



South Coast Air Quality Management District

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

May 30, 2008

Mr. Gerardo Rios
Chief, Permits Office
U. S. EPA – Region IX – Air3
75 Hawthorne St.
San Francisco, CA 94105

**Subject: Title V Permit to Operate Revision No. 8
California Institute of Technology – ID # 800387**

Dear Mr. Rios:

The California Institute of Technology has revised its Title V Facility Permit by adding a Permit to Construct/Operate for an emergency internal combustion engine (Application No. 476877). This revision is considered a "de minimis significant permit revision" to their Title V Facility Permit and a copy was sent for your review on April 4, 2008.

Please insert the enclosed sections into the facility permit and discard the earlier versions. Questions concerning these changes should be directed to the processing engineer, Ms. Vicky Lee, at (909) 396-2284.

Very truly yours,

Michael A. Mills

Michael D. Mills, P.E.
Senior Manager
General Commercial and Energy Team
Engineering and Compliance

MDM:RGC:VL

Enclosures

cc: (w/o) Enclosures
Title V Facility File
Title V Administrative File

Cleaning the air that we breathe.



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

TABLE OF CONTENTS

Section	Description	Revision #	Date Issued
A	Facility Information	2	11/28/2006
B	RECLAIM Annual Emission Allocation	2	11/28/2006
C	Facility Plot Plan	TO BE DEVELOPED	
D	Facility Description and Equipment Specific Conditions	8	05/27/2008
E	Administrative Conditions	2	11/28/2006
F	RECLAIM Monitoring and Source Testing Requirements	2	11/28/2006
G	Recordkeeping and Reporting Requirements for RECLAIM Sources	2	11/28/2006
H	Permit To Construct and Temporary Permit to Operate	2	11/28/2006
I	Compliance Plans & Schedules	2	11/28/2006
J	Air Toxics	2	11/28/2006
K	Title V Administration	3	05/27/2008
Appendix			
A	NOx and SOx Emitting Equipment Exempt From Written Permit Pursuant to Rule 219	2	11/28/2006
B	Rule Emission Limits	3	05/27/2008



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

**Facility Equipment and Requirements
(Section D)**

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



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

PERMITTED EQUIPMENT LIST

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

Application number	Permit to Operate number	Equipment description
222133	D43676	I C E (50-500 HP) EM ELEC GEN-NAT GAS
222134	D22764	I C E (50-500 HP) EM ELEC GEN-DIESEL
267420	D58610	I C E (50-500 HP) EM ELEC GEN-DIESEL
271879	D64372	I C E (50-500 HP) EM ELEC GEN-DIESEL
292810	D83124	I C E (50-500 HP) EM ELEC GEN-DIESEL
304633	D91737	I C E (50-500 HP) EM ELEC GEN-DIESEL
335460	F15249	I C E (50-500 HP) EM ELEC GEN-DIESEL
346594	F18063	I C E (50-500 HP) EM ELEC GEN-DIESEL
360776	F41928	I C E (50-500 HP) EM ELEC GEN-DIESEL
385178	F41929	I C E (50-500 HP) EM ELEC GEN-DIESEL
385441	F39728	I C E (50-500 HP) EM ELEC GEN-DIESEL
390098	F45731	I C E (>500 HP) EM ELEC GEN-DIESEL
404167	F53900	I C E (50-500 HP) EM ELEC GEN-DIESEL
404168	F54055	I C E (50-500 HP) EM ELEC GEN-DIESEL
408837	F76394	I C E (>500 HP) EM ELEC GEN-DIESEL
430597	F76393	I C E (50-500 HP) EM ELEC GEN-DIESEL
449574	F84102	I C E (50-500 HP) EM ELEC GEN-DIESEL
C07999	P69655	SPRAY BOOTH PAINT AND SOLVENT
441638	N16673	SERV STAT STORAGE & DISPENSING GASOLINE
404163	F53863	BOILER (>50 MMBTU/HR) COMB GAS-DISTILL
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
446735	PERMIT TO CONSTRUCT	BOILER (>50 MMBTU/HR) COMB GAS-DISTILL
473550	PERMIT TO CONSTRUCT	I C E (50-500 HP) EM ELECT GEN-DIESEL
406489	PERMIT TO CONSTRUCT	I C E (>500 HP) EM ELECT GEN-DIESEL

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



FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

FACILITY WIDE CONDITION(S)

Condition(s):

1. EXCEPT FOR OPEN ABRASIVE BLASTING OPERATIONS, THE OPERATOR SHALL NOT DISCHARGE INTO THE ATMOSPHERE FROM ANY SINGLE SOURCE OF EMISSIONS WHATSOEVER ANY AIR CONTAMINANT FOR A PERIOD OR PERIODS AGGREGATING MORE THAN THREE MINUTES IN ANY ONE HOUR WHICH IS:
 - A. AS DARK OR DARKER IN SHADE AS THAT DESIGNATED NO. 1 ON THE RINGELMANN CHART, AS PUBLISHED BY THE UNITED STATES BUREAU OF MINES; OR
 - B. OF SUCH OPACITY AS TO OBSCURE AN OBSERVER'S VIEW TO A DEGREE EQUAL TO OR GREATER THAN DOES SMOKE DESCRIBED IN SUBPARAGRAPH (A) OF THIS CONDITION.
[RULE 401]

2. THE OPERATOR SHALL NOT PURCHASE ANY DIESEL FUEL UNLESS THE FUEL IS LOW SULFUR DIESEL FOR WHICH THE SULFUR CONTENT SHALL NOT EXCEED 15 PPMV BY WEIGHT AS SUPPLIED BY THE SUPPLIER.
[RULE 431.2, RULE 1470]5

3. THE OPERATOR SHALL NOT USE NATURAL GAS CONTAINING SULFUR COMPOUNDS, CALCULATED AS H₂S, IN EXCESS OF 16 PPMV. THE OPERATOR SHALL NOT USE OR SELL GASEOUS FUEL CONTAINING SULFUR COMPOUNDS IN EXCESS OF 40 PPMV CALCULATED AS HYDROGEN SULFIDE AVERAGED OVER FOUR HOURS.
[RULE 431.1]



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

PERMIT TO OPERATE

**Permit No. D43676
A/N 222133**

Equipment Description:

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

Conditions:

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

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



FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

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

Periodic Monitoring:

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

Emissions And Requirements:

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

PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS



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

PERMIT TO OPERATE

**Permit No. D22764
A/N 222134**

Equipment Description:

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

Conditions:

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

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



FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

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]

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

Periodic Monitoring:

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

Emissions And Requirements:

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



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

PERMIT TO OPERATE

**Permit No. D58610
A/N 267420**

Equipment Description:

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

Conditions:

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

[RULE 204]

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

[RULE 204]

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

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

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

A. EMERGENCY USE HOURS OF OPERATION

B. MAINTENANCE AND TESTING HOURS

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

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

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

5. OPERATION BEYOND THE 20 HOURS PER YEAR ALLOTTED FOR ENGINE MAINTENANCE AND



FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

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]

Periodic Monitoring:

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

Emissions and Requirements:

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



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

PERMIT TO OPERATE

**Permit No. D64372
A/N 271879**

Equipment Description:

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

Conditions:

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

[RULE 204]

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

[RULE 204]

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

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

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

A. EMERGENCY USE HOURS OF OPERATION

B. MAINTENANCE AND TESTING HOURS

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

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

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

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



FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

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

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

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

Periodic Monitoring:

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

Emissions and Requirements:

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



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

PERMIT TO OPERATE

**Permit No. D83124
A/N 292810**

Equipment Description:

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

Conditions:

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

[RULE 204]

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

[RULE 204]

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

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

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

A. EMERGENCY USE HOURS OF OPERATION

B. MAINTENANCE AND TESTING HOURS

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

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

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

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



FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

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

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

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

Periodic Monitoring:

8. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-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. D91737
A/N 304633**

Equipment Description:

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

Conditions:

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

[RULE 204]

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

[RULE 204]

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

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

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

A. EMERGENCY USE HOURS OF OPERATION

B. MAINTENANCE AND TESTING HOURS

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

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

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

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



FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

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

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

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

Periodic Monitoring:

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

Emissions and Requirements:

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



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

PERMIT TO OPERATE

**Permit No. F15249
A/N 335460**

Equipment Description:

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

Conditions:

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

[RULE 204]

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

[RULE 204]

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

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

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

A. EMERGENCY USE HOURS OF OPERATION

B. MAINTENANCE AND TESTING HOURS

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

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

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

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



FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

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

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

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

Periodic Monitoring:

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

Emissions and Requirements:

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



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

PERMIT TO OPERATE

**Permit No. F18063
A/N 346594**

Equipment Description:

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

Conditions:

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

[RULE 204]

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

[RULE 204]

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

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

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

A. EMERGENCY USE HOURS OF OPERATION

B. MAINTENANCE AND TESTING HOURS

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

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

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

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



FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

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

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

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

Periodic Monitoring:

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

Emissions and Requirements:

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



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

PERMIT TO OPERATE

**Permit No. F41928
A/N 360776**

Equipment Description:

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

Conditions:

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

[RULE 204]

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

[RULE 204]

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

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

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

A. EMERGENCY USE HOURS OF OPERATION

B. MAINTENANCE AND TESTING HOURS

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

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

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

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



FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

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

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

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

Periodic Monitoring:

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

Emissions and Requirements:

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



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

PERMIT TO OPERATE

**Permit No. F41929
A/N 385178**

Equipment Description:

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

Conditions:

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

[RULE 204]

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

[RULE 204]

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

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

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

A. EMERGENCY USE HOURS OF OPERATION

B. MAINTENANCE AND TESTING HOURS

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

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

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

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



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. 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



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. 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



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. 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



FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

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

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

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

Periodic Monitoring:

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

Emissions and Requirements:

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



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

PERMIT TO OPERATE

**Permit No. 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



FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

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

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

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

Periodic Monitoring:

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

Emissions and Requirements:

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



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

PERMIT TO OPERATE

**Permit No. 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



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. 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



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. P69655
A/N C07999**

Equipment Description:

SPRAY BOOTH, DEVILBLESS, FLOOR FILTER TYPE, 9'-6" W X 8'-0" H X 18'-2" D, SERIAL NO. 18824, WITH ONE 5 HP EXHAUST FAN.

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. THIS SPRAY BOOTH SHALL NOT BE OPERATED UNLESS ALL EXHAUST AIR PASSES THROUGH FILTER MEDIA AT LEAST 2 INCHES THICK.
[RULE 1303 (a)(1)]
4. THE PRESSURE DROP MEASURED ACROSS THE EXHAUST FILTERS SHALL NOT EXCEED .25 INCHES OF WATER.
[RULE 1303 (a)(1)]
5. PHOTOCHEMICALLY REACTIVE SOLVENTS SHALL NOT BE USED TO THIN, REDUCE OR DILUTE COATING MATERIALS USED IN THIS EQUIPMENT.
[RULE 442]
6. THE TOTAL QUANTITY OF COATINGS AND SOLVENTS USED IN THIS EQUIPMENT SHALL NOT EXCEED 6 GALLONS IN ANY ONE DAY OR 1 GALLON IN ANY ONE HOUR.
[RULE 1136]

Periodic Monitoring:

7. THE OPERATOR SHALL DETERMINE AND RECORD THE PRESSURE DROP ACROSS THE FILTER MEDIA ONCE EVERY WEEK.
[RULE 3004 (a)(4)]
8. THE OPERATOR SHALL INSTALL AND MAINTAIN A DIFFERENTIAL PRESSURE GAUGE TO ACCURATELY INDICATE THE DIFFERENTIAL PRESSURE ACROSS THE FILTER. THE OPERATOR SHALL DETERMINE AND RECORD THE PARAMETER BEING MONITORED ONCE EVERY WEEK.
[RULE 3004 (a)(4)]



FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

9. THE OPERATOR SHALL USE THIS EQUIPMENT IN SUCH A MANNER THAT THE DIFFERENTIAL PRESSURE ACROSS THE FILTER DOES NOT EXCEED 0.25 INCHES WATER COLUMN. TO COMPLY WITH THIS CONDITION THE OPERATOR SHALL INSTALL AND MAINTAIN A PRESSURE GAUGE TO ACCURATELY INDICATE THE DIFFERENTIAL PRESSURE ACROSS THE FILTER. THE OPERATOR SHALL DETERMINE AND RECORD THE PARAMETER BEING MONITORED ONCE EVERY WEEK.
[RULE 3004 (a)(4)]
10. 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
 - C. THE DATE, TIME AND DESCRIPTION OF ANY MAINTENANCE OR REPAIRS RESULTING FROM THE INSPECTION.
- [RULE 3004 (a)(4)]

Emissions And Requirements:

11. 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
 - PM: RULE 481
 - VOC: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS



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

PERMIT TO OPERATE

**Permit No. N16673
A/N 441638**

Equipment Description:

Fuel Storage and Dispensing Facility Consisting of:

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

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT WAS ISSUED, UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. EXCEPT FOR DIESEL TRANSFERS, PHASE I VAPOR RECOVERY SYSTEMS SHALL BE IN FULL OPERATION WHENEVER FUEL IS BEING TRANSFERRED INTO STORAGE TANKS.
[RULE 461]
4. EXCEPT FOR DIESEL TRANSFERS, PHASE II VAPOR RECOVERY SYSTEMS SHALL BE IN FULL OPERATION WHENEVER FUEL IS BEING TRANSFERRED INTO MOTOR VEHICLES, AS DEFINED IN RULE 461.
[RULE461]
5. ALL PHASE I AND PHASE II VAPOR RECOVERY EQUIPMENT AT THIS FACILITY SHALL BE INSTALLED, OPERATED AND MAINTAINED TO MEET ALL CALIFORNIA AIR RESOURCES BOARD CERTIFICATION REQUIREMENTS.
[RULE 461, RULE 1303 (a)(1)]



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

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

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

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

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

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

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

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



FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

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

[RULE 461]

9. THE TESTING FOR THE ABOVE MENTIONED TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH THE MOST RECENT RULE 461 AMENDMENT OR CARB EXECUTIVE ORDER REQUIREMENTS, WHICHEVER IS MORE STRINGENT.
[RULE 461]
10. ALL RECORDS AND TEST RESULTS THAT ARE REQUIRED TO BE MAINTAINED BY RULE 461 SHALL BE KEPT ON SITE FOR FOUR YEARS AND MADE AVAILABLE TO DISTRICT REPRESENTATIVES UPON REQUEST.
[RULE 461]
11. AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO BACK-FILLING ANY UNDERGROUND STORAGE TANK OR PIPING, THE SCAQMD SHALL BE NOTIFIED BY E-MAIL AT R461BACKFILL@AQMD.GOV OR BY FACSIMILE AT TELEPHONE NUMBER (909) 396-3606. SUCH NOTIFICATION SHALL INCLUDE THE NAME OF THE OWNER OR OPERATOR; THE NAME OF THE CONTRACTORS; THE LOCATION OF THE FACILITY; AND THE SCHEDULED START AND COMPLETION DATES OF THE BACK-FILLING PROCEDURE. THE BACK-FILLING PROCEDURE SHALL NOT COMMENCE UNTIL INSPECTED BY A DISTRICT REPRESENTATIVE.
[RULE 461]
12. A PRESSURE INTEGRITY TEST OF THE DROP TUBE/DRAIN VALVE ASSEMBLY SHALL BE CONDUCTED TO QUANTIFY THE PRESSURE INTEGRITY OF BOTH THE DROP TUBE AND DRAIN VALVE SEAL. THE TEST SHALL BE CONDUCTED AS A REVERIFICATION TEST AND THE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH TEST PROCEDURE METHOD TP-201.1C. RESULTS SHALL BE SUBMITTED TO THE AQMD, OFFICE OF ENGINEERING AND COMPLIANCE, WITHIN SEVENTY-TWO (72) HOURS OF TEST.

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

[RULE 461]



FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

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

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

[RULE 461]

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

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

[RULE 461]

Periodic Monitoring:

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

[RULE 3004 (a)(4)]



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

Emissions And Requirements:

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

VOC: RULE 461



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

PERMIT TO OPERATE

**Permit No. F53863
A/N 404163**

Equipment Description:

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

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS BOILER SHALL EMIT NO MORE THAN 30 PPM FOR OXIDES OF NITROGEN (NOX), CALCULATED AS NO2 AND 400 PPM OF CARBON MONOXIDE (CO), ALL MEASURED BY VOLUME, ON A DRY BASIS, AT 3% O2.
[RULE 1146, RULE 1303 (b)(2)]
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. F53892
A/N 404164**

Equipment Description:

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

Conditions:

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

Periodic Monitoring:

6. THE OPERATOR SHALL CONDUCT AN INSPECTION FOR VISIBLE EMISSION FROM ALL STACKS AND OTHER EMISSION POINTS OF THIS EQUIPMENT WHENEVER THIS EQUIPMENT HAS COMBUSTED ONE MILLION GALLONS OF DIESEL FUEL, TO BE COUNTED CUMULATIVELY OVER A FIVE YEAR PERIOD. THE INSPECTION SHALL BE CONDUCTED WHILE THE EQUIPMENT IS IN OPERATION AND DURING DAYLIGHT HOURS. IF ANY VISIBLE EMISSIONS (NOT INCLUDING CONDENSED WATER VAPOR) ARE DETECTED THAT LAST MORE THAN THREE MINUTES IN ANY ONE HOUR, THE OPERATOR SHALL EITHER:
 - A. TAKE CORRECTIVE ACTION(S) THAT ELIMINATES THE VISIBLE EMISSIONS WITHIN 24 HOURS AND REPORT THE VISIBLE EMISSIONS AS A POTENTIAL DEVIATION IN THE SAME 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. 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 ₂
CO	:	6 PPMV @ 15% O ₂
ROG	:	4.5 PPMV @ 15% O ₂

[RULE 1303(a)(1)--BACT, RULE 1303(b)(2)--OFFSET]
- 4) THE OPERATOR SHALL CONDUCT SOURCE TEST(S) FOR THE POLLUTANT(S) IDENTIFIED BELOW.

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

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

CO AND NO_x CONCENTRATION IN PPMV.

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

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



FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

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

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

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

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

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

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

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

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

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

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

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

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

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

[RULE 475]

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

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



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

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

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

Emissions and Requirements:

NOx: 92 PPMV, 40CFR60 SUBPART GG
NOx: 2.5 PPMV, RULE 1303-BACT
CO: 6 PPMV, RULE 1303-BACT
CO: 2000 PPMV, RULE 407
SOx: 150 PPMV, 40CFR60 SUBPART GG
PM: 0.1 GR/SCF, RULE 409
PM: 0.01 GR/SCF; 11LBS/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 CAMET METAL CO OXIDATION TYPE CATALYST, AND
3. AMMONIA INJECTION SYSTEM.

Conditions:

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

POLLUTANT(S) TO BE TESTED	REQUIRED TEST METHOD(S)	AVG. TIME	TEST LOCATION
NH3 EMISSIONS	DISTRICT METHOD 207.1 AND 5.3 OR EPA METHOD 17	1 HOUR	SCR OUTLET

THE TEST SHALL BE CONDUCTED AT LEAST QUARTERLY DURING THE FIRST TWELVE MONTHS OF OPERATION AND AT LEAST ANNUALLY THEREAFTER. THE NOX



FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

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,



AQMD

FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

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

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

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

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

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.

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

Permit No. *TBD*
A/N 446735

Equipment Description:

MODIFICATION TO AN EXISTING BOILER, PERMIT NO. F53863 (APPL. NO. 404163), BY THE ADDITION OF ONE COEN LOW NOX BURNER, MODEL NO. FIR-63, RATED AT 63,000,000 BTU PER HOUR, AND THE REMOVAL OF ONE FABER LOW NOX BURNER, MODEL NO. WB-1-26.

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 AND ONLY USE FUEL OIL AS STAND-BY FUEL.
[RULE 1146]
4. WHEN OPERATING ON NATURAL GAS, THIS BOILER SHALL EMIT NO MORE THAN 30 PPM OF OXIDES OF NITROGEN, CALCULATED AS NO₂, AND 400 PPM OF CARBON MONOXIDE, ALL MEASURED BY VOLUME ON A DRY BASIS AT 3% O₂. WHEN OPERATING ON FUEL OIL, THIS BOILER SHALL EMIT NO MORE THAN 40 PPM OF OXIDES OF NITROGEN, CALCULATED AS NO₂, AND 400 PPM OF CARBON MONOXIDE, ALL MEASURED BY VOLUME ON A DRY BASIS AT 3% O₂.
[RULE 1146]
5. AN OPERATIONAL NON-RESETTABLE TOTALIZING FUEL METER SHALL BE INSTALLED AND MAINTAINED ON THIS EQUIPMENT TO RECORD THE FUEL USAGE.
[RULE 1146]
6. THE FLUE GAS RECIRCULATION SYSTEM SHALL BE IN FULL OPERATION AND KEPT IN FULL OPERATION WHENEVER THE BOILER IS IN OPERATION.
[RULE 1146]
7. THE OPERATOR OF THIS BOILER SHALL COMPLY WITH ANNUAL SOURCE TESTING REQUIREMENTS OF SUBDIVISION (D)-COMPLIANCE DETERMINATION OF RULE 1146.
[RULE 1146]



FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

8. 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]
9. RECORDS OF SUCH ADJUSTMENTS, TUNE-UPS, AND CALIBRATIONS AS STATED IN CONDITION NO. 8 SHALL BE KEPT FOR AT LEAST TWO YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1146]
10. 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]
11. 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]
12. THE OWNER OR OPERATOR OF THIS EQUIPMENT SHALL CONDUCT A SOURCE TEST UNDER THE FOLLOWING CONDITIONS:
 - A. SOURCE TESTING SHALL BE CONDUCTED WITHIN 60 DAYS AFTER INITIAL START-UP UNLESS OTHERWISE APPROVED IN WRITING BY THE EXECUTIVE OFFICER.
 - B. THE SOURCE TEST SHALL BE PERFORMED TO VERIFY COMPLIANCE WITH THE NOX AND CO EMISSION LIMITS SPECIFIED BY THIS PERMIT.
 - C. THE SOURCE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH SCAQMD METHOD 100.1.
 - D. THE TEST SHALL BE CONDUCTED WHILE THE BOILER IS OPERATING AT MAXIMUM, MINIMUM AND AVERAGE FIRING RATES. THE SAMPLING DURATIONS 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 SOUTH COAST AIR QUALITY MANGEMENT DISTRICT, P.O. BOX 4941, DIAMOND BAR, CA 91765) AT LEAST 14 DAYS PRIOR TO TESTING SO THAT AN OBSERVER MAY BE PRESENT.



FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

- F. TWO COMPLETE COPIES OF SOURCE TEST REPORTS SHALL BE SUBMITTED TO THE DISTRICT (ADDRESSED TO SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, P.O. BOX 4941, DIAMOND BAR, CA 91765) REFERENCING APPLICATION NO. 446735, WITHIN 45 DAYS AFTER THE TEST. THE REPORT SHALL INCLUDE, BUT NOT LIMITED TO EMISSION 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.
 - V. THE FUEL FLOW RATE.

[RULE 1146]

13. A TESTING LABORATORY CERTIFIED BY THE CALIFORNIA AIR RESOURCES BOARD IN THE REQUIRED TEST METHODS FOR CRITERIA POLLUTANT TO BE MEASURED, AND IN COMPLIANCE WITH DISTRICT RULE 304 (NO CONFLICT OF INTEREST) SHALL CONDUCT THE TEST.
[RULE 217]
14. SAMPLING FACILITIES SHALL COMPLY WITH THE DISTRICT GUIDELINES FOR CONSTRUCTION OF SAMPLING AND TESTING FACILITIES, PURSUANT TO RULE 217.
[RULE 217]
15. THIS BOILER SHALL BE OPERATED IN COMPLIANCE WITH THE REQUIREMENTS OF RULE 1146.
[RULE 1146]
16. THE OPERATOR SHALL COMPLY WITH RULE 218 BY OPERATING AN OXIDES OF NITROGEN CONTINUOUS EMISSIONS MONITORING SYSTEM.
[RULE 218, RULE 1146]

Emissions And Requirements:

17. 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

Permit No. *TBD*
A/N 473550

Equipment Description:

MODIFICATION TO AN INTERNAL COMBUSTION ENGINE, PERMIT NO. D58610 (APPL. NO. 267420), BY THE ADDITION OF A 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 CONSTRUCT

**Permit No. TBD
A/N 406489**

Equipment Description:

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

Conditions:

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



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

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

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

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

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

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

8. THE OPERATOR SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF RULE 1470.
[RULE 1470]

9. THIS EQUIPMENT SHALL NOT BE OPERATED UNLESS IT IS VENTED TO A DIESEL PARTICULATE FILTER SYSTEM WHICH IS IN FULL OPERATION AND IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 1470]

10. THE OPERATOR SHALL OPERATE THE DIESEL PARTICULATE FILTER SYSTEM ONLY WITH AN OPERATIONAL HIBACK DATA LOGGING AND ALARM SYSTEM WITH BACK PRESSURE MONITOR AND TEMPERATURE MONITOR.
[RULE 1470]

11. THE HIBACK DATA LOGGING AND ALARM SYSTEM SHALL BE PROGRAMMED TO PROVIDE A RED WARNING SIGNAL AND AN AUDIBLE ALARM, WHENEVER THE ENGINE BACKPRESSURE REACHES THE MAXIMUM BACKPRESSURE LIMIT OF 41 INCHES OF WATER. IN OPERATION, THE ENGINE BACKPRESSURE SHALL NOT EXCEED 41 INCHES OF WATER.
[RULE 1470]

12. THE ENGINE SHALL BE OPERATED AT THE LOAD LEVEL REQUIRED TO ACHIEVE AN ENGINE EXHAUST GAS TEMPERATURE OF 572 DEGREES FAHRENHEIT (300 DEGREES CENTIGRADE) FOR PASSIVE REGENERATION OF THE DIESEL PARTICULATE FILTER FOR AT LEAST 30% OF THE OPERATING TIME.
[RULE 1470]

13. THIS ENGINE SHALL NOT BE OPERATED BELOW THE PASSIVE REGENERATION TEMPERATURE SPECIFIED IN CONDITION NO. 12 FOR MORE THAN 240 CONSECUTIVE MINUTES.
[RULE 1470]

14. THE OPERATOR SHALL REGENERATE THE DIESEL PARTICULATE FILTER AFTER EVERY 12 COLD STARTS OR WHENEVER A YELLOW WARNING SIGNAL INDICATING THE BACKPRESSURE IS 10% BELOW THE MAXIMUM BACKPRESSURE LIMIT SPECIFIED IN CONDITION NO. 11 IS RECEIVED FROM THE HIBACK ALARM SYSTEM, WHICHEVER OCCURS FIRST. IN ORDER TO



FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

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

[RULE 1470]

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

Periodic Monitoring:

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

Emissions and Requirements:

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



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

RULE 219 EQUIPMENT

Equipment Description:

RULE 219 EXEMPT EQUIPMENT, REFRIGERATION UNITS

Emissions And Requirements:

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

REFRIGERANT: RULE 1415
REFRIGERANT: 40CFR 82 SUBART F



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

RULE 219 EQUIPMENT

Equipment Description:

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

Emissions And Requirements:

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

REFRIGERANT: RULE 1411
REFRIGERANT: 40CFR 82 SUBART B



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

RULE 219 EQUIPMENT

Equipment Description:

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

Emissions And Requirements:

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



FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

RULE 219 EQUIPMENT

Equipment Description:

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

Emissions And Requirements:

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

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



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

RULE 219 EQUIPMENT

Equipment Description:

RULE 219 EXEMPT EQUIPMENT, FIRE EXTINGUISHING EQUIPMENT

Emissions And Requirements:

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

HALON: RULE 1418



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

RULE 219 EQUIPMENT

Equipment Description:

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

Emissions And Requirements:

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

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



FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

RULE 219 EQUIPMENT

Equipment Description:

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

Periodic Monitoring:

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

[RULE 3004 (a) (4)]

Emissions And Requirements:

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



FACILITY PERMIT TO OPERATE CAL INST OF TECHNOLOGY

RULE 219 EQUIPMENT

Equipment Description:

RULE 219 EXEMPT EQUIPMENT, NEGATIVE AIR MACHINES

Periodic Monitoring:

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

Emissions And Requirements:

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

ASBESTOS: RULE 1403



**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 the initial 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)]

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.



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

SECTION K: TITLE V Administration

- (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)]

- 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)]



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

SECTION K: TITLE V Administration

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)]
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



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

SECTION K: TITLE V Administration

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 emergency¹ constitutes an affirmative defense to an action brought for non-compliance 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]

¹ "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.
 - (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.



FACILITY PERMIT TO OPERATE CAL INST OF TECH

SECTION K: TITLE V Administration

- (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;
- (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)]



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

SECTION K: TITLE V Administration

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 Title V 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.

RULE SOURCE	Adopted/Amended Date	FEDERAL Enforceability
RULE 109	5-2-2003	Federally enforceable
RULE 1107	1-6-2006	Non federally enforceable
RULE 1107	11-9-2001	Federally enforceable
RULE 1111	7-8-1983	Federally enforceable
RULE 1113	11-8-1996	Federally enforceable
RULE 1113	6-9-2006	Non federally enforceable
RULE 1113	7-13-2007	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 1171	11-7-2003	Federally enforceable
RULE 1171	2-1-2008	Non federally enforceable
RULE 1171	7-14-2006	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	4-8-1994	Non federally enforceable
RULE 1411	3-1-1991	Non federally enforceable
RULE 1415	10-14-1994	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	Non federally enforceable
RULE 218	8-7-1981	Federally enforceable



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

SECTION K: TITLE V Administration

RULE SOURCE	Adopted/Amended Date	FEDERAL Enforceability
RULE 218	8-7-1981	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 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 431.1	6-12-1998	Federally enforceable
RULE 442	12-15-2000	Federally enforceable
RULE 461	3-7-2008	Federally enforceable
RULE 461	6-3-2005	Federally enforceable
RULE 481	1-11-2002	Federally enforceable
40CFR 60 Subpart GG	2-24-2006	Federally enforceable
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 B: RULE EMISSION LIMITS
[RULE 1107 1-6-2006]

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:

VOC LIMITS								
Less Water and Less Exempt Compounds								
Effective Dates								
Coating	Air-Dried				Baked			
	gm/l		lb/gal		gm/l		lb/gal	
	Current	7/1/07	Current	7/1/07	Current	7/1/07	Current	7/1/07
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 1-6-2006]

VOC LIMITS								
Less Water and Less Exempt Compounds								
Effective Dates, cont.								
Coating	Air-Dried				Baked			
	gm/l		lb/gal		gm/l		lb/gal	
	Current	7/1/07	Current	7/1/07	Current	7/1/07	Current	7/1/07
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 1107 11-9-2001]

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:

<u>Coating</u>	LIMITS			
	Grams of VOC Per Liter of Coating, Less Water and Less Exempt Compounds			
	<u>Air Dried</u>	<u>(lb/gal)</u>	<u>Baked</u>	<u>(lb/gal)</u>
General				
One-Component	275	(2.3)	275	(2.3)
Multi-Component	340	(2.8)	275	(2.3)
Military Specification	340	(2.8)	275	(2.3)
Etching Filler	420	(3.5)	420	(3.5)
Solar-Absorbent	420	(3.5)	360	(3.0)
Heat-Resistant	420	(3.5)	360	(3.0)
Extreme High-Gloss	420	(3.5)	360	(3.0)
Metallic	420	(3.5)	420	(3.5)
Extreme Performance	420	(3.5)	360	(3.0)
Prefabricated Architectural Component	420	(3.5)	275	(2.3)
Touch Up	420	(3.5)	360	(3.0)
Repair	420	(3.5)	360	(3.0)
Silicone Release	420	(3.5)	420	(3.5)
High Performance Architectural	420	(3.5)	420	(3.5)
Camouflage	420	(3.5)	420	(3.5)
Vacuum-Metalizing	420	(3.5)	420	(3.5)
Mold-Seal	420	(3.5)	420	(3.5)
High-Temperature	420	(3.5)	420	(3.5)
Electric-Insulating Varnish	420	(3.5)	420	(3.5)
Pan Backing	420	(3.5)	420	(3.5)
Pretreatment Coatings	420	(3.5)	420	(3.5)



FACILITY PERMIT TO OPERATE
CAL INST OF TECH

APPENDIX B: RULE EMISSION LIMITS
[RULE 1107 11-9-2001]

- (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 11-8-1996]

- (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
Industrial Maintenance							



FACILITY PERMIT TO OPERATE
CAL INST OF TECH

APPENDIX B: RULE EMISSION LIMITS
[RULE 1113 11-8-1996].

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 Undercoaters	350					
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



FACILITY PERMIT TO OPERATE
CAL INST OF TECH

APPENDIX B: RULE EMISSION LIMITS
[RULE 1113 11-8-1996]

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 7-13-2007]

- (1) Except as provided in paragraphs (c)(2), (c)(3), (c)(4), and specified coatings averaged under (c)(6), no person shall supply, sell, offer for sale, manufacture, blend, or repackage any architectural coating for use in the District 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, and no person shall apply or solicit the application of any architectural coating within the District that exceeds 250 grams of VOC per liter of coating as calculated in this paragraph.
- (2) Except as provided in paragraphs (c)(3), (c)(4), and designated coatings averaged under (c)(6), no person shall supply, sell, offer for sale, 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, and no person shall apply or solicit the application of any architectural coating within the District that exceeds the VOC limit as specified in this paragraph. No person shall apply or solicit the application within the District of any industrial maintenance coatings, except anti-graffiti coatings, for residential use or for use in areas such as office space and meeting rooms of industrial, commercial or institutional facilities not exposed to such extreme environmental conditions described in the definition of industrial maintenance coatings; or of any rust-preventative coating for industrial use, unless such a rust preventative coating complies with the Industrial Maintenance Coating VOC limit specified in the Table of Standards.



FACILITY PERMIT TO OPERATE
CAL INST OF TECH

APPENDIX B: RULE EMISSION LIMITS
[RULE 1113 7-13-2007]

TABLE OF STANDARDS
VOC LIMITS

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

COATING CATEGORY	Ceiling Limit*	Current Limit	Effective Date					
			1/1/03	1/1/04	1/1/05	7/1/06	7/1/07	7/1/08
Bond Breakers	350							
Clear Wood Finishes	350					275		
Varnish	350					275		
Sanding Sealers	350					275		
Lacquer	680	550			275			
Clear Brushing Lacquer	680				275			
Concrete-Curing Compounds	350						100	
Concrete-Curing Compounds For Roadways and Bridges**	350							
Dry-Fog Coatings	400						150	
Fire-Proofing Exterior Coatings	450	350						
Fire-Retardant Coatings***								
Clear	650							
Pigmented	350							
Flats	250	100						50
Floor Coatings	420		100			50		
Graphic Arts (Sign) Coatings	500							
Industrial Maintenance (IM) Coatings	420			250		100		
High Temperature IM Coatings			420					
Zinc-Rich IM Primers	420		340			100		
Japans/Faux Finishing Coatings	700	350						
Magnesite Cement Coatings	600	450						
Mastic Coatings	300							
Metallic Pigmented Coatings	500							
Multi-Color Coatings	420	250						
Nonflat Coatings	250		150			50		
Nonflat High Gloss	250		150				50	



FACILITY PERMIT TO OPERATE
CAL INST OF TECH

APPENDIX B: RULE EMISSION LIMITS
[RULE 1113 7-13-2007]

COATING CATEGORY	Ceiling Limit*	Current Limit	Effective Date					
			1/1/03	1/1/04	1/1/05	7/1/06	7/1/07	7/1/08
Pigmented Lacquer	680	550			275			
Pre-Treatment Wash Primers	780		420					
Primers, Sealers, and Undercoaters	350		200			100		
Quick-Dry Enamels	400		250			150	50	
Quick-Dry Primers, Sealers, and Undercoaters	350		200			100		
Recycled Coatings			250					
Roof Coatings	300		250		50			
Roof Coatings, Aluminum	500				100			
Roof Primers, Bituminous	350		350					
Rust Preventative Coatings	420		400			100		
Shellac								
Clear	730							
Pigmented	550							
Specialty Primers	350					250	100	
Stains	350		250				100	
Stains, Interior	250							
Swimming Pool Coatings								
Repair	650		340					
Other	340							
Traffic Coatings	250	150					100	
Waterproofing Sealers	400		250			100		
Waterproofing	400					100		
Concrete/Masonry Sealers								
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.

** Does not include compounds used for curbs and gutters, sidewalks, islands, driveways and other miscellaneous concrete areas.

*** The Fire-Retardant Coating category will be eliminated on January 1, 2007 and subsumed by the coating category for which they are formulated.



FACILITY PERMIT TO OPERATE
CAL INST OF TECH

APPENDIX B: RULE EMISSION LIMITS
[RULE 1113 7-13-2007]

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 1136 6-14-1996]

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)

<u>COATING</u>	<u>VOC LIMITS</u>		
	Grams Per Liter (lb/gal) of Coating, [lbs VOC/lb of solids], Less Water and Less Exempt Compounds		
	<u>Current Limit</u>		<u>On and After</u> <u>7/1/2005</u>
	<u>I</u>	<u>or</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:

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



FACILITY PERMIT TO OPERATE
CAL INST OF TECH

APPENDIX B: RULE EMISSION LIMITS
[RULE 1136 6-14-1996]

(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</u>
		<u>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</u>
		<u>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)

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 1171 11-7-2003]

(1) Solvent Requirements

A person shall not use a solvent to perform solvent cleaning operations unless the solvent complies with the applicable requirements set forth below:

SOLVENT CLEANING ACTIVITY	CURRENT LIMITS
	VOC g/l (lb/gal)
(A) Product Cleaning During Manufacturing Process Or Surface Preparation For Coating, Adhesive, Or Ink Application	
(i) General	25 (0.21)
(ii) Electrical Apparatus Components & Electronic Components	500 (4.2)
(iii) Medical Devices & Pharmaceuticals	800 (6.7)
(B) Repair and Maintenance Cleaning	
(i) General	25 (0.21)
(ii) Electrical Apparatus Components & Electronic Components	900 (7.5)
(iii) Medical Devices & Pharmaceuticals	
(A) Tools, Equipment, & Machinery	800 (6.7)
(B) General Work Surfaces	600 (5.0)



FACILITY PERMIT TO OPERATE
CAL INST OF TECH

APPENDIX B: RULE EMISSION LIMITS
[RULE 1171 11-7-2003]

SOLVENT CLEANING ACTIVITY	CURRENT LIMITS
	VOC g/l (lb/gal)
(C) Cleaning of Coatings or Adhesives Application Equipment	550 (4.6)
(D) Cleaning of Ink Application Equipment	
(i) General	25 (0.21)
(ii) Flexographic Printing	25 (0.21)
(iii) Gravure Printing	
(A) Publication	750 (6.3)
(B) Packaging	25 (0.21)
(iv) Lithographic or Letter Press Printing	
(A) Roller Wash – Step 1	600 (5.0)
(B) Roller Wash-Step 2, Blanket Wash, & On-Press Components	800 (6.7)
(C) Removable Press Components	25 (0.21)
(v) Screen Printing	750 (6.3)
(vi) Ultraviolet Ink/ Electron Beam Ink Application Equipment (except screen printing)	800 (6.7)



FACILITY PERMIT TO OPERATE
CAL INST OF TECH

APPENDIX B: RULE EMISSION LIMITS
[RULE 1171 11-7-2003]

SOLVENT CLEANING ACTIVITY	CURRENT LIMITS
	VOC g/l (lb/gal)
(vii) Specialty Flexographic Printing	600 (5.0)
(E) Cleaning of Polyester Resin Application Equipment	25 (0.21)



FACILITY PERMIT TO OPERATE
CAL INST OF TECH

APPENDIX B: RULE EMISSION LIMITS
[RULE 1171 2-1-2008]

(1) Solvent Requirements

A person shall not use a solvent to perform solvent cleaning operations unless the solvent complies with the applicable requirements set forth below:

	CURRENT LIMITS*	EFFECTIVE 1/1/2008*	EFFECTIVE 1/1/2009
SOLVENT CLEANING ACTIVITY	VOC g/l (lb/gal)	VOC g/l (lb/gal)	VOC g/l (lb/gal)
(A) Product Cleaning During Manufacturing Process Or Surface Preparation For Coating, Adhesive, Or Ink Application			
(i) General	25 (0.21)		
(ii) Electrical Apparatus Components & Electronic Components	100 (0.83)		
(iii) Medical Devices & Pharmaceuticals	800 (6.7)		
(B) Repair and Maintenance Cleaning			
(i) General	25 (0.21)		
(ii) Electrical Apparatus Components & Electronic Components	100 (0.83)		



FACILITY PERMIT TO OPERATE
CAL INST OF TECH

APPENDIX B: RULE EMISSION LIMITS
[RULE 1171 2-1-2008]

	CURRENT LIMITS*	EFFECTIVE 1/1/2008*	EFFECTIVE 1/1/2009
SOLVENT CLEANING ACTIVITY (cont.)	VOC g/l (lb/gal)	VOC g/l (lb/gal)	VOC g/l (lb/gal)
(iii) Medical Devices & Pharmaceuticals			
(A) Tools, Equipment, & Machinery	800 (6.7)		
(B) General Work Surfaces	600 (5.0)		
(C) Cleaning of Coatings or Adhesives Application Equipment	25 (0.21)		
(D) Cleaning of Ink Application Equipment			
(i) General	25 (0.21)		
(ii) Flexographic Printing	25 (0.21)		
(iii) Gravure Printing			
(A) Publication	100 (0.83)		
(B) Packaging	25 (0.21)		
(iv) Lithographic (Offset) or Letter Press Printing			
(A) Roller Wash, Blanket Wash, & On-Press Components			
(I) Newsprint	100 (0.83)		



FACILITY PERMIT TO OPERATE
CAL INST OF TECH

APPENDIX B: RULE EMISSION LIMITS
[RULE 1171 2-1-2008]

	CURRENT LIMITS*	EFFECTIVE 1/1/2008*	EFFECTIVE 1/1/2009
SOLVENT CLEANING ACTIVITY (cont.)	VOC g/l (lb/gal)	VOC g/l (lb/gal)	VOC g/l (lb/gal)
(II) Other Substrates	500 (4.2)	100 (0.83)	
(B) Removable Press Components	25 (0.21)		
(v) Screen Printing	500 (4.2)	100 (0.83)	
(vi) Ultraviolet Ink/ Electron Beam Ink Application Equipment (except screen printing)	650 (5.4)	650 (5.4)	100 (0.83)
(vii) Specialty Flexographic Printing	100 (0.83)		
(E) Cleaning of Polyester Resin Application Equipment	25 (0.21)		

* The specified limits remain in effect unless revised limits are listed in subsequent columns.



FACILITY PERMIT TO OPERATE
CAL INST OF TECH

APPENDIX B: RULE EMISSION LIMITS
[RULE 404 2-7-1986]

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	
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
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
50	1766	347	.152	1400	49440	100	.0437
60	2119	324	.141	1500	52970	97	.0424
70	2472	306	.134	1750	61800	92	.0402



FACILITY PERMIT TO OPERATE
CAL INST OF TECH

APPENDIX B: RULE EMISSION LIMITS
[RULE 404 2-7-1986]

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
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
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