

South Coast Air Quality Management District

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

July 5, 2011

Mr. Gerardo Rios (R9Airpermits_sc@epa.gov)
Chief, Permits Office
US EPA, Region IX- Air 3.
75 Hawthorne Blvd.
San Francisco, CA 94105

Dear Mr. Rios:

Saint Joseph Hospital has proposed to revise their Title V permit by modifying two existing boilers. This is a medical facility (NAICS 622110) located at 1100 Stewart Drive, Orange, CA 92868. This proposed permit revision is considered as a "minor permit revision" to their Title V permit. Attached for your review are the evaluation and section D of the Facility permit for the proposed revision. With your receipt of the proposed Title V permit revision today, we will note that the EPA 45-day review period will begin on July 5, 2011.

If you have any questions concerning these changes, please call the permit processing engineer Mr. Roy Olivares at (909) 396-2208.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Brian L. Yeh' followed by the initials 'FOR'.

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

BLY:AYL:JTY:rdo
Enclosure

FACILITY PERMIT TO OPERATE SAINT JOSEPH HOSPITAL

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 SAINT JOSEPH HOSPITAL

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	Page no.
419685	F63492	ICE EM ELEC GEN-DIESEL	4
409996	F57851	ICE EM ELEC GEN-DIESEL	6
517760		BOILER	8
517792		BOILER	12
388825	F44235	AIR POLLUTION CONTROL SYS.	14
419700	F63503	AIR POLLUTION CONTROL SYS.	16
419699	F63502	AIR POLLUTION CONTROL SYS.	18
259397	D70000	STERILIZER ETHYLENE OXIDE	20
259396	D70004	STERILIZER ETHYLENE OXIDE	21
259395	D70006	STERILIZER ETHYLENE OXIDE	22
388719	F44234	STERILIZER ETHYLENE OXIDE	23
409995	F57833	ICE EM ELEC GEN-DIESEL	24
408556	F56238	ICE EM ELEC GEN-DIESEL	26
442496	F86264	ICE EM ELEC GEN-DIESEL	28
442497	F86265	ICE EM ELEC GEN-DIESEL	30
510550	G10521	BOILER	32
510551	G10521	BOILER	35

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 SAINT JOSEPH HOSPITAL

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 RINGLEMANN 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]

3. THE OPERATOR SHALL NOT PURCHASE ANY DIESEL FUEL UNLESS THE FUEL IS LOW SULFUR DIESEL FOR WHICH THE SULFUR CONTENT SHALL NOT EXCEED 15 PPM BY WEIGHT AS SUPPLIED BY THE SUPPLIER.
[RULE 431.2]

FACILITY PERMIT TO OPERATE SAINT JOSEPH HOSPITAL

PERMIT TO OPERATE

Permit No. F63492
A/N 419685

Equipment Description:

DIESEL ENGINE, CATERPILLAR, MODEL D398, SERIAL NO. 66B378, 795 BHP., DRIVING A 500 KW ELECTRICAL GENERATOR.

Conditions

1. OPERATION OF THIS EQUIPMENT SHALL 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 SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS ENGINE-GENERATOR MUST NOT BE OPERATED FOR PERIODS OF TIME EXCEEDING 30 MINUTES PER DAY UNLESS AN EMERGENCY EXISTS DUE TO LOSS OF ELECTRICAL POWER FROM THE UTILITY COMPANY.
[RULE 1303 (A)-BACT]
4. THE OPERATOR SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.
[RULE 431.2, RULE 1470]
5. THIS ENGINE SHALL NOT OPERATE MORE THAN 30 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING PURPOSES.
[RULE 1470]
6. THE OPERATION OF THE ENGINE BEYOND 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 ELECTRICAL GRID OPERATOR OR ELECTRIC UTILITY 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)-BACT, RULE 1470]
7. THIS ENGINE SHALL NOT BE USED AS PART OF A DEMAND RESPONSE PROGRAM USING INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ITS ELECTRIC LOAD ON THE GRID WHEN

FACILITY PERMIT TO OPERATE SAINT JOSEPH HOSPITAL

REQUESTED TO SO BY THE UTILITY OR THE GRID OPERATOR.
[RULE 1470]

8. 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 (a)-BACT, RULE 1110.2, 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)]
10. THIS ENGINE SHALL NOT BE OPERATED MORE THAN 200 HOURS IN ANY ONE YEAR.
[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

FACILITY PERMIT TO OPERATE SAINT JOSEPH HOSPITAL

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Permit No.F57851
A/N 409996

Equipment Description:

INTERNAL COMBUSTION ENGINE, NO. 3, CATERPILLAR, MODEL 3512 DITA, DIESEL FUEL, 12 CYLINDERS, TURBOCHARGED AND AFTERCOOLED, RATED AT 1190 B.H.P, DRIVING AN EMERGENCY ELECTRICAL STAND-BY GENERATOR

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL 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 SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. AN OPERATIONAL NON RESETTABLE TOTALIZING TIME METER SHALL BE INSTALLED AND MAINTAINED TO INDICATE THE ENGINE ELAPSED OPERATING TIME.
[RULE 1304 (a)(4), RULE 1110.2]
4. THE OPERATOR SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.
[RULE 431.2, RULE 1470]
5. 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)(4), RULE 1110.2, RULE 1470]
6. THE OPERATION OF THE ENGINE BEYOND 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 ELECTRICAL GRID OPERATOR OR ELECTRIC UTILITY 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)-BACT, RULE 1470]

FACILITY PERMIT TO OPERATE SAINT JOSEPH HOSPITAL

7. THIS ENGINE SHALL NOT BE USED AS PART OF A DEMAND RESPONSE PROGRAM USING 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 SO BY THE UTILITY OR THE GRID OPERATOR.
[RULE 1470]

8. 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 (a)-BACT, RULE 1110.2, RULE 1470]

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

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Permit No.
A/N 517760

Equipment Description:

BOILER, NUMBER 1, FIRE TUBE, TITUSVILLE PACKAGE TYPE, MODEL NO. WTP-12-5, 450 HP, SERIAL NO. 39-0042-1, NATURAL GAS WITH FUEL OIL FIRED STANDBY FUEL, WITH ONE COMBUSTION LOW NOX BURNER, CLEAVER BROOKS, MODEL NPF PF NTD210GX-09S-3, RATED AT 18,800,000 BTU/HR, WITH A 15 H.P. COMBUSTION BLOWER, AND AN INDUCED FLUE GAS RECIRCULATION.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL 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 SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS EQUIPMENT SHALL COMPLY WITH RULE 1146.
[RULE 1146]
4. THE FLUE GAS RECIRCULATION SYSTEM SHALL BE IN FULL USE WHENEVER THE BOILER IS IN OPERATION.
[RULE 1146]
5. THE OPERATOR OF THIS EQUIPMENT SHALL COMPLY WITH SOURCE TESTING REQUIREMENTS IN SUBDIVISION (d)(6)--COMPLIANCE DETERMINATION OF RULE 1146.
[RULE 1146]
6. THE OPERATOR OF THIS EQUIPMENT SHALL COMPLY WITH PERIODIC MONITORING REQUIREMENTS OF RULE 1146 (c)(8).
[RULE 1146]
7. THIS BOILER SHALL EMIT NO MORE THAN 30 PPM FOR OXIDES OF NITROGEN (NOX) MEASURED BY VOLUME ON A DRY BASIS AT 3% OXYGEN AVERAGED OVER A PERIOD OF 15 CONSECUTIVE MINUTES WHEN FIRING ON NATURAL GAS.
[RULE 1146]
8. EFFECTIVE 1/1/2013 THIS BOILER SHALL EMIT NO MORE THAN 9 PPM FOR OXIDES OF NITROGEN (NOX) MEASURED BY VOLUME ON A DRY BASIS AT 3% OXYGEN AVERAGED OVER

FACILITY PERMIT TO OPERATE SAINT JOSEPH HOSPITAL

A PERIOD OF 15 CONSECUTIVE MINUTES WHEN FIRING ON NATURAL GAS.
[RULE 1146]

9. EMISSIONS OF NOX SHALL NOT EXCEED 40 PPM REFERENCED AT 3% O2 ON A DRY BASIS, AVERAGED OVER A PERIOD OF 15 CONSECUTIVE MINUTES WHENEVER THIS EQUIPMENT IS FIRED WITH OIL.
[RULE 1146]
10. EMISSIONS OF CO SHALL NOT EXCEED 400 PPM REFERENCED AT 3% O2 ON A DRY BASIS, AVERAGED OVER A PERIOD OF 15 CONSECUTIVE MINUTES.
[RULE 1146]
11. THE BOILER SHALL BE FIRED ON NATURAL GAS ONLY, EXCEPT DURING PERIODS OF NATURAL GAS CURTAILMENT OR MAINTENANCE TESTING.
[RULE 1146]
12. THE BURNER SHALL NOT FIRE ON LESS THAN 4476 SCF/HR OF NATURAL GAS DURING NORMAL OPERATION, NOT INCLUDING START-UPS AND SHUTDOWNS.
[RULE 1146]
13. THE OPERATOR SHALL INSTALL A FLOW METER TO ACCURATELY INDICATE THE FLOW RATE OF THE GAS AND SHALL RECORD THE HOURLY GAS BEING FIRED IN THE BOILER. THE MEASURING DEVICE SHALL CONTINUOUSLY MEASURE THE FLOW RATE AND SHALL BE ACCURATE TO WITHIN PLUS OR MINUS 5 PERCENT AND SHALL BE CALIBRATED ONCE EVERY 12 MONTHS. CALIBRATION RECORDS AND HOURLY FLOW RECORDS SHALL BE KEPT ON SITE AND SHALL BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1146]
14. RETAIN ALL RECORDS REQUIRED BY PERMIT FOR A PERIOD OF FIVE YEARS AND MAKE ALL RECORDS AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1146]
15. THE OWNER OR OPERATOR OF THE EQUIPMENT SHALL CONDUCT A SOURCE TEST UNDER THE FOLLOWING CONDITIONS:
 - A. SOURCE TESTING SHALL BE CONDUCTED WITHIN 30 DAYS AFTER ACHIEVING MAXIMUM PRODUCTION RATE AT WHICH THE EQUIPMENT WILL BE OPERATED, BUT NO LATER THAN 90 DAYS AFTER INITIAL START-UP.
 - B. THE SOURCE TEST SHALL BE DONE TO VERIFY COMPLIANCE PERMIT CONDITION NO. EIGHT AND TEN.
 - C. THE SOURCE TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH SCAQMD METHOD 100.1.
 - D. THE TEST SHALL BE CONDUCTED FOR 15 MINUTES FOR EACH LOAD, WHILE FIRING AT MAXIMUM, MINIMUM AND LOW FIRING RATES.

FACILITY PERMIT TO OPERATE SAINT JOSEPH HOSPITAL

- E. TWO COMPLETE COPIES OF SOURCE TEST REPORTS (INCLUDE THE APPLICATION NUMBER AND A COPY OF THE PERMIT IN THE REPORT) SHALL BE SUBMITTED TO THE DISTRICT (ADDRESSED TO SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, ATTN: ROY OLIVARES, P.O. BOX 4941, DIAMOND BAR, CA 91765). THE RESULTS IN WRITING SHALL BE SUBMITTED WITHIN 45 DAYS AFTER THE SOURCE TEST IS COMPLETED. IT SHALL INCLUDE, BUT NOT LIMITED TO EMISSIONS RATE IN POUNDS PER HOUR AND CONCENTRATION IN PPMV AT THE OUTLET OF THE BOILER.
- F. 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
- G. SAMPLING FACILITIES SHALL COMPLY WITH THE AQMD "GUIDELINES FOR CONSTRUCTION OF SAMPLING AND TESTING FACILITIES", PURSUANT TO RULE 217. [RULE 1146]

Periodic Monitoring:

- 16. 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; 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:
 - I. STACK OR EMISSION POINT IDENTIFICATION;
 - II. DESCRIPTION OF ANY CORRECTIVE ACTIONS TAKEN TO ABATE VISIBLE EMISSIONS;
 - III. DATE AND TIME VISIBLE EMISSION WAS ABATED; AND
 - IV. VISIBLE EMISSION OBSERVATION RECORDED BY A CERTIFIED SMOKE READER. [RULE 3004 (a)(4)]
- 17. IF ANNUAL FUEL OIL USAGE EXCEEDS 2,000,000 GALLONS IN ANY ONE YEAR, THEN THE OPERATOR SHALL DETERMINE COMPLIANCE WITH THE PARTICULATE MATTER (PM) EMISSION

FACILITY PERMIT TO OPERATE SAINT JOSEPH HOSPITAL

LIMIT(S) BY CONDUCTING A SOURCE TEST AT LEAST ONCE EVERY FIVE YEARS USING AQMD METHOD 5.2 . THE TEST SHALL BE CONDUCTED WHEN THE EQUIPMENT IS OPERATING UNDER NORMAL CONDITIONS TO DEMONSTRATE COMPLIANCE WITH RULE 409 LIMIT. THE OPERATOR SHALL COMPLY WITH ALL GENERAL TESTING, REPORTING, AND RECORDKEEPING REQUIREMENTS IN SECTIONS E AND K OF THIS PERMIT.

FOR THE PURPOSE OF DETERMINING COMPLIANCE WITH RULE 409 LIMIT, THE EMISSIONS SHALL BE MEASURED AND AVERAGED OVER A 60 MINUTE TIME PERIOD.

THE OPERATOR SHALL CONDUCT AN ANNUAL MAINTENANCE INSPECTION CHECK OF THE OPERATING PRESSURE, TEMPERATURE, AIR SUPPLY, VENT, SMOKE SPOT, BURNER CONDITION, HEAT-TRANSFER SURFACE CONDITION, WATER TREATMENT, BLOWDOWN AND LEAKAGE.

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

A. DATE WHEN ANNUAL MAINTENANCE INSPECTION WAS CONDUCTED.
[RULE 3004 (a) (4)]

18. UNITS WITH A HEAT INPUT GREATER THAN 10 MMBTU/HR AND ANNUAL OIL USAGE GREATER THAN 1,000,000 GALLONS OR GREATER THAN 336 HOURS OF OPERATION, BUT DOES NOT EXCEED 2,000,000 GALLONS IN ANY ONE YEAR. THE OPERATOR SHALL CONDUCT AN ANNUAL MAINTENANCE INSPECTION CHECK OF THE OPERATING PRESSURE, TEMPERATURE, AIR SUPPLY, VENT, SMOKE SPOT, BURNER CONDITION, HEAT-TRANSFER SURFACE CONDITION, WATER TREATMENT, BLOWDOWN AND LEAKAGE

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

A. DATE WHEN ANNUAL MAINTENANCE INSPECTION WAS CONDUCTED.
[RULE 3004 (a)(4)]

19. THIS BOILER SHALL BE EQUIPPED WITH A NON-RESETTABLE, TOTALIZING FLOW METER FOR FUEL OIL.
[RULE 3004 (a)(4)]

Emissions And Requirements:

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

CO: 2000 PPMV, RULE 407
SOX: 500 PPMV FUEL OIL , RULE 407
PM: 0.1 GR/SCF, RULE 409
CO: 400 PPMV, RULE 1146
NOX 40 PPMV, FUEL OIL, RULE 1146
NOX 9 PPMV, NATURAL GAS, RULE 1146, ON OR AFTER JANUARY 1, 2013
NOX: 30 PPMV, RULE 1146, UNTIL DECEMBER 31, 2012

FACILITY PERMIT TO OPERATE SAINT JOSEPH HOSPITAL

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Permit No.
A/N 517792

Equipment Description:

BOILER, NUMBER 2, BABCOCK & WILCOX, MODEL NO. FM , SERIES 2000, 500 HP, SERIAL NO. NB21618
NATURAL GAS WITH FUEL OIL FIRED STANDBY FUEL, WITH ONE COMBUSTION LOW NOX BURNER,
CLEAVER BROOKS, MODEL PF NPF NTD210GX-09S-3, RATED AT 18,800,000 BTU/HR, WITH A 15 H.P.
COMBUSTION BLOWER, AND AN INDUCED FLUE GAS RECIRCULATION.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL 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 SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS EQUIPMENT SHALL COMPLY WITH RULE 1146.
[RULE 1146]
4. THE FLUE GAS RECIRCULATION SYSTEM SHALL BE IN FULL USE WHENEVER THE BOILER IS IN OPERATION.
[RULE 1146]
5. THE OPERATOR OF THIS EQUIPMENT SHALL COMPLY WITH SOURCE TESTING REQUIREMENTS IN SUBDIVISION (d)(6)--COMPLIANCE DETERMINATION OF RULE 1146.
[RULE 1146]
6. THE OPERATOR OF THIS EQUIPMENT SHALL COMPLY WITH PERIODIC MONITORING REQUIREMENTS OF RULE 1146 (c)(8).
[RULE 1146]
7. THIS BOILER SHALL EMIT NO MORE THAN 30 PPM FOR OXIDES OF NITROGEN (NOX) MEASURED BY VOLUME ON A DRY BASIS AT 3% OXYGEN AVERAGED OVER A PERIOD OF 15 CONSECUTIVE MINUTES WHEN FIRING ON NATURAL GAS.
[RULE 1146]
8. EFFECTIVE 1/1/2013 THIS BOILER SHALL EMIT NO MORE THAN 9 PPM FOR OXIDES OF NITROGEN (NOX) MEASURED BY VOLUME ON A DRY BASIS AT 3% OXYGEN AVERAGED OVER A PERIOD OF 15 CONSECUTIVE MINUTES WHEN FIRING ON NATURAL GAS.
[RULE 1146]

FACILITY PERMIT TO OPERATE SAINT JOSEPH HOSPITAL

9. EMISSIONS OF NOX SHALL NOT EXCEED 40 PPM REFERENCED AT 3% O2 ON A DRY BASIS, AVERAGED OVER A PERIOD OF 15 CONSECUTIVE MINUTES WHENEVER THIS EQUIPMENT IS FIRED WITH OIL.
[RULE 1146]
10. EMISSIONS OF CO SHALL NOT EXCEED 400 PPM REFERENCED AT 3% O2 ON A DRY BASIS, AVERAGED OVER A PERIOD OF 15 CONSECUTIVE MINUTES.
[RULE 1146]
11. THE BOILER SHALL BE FIRED ON NATURAL GAS ONLY, EXCEPT DURING PERIODS OF NATURAL GAS CURTAILMENT OR MAINTENANCE TESTING.
[RULE 1146]
12. THE BURNER SHALL NOT FIRE ON LESS THAN 4476 SCF/HR OF NATURAL GAS DURING NORMAL OPERATION, NOT INCLUDING START-UPS AND SHUTDOWNS.
[RULE 1146]
13. THE OPERATOR SHALL INSTALL A FLOW METER TO ACCURATELY INDICATE THE FLOW RATE OF THE GAS AND SHALL RECORD THE HOURLY GAS BEING FIRED IN THE BOILER. THE MEASURING DEVICE SHALL CONTINUOUSLY MEASURE THE FLOW RATE AND SHALL BE ACCURATE TO WITHIN PLUS OR MINUS 5 PERCENT AND SHALL BE CALIBRATED ONCE EVERY 12 MONTHS. CALIBRATION RECORDS AND HOURLY FLOW RECORDS SHALL BE KEPT ON SITE AND SHALL BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1146]
14. RETAIN ALL RECORDS REQUIRED BY PERMIT FOR A PERIOD OF FIVE YEARS AND MAKE ALL RECORDS AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1146]
15. THE OWNER OR OPERATOR OF THE EQUIPMENT SHALL CONDUCT A SOURCE TEST UNDER THE FOLLOWING CONDITIONS:
 - A. SOURCE TESTING SHALL BE CONDUCTED WITHIN 30 DAYS AFTER ACHIEVING MAXIMUM PRODUCTION RATE AT WHICH THE EQUIPMENT WILL BE OPERATED, BUT NO LATER THAN 90 DAYS AFTER INITIAL START-UP.
 - B. THE SOURCE TEST SHALL BE DONE TO VERIFY COMPLIANCE PERMIT CONDITION NO. EIGHT AND TEN.
 - C. THE SOURCE TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH SCAQMD METHOD 100.1.
 - D. THE TEST SHALL BE CONDUCTED FOR 15 MINUTES FOR EACH LOAD, WHILE FIRING AT MAXIMUM, MINIMUM AND LOW FIRING RATES.

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- E. TWO COMPLETE COPIES OF SOURCE TEST REPORTS (INCLUDE THE APPLICATION NUMBER AND A COPY OF THE PERMIT IN THE REPORT) SHALL BE SUBMITTED TO THE DISTRICT (ADDRESSED TO SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, ATTN: ROY OLIVARES, P.O. BOX 4941, DIAMOND BAR, CA 91765). THE RESULTS IN WRITING SHALL BE SUBMITTED WITHIN 45 DAYS AFTER THE SOURCE TEST IS COMPLETED. IT SHALL INCLUDE, BUT NOT LIMITED TO EMISSIONS RATE IN POUNDS PER HOUR AND CONCENTRATION IN PPMV AT THE OUTLET OF THE BOILER.
- F. 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
- G. SAMPLING FACILITIES SHALL COMPLY WITH THE AQMD "GUIDELINES FOR CONSTRUCTION OF SAMPLING AND TESTING FACILITIES", PURSUANT TO RULE 217. [RULE 1146]

Periodic Monitoring:

- 16. 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; 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:

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

- 17 IF ANNUAL FUEL OIL USAGE EXCEEDS 2,000,000 GALLONS IN ANY ONE YEAR, THEN THE OPERATOR SHALL DETERMINE COMPLIANCE WITH THE PARTICULATE MATTER (PM) EMISSION

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LIMIT(S) BY CONDUCTING A SOURCE TEST AT LEAST ONCE EVERY FIVE YEARS USING AQMD METHOD 5.2 . THE TEST SHALL BE CONDUCTED WHEN THE EQUIPMENT IS OPERATING UNDER NORMAL CONDITIONS TO DEMONSTRATE COMPLIANCE WITH RULE 409 LIMIT. THE OPERATOR SHALL COMPLY WITH ALL GENERAL TESTING, REPORTING, AND RECORDKEEPING REQUIREMENTS IN SECTIONS E AND K OF THIS PERMIT.

FOR THE PURPOSE OF DETERMINING COMPLIANCE WITH RULE 409 LIMIT, THE EMISSIONS SHALL BE MEASURED AND AVERAGED OVER A 60 MINUTE TIME PERIOD.

THE OPERATOR SHALL CONDUCT AN ANNUAL MAINTENANCE INSPECTION CHECK OF THE OPERATING PRESSURE, TEMPERATURE, AIR SUPPLY, VENT, SMOKE SPOT, BURNER CONDITION, HEAT-TRANSFER SURFACE CONDITION, WATER TREATMENT, BLOWDOWN AND LEAKAGE.

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

A. DATE WHEN ANNUAL MAINTENANCE INSPECTION WAS CONDUCTED.
[RULE 3004 (a) (4)]

18. UNITS WITH A HEAT INPUT GREATER THAN 10 MMBTU/HR AND ANNUAL OIL USAGE GREATER THAN 1,000,000 GALLONS OR GREATER THAN 336 HOURS OF OPERATION, BUT DOES NOT EXCEED 2,000,000 GALLONS IN ANY ONE YEAR. THE OPERATOR SHALL CONDUCT AN ANNUAL MAINTENANCE INSPECTION CHECK OF THE OPERATING PRESSURE, TEMPERATURE, AIR SUPPLY, VENT, SMOKE SPOT, BURNER CONDITION, HEAT-TRANSFER SURFACE CONDITION, WATER TREATMENT, BLOWDOWN AND LEAKAGE

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

A. DATE WHEN ANNUAL MAINTENANCE INSPECTION WAS CONDUCTED.
[RULE 3004 (a)(4)]

19. THIS BOILER SHALL BE EQUIPPED WITH A NON-RESETTABLE, TOTALIZING FLOW METER FOR FUEL OIL.
[RULE 3004 (a)(4)]

Emissions And Requirements:

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

CO: 2000 PPMV, RULE 407
SOX: 500 PPMV FUEL OIL , RULE 407
PM: 0.1 GR/SCF, RULE 409
CO: 400 PPMV, RULE 1146
NOX 40 PPMV, FUEL OIL, RULE 1146
NOX 9 PPMV, NATURAL GAS, RULE 1146, ON OR AFTER JANUARY 1, 2013
NOX: 30 PPMV, RULE 1146, UNTIL DECEMBER 31, 2012

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PERMIT TO OPERATE

Permit No. F44235
A/N 388825

Equipment Description:

AIR POLLUTION CONTROL SYSTEM CONSISTING OF:

1. CATALYTIC OXIDIZER (ETO-ABATOR) #2, DONALDSON, SERIAL NUMBER IG028141, 3'-6" L X 2'-5" W X 2'-0" H, ELECTRICALLY HEATED WITH A 6.6 KW HEATER.
2. EXHAUST SYSTEM WITH A 3/4 HP BLOWER VENTING TWO ETHYLENE OXIDE STERILIZERS.

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 CONDITIONS AT ALL TIMES.
[RULE 204]
3. ONLY ONE STERILIZER SHALL BE VENTED TO THE CATALYTIC OXIDIZER (EO-ABATOR) AT ANY ONE TIME.
[RULE 1303 (a)-BACT, RULE 1405]
4. A TEMPERATURE MEASUREMENT DEVICE WITH AN ACCURACY OF PLUS OR MINUS 20 DEGREES FAHRENHEIT SHALL BE INSTALLED AND MAINTAINED AT THE EXHAUST OF THE CATALYST BED
[RULE 1303 (a)-BACT, RULE 1405]
5. THE TEMPERATURE OF THE EXHAUST FROM THE CATALYST BED SHALL BE MAINTAINED BETWEEN 280 AND 500 DEGREES FAHRENHEIT, AS INDICATED BY A PROPER TEMPERATURE GAUGE OR RECORDER, WHEN ETHYLENE OXIDE STERILIZER IT SERVES IS IN OPERATION.
[RULE 1303 (a)-BACT, RULE 1405]
6. THIS EQUIPMENT SHALL BE SUBJECT TO ANNUAL SOURCE TEST AS PER RULE 1405 (D) (6).
[RULE 1405]
7. RECORDS SHALL BE MAINTAINED TO SHOW COMPLIANCE WITH CONDITION 4 IN A FORMAT APPROVED TO THE DISTRICT. THE RECORDS SHALL BE KEPT FOR AT LEAST TWO YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1303 (b)(2)-OFFSETS, RULE 1405]

Emissions And Requirements:

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

ETHYLENE OXIDE: RULE 1405

FACILITY PERMIT TO OPERATE SAINT JOSEPH HOSPITAL

PERMIT TO OPERATE

Permit No. F63503
A/N 419700

Equipment Description:

AIR POLLUTION CONTROL SYSTEM CONSISTING OF:

1. CATALYTIC OXIDIZER (ETO-ABATOR) #1, DONALDSON, SERIAL NUMBER IG056474, 3'-6" L X 2'-5" W X 2'-0" H, ELECTRICALLY HEATED WITH A 6.6 KW HEATER.
2. EXHAUST SYSTEM WITH A 3/4 HP BLOWER VENTING TWO ETHYLENE OXIDE STERILIZERS.

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 CONDITIONS AT ALL TIMES.
[RULE 204]
3. ONLY ONE STERILIZER SHALL BE VENTED TO THE CATALYTIC OXIDIZER (EO-ABATOR) AT ANY ONE TIME.
[RULE 1303 (a)-BACT, RULE 1405]
4. A TEMPERATURE MEASUREMENT DEVICE WITH AN ACCURACY OF PLUS OR MINUS 20 DEGREES FAHRENHEIT SHALL BE INSTALLED AND MAINTAINED AT THE EXHAUST OF THE CATALYST BED
[RULE 1303 (a)-BACT, RULE 1405]
5. THE TEMPERATURE OF THE EXHAUST FROM THE CATALYST BED SHALL BE MAINTAINED BETWEEN 280 AND 550 DEGREES FAHRENHEIT, AS INDICATED BY A PROPER TEMPERATURE GAUGE OR RECORDER, WHEN ETHYLENE OXIDE STERILIZER IT SERVES IS IN OPERATION.
[RULE 1303 (a)-BACT, RULE 1405]
6. THIS EQUIPMENT SHALL BE SUBJECT TO ANNUAL SOURCE TEST AS PER RULE 1405 (D) (6).
[RULE 1405]
7. RECORDS SHALL BE MAINTAINED TO SHOW COMPLIANCE WITH CONDITION 4 IN A FORMAT APPROVED TO THE DISTRICT. THE RECORDS SHALL BE KEPT FOR AT LEAST TWO YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1303 (b)(2)-OFFSETS, RULE 1405]

Emissions And Requirements:

**FACILITY PERMIT TO OPERATE
SAINT JOSEPH HOSPITAL**

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

ETHYLENE OXIDE: RULE 1405

FACILITY PERMIT TO OPERATE SAINT JOSEPH HOSPITAL

PERMIT TO OPERATE

Permit No. F63502
A/N 419699

Equipment Description:

AIR POLLUTION CONTROL SYSTEM CONSISTING OF:

1. CATALYTIC OXIDIZER (ETO-ABATOR) #3, DONALDSON, SERIAL NUMBER IG031013, 2'-1" W X 2'-6" L X 4'-4" H, ELECTRICALLY HEATED WITH A 10 KW HEATER.
2. EXHAUST SYSTEM WITH A 3/4 HP BLOWER VENTING TWO AERATORS.

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 CONDITIONS AT ALL TIMES.
[RULE 204]
3. ONLY ONE AERATOR SHALL BE VENTED TO THE CATALYTIC OXIDIZER (EO-ABATOR) AT ANY ONE TIME.
[RULE 1303 (a)-BACT, RULE 1405]
4. A TEMPERATURE MEASUREMENT DEVICE WITH AN ACCURACY OF PLUS OR MINUS 20 DEGREES FAHRENHEIT SHALL BE INSTALLED AND MAINTAINED AT THE EXHAUST OF THE CATALYST BED
[RULE 1303 (a)-BACT, RULE 1405]
5. THE TEMPERATURE OF THE EXHAUST FROM THE CATALYST BED SHALL BE MAINTAINED BETWEEN 280 AND 500 DEGREES FAHRENHEIT, AS INDICATED BY A PROPER TEMPERATURE GAUGE OR RECORDER, WHEN ETHYLENE OXIDE AERATOR IT SERVES IS IN OPERATION.
[RULE 1303 (a)-BACT, RULE 1405]
6. THIS EQUIPMENT SHALL BE SUBJECT TO ANNUAL SOURCE TEST AS PER RULE 1405 (D) (6).
[RULE 1405]
7. RECORDS SHALL BE MAINTAINED TO SHOW COMPLIANCE WITH CONDITION 4 IN A FORMAT APPROVED TO THE DISTRICT. THE RECORDS SHALL BE KEPT FOR AT LEAST TWO YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1303 (b)(2)-OFFSETS, RULE 1405]

Emissions And Requirements:

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

ETHYLENE OXIDE: RULE 1405

FACILITY PERMIT TO OPERATE SAINT JOSEPH HOSPITAL

PERMIT TO OPERATE

Permit No. D70000
A/N 259397

Equipment Description:

ETHYLENE OXIDE STERILIZER, NO. 1, 3M, MODEL STERI-VAC 5XL, SERIAL NO. 701034, 1'-5" W. X 2'-8" L. X 1'-3" H. , WITH A 1.2 KW HEATER.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL 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 SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS EQUIPMENT SHALL NOT BE OPERATED UNLESS IT IS VENTED ONLY TO AN AIR POLLUTION CONTROL EQUIPMENT WHICH IS IN FULL USE AND HAS BEEN ISSUED A PERMIT TO CONSTRUCT BY THE EXECUTIVE OFFICER.
[RULE 1303 (a)(1)-BACT, RULE 1405]
4. THE TOTAL QUANTITY OF ETHYLENE OXIDE USED IN THIS EQUIPMENT SHALL NOT EXCEED 1.1 POUNDS IN ANY ONE DAY OR 33 POUNDS IN ANY CALENDAR MONTH.
[RULE 1303 (b)(2)-OFFSETS, RULE 1405, RULE 1401]
5. THIS EQUIPMENT SHALL BE LEAK CHECK PER DISTRICT RULE 1405 (D)(5).
[RULE 1405]
6. RECORD SHALL BE MAINTAINED TO PROVE COMPLIANCE WITH CONDITION NO. 4. THE RECORD SHALL BE KEPT FOR A MINIMUM OF FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST
[RULE 1303 (b)(2)-OFFSETS, RULE 1405, RULE 1401].

Emissions And Requirements:

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

ETHYLENE OXIDE: RULE 1405

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PERMIT TO OPERATE

Permit No. D70004
A/N 259396

Equipment Description:

ETHYLENE OXIDE STERILIZER, NO. 2, 3M, MODEL STERI-VAC 5XL, SERIAL NO. 701032, 1'-5" W. X 2'-8" L. X 1'-3" H. , WITH A 1.2 KW HEATER.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL 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 SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS EQUIPMENT SHALL NOT BE OPERATED UNLESS IT IS VENTED ONLY TO AN AIR POLLUTION CONTROL EQUIPMENT WHICH IS IN FULL USE AND HAS BEEN ISSUED A PERMIT TO CONSTRUCT BY THE EXECUTIVE OFFICER.
[RULE 1303 (a)(1)-BACT, RULE 1405]
4. THE TOTAL QUANTITY OF ETHYLENE OXIDE USED IN THIS EQUIPMENT SHALL NOT EXCEED 1.1 POUNDS IN ANY ONE DAY OR 33 POUNDS IN ANY CALENDAR MONTH.
[RULE 1303 (b)(2)-OFFSETS, RULE 1405, RULE 1401]
5. THIS EQUIPMENT SHALL BE LEAK CHECK PER DISTRICT RULE 1405 (D)(5).
[RULE 1405]
6. RECORD SHALL BE MAINTAINED TO PROVE COMPLIANCE WITH CONDITION NO. 4. THE RECORD SHALL BE KEPT FOR A MINIMUM OF FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST
[RULE 1303 (b)(2)-OFFSETS, RULE 1405, RULE 1401].

Emissions And Requirements:

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

ETHYLENE OXIDE: RULE 1405

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PERMIT TO OPERATE

Permit No. D70006
A/N 259395

Equipment Description:

ETHYLENE OXIDE STERILIZER, NO. 3, 3M, MODEL STERI-VAC 5XL, SERIAL NO. 701033, 1'-5" W. X 2'-8" L. X 1'-3" H. , WITH A 1.2 KW HEATER.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL 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 SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS EQUIPMENT SHALL NOT BE OPERATED UNLESS IT IS VENTED ONLY TO AN AIR POLLUTION CONTROL EQUIPMENT WHICH IS IN FULL USE AND HAS BEEN ISSUED A PERMIT TO CONSTRUCT BY THE EXECUTIVE OFFICER.
[RULE 1303 (a)(1)-BACT, RULE 1405]
4. THE TOTAL QUANTITY OF ETHYLENE OXIDE USED IN THIS EQUIPMENT SHALL NOT EXCEED 1.1 POUNDS IN ANY ONE DAY OR 33 POUNDS IN ANY CALENDAR MONTH.
[RULE 1303 (b)(2)-OFFSETS, RULE 1405, RULE 1401]
5. THIS EQUIPMENT SHALL BE LEAK CHECK PER DISTRICT RULE 1405 (D)(5).
[RULE 1405]
6. RECORD SHALL BE MAINTAINED TO PROVE COMPLIANCE WITH CONDITION NO. 4. THE RECORD SHALL BE KEPT FOR A MINIMUM OF FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST
[RULE 1303 (b)(2)-OFFSETS, RULE 1405, RULE 1401].

Emissions And Requirements:

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

ETHYLENE OXIDE: RULE 1405

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PERMIT TO OPERATE

Permit No. F44234
A/N 388719

Equipment Description:

ETHYLENE OXIDE STERILIZER, NO. 4, 3M, MODEL STERI-VAC 5XL, SERIAL NO. 701360, 1'-5" W. X 2'-8" L. X 1'-3" H. , WITH A 1.2 KW HEATER.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL 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 SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS EQUIPMENT SHALL NOT BE OPERATED UNLESS IT IS VENTED ONLY TO AN AIR POLLUTION CONTROL EQUIPMENT WHICH IS IN FULL USE AND HAS BEEN ISSUED A PERMIT TO CONSTRUCT BY THE EXECUTIVE OFFICER.
[RULE 1303 (a)(1)-BACT, RULE 1405]
4. THE TOTAL QUANTITY OF ETHYLENE OXIDE USED IN THIS EQUIPMENT SHALL NOT EXCEED 1.1 POUNDS IN ANY ONE DAY.
[RULE 1303 (b)(2)-OFFSETS, RULE 1405, RULE 1401]
5. THIS EQUIPMENT SHALL COMPLY WITH RULE 1405.
[RULE 1405]
6. RECORD SHALL BE MAINTAINED TO PROVE COMPLIANCE WITH CONDITION NO. 4. THE RECORD SHALL BE KEPT FOR A MINIMUM OF FIVE YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST
[RULE 1303 (b)(2)-OFFSETS, RULE 1405, RULE 1401].

Emissions And Requirements:

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

ETHYLENE OXIDE: RULE 1405

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**Permit No. F57833
A/N 409995**

Equipment Description:

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL 3512 DITA, DIESEL FUEL, 12 CYLINDERS, TURBOCHARGED AND AFTERCOOLED, RATED AT 1818 B.H.P, DRIVING AN EMERGENCY ELECTRICAL STAND-BY GENERATOR

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL 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 SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. AN OPERATIONAL NON RESETTABLE TOTALIZING TIME METER SHALL BE INSTALLED AND MAINTAINED TO INDICATE THE ENGINE ELAPSED OPERATING TIME.
[RULE 1304 (a)(4), RULE 1110.2]
4. THE OPERATOR SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.
[RULE 431.2, RULE 1470]
5. 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)(4), RULE 1110.2, RULE 1470]
6. THE OPERATION OF THE ENGINE BEYOND 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 ELECTRICAL GRID OPERATOR OR ELECTRIC UTILITY 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)-BACT, RULE 1470]
7. THIS ENGINE SHALL NOT BE USED AS PART OF A DEMAND RESPONSE PROGRAM USING INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR REDUCED RATES IN RETURN FOR REDUCING ITS ELECTRIC LOAD ON THE GRID WHEN

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REQUESTED TO SO BY THE UTILITY OR THE GRID OPERATOR.
[RULE 1470]

8. 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 (a)-BACT, RULE 1110.2, RULE 1470]

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

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Permit No. F56238
A/N 408556

Equipment Description:

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL 3512 DITA, SERIAL NO. 24Z05610, DIESEL FUEL, TURBOCHARGED AND AFTERCOOLED, RATED AT 1818 B.H.P, DRIVING AN EMERGENCY ELECTRICAL STAND-BY GENERATOR

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL 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 SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. AN OPERATIONAL NON RESETTABLE TOTALIZING TIME METER SHALL BE INSTALLED AND MAINTAINED TO INDICATE THE ENGINE ELAPSED OPERATING TIME.
[RULE 1304 (a)(4), RULE 1110.2]
4. THE OPERATOR SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.
[RULE 431.2, RULE 1470]
5. 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)(4), RULE 1110.2, RULE 1470]
6. THE OPERATION OF THE ENGINE BEYOND 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 ELECTRICAL GRID OPERATOR OR ELECTRIC UTILITY 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)-BACT, RULE 1470]
7. THIS ENGINE SHALL NOT BE USED AS PART OF A DEMAND RESPONSE PROGRAM USING INTERRUPTIBLE SERVICE CONTRACT IN WHICH A FACILITY RECEIVES A PAYMENT OR

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REDUCED RATES IN RETURN FOR REDUCING ITS ELECTRIC LOAD ON THE GRID WHEN REQUESTED TO SO BY THE UTILITY OR THE GRID OPERATOR.
[RULE 1470]

8. 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 (a)-BACT, RULE 1110.2, RULE 1470]

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 SAINT JOSEPH HOSPITAL

PERMIT TO OPERATE

Permit No. F86264
A/N 442496

Equipment Description:

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL 3516B DITA, SERIAL NO. GZS00138, DIESEL FUEL, TURBOCHARGED AND AFTERCOOLED, RATED AT 2881 B.H.P, DRIVING AN EMERGENCY ELECTRICAL GENERATOR.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL 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 SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THE OPERATOR SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.
[RULE 431.2, RULE 1470]
4. AN OPERATIONAL NON RESETTABLE TOTALIZING TIME METER SHALL BE INSTALLED AND MAINTAINED TO INDICATE THE ENGINE ELAPSED OPERATING TIME.
[RULE 1304 (a)(4), RULE 1110.2]
5. THIS ENGINE SHALL NOT BE OPERATED FOR NON-EMERGENCY PURPOSES BETWEEN THE HOURS OF 7:30 A.M. TO 3:30 P.M. ON DAYS WHEN SCHOOL IS IN SESSION.
[RULE 1470]
6. THIS ENGINE SHALL BE OPERATED TO A MAXIMUM OF 200 HOURS PER CALENDAR YEAR WHICH INCLUDES A MAXIMUM OF 50 HOURS PER YEAR FOR REGULAR MAINTENANCE AND TESTING
[RULE 1304 (a)(4), RULE 1110.2, RULE 1303 (a)-BACT, RULE 1470]
7. THE OPERATION OF THE ENGINE BEYOND 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 ELECTRICAL GRID OPERATOR OR ELECTRIC UTILITY 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

FACILITY PERMIT TO OPERATE SAINT JOSEPH HOSPITAL

TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.

[RULE 1303 (a)-BACT, RULE 1470]

8. THIS ENGINE SHALL NOT BE USED AS PART OF A DEMAND RESPONSE PROGRAM USING 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 SO BY THE UTILITY OR THE GRID OPERATOR.
[RULE 1470, RULE 1303 (a)-BACT]

9. 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 (a)-BACT, RULE 1110.2, RULE 1470]

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

FACILITY PERMIT TO OPERATE SAINT JOSEPH HOSPITAL

PERMIT TO OPERATE

Permit No. F86265
A/N 442497

Equipment Description:

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL 3516B DITA, SERIAL NO. GZS00136 DIESEL FUEL, TURBOCHARGED AND AFTERCOOLED , RATED AT 2881 B.H.P, DRIVING AN EMERGENCY ELECTRICAL GENERATOR.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL 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 SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THE OPERATOR SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF RULES 431.2 AND 1470.
[RULE 431.2, RULE 1470]
4. AN OPERATIONAL NON RESETTABLE TOTALIZING TIME METER SHALL BE INSTALLED AND MAINTAINED TO INDICATE THE ENGINE ELAPSED OPERATING TIME.
[RULE 1304 (a)(4), RULE 1110.2]
5. THIS ENGINE SHALL NOT BE OPERATED FOR NON-EMERGENCY PURPOSES BETWEEN THE HOURS OF 7:30 A.M. TO 3:30 P.M. ON DAYS WHEN SCHOOL IS IN SESSION.
[RULE 1470]
6. THIS ENGINE SHALL BE OPERATED TO A MAXIMUM OF 200 HOURS PER CALENDAR YEAR WHICH INCLUDES A MAXIMUM OF 50 HOURS PER YEAR FOR REGULAR MAINTENANCE AND TESTING
[RULE 1304 (a)(4), RULE 1110.2, RULE 1303 (a)-BACT, RULE 1470]
7. THE OPERATION OF THE ENGINE BEYOND 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 ELECTRICAL GRID OPERATOR OR ELECTRIC UTILITY 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

FACILITY PERMIT TO OPERATE SAINT JOSEPH HOSPITAL

TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.

[RULE 1303 (a)-BACT, RULE 1470]

8. THIS ENGINE SHALL NOT BE USED AS PART OF A DEMAND RESPONSE PROGRAM USING 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 SO BY THE UTILITY OR THE GRID OPERATOR.

9. [RULE 1470, RULE 1303 (a)-BACT]

10. 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 (a)-BACT, RULE 1110.2, RULE 1470]

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

FACILITY PERMIT TO OPERATE SAINT JOSEPH HOSPITAL

PERMIT TO OPERATE

Permit No. G10521
A/N 510550

Equipment Description:

BOILER, NO. 1, CLEAVER BROOKS, FIRETUBE TYPE, MODEL NO. CBLE200-600-150#ST, SERIAL NO. OL104127, NATURAL GAS, WITH FUEL OIL STAND-BY, WITH ONE COMBUSTION ULTRA LOW NOX BURNER AT 25,100,000 BTU/HR, WITH FLUE GAS RECIRCULATION

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL 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 SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS EQUIPMENT SHALL COMPLY WITH RULE 1146.
[RULE 1146]
4. THE FLUE GAS RECIRCULATION SYSTEM SHALL BE IN FULL OPERATION AND KEPT IN FULL OPERATION WHENEVER THE BOILER IS IN OPERATION
[RULE 1146]
5. THE COMBUSTION BURNER SHALL BE INSPECTED AND MAINTAINED PER MANUFACTURER SPECIFICATIONS. RECORDS SHALL BE MAINTAINED FOR THE INSPECTIONS AND MAINTENANCE OF THE BURNER.
[RULE 1303 (a)-BACT]
6. FUEL OIL SUPPLIED TO THE BURNER MUST BE NO. 2 OR LIGHTER GRADE AS DESCRIBED BY THE LATEST ASTM SPECIFICATIONS AND MUST HAVE SULFUR CONTENT OF NOT MORE THAN 15PPM BY WEIGHT.
[RULE 431.2, RULE 1303 (a)-BACT]
7. THIS BOILER SHALL BE FIRED WITH NATURAL GAS ONLY, EXCEPT DURING PERIODS OF NATURAL GAS CURTAILMENT, DURING MAINTENANCE TESTING OF THE BURNER, AND DURING COMPLIANCE TESTING. FUEL OIL SHALL ONLY BE USED AS A STANDBY FUEL.
[RULE 1303 (a)-BACT, RULE 1146]
8. THE OPERATOR OF THIS EQUIPMENT SHALL COMPLY WITH SOURCE TESTING REQUIREMENTS IN SUBDIVISION (d)(6)--COMPLIANCE DETERMINATION OF RULE 1146.

FACILITY PERMIT TO OPERATE SAINT JOSEPH HOSPITAL

9. THE OPERATOR OF THIS EQUIPMENT SHALL COMPLY WITH PERIODIC MONITORING REQUIREMENTS OF RULE 1146 (c)(8).

10. THIS BOILER SHALL EMIT NO MORE THAN 9 PPM FOR OXIDES OF NITROGEN (NOX) CALCULATED AS NO₂, AND 50 PPM OF CARBON MONOXIDE (CO), ALL MEASURED BY VOLUME ON A DRY BASIS AT 3% OXYGEN WHEN FIRING ON NATURAL GAS.
[RULE 1303 (a)-BACT]

11. THIS BOILER SHALL EMIT NO MORE THAN 40 PPM FOR OXIDES OF NITROGEN (NOX) CALCULATED AS NO₂, MEASURED BY VOLUME ON A DRY BASIS AT 3% OXYGEN WHEN FIRING ON AMBER 363.
[RULE 1303 (a)-BACT, RULE 1146]

12. 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 1303 (a)-BACT]

Periodic Monitoring:

13. 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; 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.

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[RULE 3004 (a)(4)]

14. FOR UNITS WITH A HEAT INPUT GREATER THAN 10 MMBTU/HR AND ANNUAL OIL USAGE GREATER THAN 1,000,000 GALLONS OR GREATER THAN 336 HOURS OF OPERATION, BUT DOES NOT EXCEED 2,000,000 GALLONS IN ANY ONE YEAR, THE OPERATOR SHALL CONDUCT AN ANNUAL MAINTENANCE INSPECTION CHECK OF THE OPERATING PRESSURE, TEMPERATURE, AIR SUPPLY, VENT, SMOKE SPOT, BURNER CONDITION, HEAT-TRANSFER SURFACE CONDITION, WATER TREATMENT, BLOWDOWN AND LEAKAGE

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

A. DATE WHEN ANNUAL MAINTENANCE INSPECTION WAS CONDUCTED.

[RULE 3004 (a)(4)]

15. THIS BOILER SHALL BE EQUIPPED WITH A NON-RESETTABLE, TOTALIZING FLOW METER FOR FUEL OIL.

[RULE 3004 (a)(4)]

Emissions And Requirements:

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

CO: 2000 PPMV, RULE 407
SOX: 500 PPMV, RULE 407
PM: 0.1 GR/SCF, RULE 409
CO: 400 PPMV, RULE 1146
NOX 30 PPMV, RULE 1146, NATURAL GAS FIRED, SIP APPROVED
NOX 9 PPMV, RULE 1146, NATURAL GAS FIRED, NON-SIP APPROVED.
NOX: 40 PPMV, RULE 1146, FUEL OIL FIRED, SIP APPROVED

FACILITY PERMIT TO OPERATE SAINT JOSEPH HOSPITAL

PERMIT TO OPERATE

Permit No.G10522
A/N 510551

Equipment Description:

BOILER, NO. 2,CLEAVER BROOKS, FIRETUBE TYPE, MODEL NO.CBLE200-600-150#ST, SERIAL NO. OL104126, NATURAL GAS, WITH FUEL OIL STAND-BY, WITH ONE COMBUSTION ULTRA LOW NOX BURNER AT 25,100,000 BTU/HR, WITH FLUE GAS RECIRCULATION

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL 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 SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS EQUIPMENT SHALL COMPLY WITH RULE 1146.
[RULE 1146]
4. THE FLUE GAS RECIRCULATION SYSTEM SHALL BE IN FULL OPERATION AND KEPT IN FULL OPERATION WHENEVER THE BOILER IS IN OPERATION
[RULE 1146]
5. THE COMBUSTION BURNER SHALL BE INSPECTED AND MAINTAINED PER MANUFACTURER SPECIFICATIONS. RECORDS SHALL BE MAINTAINED FOR THE INSPECTIONS AND MAINTENANCE OF THE BURNER.
[RULE 1303 (a)-BACT]
6. FUEL OIL SUPPLIED TO THE BURNER MUST BE NO. 2 OR LIGHTER GRADE AS DESCRIBED BY THE LATEST ASTM SPECIFICATIONS AND MUST HAVE SULFUR CONTENT OF NOT MORE THAN 15PPM BY WEIGHT.
[RULE 431.2, RULE 1303 (a)-BACT]
7. THIS BOILER SHALL BE FIRED WITH NATURAL GAS ONLY, EXCEPT DURING PERIODS OF NATURAL GAS CURTAILMENT, DURING MAINTENANCE TESTING OF THE BURNER , AND DURING COMPLIANCE TESTING. FUEL OIL SHALL ONLY BE USED AS A STANDBY FUEL.
[RULE 1303 (a)-BACT, RULE 1146]

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8. THE OPERATOR OF THIS EQUIPMENT SHALL COMPLY WITH SOURCE TESTING REQUIREMENTS IN SUBDIVISION (d)(6)--COMPLIANCE DETERMINATION OF RULE 1146.
9. THE OPERATOR OF THIS EQUIPMENT SHALL COMPLY WITH PERIODIC MONITORING REQUIREMENTS OF RULE 1146 (c)(8).

10. THIS BOILER SHALL EMIT NO MORE THAN 9 PPM FOR OXIDES OF NITROGEN (NOX) CALCULATED AS NO₂, AND 50 PPM OF CARBON MONOXIDE (CO), ALL MEASURED BY VOLUME ON A DRY BASIS AT 3% OXYGEN WHEN FIRING ON NATURAL GAS.
[RULE 1303 (a)-BACT]

11. THIS BOILER SHALL EMIT NO MORE THAN 40 PPM FOR OXIDES OF NITROGEN (NOX) CALCULATED AS NO₂, MEASURED BY VOLUME ON A DRY BASIS AT 3% OXYGEN WHEN FIRING ON AMBER 363.
[RULE 1303 (a)-BACT, RULE 1146]

12. 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 1303 (a)-BACT]

Periodic Monitoring:

13. 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; 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

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D. VISIBLE EMISSION OBSERVATION RECORDED BY A CERTIFIED SMOKE READER.
[RULE 3004 (a)(4)]

14. FOR UNITS WITH A HEAT INPUT GREATER THAN 10 MMBTU/HR AND ANNUAL OIL USAGE GREATER THAN 1,000,000 GALLONS OR GREATER THAN 336 HOURS OF OPERATION, BUT DOES NOT EXCEED 2,000,000 GALLONS IN ANY ONE YEAR, THE OPERATOR SHALL CONDUCT AN ANNUAL MAINTENANCE INSPECTION CHECK OF THE OPERATING PRESSURE, TEMPERATURE, AIR SUPPLY, VENT, SMOKE SPOT, BURNER CONDITION, HEAT-TRANSFER SURFACE CONDITION, WATER TREATMENT, BLOWDOWN AND LEAKAGE

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

A. DATE WHEN ANNUAL MAINTENANCE INSPECTION WAS CONDUCTED.
[RULE 3004 (a)(4)]

15. THIS BOILER SHALL BE EQUIPPED WITH A NON-RESETTABLE, TOTALIZING FLOW METER FOR FUEL OIL.
[RULE 3004 (a)(4)]

Emissions And Requirements:

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

CO: 2000 PPMV, RULE 407
SOX: 500 PPMV, RULE 407
PM: 0.1 GR/SCF, RULE 409
CO: 400 PPMV, RULE 1146
NOX 30 PPMV, RULE 1146, NATURAL GAS FIRED, SIP APPROVED
NOX 9 PPMV, RULE 1146, NATURAL GAS FIRED, NON-SIP APPROVED.
NOX: 40 PPMV, RULE 1146, FUEL OIL FIRED, SIP APPROVED

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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 REGULATION:

VOC: RULE 1113, SEE APPENDIX B FOR EMISSION LIMITS

VOC: RULE 1171, SEE APPENDIX B FOR EMISSION LIMITS

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT SSC DIVISION APPLICATION PROCESSING AND CALCULATIONS	TOTAL PAGES:	PAGE NO.:
	17	1
	APPL. NO.	DATE
	See Below	6/8/2011
	PROCESSED BY	CHECKED BY
RDO		

PERMIT TO CONSTRUCT

APPLICANT	ST. JOSEPH HOSPITAL
MAILING ADDRESS	1100 W. STEWART DRIVE ORANGE CA.
EQUIPMENT LOCATION	SAME

EQUIPMENT DESCRIPTION:

Proposed new permit description language is shown in bold underline, items removed is shown in ~~strikeout~~

APPLICATION NO. 517792

MODIFICATION OF:

BOILER, NO. 2, FIRE TUBE, , BABCOCK & WILCOX,-MODEL NO. FM , SERIES 2000, 500 HP, SERIAL NO. NB21618, NATURAL GAS ~~OR~~ WITH FUEL OIL FIRED STANDBY FUEL, ~~WITH A ONE~~ COMBUSTION LOW NOX BURNER, CLEAVER BROOKS, COEN MODEL SDAF-14 PF NPF NTD210GX-09S-3, RATED AT 18,800,000 BTU PER, A 15 H.P. COMBUSTION AIR BLOWER AND AN INDUCED FLUE GAS RECIRCULATION SYSTEM.

APPLICATION NO. 517760

BOILER, NO. 1, FIRE TUBE, , TITUSVILLE PACKAGE TYPE,-MODEL NO. WTP-12-5, 450 HP, SERIAL NO. 39-0042-1, NATURAL GAS ~~OR~~ WITH FUEL OIL FIRED STANDBY FUEL, ~~WITH A ONE~~ COMBUSTION LOW NOX BURNER, CLEAVER BROOKS, COEN MODEL SDAF-14 PF NPF NTD210GX-09S-3, RATED AT 18,800,000 BTU PER, A 15 H.P. COMBUSTION AIR BLOWER AND AN INDUCED FLUE GAS RECIRCULATION SYSTEM.

APPLICATION NO. 517758

TITLE V REVISION

PERMIT CONDITIONS

Proposed new condition language is shown in bold underline, conditions removed is shown in ~~strikeout~~

A/N 517792 and 517760

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

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

SSC DIVISION

APPLICATION PROCESSING AND CALCULATIONS

TOTAL PAGES:	PAGE NO.:
17	2
APPL. NO.	DATE
See Below	6/8/2011
PROCESSED BY	CHECKED BY
RDO	

2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
3. THIS EQUIPMENT SHALL COMPLY WITH RULE 1146.
4. FUEL OIL SUPPLIED TO THE BURNER SHALL BE AMBER 363 AS DESCRIBED BY THE LATEST ASTM SPECIFICATIONS AND SHALL CONTAIN NO MORE THAN 15 PPM BY WEIGHT SULFUR.
~~[RULE 1146, RULE 431.2]~~
4. THE FLUE GAS RECIRCULATION SYSTEM SHALL BE IN FULL USE WHENEVER THE BOILER IS OPERATING.
6. ~~THE BURNER CONTROL SYSTEM AUTOMATICALLY REGULATING COMBUSTION AIR, FUEL AND RECIRCULATED FLUE GAS AS THE BOILER LOAD VARIES SHALL BE ADJUSTED AND TUNED AT LEAST TWICE A YEAR ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS TO ASSURE IT ABILITY TO REPEAT THE SAME PERFORMANCE A THE SAME FIRING RATE.~~
~~[RULE 1146]~~
7. RECORDS OF SUCH ADJUSTMENTS, TUNE UP AND CALIBRATION AS STATED IN CONDITION NO. 5 SHALL BE KEPT FOR AT LEAST TWO YEARS AND BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST
~~[RULE 1146]~~
5. THE OPERATOR OF THIS EQUIPMENT SHALL COMPLY WITH SOURCE TESTING REQUIREMENTS IN SUBDIVISION (d)(6)-COMPLIANCE DETERMINATION OF RULE 1146.
6. THE OPERATOR OF THIS EQUIPMENT SHALL COMPLY WITH PERIODIC MONITORING REQUIREMENTS OF RULE 1146 (c)(8).
7. THIS BOILER SHALL EMIT NO MORE THAN 30 PPM FOR OXIDES OF NITROGEN (NOX) MEASURED BY VOLUME ON A DRY BASIS AT 3% OXYGEN AVERAGED OVER A PERIOD OF 15 CONSECUTIVE MINUTES WHEN FIRING ON NATURAL GAS.
8. EFFECTIVE 1/1/2013 THIS BOILER SHALL EMIT NO MORE THAN 9 PPM FOR OXIDES OF NITROGEN (NOX) MEASURED BY VOLUME ON A DRY BASIS AT 3% OXYGEN AVERAGED OVER A PERIOD OF 15 CONSECUTIVE MINUTES WHEN FIRING ON NATURAL GAS.
9. EMISSIONS OF NOX SHALL NOT EXCEED 40 PPM REFERENCED AT 3% O2 ON A DRY BASIS, AVERAGED OVER A PERIOD OF 15 CONSECUTIVE MINUTES WHENEVER THIS EQUIPMENT IS FIRED WITH OIL.
10. EMISSIONS OF CO SHALL NOT EXCEED 400 PPM REFERENCED AT 3% O2 ON A DRY BASIS, AVERAGED OVER A PERIOD OF 15 CONSECUTIVE MINUTES.
11. THE BOILER SHALL BE FIRED ON NATURAL GAS ONLY, EXCEPT DURING PERIODS OF NATURAL GAS CURTAILMENT OR MAINTENANCE TESTING.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

SSC DIVISION

APPLICATION PROCESSING AND CALCULATIONS

TOTAL PAGES:	PAGE NO.:
17	3
APPL. NO.	DATE
See Below	6/8/2011
PROCESSED BY	CHECKED BY
RDO	

12. THE BURNER SHALL NOT FIRE ON LESS THAN 4476 SCF/HR OF NATURAL GAS DURING NORMAL OPERATION, NOT INCLUDING START-UPS AND SHUTDOWNS.
13. THE OPERATOR SHALL INSTALL A FLOW METER TO ACCURATELY INDICATE THE FLOW RATE OF THE GAS AND SHALL RECORD THE HOURLY GAS BEING FIRED IN THE BOILER. THE MEASURING DEVICE SHALL CONTINUOUSLY MEASURE THE FLOW RATE AND SHALL BE ACCURATE TO WITHIN PLUS OR MINUS 5 PERCENT AND SHALL BE CALIBRATED ONCE EVERY 12 MONTHS. CALIBRATION RECORDS AND HOURLY FLOW RECORDS SHALL BE KEPT ON SITE AND SHALL BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
14. RETAIN ALL RECORDS REQUIRED BY PERMIT FOR A PERIOD OF FIVE YEARS AND MAKE ALL RECORDS AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
15. THE OWNER OR OPERATOR OF THE EQUIPMENT SHALL CONDUCT A SOURCE TEST UNDER THE FOLLOWING CONDITIONS:
 - A. SOURCE TESTING SHALL BE CONDUCTED WITHIN 30 DAYS AFTER ACHIEVING MAXIMUM PRODUCTION RATE AT WHICH THE EQUIPMENT WILL BE OPERATED, BUT NO LATER THAN 90 DAYS AFTER INITIAL START-UP.
 - B. THE SOURCE TEST SHALL BE DONE TO VERIFY COMPLIANCE PERMIT CONDITION NO. EIGHT AND TEN.
 - C. THE SOURCE TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH SCAQMD METHOD 100.1.
 - D. THE TEST SHALL BE CONDUCTED FOR 15 MINUTES FOR EACH LOAD, WHILE FIRING AT MAXIMUM, MINIMUM AND LOW FIRING RATES.
 - E. TWO COMPLETE COPIES OF SOURCE TEST REPORTS (INCLUDE THE APPLICATION NUMBER AND A COPY OF THE PERMIT IN THE REPORT) SHALL BE SUBMITTED TO THE DISTRICT (ADDRESSED TO SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, ATTN: ROY OLIVARES, P.O. BOX 4941, DIAMOND BAR, CA 91765). THE RESULTS IN WRITING SHALL BE SUBMITTED WITHIN 45 DAYS AFTER THE SOURCE TEST IS COMPLETED. IT SHALL INCLUDE, BUT NOT LIMITED TO EMISSIONS RATE IN POUNDS PER HOUR AND CONCENTRATION IN PPMV AT THE OUTLET OF THE BOILER.
 - F. 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
 - G. SAMPLING FACILITIES SHALL COMPLY WITH THE AQMD "GUIDELINES FOR CONSTRUCTION OF SAMPLING AND TESTING FACILITIES", PURSUANT TO RULE 217.

Periodic Monitoring:

8. ~~THE OPERATOR SHALL DETERMINE COMPLIANCE WITH THE NOX EMISSION LIMIT(S)~~

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**SSC DIVISION****APPLICATION PROCESSING AND CALCULATIONS**

TOTAL PAGES:	PAGE NO.:
17	4
APPL. NO.	DATE
See Below	6/8/2011
PROCESSED BY	CHECKED BY
RDO	

~~EITHER BY: (a) CONDUCTING A SOURCE TEST AT LEAST ONCE EVERY YEAR USING AQMD METHOD 100.1 OR 7.1; OR (b) CONDUCTING A TEST AT LEAST ANNUALLY USING A PORTABLE ANALYZER AND AQMD APPROVED TEST METHOD. THE TEST SHALL BE CONDUCTED WHEN THE EQUIPMENT IS OPERATING UNDER NORMAL CONDITIONS TO DEMONSTRATE COMPLIANCE WITH RULE 1146 CONCENTRATION LIMIT. THE OPERATOR SHALL COMPLY WITH ALL GENERAL TESTING, REPORTING, AND RECORDKEEPING REQUIREMENTS IN SECTIONS E AND K OF THIS PERMIT.~~

~~[RULE 3004 (a)(4)]~~

~~9. THE OPERATOR SHALL DETERMINE COMPLIANCE WITH THE CO EMISSION LIMIT(S) EITHER BY: (a) CONDUCTING A SOURCE TEST AT LEAST ONCE EVERY YEAR USING AQMD METHOD 100.1 OR 10.1; OR (b) CONDUCTING A TEST AT LEAST ANNUALLY USING A PORTABLE ANALYZER AND AQMD APPROVED TEST METHOD. THE TEST SHALL BE CONDUCTED WHEN THE EQUIPMENT IS OPERATING UNDER NORMAL CONDITIONS TO DEMONSTRATE COMPLIANCE WITH RULE 1146 CONCENTRATION LIMIT. THE OPERATOR SHALL COMPLY WITH ALL GENERAL TESTING, REPORTING, AND RECORDKEEPING REQUIREMENTS IN SECTIONS E AND K OF THIS PERMIT.~~

~~[RULE 3004 (a)(4)]~~

16. 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; 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:

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

[RULE 3004 (a)(4)]

17. IF ANNUAL FUEL OIL USAGE EXCEEDS 2,000,000 GALLONS IN ANY ONE YEAR, THEN THE OPERATOR SHALL DETERMINE COMPLIANCE WITH THE PARTICULATE MATTER (PM) EMISSION LIMIT(S) BY CONDUCTING A SOURCE TEST AT LEAST ONCE EVERY FIVE YEARS

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

TOTAL PAGES:	PAGE NO.:
17	5
APPL. NO.	DATE
See Below	6/8/2011
PROCESSED BY	CHECKED BY
RDO	

SSC DIVISION**APPLICATION PROCESSING AND CALCULATIONS**

USING AQMD METHOD 5.2 . THE TEST SHALL BE CONDUCTED WHEN THE EQUIPMENT IS OPERATING UNDER NORMAL CONDITIONS TO DEMONSTRATE COMPLIANCE WITH RULE 409 LIMIT. THE OPERATOR SHALL COMPLY WITH ALL GENERAL TESTING, REPORTING, AND RECORDKEEPING REQUIREMENTS IN SECTIONS E AND K OF THIS PERMIT.

FOR THE PURPOSE OF DETERMINING COMPLIANCE WITH RULE 409 LIMIT, THE EMISSIONS SHALL BE MEASURED AND AVERAGED OVER A 60 MINUTE TIME PERIOD.

THE OPERATOR SHALL CONDUCT AN ANNUAL MAINTENANCE INSPECTION CHECK OF THE OPERATING PRESSURE, TEMPERATURE, AIR SUPPLY, VENT, SMOKE SPOT, BURNER CONDITION, HEAT-TRANSFER SURFACE CONDITION, WATER TREATMENT, BLOWDOWN AND LEAKAGE.

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

A. DATE WHEN ANNUAL MAINTENANCE INSPECTION WAS CONDUCTED.
[RULE 3004 (a) (4)]

18. FOR UNITS WITH A HEAT INPUT GREATER THAN 10 MMBTU/HR AND ANNUAL OIL USAGE GREATER THAN 1,000,000 GALLONS OR GREATER THAN 336 HOURS OF OPERATION, BUT DO NOT EXCEED 2,000,000 GALLONS IN ANY ONE YEAR. THE OPERATOR SHALL CONDUCT AN ANNUAL MAINTENANCE INSPECTION CHECK OF THE OPERATING PRESSURE, TEMPERATURE, AIR SUPPLY, VENT, SMOKE SPOT, BURNER CONDITION, HEAT-TRANSFER SURFACE CONDITION, WATER TREATMENT, BLOWDOWN AND LEAKAGE

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

A. DATE WHEN ANNUAL MAINTENANCE INSPECTION WAS CONDUCTED.
[RULE 3004 (a) (4)]

19. THIS BOILER SHALL BE EQUIPPED WITH A NON-RESETTABLE, TOTALIZING FLOW METER FOR FUEL OIL.
[RULE 3004 (a)(4)]

Emissions And Requirements:

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

CO: 2000 PPMV, RULE 407
 SOX: 500 PPMV FUEL OIL, RULE 409
 PM: 0.1 GR/SCF, RULE 409
 CO: 400 PPMV, RULE 1146
 NOX: 30 PPMV, RULE 1146 UNTIL DECEMBER 31, 2012
 NOX: 9 PPMV, NATURAL GAS, RULE 1146 ON OR AFTER JANUARY 1, 2013
 NOX: 40 PPMV FUEL OIL, RULE 1146 (~~FUEL OIL~~)

BACKGROUND:

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT SSC DIVISION APPLICATION PROCESSING AND CALCULATIONS	TOTAL PAGES:	PAGE NO.:
	17	6
	APPL. NO.	DATE
	See Below	6/8/2011
	PROCESSED BY	CHECKED BY
RDO		

The above applications were filed on 3/15/2011 as modification. The applicant operates two existing boilers, each rated at 18.8 million btu per hour. The applicant proposes to comply with the new Rule 1146 NOx emissions limits by replacing the existing burners and installing new burners that will comply with the 1/1/2013 NOx emission limits.

In the Facility Permit ID#13920, additions are requested to section D by the modification of two existing boilers. Attached is a draft of Section D in the Facility Permit affected by this addition.

Per 3000 (b)(15)(A)(vi) as referenced by 3005 (c)(1) this Title V modification is considered as a "minor permit revision" to the Title V permit because there is no increase of pollutant emissions or HAP emissions. There is a net decrease in NOx emission and ammonia is not listed section 112(b) HAP per the Clean Air Act, thus not subject to Rule 3000 (b)(11).

The applicant proposes to replace the current burner. When firing on oil there will be no change in the NOx emissions limit of 40 ppmv. The burner manufacturer Cleaver Brooks has provided emissions guarantees of no more than 9 ppmv of NOx emissions corrected to 3% O2 while firing on natural gas. There will be no change in the current CO emissions limit of 400 ppmv.

The boilers were modified to comply with Rule 1146 in the 1990's. They are currently operating under the permits issued at that time. The following table summarizes the current application and permit numbers.

Equipment	Current A/N	Current P/O
Boiler	223618	D53789
Boiler	223619	D53788

COMPLIANCE HISTORY

No NOV or NC has been issued during the past two years for this facility during the following time period: 06/02/2009-06/021/2011

Permitting since the Title V permit was renewed since 08/30/2007

There was one Title V revision (a/n 510614) to update source testing conditions on two boilers and the removal of ETO sterilizer. No increase in emissions.

Title V revision A/N	30 day ave-lb/dy				
	NOx	ROG	CO	SOx	PM10
510614	+0	+0	+0	+0	+0
517758	-23	+0	+0	+0	+0
Change in	-23	0	0	0	0

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT SSC DIVISION APPLICATION PROCESSING AND CALCULATIONS	TOTAL PAGES:	PAGE NO.:
	17	7
	APPL. NO.	DATE
	See Below	6/8/2011
	PROCESSED BY	CHECKED BY
RDO		

emissions					
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PROCESS DISCRIPTION

The boilers are used to generate hot water for hospital use, such as sterilization, heating, humidification, heating, and hot water. For this evaluation assume all the boilers operate 24 hr/dy, 7 dy/wk, 52 wk/yr.

The boilers have different make/models, but have the same make/model burner and the same btu ratings. Following are the specifications:

a/n 517760

Specification	
Boiler Manufacturer	Titusville
Model	WPT-12-5
Fuel Type	Natural gas primary, with fuel oil standby
Maximum Fuel Consumption	17905 ft3/hr natural gas
Maximum Exhaust Flow SCFM	5,763 ft3/min natural gas
Maximum Heat Input	18.8 mmbtu/hr
NOx Combustion Control	Induced FGR, Low NOx Burner
Post combustion control NOx limit natural gas	9 ppmv
Post combustion control NOx limit fuel oil	40 ppmv
Turn down ratio fuel	4 to 1
Post Combustion Control	none

a/n 517792

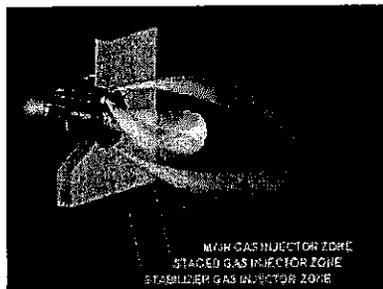
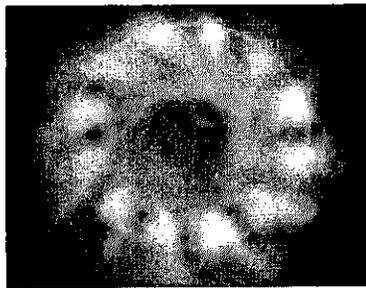
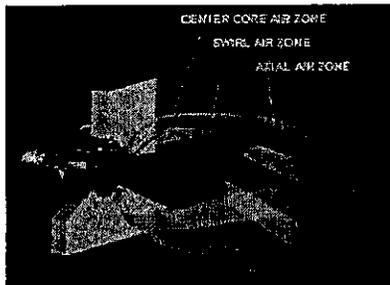
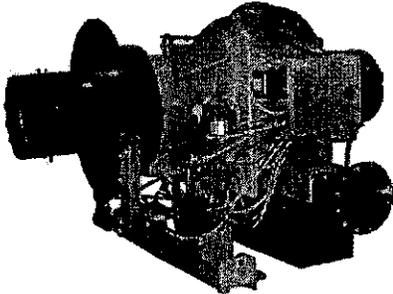
Specification	
Boiler Manufacturer	Babcock & Wilcox
Model	FM Series 2000
Fuel Type	Natural gas primary, with fuel oil standby
Maximum Fuel Consumption	17905 ft3/hr natural gas
Maximum Exhaust Flow SCFM	5,763 ft3/min natural gas
Maximum Heat Input	18.8 mmbtu/hr
NOx Combustion Control	Induced FGR, Low NOx Burner
Post combustion control NOx limit natural gas	9 ppmv
Post combustion control NOx limit fuel oil	40 ppmv
Turn down ratio fuel	4 to 1
Post Combustion Control	none

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

SSC DIVISION

APPLICATION PROCESSING AND CALCULATIONS

TOTAL PAGES:	PAGE NO.:
17	8
APPL. NO.	DATE
See Below	6/8/2011
PROCESSED BY	CHECKED BY
RDO	



Emission Control Technologies: (ref a/n 434789)

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT SSC DIVISION APPLICATION PROCESSING AND CALCULATIONS	TOTAL PAGES:	PAGE NO.:
	17	9
	APPL. NO.	DATE
	See Below	6/8/2011
	PROCESSED BY	CHECKED BY
RDO		

Emission control is achieved using a combination of the following technologies:

1. Staged Fuel Combustion with Multi-Diffusion, and
2. Flue Gas Recirculation At Each Multi-Diffusion Stage.

Staged Fuel Combustion is a common method for achieving low NOx production wherein fuel is combusted in several stages. Combustion normally occurs with some excess air in the first stage while combustion is completed with the remaining air in the other stage(s). By distributing the fuel in different stages, the resulting flame normally has a lower temperature, thus, minimizing the occurrence of thermal NOx production.

The Cleaver Brooks Profire NTH burner utilizes this staged fuel combustion technique. The burner's head is designed with two combustion zones (see attached brochure for a picture of the burner head), with backward-curved aluminum impellers that causes the flame in each zone to come out in a very rapid twisting motion. The resulting flame is large, very stable and irrotational. Since the flame is irrotational, heat transfer occurs in a very fast pace and most, if not all, of the adiabatic flame zone is eliminated.

Consistent with the concept of staged fuel combustion (discussed above), fuel combustion in the **primary diffusion zone** (or center core) is accomplished with slightly higher excess air of about 7% to 10%. The excess air in the **secondary diffusion zone** is reduced to about 2% to 3%.

In order to ensure that the flame temperature is kept low, **flue gas** is injected at each diffusion stage. In the primary diffusion zone, the **flue gas recirculation rate** is about 3% FGR. In the secondary diffusion zone, the FGR rate is increased to about 22%.

At the heart of this system is a microprocessor-controlled burner management system. This system controls the air damper (air flow through the burner), the fuel control valve (gas injection pressure), and the FGR control valve (flue gas recirculation flow). The proper set points of these parameters are determined during the commissioning of the boiler, utilizing an exhaust gas analyzer to ensure that the optimum NOx and CO emission levels are achieved. These set points are eventually programmed directly into the system

CALCULATIONS

1. Permit processing Emissions calculation methodology
 - A. Emissions calculations ROG, SOx and PM

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

TOTAL PAGES:	PAGE NO.:
17	10
APPL. NO.	DATE
See Below	6/8/2011
PROCESSED BY	CHECKED BY
RDO	

SSC DIVISION**APPLICATION PROCESSING AND CALCULATIONS**

$$R1(LB / HR) = \frac{EF \times GAS\ USAGE}{1 \times 10^6}$$

Note $R1 = R2$

Where $E.F$ per AP-42, table 1.4-1

Note, NOx and CO ref the same table for default values

B. Emissions calculations NOx and CO , by EPA method 19

Using the ideal gas law ($lbmole/dscf@68\ F$)

$$PV = nRT$$

$$n/V = P / RT$$

Given

Pressure = 1 atm

Temp = 68 F

Ideal gas constant $R = 0.73\ ft^3\text{-atm/lb-mole-R}$

$R = 460\ F + 68\ F$

$$\begin{aligned} lb\ NOx/btu &= dscf / mmbtu \times 1^{-06} mmbtu / btu \times \\ &= (20.9 / (20.9 - 3\%O_2)) \times ppm \times \\ &= (VolNOxppm) \times (MW) \times lbmol/dscf \end{aligned}$$

Given

$Dscf/mmbtu = 8710$

$Mw = 46\ NOx$

$Mw = 28\ CO$

$Lbmole/dscf = 0.00259$

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

TOTAL PAGES:

PAGE NO.:

17

11

SSC DIVISION

APPL. NO.

DATE

See Below

6/8/2011

PROCESSED BY

CHECKED BY

RDO

APPLICATION PROCESSING AND CALCULATIONS

$$Ppm = 9 NOx$$

$$Pppm = 400 CO$$

$$Vol NOx/pmm = 0.000001$$

*Repeat formula for CO***2. EMISSIONS CALCULATIONS PER BOILER**

3.

Current emissions

	lb/hr	lb/day	30-dy ave	lb/yr
RHC	0.0985	2.36	2.36	860
NOx	0.21	4.93	4.93	1794.52
SO2	0.0107	0.2578	0.26	93.825
CO	5.56	133.33	133.33	48533.67
PM=PM10=PM2.5	0.136	3.27	3.27	1188

The boilers were previously modified (a/n 223618 and 223619) to comply with Rule 1146 NOx limit of 40 ppmv limits, the previous NSR 30 day ave was not correctly done for NOx and CO. The emissions should be based on a NOx and CO limit of 30 ppmv and 400 ppmv respectfully. The correct 30 day ave will calculated using the previous Rule 1146 emissions limits and default emissions factors.

Previous emissions

	lb/hr	lb/day	30-dy ave	lb/yr
RHC	0.0985	2.36	2.36	860
NOx	0.68	16.43	16.43	5980.52
SO2	0.0107	0.2578	0.26	93.825
CO	5.56	133.33	133.33	48533.67
PM=PM10=PM2.5	0.136	3.27	3.27	1188

Revise the previous NOx and CO emissions based on Rule 1146 emissions limits, for ROG, SOx and PM10 use default emissions factors.

RULES EVALUATION:

Rule 212 The equipment is being modified to comply with Rule 1146 NOx emissions limits, there will be a net reduction in NOx emissions, thus Rule does not apply.

Item	Equipment located beyond 1000 feet of a school	Public notice required
Boilers	n/a	no

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**SSC DIVISION****APPLICATION PROCESSING AND CALCULATIONS**

TOTAL PAGES:	PAGE NO.:
17	12
APPL. NO.	DATE
See Below	6/8/2011
PROCESSED BY	CHECKED BY
RDO	

Section (c)(3)(A)(i)

Pollutant	MICR	Threshold	Public Notice required
Boiler	n/a	1.0e-06	No

Section (c)(2)

Pollutant	Net increase in emissions lb/dy	Allowed limit-lb/dy	Trigger Public Notice
NOx	-23	40	No
ROG	+0	30	No
CO	+0	220	No
PM10	+0	30	No
SOx	+0	60	NO

Rule 401 – Visible Emissions

Visible emissions are not expected under normal operation firing gaseous fuel. However, fuel oil combustion has the potential to result in visible emissions. Fuel oil is only fired in the unit during a natural gas curtailment, or during maintenance testing.

Rule 402 – Nuisance

The equipment primary uses natural gas, expected not to cause a odor.

Rule 404 Exempt per section (c).**Rule 407 – Liquid and Gaseous Air Contaminants**

This rule limits the CO emissions to 2000 ppm, and also limits the SO2 emissions to 500 ppm when firing fuel oil. The Rule 1146 CO limit of 400 ppm is more stringent. One of the boilers was tested in early 2000's and showed CO emissions below 250 ppm. After installation of the SCRs, compliance with the CO limit will again be verified through a source test. The units have not been tested for SO2 emissions, however, since 15 ppm sulfur fuel oil is required by Rule 431.2, the equipment should theoretically be able to comply with the 500 ppm SO2 limit.

Rule 409 – Combustion Contaminants

Expected to comply while firing on natural gas or fuel oil.

Rule 431.1. - Sulfur Content of Gaseous Fuels

This rule limits the sulfur content of natural gas sold in the district to 16 ppm sulfur. Once combusted, sulfur content of the exhaust is limited to 40 ppm on a 4 hour average. The natural

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT SSC DIVISION APPLICATION PROCESSING AND CALCULATIONS	TOTAL PAGES:	PAGE NO.:
	17	13
	APPL. NO.	DATE
	See Below	6/8/2011
	PROCESSED BY	CHECKED BY
RDO		

gas fired in these boilers is pipeline quality and because of its low sulfur content, it is expected that the exhaust concentration will be lower than the 40 ppm limit.

Rule 431.2 – Sulfur Content of Liquid Fuels

Any fuel oil combusted in the boilers must comply with the rule limit of 15 ppm sulfur. The boilers are required to use a low sulfur oil in the units which complies with the sulfur limits of this rule.

Rule 1146 This Rule was amended last September 2008 and is subject to the following emissions limits. The boiler is expected to comply with the future NOx limits (verify by source test).

Table 1146-1 per section (c)(1)(A) requires 30 ppmv limit for NOx when burning gaseous fuel. Section (c)(1)(4) requires 400 ppmv limit for CO.

The boilers are listed as a Group III type unit and will be subject to the following emissions limits

The boilers are subject to Table 1146-1 (c)(1)(I) requires 9 ppmv limit for NOx when burning gaseous fuel effective on 1/1/2013. The applicant proposes to install LOx burners, thus compliance with this section is met.

Per section (c)(4) the CO concentration limit is 400 ppmv (no change)

Per section (d)(6)(A) source testing is required once every five years for this size boiler

Per section (d)(8) the applicant shall check the NOx and CO emissions from the boiler using a portable analyzer effective 7/1/2009.

The Rule also requires submittal of a compliance plan specifying when the facility will come into compliance with the limits. The applicant submitted their plan under A/N 510615, the plan was submitted within the required timeframe (before 1/1/11), and was approved by AQMD on October 8, 2010. The plan specified a 9 ppm NOx compliance level to be achieved by January 1, 2013. The facility also has submitted their modification applications within the required timeframe (before 1/1/12).

The applicant has two Group II boilers (a/n 510550 and 510551) that were installed in 2005 and complies with the BACT and Rule 1146 emissions limits of 9 ppmv and CO of 50 ppmv (BACT).

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT SSC DIVISION APPLICATION PROCESSING AND CALCULATIONS	TOTAL PAGES:	PAGE NO.:
	17	14
	APPL. NO.	DATE
	See Below	6/8/2011
	PROCESSED BY	CHECKED BY
RDO		

Reg. XIII Compliance with the following sections is anticipated.

1303 (a)-BACT- There is no increase in BTU rating or emissions, BACT does not apply.

1303 (b)(1)- Does not apply no increase in emissions

1303 (b)(2)- Offsets, see table

		30 day ave-lb/dy				
Item	A/n	NO _x	ROG	CO	SO _x	PM10
Boiler	517760	+4.93	+2.36	+133.33	+0.26	+3.27
Boiler	517760	+4.93	+2.36	+133.33	+0.26	+3.27
Boiler	223619	-16.43	-2.36	-133.33	-0.26	-3.27
Boiler	223618	-16.43	-2.36	-133.33	-0.26	-3.27
Change in emissions		-23.00	+0	+0	+0	+0

RULE 1401- Exempt per section (g)(1)(F), no increase in Rule 1401 emissions. There is no increase in btu rating or emissions.

Regulation XXX

This facility (id# 13920) is included in Phase One of the Title V universe. Therefore the proposed equipment is expected to comply with the following sections:

Rule 3005 (c)(1): The Title V expected permit revision caused by this equipment addition satisfies all the applicable conditions listed in this rule, it constitutes Minor Permit revision (no net emissions increase less than required by Rule 3000 (b)(15)(A)(vi)), see facility emissions summary table in Rule 1303.

Rule 3003 The anticipated Minor permit revision is expected to comply with all the applicable requirements in this rule, of special note are the sections listed below

Section (i)(4) A permit revision may be issued after the permit revision applications meets all conditions in this rule.

Section (j)(1)(A) The EPA Administrator will timely receive the Minor revision upon completion of District evaluation.

Section (j)(1)(C) The EPA Administrator will timely receive the draft of the Minor revision upon completion of District evaluation.

Section (j)(1)(D) The EPA Administrator will timely receive the final Title V permit upon issuance by the District

Section (j)(4)(A) The applicant will be timely notified of any refusal to accept all recommendations for the draft permit

Rule 3006 (a) Exempt per section (b).

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT SSC DIVISION APPLICATION PROCESSING AND CALCULATIONS	TOTAL PAGES:	PAGE NO.:
	17	15
	APPL. NO.	DATE
	See Below	6/8/2011
	PROCESSED BY	CHECKED BY
RDO		

California Environmental Quality Act (CEQA)

The boiler modification to reduce the NOx emissions does not trigger CEQA.

FINAL AIR TOXICS STANDARDS FOR INDUSTRIAL, COMMERCIAL, AND INSTITUTIONAL BOILERS AT AREA SOURCE FACILITIES (40 CFR Part 63)

The final ruling was released on 3/21/2011 and applies to boilers using non-gaseous fuels. For this project the boilers are using natural gas with fuel oil only used as a stand-by fuel. The rule is silent for a boiler firing on natural gas with stand-by oil. The boilers are existing, per Table 2 to Subpart JJJJJ of Part 63, item 3 for oil fired, there are no emissions requirement, but the operator is required to perform tune-ups and a onetime energy assessment on the boilers.

RECOMMENDATIONS

Based on the analysis in this report, the equipment is expected to comply with the applicable Rules and Regulations of the SCAQMD and the applicable BACT requirements.

For this reason, the following disposition is recommended; issue a revised Title V Facility Permit reflecting the modification of two boilers under section D.

Updates in Section D of the Title V facility Permit resulting from this addition are listed in Equipment and Condition sections of the attached draft permit.

After the end of the 45 day EPA review period, issue a Permit to Construct subject to the conditions listed below.

A. A/N 519836 and 519535, the following condition changes are recommended for the boilers:

- Remove condition no. 4- see Facility condition no. 2, fuel oil required to comply with Rule 431.2
- Remove previous condition no. 6- induced FGR does not need this condition
- Remove previous condition no. 7- induced FGR does not need this condition
- Add condition no. 5- source testing condition for Rule 1146
- Add condition no. 6- standard periodic monitoring condition for Rule 1146
- Add condition no. 7- list current Rule 1146 NOx 30 ppmv limit while operating on natural gas
- Add condition no. 8 list future Rule 1146 NOx limit of 9 ppmv while operating on natural gas effective 1/1/2013
- Add condition no. 9- list Rule 1146 NOx limit of 40 ppmv while the boiler operates on fuel oil.
- Add condition no. 10- list Rule 1146 CO limit of 400 ppmv

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

SSC DIVISION

APPLICATION PROCESSING AND CALCULATIONS

TOTAL PAGES:	PAGE NO.:
17	16
APPL. NO.	DATE
See Below	6/8/2011
PROCESSED BY	CHECKED BY
RDO	

- Add condition no. 11- Boiler operates on natural gas only except during natural gas curtailments
- Add condition no. 12- limit the min. natural gas fuel rate, except during start-up and shutdown.
- Add condition no. 13, install natural gas fuel meter and recorder
- Add condition no. 14- Record keeping condition.
- Add condition no. 15- Source test condition
- Remove previous periodic monitoring condition no. 8 and 9, Rule 1146 periodic monitoring and testing more stringent.

All other existing conditions will remain the same.

RECOMMENDATIONS

Based on the analysis in this report, the equipment is expected to comply with the applicable Rules and Regulations of the SCAQMD and the applicable Rule 1146 requirements.

FOR THIS APPLICATION THE FOLLOWING DISPOSITION IS RECOMMENDED:

Issue PC for the boilers

BOILER EMISSIONS FOR FIRING ON NATURAL GAS ONLY

1. DATA

Max burner rating	18,800,000	BTU/hr
Max hr/dy	24	hr/day
day per week	7	dy/wk
wk/yr	52	wk/yr
Use default NOx E.F.	no	yes/no
Use default CO E.F.	NO	
Max NOx rate	9	ppm
Max CO rate	400	ppm
30-day ave	30	days
Ave load-Rule 1401	100.0%	
Max load-Reg 13	100.0%	
Fuel HHV	1050	btu/ft3
Fuel rate	17905	ft3/hr
fuel/mon	12891429	
turn down ratio	25.00%	
min fuel rate	4476.1905	ft3/hr

Emissions factor

Item	value	units	Ref
ROG	5.5	lb/mmcf	AP-42, table 1.4-1
SOx	0.6	lb/mmcf	AP-42, table 1.4-1
PM	7.6	lb/mmcf	AP-42, table 1.4-1
NOx-default	100	lb/mmcf	AP-42, table 1.4-1
CO-default	85	lb/mmcf	AP-42, table 1.4-1
MMCF/hr	0.017904762	MMCF/hr	
therm/hr	188	therm/hr	

ROG, SOX and PM10 Emissions = lb/mmcf * MMCF/hr * load

2. Combustion Emissions

	lb/hr	lb/day	30-dy ave	lb/yr
RHC	0.0985	2.36	2.36	860
NOx	0.21	4.93	4.93	1794.52
SO2	0.0107	0.2578	0.26	93.825
CO	5.56	133.33	133.33	48533.67
PM=PM10=PM	0.136	3.27	3.27	1188

By EPA Method 19

By the Ideal Gas Law

$$= [PV = nRT]$$

$$= [n/V = P/RT]$$

$$= [\text{lbmol/dscf}@68F.]$$

$$= [1 \text{ atm} / (0.73 \text{ ft}^3\text{-atm/lb-mole-R} * (460 \text{ F} + 68\text{F}))]$$

$$= [0.00259 \text{ lbmol/dscf}]$$

BOILER EMISSIONS FOR FIRING ON NATURAL GAS ONLY

PREVIOUS BOILER EMISSIONS

1. DATA

Max burner rating	18,800,000	BTU/hr
Max hr/dy	24	hr/day
day per week	7	dy/wk
wk/yr	52	wk/yr
Use default NOx E.F.	no	yes/no
Use default CO E.F.	NO	
Max NOx rate	30	ppm
Max CO rate	400	ppm
30-day ave	30	days
Ave load-Rule 1401	100.0%	
Max load-Reg 13	100.0%	
Fuel HHV	1050	btu/ft3
Fuel rate	17905	ft3/hr
fuel/mon	12891429	
turn down ratio	25.00%	
min fuel rate	4476.1905	ft3/hr

Emissions factor

Item	value	units	Ref
ROG	5.5	lb/mmcf	AP-42, table 1.4-1
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NOx-default	100	lb/mmcf	AP-42, table 1.4-1
CO-default	85	lb/mmcf	AP-42, table 1.4-1
MMCF/hr	0.017904762	MMCF/hr	
therm/hr	188	therm/hr	

ROG, SOX and PM10 Emissions = lb/mmcf * MMCF/hr * load

2. Combustion Emissions

	lb/hr	lb/day	30-dy ave	lb/yr
RHC	0.0985	2.36	2.36	860
NOx	0.68	16.43	16.43	5980.52
SO2	0.0107	0.2578	0.26	93.825
CO	5.56	133.33	133.33	48533.67
PM=PM10=PN	0.136	3.27	3.27	1188

By EPA Method 19

By the Ideal Gas Law

= $[PV = nRT]$

= $[n/V = P/RT]$

= $[lbmol/dscf@68F.]$

= $[1 atm/(0.73 ft^3-atm/lb-mole-R*(460 F+68F))]$

= $[0.00259 lbmol/dscf]$