VOC (excluding any colorant added to tint bases) in excess of 250 grams of VOC per liter of coating (2.08 pounds per gallon), less water, less exempt compounds, until January 1, 2014, at which time the limit drops to 50 grams of VOC per liter of coating, less water, less exempt compounds (0.42 pounds per gallon).
- (2) No person within the District shall add colorant at the point of sale that is listed in the Table of Standards 2 and contains VOC in excess of the corresponding VOC limit specified in the Table of Standards 2, after the effective date specified.

## FACILITY PERMIT TO OPERATE CAL INST OF TECH

### APPENDIX B: RULE EMISSION LIMITS [RULE 1113 06-03-2011]

#### TABLE OF STANDARDS 1 VOC LIMITS

**Grams of VOC Per Liter of Coating,  
 Less Water and Less Exempt Compounds**

COATING CATEGORY	Ceiling Limit <sup>1</sup>	Current Limit <sup>2</sup>	Effective Date		
			7/1/08	1/1/12	1/1/14
Bond Breakers		350			
Clear Wood Finishes		275			
Varnish	350	275			
Sanding Sealers	350	275			
Lacquer		275			
Concrete-Curing Compounds		100			
Concrete-Curing Compounds For Roadways and Bridges <sup>3</sup>		350			
Concrete Surface Retarder		250			50
Driveway Sealer		100		50	
Dry-Fog Coatings		150			50
Faux Finishing Coatings					
Clear Topcoat		350		200	
Decorative Coatings		350			100
Glazes		350			
Japan		350			
Trowel Applied Coatings		350		150	50
Fire-Proofing Coatings		350			150
Flats	250	50	50		
Floor Coatings	100	50			
Form Release Compound		250			100
Graphic Arts (Sign) Coatings		500			150
Industrial Maintenance (IM) Coatings	420	100			
High Temperature IM Coatings		420			
Non-Sacrificial Anti-Graffiti Coatings		100			
Zinc-Rich IM Primers	340	100			
Magnesite Cement Coatings		450			
Mastic Coatings		300			100
Metallic Pigmented Coatings	500	500			150
Multi-Color Coatings		250			
Nonflat Coatings	150	50			
Pre-Treatment Wash Primers		420			
Primers, Sealers, and Undercoaters	200	100			
Reactive Penetrating Sealers		350			
Recycled Coatings		250			
Roof Coatings	250	50			
Roof Coatings, Aluminum		100			

## FACILITY PERMIT TO OPERATE CAL INST OF TECH

### APPENDIX B: RULE EMISSION LIMITS [RULE 1113 06-03-2011]

Roof Primers, Bituminous	350	350			
Rust Preventative Coatings	400	100			
Stone Consolidant		450			
Sacrificial Anti-Graffiti Coatings		100		50	
Shellac					
Clear		730			
Pigmented		550			
Specialty Primers	350	100			
Stains		100			

## FACILITY PERMIT TO OPERATE CAL INST OF TECH

### APPENDIX B: RULE EMISSION LIMITS [RULE 1113 06-03-2011]

COATING CATEGORY	Ceiling Limit <sup>1</sup>	Current Limit <sup>2</sup>	Effective Date		
			7/1/08	1/1/12	1/1/14
Stains, Interior	250	250			
Swimming Pool Coatings					
Repair		340			
Other		340			
Traffic Coatings		100			
Waterproofing Sealers	250	100			
Waterproofing Concrete/Masonry Sealers	400	100			
Wood Preservatives		350			

1. The specified ceiling limits are applicable to products sold under the Averaging Compliance Option.
2. The specified limits remain in effect unless revised limits are listed in subsequent columns in the Table of Standards.
3. Does not include compounds used for curbs and gutters, sidewalks, islands, driveways and other miscellaneous concrete areas.

#### TABLE OF STANDARDS 1 (cont.) VOC LIMITS

##### Grams of VOC Per Liter of Material

COATING	Limit
Low-Solids Coating	120

#### TABLE OF STANDARDS 2 VOC LIMITS FOR COLORANTS

##### Grams of VOC Per Liter of Colorant Less Water and Less Exempt Compounds

COLORANT	Limit <sup>4</sup>
Architectural Coatings, excluding IM Coatings	50
Solvent-Based IM	600
Waterborne IM	50

4. Effective January 1, 2014.

## FACILITY PERMIT TO OPERATE CAL INST OF TECH

### APPENDIX B: RULE EMISSION LIMITS [RULE 1136 06-14-1996]

Except as otherwise provided in Rule 1136

- (a) The operator shall not apply any coating to a wood product which has a VOC content, including any VOC-containing material added to the original coating supplied by the manufacturer, which exceeds the applicable limit specified below:

(1)

#### VOC LIMITS

Grams Per Liter (lb/gal) of Coating, [lbs VOC/lb of solids],  
Less Water and Less Exempt Compounds

<u>COATING</u>	<u>Current Limit</u>		<u>On and After</u>
	<u>I</u>	<u>or</u>	<u>7/1/2005</u>
	<u>II</u>		
Clear Sealers	550 (4.6) [1.39]	680 (5.7) [3.36]	275 (2.3) [0.36]
Clear Topcoat	550 (4.6) [1.37]	275 (2.3) [0.35]	275 (2.3) [0.35]
Pigmented Primers, Sealers & Undercoats	550 (4.6) [1.06]	600 (5.0) [1.08]	275 (2.3) [0.21]
Pigmented Topcoats	550 (4.6) [1.10]	275 (2.3) [0.25]	275 (2.3) [0.25]

The operator shall use coatings on a wood product that comply with either all VOC limits in column I or all VOC limits in column II. The operator that applies a primer, sealer or undercoat, but not a topcoat, to a wood product, shall be subject to column I for that wood product.

- (2) Notwithstanding the requirements of clause (a)(1), an operator that applies a topcoat and a primer, sealer or undercoat to a shutter may, until July 1, 2005, choose to comply with the VOC limits specified below for that shutter:

## FACILITY PERMIT TO OPERATE CAL INST OF TECH

### APPENDIX B: RULE EMISSION LIMITS [RULE 1136 06-14-1996]

#### VOC LIMITS

Grams Per Liter, (lb/gal) of Coating, [lbs VOC/lb of solids],  
Less Water and Less Exempt Compounds

#### COATING

Clear Sealers	275 (2.3) [0.36]
Clear Topcoat	680 (5.7) [2.99]
Pigmented Primers, Sealers & Undercoats	275 (2.3) [0.33]
Pigmented Topcoats	600 (5.0) [1.38]

(3)

#### VOC LIMITS

Grams Per Liter, (lb/gal) of Coating, [lbs VOC/lb of solids],  
Less Water and Less Exempt Compounds

<u>COATING</u>	<u>Current Limit</u>	<u>On and After 7/1/2005</u>
Barrier Coat - Plastic Components	760 (6.3) [3.9]	275 (2.3) [0.28]
Composite Wood Edge Filler	550 (4.6) [1.15]	275 (2.3) [0.31]
Extreme Performance Coatings	420 (3.5) [0.51]	275 (2.3) [0.33]
Fillers	500 (4.2) [0.66]	275 (2.3) [0.18]
High-Solid Stains	550 (4.6) [1.23]	350 (2.9) [0.42]
Inks	500 (4.2) [0.96]	500 (4.2) [0.96]
Mold-Seal Coatings	750 (6.3) [4.2]	750 (6.3) [4.2]
Multi-Colored Coatings	685 (5.7) [2.6]	275 (2.3) [0.33]

#### VOC LIMITS

Grams Per Liter (lb/gal) of Material

<u>COATING</u>	<u>Current Limit</u>	<u>On and After 7/1/2005</u>
Low-Solids Barrier Coat - Plastic Components	760 (6.3)	120 (1.0)
Low-Solid Stains, Toners, and Washcoats	480 (4.0)	120 (1.0)

## **FACILITY PERMIT TO OPERATE CAL INST OF TECH**

### **APPENDIX B: RULE EMISSION LIMITS [RULE 1136 06-14-1996]**

Any coating subject to this rule that meets any of the three VOC limit formats (grams per liter, lb/gal, or lbs VOC/lb of solids) is in compliance with this subparagraph.

- (4) The VOC limit for japan coatings is 700 grams per liter of coatings, less water and exempt compounds, as applied.
- (b) A person shall not use a stripper on wood products unless:
- (1) it contains less than 350 grams of VOC per liter of material; or
  - (2) the VOC composite vapor pressure is 2 mm Hg (0.04 psia) or less at 20°C (68°F).

## FACILITY PERMIT TO OPERATE CAL INST OF TECH

### APPENDIX B: RULE EMISSION LIMITS [RULE 404 02-07-1986]

The operator shall not discharge into the atmosphere from this equipment, particulate matter in excess of the concentration at standard conditions, shown in Table 404(a). Where the volume discharged is between figures listed in the Table, the exact concentration permitted to be discharged shall be determined by linear interpolation.

For the purposes of this rule, emissions shall be averaged over one complete cycle of operation or one hour, whichever is the lesser time period.

**TABLE 404(a)**

Volume Discharged Calculated as Dry Gas At Standard Conditions		Maximum Concentration of Particulate Matter Allowed in Discharged Gas Calculated as Dry Gas at Standard Conditions		Volume Discharged Calculated as Dry Gas At Standard Conditions		Maximum Concentration of Particulate Matter Allowed in Discharged Gas Calculated as Dry Gas at Standard Conditions	
		Milligrams per Cubic Meter	Grains per Cubic Foot			Milligrams per Cubic Meter	Grains per Cubic Foot
25 or less	883 or less	450	0.196	900	31780	118	0.0515
30	1059	420	.183	1000	35310	113	.0493
35	1236	397	.173	1100	38850	109	.0476
40	1413	377	.165	1200	42380	106	.0463
45	1589	361	.158	1300	45910	102	.0445

## FACILITY PERMIT TO OPERATE CAL INST OF TECH

### APPENDIX B: RULE EMISSION LIMITS [RULE 404 02-07-1986]

Volume Discharged Calculated as Dry Gas At Standard Conditions		Maximum Concentration of Particulate Matter Allowed in Discharged Gas Calculated as Dry Gas at Standard Conditions		Volume Discharged Calculated as Dry Gas At Standard Conditions		Maximum Concentration of Particulate Matter Allowed in Discharged Gas Calculated as Dry Gas at Standard Conditions	
		Milligrams per Cubic Meter	Grains per Cubic Foot			Milligrams per Cubic Meter	Grains per Cubic Foot
Cubic meters Per Minute	Cubic feet Per Minute			Cubic meters Per Minute	Cubic feet Per Minute		
50	1766	347	.152	1400	49440	100	.0437
60	2119	324	.141	1500	52970	97	.0424
70	2472	306	.134	1750	61800	92	.0402
80	2825	291	.127	2000	70630	87	.0380
90	3178	279	.122	2250	79460	83	.0362
100	3531	267	.117	2500	88290	80	.0349
125	4414	246	.107	3000	105900	75	.0327
150	5297	230	.100	4000	141300	67	.0293
175	6180	217	.0947	5000	176600	62	.0271
200	7063	206	.0900	6000	211900	58	.0253
250	8829	190	.0830	8000	282500	52	.0227
300	10590	177	.0773	10000	353100	48	.0210
350	12360	167	.0730	15000	529700	41	.0179
400	14130	159	.0694	20000	706300	37	.0162
450	15890	152	.0664	25000	882900	34	.0148

**FACILITY PERMIT TO OPERATE  
 CAL INST OF TECH**

**APPENDIX B: RULE EMISSION LIMITS  
 [RULE 404 02-07-1986]**

Volume Discharged Calculated as Dry Gas At Standard Conditions		Maximum Concentration of Particulate Matter Allowed in Discharged Gas Calculated as Dry Gas at Standard Conditions		Volume Discharged Calculated as Dry Gas At Standard Conditions		Maximum Concentration of Particulate Matter Allowed in Discharged Gas Calculated as Dry Gas at Standard Conditions	
Cubic meters Per Minute	Cubic feet Per Minute	Milligrams per Cubic Meter	Grains per Cubic Foot	Cubic meters Per Minute	Cubic feet Per Minute	Milligrams per Cubic Meter	Grains per Cubic Foot
500	17660	146	.0637	30000	1059000	32	.0140
600	21190	137	.0598	40000	1413000	28	.0122
700	24720	129	.0563	50000	1766000	26	.0114
800	28250	123	.0537	70000 or more	2472000 or more	23	.0100

# SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

## Title V Permit Summary

AQMD Facility ID:	800387	Company Name:	CALIFORNIA INSTITUTE OF TECHNOLOGY																																																																																																			
Equipment Location:	650 S. WILSON, PASADENA, CA 91106		SIC Code: 8220																																																																																																			
Permit Revision #:	Revision Date:	Facility Permit Section(s) Affected:																																																																																																				
Application #(s):	517698	Application Submittal Date(s):	January 4, 2011																																																																																																			
AQMD Contact Person:	Vicky Lee	Phone #:	E-Mail Address:																																																																																																			
		(909) 396-2284	vlee1@aqmd.gov																																																																																																			
<p>Project Description: This is an existing facility applying for a Title V permit renewal. This private college is operating twenty diesel fueled internal combustion engines driving emergency generators, a fuel storage and dispensing facility, three boilers, a spray booth for maintenance, a combined cycle cogeneration system controlled by a selective catalytic reduction system, and an aqueous ammonia tank .</p>																																																																																																						
<p>Permit Type:    <input type="checkbox"/> Initial Title V Permit    <input type="checkbox"/> Significant Revision  <input checked="" type="checkbox"/> Permit Renewal</p>																																																																																																						
<p>Permit Features:    <input type="checkbox"/> Federally Enforceable Emission Cap For Exemption From Certain NESHAP Requirements    <input type="checkbox"/> Permit Shield Applies  <input type="checkbox"/> Permit Contains Conditions Allowing Emission Trading    <input type="checkbox"/> Alternative Operating Scenario  <input type="checkbox"/> Permit Streamlines Overlapping or Outdated Requirements    <input type="checkbox"/> Other: _____  <input type="checkbox"/> Source Out of Compliance With Applicable Requirements and/or Operating Under a Variance</p>																																																																																																						
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**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT  
Title V Permit Summary**

Health Risk From Toxic Air Contaminants:	<input type="checkbox"/> Health Risk Reduction Plan in Force (AQMD Rule 1402) (date): _____ <input type="checkbox"/> Health Risk Assessment Required for this Permit Action (AQMD Rule 1401) <input checked="" type="checkbox"/> Facility is Subject to Review by the Air Toxics Information and Assessment Act (AB2588) <input type="checkbox"/> Facility Determined to be Exempt from AB2588 Requirements <input type="checkbox"/> AQMD is Tracking Status of Facility under AB2588 <input type="checkbox"/> Health Risk Assessment Submitted to AQMD and Is Being Reviewed <input checked="" type="checkbox"/> Final Facility Health Risk Approved (date) <u>3/1/07</u> Cancer Risk = <u>2.4 in one million</u> Acute Hazard Index = <u>0.05</u> Chronic Hazard Index = <u>0.002</u>
Criteria Pollutant Emissions	<input checked="" type="checkbox"/> NOx <u>5.651</u> <input checked="" type="checkbox"/> PM <u>6.341</u> <input checked="" type="checkbox"/> CO <u>6.876</u> <input checked="" type="checkbox"/> SOx <u>0.060</u> (tons/year) for Reporting Year: 2010 <input checked="" type="checkbox"/> VOC <u>4.462</u> <input type="checkbox"/> Other: _____
Compliance History:	<input checked="" type="checkbox"/> Citizen Complaints Filed in Last Two Calendar Years (# 0) <input checked="" type="checkbox"/> Notices to Comply (NC) Issued in Last Two Calendar Years (# 0) <input checked="" type="checkbox"/> Notices of Violation (NOV) Issued in Last Two Calendar Years (# 0)

# South Coast Air Quality Management District

## Statement of Basis

### Proposed Renewal of Title V Permit

**Facility Name:** California Institute of Technology  
**Facility ID:** 800387  
**NAICS Code:** 611310  
**Equipment Location:** 650 S. Wilson, Pasadena, CA 91106

**Application #(s):** 517698  
**Application Submittal Date(s):** 1/4/11

**AQMD Contact Person:** Vicky Lee, Air Quality Engineer  
**Phone Number:** (909) 396-2284  
**E-Mail Address:** vlee1@aqmd.gov

#### 1. Introduction and Scope of Permit

Title V is a national operating permit program for air pollution sources. Facilities subject to Title V must obtain a Title V permit and comply with specific Title V procedures to modify the permit. This permit replaces the facility's other existing permits. Title V does not necessarily include any new requirements for reducing emissions. It does, however, include new permitting, noticing, recordkeeping, and reporting requirements.

Pursuant to Title V of the federal Clean Air Act and AQMD Rule 3004(f), a Title V permit shall expire five years from the date of issuance unless such permit has been renewed. Accordingly, each facility is required to submit a Title V renewal application and request the AQMD to renew their Title V permit. The proposed permit incorporates updates to the facility information provided in the facility's Title V renewal application and all rules and regulations that are currently applicable to the facility.

The AQMD implements Title V through Regulation XXX – Title V Permits, adopted by the AQMD Governing Board in order to comply with EPA's requirement that local air permitting authorities develop a Title V program. Regulation XXX was developed with the participation of the public and affected facilities through a series of public workshops, working group meetings, public hearings and other meetings.

The Title V major source threshold for a particular pollutant depends on the attainment status of the pollutant. CO, NO<sub>2</sub>, SO<sub>2</sub>, and lead are in attainment with federal standards. The status for PM-10 is serious nonattainment. The status for ozone is currently extreme nonattainment.

A Title V renewal permit is proposed to be issued to cover the operations of California Institute of Technology at 650 S. Wilson, Pasadena, CA 91106. This facility is subject to Title V requirements because it is a major source.

## **2. Facility Description**

Cal Tech is a Title V facility. This private college is operating twenty diesel fueled internal combustion engines driving emergency generators, a fuel storage and dispensing facility, three boilers, a spray booth for maintenance, a combined cycle cogeneration system controlled by a selective catalytic reduction system, and an aqueous ammonia tank .

## **3. Construction and Permitting History**

The initial Title V facility permit was issued on 10/8/01 and expired on 10/7/06. The first Title V renewal permit was issued on 11/28/06 and will expire on 11/27/11. The facility has been in continuous operation.

## **4. Regulatory Applicability Determinations**

Applicable legal requirements for which this facility is required to comply are required to be identified in the Title V permit (for example, Section D, E, and H of the proposed Title V permit). Applicability determinations (i.e., determinations made by the District with respect to what legal requirements apply to a specific piece of equipment, process, or operation) can be found in the Engineering Evaluations. This facility is subject to the NSPS requirements of 40 CFR 60 and NESHAP requirements of 40 CFR Part 61. The permit terms and conditions are found in Section D of the permit.

## **5. Monitoring and Operational Requirements**

Applicable monitoring and operational requirements for which the facility is required to comply are identified in the Title V permit (for example, Section D, F, and J and Appendix B of the proposed Title V permit). Discussion of any applicable monitoring and operational requirements can be found in the Engineering Evaluations. All periodic monitoring requirements were developed using strict adherence to the following applicable guidance documents: SCAQMD Periodic Monitoring Guidelines for Title V Facilities (November 1997); CAPCOA/CARB/EPA Region IX Periodic Monitoring Recommendations for Generally Applicable Requirements in SIP (June 1999); and CAPCOA/CARB/EPA Region IX Recommended Periodic Monitoring for Generally Applicable Grain Loading Standards in SIP: Combustion Sources (July 2010).

The uncontrolled NOx and CO emissions from the combined cycle cogeneration system are greater than the major source thresholds of 10 tons per year for NOx, and 50 tons per year for CO. As a result, the equipment is subject to the Compliance Assurance Monitoring (CAM) requirements of 40 CFR Part 64. The units are installed with a Continuous Emission Monitoring System (CEMS) for NOx and CO pursuant to Rule 218 and 218.1. Therefore, the use of a continuous monitor to show compliance with an emission limit is exempt from CAM under 64.2(b)(vi). Therefore, CAM requirements of 40 CFR Part 64 do not apply to any of the permitted emission sources at this facility.

## 6. Permit Features

### Permit Shield

A permit shield is an optional part of a Title V permit that gives the facility an explicit protection from requirements that do not apply to the facility. A permit shield is a provision in a permit that states that compliance with the conditions of the permit shall be deemed compliance with all identified regulatory requirements. To incorporate a permit shield into the Title V permit involves submission of applications for change of conditions for each equipment affected by the permit shield. Permit shields are addressed in Rule 3004 (c). This facility has not applied for a permit shield.

### Streamlining Requirements

Some emission units may be subject to multiple requirements which are closely related or redundant. The conditions may be streamlined to simplify the permit conditions and compliance. Emission limits, work practice standards, and monitoring, recordkeeping, and reporting requirements may be streamlined. Compliance with a streamlined condition will be deemed compliance with the underlying requirements whether or not the emission unit is actually in compliance with the specific underlying requirement. This facility has not applied for any streamlined conditions.

## 7. Summary of Emissions and Health Risks

### **Criteria Pollutant Emissions (tons/year) Annual Reported Emissions for Reporting Period 2010**

Pollutant	Emissions (tons/year)
NOx	5.651
CO	6.876
VOC	4.462
PM	6.341
SOx	0.060

### **Toxic Air Contaminants Emissions (TAC) Annual Reported Emissions for Reporting Period 2010**

The Following TACs Were Reported	Emissions (lbs/yr)
1,3-Butadiene	0.978
1,4-Dioxane	0.258
Acetaldehyde	39.103
Acrolein	6.302
Ammonia	5835.016
Arsenic	0.004
Asbestos	0.044
Benz[a]anthracene	0.001
Benzene	31.912
Benzo[k]fluoranthene	0.001

Cadmium	0.004
Carbon tetrachloride	0.928
Copper	0.011
Diesel engine exhaust, particulate matter	89.946
Ethylbenzene	30.131
Formaldehyde	655.50
Hexane	311.007
Hydrochloric acid	0.500
Indeno[1,2,3-cd]pyrene	0.001
Lead (inorganic)	0.022
Manganese	0.008
Mercury	0.005
Methanol	192.332
Methylene chloride	587.302
Naphthalene	1.283
Nickel	0.010
PAHS, total, with components not reported	0.932
Perylene [PAH, POH]	0.001
Propylene oxide	26.539
Selenium	0.005
Toluene	189.062
Xylenes	61.153

### **Health Risk from Toxic Air Contaminants**

The facility is subject to review by the Air Toxics Information and Assessment Act (AB2588). The health risk assessment (HRA) was submitted and approved on 3/1/07. The cancer risk was 2.4 in one million, the acute hazard index was 0.05, and the chronic hazard index was 0.002.

### **8. Compliance History**

The facility has been subject to both self-reporting requirements and AQMD inspections. The facility has had no citizen complaints filed in the last two calendar years. No Notice to Comply (NC) and no Notice of Violation (NOV) have been issued in the last two calendar years. The facility is currently in compliance with all applicable rules and regulations.

### **9. Compliance Certification**

By virtue of the Title V permit application and issuance of this permit, the reporting frequency for compliance certification for the facility shall be annual.



# South Coast Air Quality Management District

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

## NOTICE OF PROPOSED TITLE V RENEWAL PERMIT

The South Coast Air Quality Management District (AQMD) is proposing to renew the existing Title V permit that was previously issued to the following facility:

### **California Institute of Technology**

650 S. Wilson  
Pasadena, CA 91106  
Facility ID# 800387

### *Contact Person:*

William J. Irwin  
Sr. Director of Facilities Management  
1200 E. California Blvd.  
Pasadena, CA 91125

This is an existing facility applying for a Title V permit renewal. This private college is operating twenty diesel fueled internal combustion engines driving emergency generators, a fuel storage and dispensing facility, three boilers, a spray booth for maintenance, a combined cycle cogeneration system controlled by a selective catalytic reduction system, and an aqueous ammonia tank.

Pursuant to Title V of the federal Clean Air Act and AQMD Rule 3004(f), a Title V permit shall expire five years from the date of issuance unless such permit has been renewed. Accordingly, the above facility has submitted a Title V renewal application and requested the AQMD to renew their Title V permit. The proposed permit incorporates updates to the facility information provided in the facility's Title V renewal application and all rules and regulations that are currently applicable to the facility.

The proposed permit is available for public review at AQMD, 21865 Copley Dr.,

Diamond Bar, CA 91765 and at the Hill Avenue Branch Library, 55 S. Hill Avenue, Pasadena, CA 91106. Information regarding the facility owner's compliance history submitted to the AQMD pursuant to California Health & Safety Code Section 42336, or otherwise known to the AQMD based on credible information, is also available from the AQMD for public review. For more information or to review additional supporting documents, call the AQMD's Title V hotline at (909) 396-3013. Written comments should be submitted to:

South Coast Air Quality Management District  
Mechanical, Chemical, and Public Services Team  
21865 Copley Drive  
Diamond Bar, CA 91765  
Attention: Vicky Lee

Comments must be received by October 19, 2011. The AQMD will consider all public comments and may revise the Title V permit in accordance with AQMD rules and regulations.

The public may request AQMD to conduct a public hearing on the proposed permit by submitting a Hearing Request Form (Form 500-G) to Vicky Lee at the above AQMD address. The AQMD will hold a public hearing if there is evidence that the proposed permit is not correct or is not adequate to ensure compliance with regulatory requirements, and a hearing will likely provide additional information that will affect the drafting and/or issuance of the permit. A public hearing request form and the public hearing schedule may be obtained from the AQMD by calling the Title V hotline at (909) 396-3013, or from the internet at <http://www.aqmd.gov/titlev>. The request for a public hearing is due by October 4, 2011. A copy of the hearing request must also be sent by first class mail to the appropriate facility contact person listed above.



South Coast Air Quality Management District

Form 400-A

Application Form for Permit or Plan Approval

List only one piece of equipment or process per form.

Mail To: SCAQMD P.O. Box 4944 Diamond Bar, CA 91765-0944 Tel: (909) 396-3385 www.aqmd.gov

Section A - Operator Information

1. Facility Name (Business Name of Operator to Appear on the Permit): CALIFORNIA INSTITUTE OF TECHNOLOGY
2. Valid AQMD Facility ID (Available On Permit Or Invoice Issued By AQMD): 800387
3. Owner's Business Name (If different from Business Name of Operator): CALIFORNIA INSTITUTE OF TECHNOLOGY

Section B - Equipment Location Address

4. Equipment Location Is: Fixed Location (For equipment operated at various locations, provide address of initial site.)
650 S. WILSON
Street Address
PASADENA, CA 91106
City Zip
ART SEIDEN SAFETY ENGINEER
Contact Name Title
(626) 395-2425 (626) 577-6028
Phone # Ext. Fax #
E-Mail: art@caltech.edu

Section C - Permit Mailing Address

5. Permit and Correspondence Information:
Check here if same as equipment location address
1200 E. CALIFORNIA
Address
PASADENA, CA 91125
City State Zip
ART SEIDEN SAFETY ENGINEER
Contact Name Title
(626) 395-2452 (626) 577-6028
Phone # Ext. Fax #
E-Mail: art@caltech.edu

Section D - Application Type

6. The Facility Is: Not In RECLAIM or Title V In RECLAIM In Title V In RECLAIM & Title V Programs

7. Reason for Submitting Application (Select only ONE):

7a. New Equipment or Process Application:
New Construction (Permit to Construct)
Equipment On-Site But Not Constructed or Operational
Equipment Operating Without A Permit \*
Compliance Plan
Registration/Certification
Streamlined Standard Permit
7b. Facility Permits:
Title V Application or Amendment (Also submit Form 500-A1)
RECLAIM Facility Permit Amendment
7c. Equipment or Process with an Existing/Previous Application or Permit:
Administrative Change
Alteration/Modification
Alteration/Modification without Prior Approval \*
Change of Condition
Change of Condition without Prior Approval \*
Change of Location
Change of Location without Prior Approval \*
Equipment Operating with an Expired/Inactive Permit \*
Existing or Previous Permit/Application
If you MUST provide an existing Permit or Application Number:

8a. Estimated Start Date of Construction (mm/dd/yyyy):
8b. Estimated End Date of Construction (mm/dd/yyyy):
8c. Estimated Start Date of Operation (mm/dd/yyyy):

9. Description of Equipment or Reason for Compliance Plan (list applicable rule):

TITLE V RENEWAL

10. For identical equipment, how many additional applications are being submitted with this application? (Form 400-A required for each equipment / process)

11. Are you a Small Business as per AQMD's Rule 102 definition? (10 employees or less and total gross receipts are \$500,000 or less OR a not-for-profit training center) No Yes
12. Has a Notice of Violation (NOV) or a Notice to Comply (NC) been issued for this equipment? If Yes, provide NOV/NC#: No Yes

Section E - Facility Business Information

13. What type of business is being conducted at this equipment location? UNIVERSITY AND RESEARCH
14. What is your business primary NAICS Code? (North American Industrial Classification System) 611310

15. Are there other facilities in the SCAQMD jurisdiction operated by the same operator? No Yes
16. Are there any schools (K-12) within 1000 feet of the facility property line? No Yes

Section F - Authorization/Signature

I hereby certify that all information contained herein and information submitted with this application are true and correct.

17. Signature of Responsible Official: William Irwin
18. Title of Responsible Official: SR. DIR. OF FACILITIES
19. I wish to review the permit prior to issuance. (This may cause a delay in the application process.) No Yes

20. Print Name: WILLIAM IRWIN
21. Date: 12/20/2010
22. Do you claim confidentiality of data? (If Yes, see instructions.) No Yes

23. Check List: Authorized Signature/Date Form 400-CEQA Supplemental Form(s) (ie., Form 400-E-xx) Fees Enclosed

Table with columns: AQMD USE ONLY, APPLICATION TRACKING #, CHECK #, AMOUNT RECEIVED, PAYMENT TRACKING #, VALIDATION, DATE, APP REJ, DATE, APP REJ, CLASS I III, BASIC CONTROL, EQUIPMENT CATEGORY CODE, TEAM ENGINEER, REASON/ACTION TAKEN