

SACRAMENTO METROPOLITAN



PERMIT TO OPERATE

ISSUED TO: UCD MEDICAL CENTER

EQUIPMENT LOCATION: 4840 2ND AVENUE, SACRAMENTO, CA 95817

PERMIT NO.	EQUIPMENT DESCRIPTION
17549	GAS TURBINE, 24 MW GENERAL ELECTRIC LM 2500 COMBINED CYCLE TYPE WITH WATER INJECTION, 260 MM BTU/HR RATED HEAT CAPACITY, 82,000 LBS/HR STEAM OUTPUT, EQUIPPED WITH COOLING TOWERS (4), TOWER ENGINEERING, 9,500 GPM/CELL.
10909	AIR POLLUTION CONTROL SELECTIVE CATALYTIC REDUCTION SYSTEM SERVING THE GAS TURBINE, BABCOCK & WILCOX
10910	AIR POLLUTION CONTROL OXIDATION CATALYST SERVING THE GAS TURBINE, CATCO 620HC CATALYST BY ENGELHARD CORPORATION

SUBJECT TO THE FOLLOWING CONDITIONS:

GENERAL

1. THE EQUIPMENT SHALL BE PROPERLY MAINTAINED AND OPERATED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AT ALL TIMES.
2. THE AIR POLLUTION CONTROL OFFICER AND/OR AUTHORIZED REPRESENTATIVES, UPON THE PRESENTATION OF CREDENTIALS SHALL BE PERMITTED:
 - A. TO ENTER UPON THE PREMISES WHERE THE SOURCE IS LOCATED OR IN WHICH ANY RECORDS ARE REQUIRED TO BE KEPT UNDER THE TERMS AND CONDITIONS OF THIS PERMIT TO OPERATE, AND
 - B. AT REASONABLE TIMES TO HAVE ACCESS TO AND COPY ANY RECORDS REQUIRED TO BE KEPT UNDER TERMS AND CONDITIONS OF THIS PERMIT TO OPERATE, AND
 - C. TO INSPECT ANY EQUIPMENT, OPERATION, OR METHOD REQUIRED IN THIS PERMIT TO OPERATE, AND
 - D. TO SAMPLE EMISSIONS FROM THE SOURCE OR REQUIRE SAMPLES TO BE TAKEN.
3. THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26, PART 4, CHAPTER 3, OF THE CALIFORNIA HEALTH AND SAFETY CODE OR THE RULES AND REGULATIONS OF THE AIR QUALITY MANAGEMENT DISTRICT.

DATE ISSUED: 01-26-2006 (P/O 17549)
DATE ISSUED: 11-04-1999 (P/Os 10909 & 10910)
DATE MODIFIED: 04-14-2011 (P/O 17549)
DATE EXPIRES: 01-16-2012 (UNLESS RENEWED)

LARRY GREENE
AIR POLLUTION CONTROL OFFICER

BY: 

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

4. THE EQUIPMENT SHALL NOT DISCHARGE SUCH QUANTITIES OF AIR CONTAMINANTS OR OTHER MATERIALS WHICH CAUSE INJURY, DETRIMENT, NUISANCE OR ANNOYANCE TO ANY CONSIDERABLE NUMBER OF PERSONS OR TO THE PUBLIC, OR WHICH ENDANGER THE COMFORT, REPOSE, HEALTH OR SAFETY OF ANY SUCH PERSONS OR THE PUBLIC, OR WHICH CAUSE, OR HAVE A NATURAL TENDENCY TO CAUSE, INJURY OR DAMAGE TO BUSINESS OR PROPERTY.
5. A LEGIBLE COPY OF THIS PERMIT SHALL BE MAINTAINED ON THE PREMISES WITH THE EQUIPMENT.

EMISSION LIMITATIONS

6. THE EQUIPMENT SHALL NOT DISCHARGE INTO THE ATMOSPHERE ANY VISIBLE AIR CONTAMINANTS OTHER THAN UNCOMBINED WATER VAPOR, FOR A PERIOD OR PERIODS AGGREGATING MORE THAN THREE MINUTES IN ANY ONE HOUR, WHICH ARE AS DARK OR DARKER THAN RINGELMANN NO. 1 OR EQUIVALENT TO OR GREATER THAN 20% OPACITY.
7. EMISSIONS FROM THE GAS TURBINE SHALL NOT EXCEED THE FOLLOWING LIMITS:

POLLUTANT	MAXIMUM ALLOWABLE EMISSIONS			
	CONCENTRATION (A) (PPMVD @ 15% OXYGEN)	HOURLY (LB/HR) (B)	DAILY (LB/DAY) (C)	QUARTERLY (LB/QUARTER) (D)
ROC	NA	NA	144.0	13,248
NOx	5	4.80	115.2	10,580
SOx	NA	NA	3.8	350
PM10 (E)	NA	NA	66.5	6,118
CO	NA	9.25	222.0	20,424
NH ₃	20	NA	172.8	15,898

- A - AVERAGED OVER ANY CONSECUTIVE THREE HOUR PERIOD, EXCLUDING START-UPS AS DEFINED IN CONDITION 12.
 B - AVERAGED OVER ANY CONSECUTIVE THREE HOUR PERIOD, EXCLUDING START-UPS AS DEFINED IN CONDITION 12.
 C - BASED ON OPERATING AT 260 MM BTU/HR MAXIMUM CAPACITY AND 24 HOURS/DAY.
 D - BASED ON OPERATING FOR 92 DAYS AT THE MAXIMUM DAILY ALLOWABLE EMISSIONS.
 E - INCLUDES PM10 FROM OPERATION OF THE COOLING TOWERS.

8. EMISSIONS FROM THE FOLLOWING EQUIPMENT SHALL NOT EXCEED THE FOLLOWING LIMITS.

PERMIT NUMBER	EQUIPMENT	MAXIMUM ALLOWABLE EMISSIONS (A) (LBS/DAY)		
		NOx	ROC	PM10
P/O 17549	GAS TURBINE	150	150	80
P/O 12979	BOILER (3.2 MM BTU/HR)			
P/O 20216	AUX. BOILER (31.5 MM BTU/HR)			
P/O 20217	AUX. BOILER (31.5 MM BTU/HR)			
P/O 20218	AUX. BOILER (31.5 MM BTU/HR)			
P/O 20219	AUX. BOILER (31.5 MM BTU/HR)			
P/O 21510	GASOLINE DISPENSING			

- A - COMPLIANCE WITH THESE EMISSION LIMITATIONS IS TO BE DETERMINED BY USING THE CALCULATION METHODS OUTLINED IN ATTACHMENT A.

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EQUIPMENT OPERATION

9. THE GAS TURBINE SHALL NOT COMBUST MORE THAN A MAXIMUM OF 260 MMBTU/HR HHV OF NATURAL GAS.
10. THE GAS TURBINE SHALL ONLY COMBUST NATURAL GAS FUEL.
11. THE GAS TURBINE SHALL NOT BE OPERATED WITHOUT A FULLY FUNCTIONING SELECTIVE CATALYTIC REDUCTION SYSTEM (P/O 10909) AND OXIDIZING CATALYST SYSTEM (P/O 10910), EXCLUDING PERIODS OF START-UPS AS DEFINED IN CONDITION 12 AND SHUT DOWNS.
12. THE DURATION OF THE GAS TURBINE'S START-UP PERIOD SHALL NOT EXCEED 60 MINUTES. THE START-UP PERIOD IS DEFINED AS THE TIME WHEN FUEL IS FIRST INTRODUCED TO THE TURBINE TO THE TIME WHEN THE NOX EMISSIONS ARE 5 PPMVD @ 15% O₂ OR LESS AND THE EMISSIONS OF NH₃ ARE 20 PPMVD @ 15% O₂ OR LESS.
13. THE COOLING TOWERS SHALL NOT USE ANY CHROMIUM-CONTAINING WATER TREATMENT CHEMICALS.
14. THE TOTAL DISSOLVED SOLIDS CONTENT OF THE CIRCULATING COOLING WATER SHALL NOT EXCEED 2,850 PPMW OR A CONDUCTIVITY THAT EXCEEDS 4,750 MICRO MHOS.
15. THE COOLING TOWERS DRIFT RATE SHALL NOT EXCEED 0.0005% BY WEIGHT.

MONITORING SYSTEMS

16. UCDMC SHALL MAINTAIN AN AIR POLLUTION CONTROL OFFICER APPROVED IN-STACK CONTINUOUS EMISSION MONITORING SYSTEM (CEMS) IN THE EXHAUST OF THE GAS TURBINE.
 - A. THE CONTINUOUS EMISSION MONITORING SYSTEM (CEMS) SHALL MONITOR AND RECORD NITROGEN OXIDES, CARBON MONOXIDE, AND EITHER OXYGEN OR CARBON DIOXIDE CONCENTRATIONS. UCDMC SHALL DEMONSTRATE THAT COMPLIANCE WITH THE APPLICABLE EMISSION CONCENTRATIONS CAN BE ACHIEVED THROUGH THE MONITORING OF CARBON DIOXIDE TO THE SATISFACTION OF THE AIR POLLUTION CONTROL OFFICER BEFORE MONITORING OF CARBON DIOXIDE CAN BE USED IN THIS CAPACITY.
 - B. THE CEMS SHALL COMPLY WITH THE EPA PERFORMANCE SPECIFICATIONS (TITLE 40, CODE OF FEDERAL REGULATIONS, PART 60, APPENDIX B, PERFORMANCE SPECIFICATIONS 2, 3, AND 4.)
 - C. THE CEMS SHALL NOT BE REQUIRED TO MONITOR EMISSIONS FOR A MAXIMUM OF EIGHT (8) HOURS PER CALENDAR YEAR WHILE PERIODIC, SCHEDULED MAINTENANCE IS PERFORMED.
17. UCDMC SHALL OPERATE CONTINUOUS MONITORING SYSTEMS THAT HAVE BEEN APPROVED BY THE AIR POLLUTION CONTROL OFFICER THAT EITHER MEASURE OR CALCULATE AND RECORD THE FOLLOWING.

PARAMETER TO BE MONITORED	UNITS
FUEL CONSUMPTION OF THE GAS TURBINE	MMCF/HR OF NATURAL GAS
EXHAUST GAS FLOWRATE OF THE GAS TURBINE	SDCFM
THE TOTAL DISSOLVED SOLIDS LEVEL OR CONDUCTIVITY OF THE CIRCULATING WATER IN THE COOLING TOWERS	PPMW OR MICRO MHOS

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RECORD KEEPING

18. THE FOLLOWING RECORDS SHALL BE CONTINUOUSLY MAINTAINED ONSITE FOR THE MOST RECENT FIVE YEAR PERIOD AND SHALL BE MADE AVAILABLE TO THE AIR POLLUTION CONTROL OFFICER UPON REQUEST. QUARTERLY AND YEARLY RECORDS SHALL BE MADE AVAILABLE WITHIN 30 DAYS FOLLOWING THE END OF THE QUARTER AND YEAR RESPECTIVELY.

FREQUENCY	INFORMATION TO BE RECORDED
AT ALL TIMES	<ul style="list-style-type: none"> A. DATE, TIME, AND DURATION OF ANY START-UP, SHUTDOWN, OR MALFUNCTION IN THE OPERATION OF THE GAS TURBINE. B. DATE, TIME, AND DURATION OF ANY MALFUNCTION OF THE AIR POLLUTION CONTROL EQUIPMENT. C. DATE, TIME, AND DURATION OF ANY PERIODS DURING WHICH A CEMS OR MONITORING DEVICE IS INOPERATIVE. D. MEASUREMENTS FROM THE CONTINUOUS MONITORING SYSTEM. E. MEASUREMENTS FROM MONITORING DEVICES. F. MEASUREMENTS FROM PERFORMANCE TESTING. G. ALL CONTINUOUS MONITORING SYSTEM PERFORMANCE EVALUATIONS. H. ALL CONTINUOUS MONITORING SYSTEM OR MONITORING DEVICE CALIBRATION CHECKS I. ADJUSTMENTS AND MAINTENANCE PERFORMED ON THESE SYSTEMS OR DEVICES.
HOURLY	<ul style="list-style-type: none"> J. TOTAL NUMBER OF CUBIC FEET OF NATURAL GAS FUEL USED IN THE GAS TURBINE (MMCF/HOUR) K. EXHAUST GAS FLOWRATE OF THE TURBINE (KDSCF/HR) L. ONE OR MORE READINGS OF TOTAL DISSOLVED SOLIDS CONTENT (PPMW) OR CONDUCTIVITY (MICRO MHOS) OF THE CIRCULATING WATER IN THE COOLING TOWERS. M. GAS TURBINE NO_x AND CO EMISSIONS, AVERAGED OVER A THREE HOUR PERIOD, NOT INCLUDING START-UPS AS DEFINED IN CONDITION 12 (LBS/HOUR). N. GAS TURBINE NO_x CONCENTRATION MEASURED IN PPMVD AT 15% O₂, AVERAGED OVER ANY CONSECUTIVE THREE HOUR PERIOD, EXCLUDING START-UPS AS DEFINED IN CONDITION 12.
DAILY	<ul style="list-style-type: none"> O. TOTAL NUMBER OF CUBIC FEET OF NATURAL GAS FUEL USED IN THE GAS TURBINE (MMCF/DAY). P. TOTAL NO_x, ROC, AND PM10 EMISSIONS AS DESCRIBED IN CONDITION 8 PURSUANT TO THE CALCULATION METHOD OUTLINED IN ATTACHMENT A (POUNDS/DAY). Q. HOURS OF OPERATION OF THE GAS TURBINE. R. GAS TURBINE CUMULATIVE HOURS OF OPERATION TO DATE FOR THE CALENDAR YEAR.

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REPORTING

19. SUBMIT TO THE AIR POLLUTION CONTROL OFFICER A WRITTEN REPORT THAT CONTAINS THE FOLLOWING INFORMATION.

FREQUENCY	INFORMATION TO BE SUBMITTED
QUARTERLY BY JANUARY 30 APRIL 30 JULY 30 SEPTEMBER 30 FOR THE PREVIOUS CALENDAR QUARTER	WHENEVER THE CONTINUOUS EMISSIONS MONITORING SYSTEM IS INOPERATIVE EXCEPT FOR ZERO AND SPAN CHECKS: A. DATE AND TIME OF NON OPERATION OF THE CONTINUOUS EMISSION MONITORING SYSTEM B. NATURE OF THE CONTINUOUS EMISSION MONITORING SYSTEM (CEMS) REPAIRS, ADJUSTMENTS, OR PERIODIC MAINTENANCE.
	WHENEVER AN EMISSION OCCURS AS MEASURED BY THE REQUIRED CONTINUOUS MONITORING EQUIPMENT THAT IS IN EXCESS OF ANY EMISSION LIMITATION: A. MAGNITUDE OF THE EMISSION WHICH HAS BEEN DETERMINED TO BE IN EXCESS. B. DATE AND TIME OF THE COMMENCEMENT AND COMPLETION OF EACH PERIOD OF EXCESS EMISSIONS C. PERIODS OF EXCESS EMISSIONS DUE TO START-UP, SHUTDOWN, AND MALFUNCTION SHALL BE SPECIFICALLY IDENTIFIED. D. THE NATURE AND CAUSE OF ANY MALFUNCTION (IF KNOWN). E. THE CORRECTIVE ACTION TAKEN OR PREVENTIVE MEASURES ADOPTED.
	IF THERE WERE NO EXCESS EMISSIONS FOR A QUARTER, A REPORT SHALL BE SUBMITTED INDICATING THAT THERE WERE NO EXCESS EMISSIONS.

COMPLIANCE TESTING REQUIREMENTS

20. A NO_x, ROC, CO, PM₁₀, AND AMMONIA (NH₃) SOURCE TEST OF THE GAS TURBINE SHALL BE PERFORMED ANNUALLY.
- A. SUBMIT A TEST PLAN TO THE AIR POLLUTION CONTROL OFFICER FOR APPROVAL AT LEAST 30 DAYS BEFORE THE SOURCE TEST IS TO BE PERFORMED.
 - B. NOTIFY THE AIR POLLUTION CONTROL OFFICER AT LEAST SEVEN DAYS IN ADVANCE OF THE ACTUAL SOURCE TEST DATE IF THE DATE HAS CHANGED FROM THAT APPROVED IN THE SOURCE TEST PLAN.
 - C. DURING THE TEST(S), THE TURBINE IS TO BE OPERATED AT ITS MAXIMUM TOTAL FIRING CAPACITY WITH REGARD TO CONDITION 12.
 - D. THE SOURCE TEST RESULTS SHALL BE SUBMITTED TO THE AIR POLLUTION CONTROL OFFICER WITHIN 60 DAYS FROM THE COMPLETION OF THE SOURCE TEST(S).
 - E. THE AIR POLLUTION CONTROL OFFICER MAY WAIVE THE ANNUAL PM₁₀ SOURCE TEST REQUIREMENT IF, IN THE AIR POLLUTION CONTROL OFFICER'S SOLE JUDGMENT, PRIOR TEST RESULTS INDICATE AN ADEQUATE COMPLIANCE MARGIN HAS BEEN MAINTAINED.

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YOUR APPLICATION FOR THIS AIR QUALITY PERMIT TO OPERATE WAS EVALUATED FOR COMPLIANCE WITH SACRAMENTO AIR QUALITY MANAGEMENT DISTRICT (AQMD), STATE AND FEDERAL AIR QUALITY RULES. THE FOLLOWING LISTED RULES ARE THOSE THAT ARE MOST APPLICABLE TO THE OPERATION OF YOUR EQUIPMENT. OTHER RULES MAY ALSO BE APPLICABLE.

<u>AQMD RULE NO.</u>	<u>RULE TITLE</u>
201	GENERAL PERMIT REQUIREMENTS
202	NEW SOURCE REVIEW
401	RINGELMANN CHART
402	NUISANCE
404	PARTICULATE MATTER
406	SPECIFIC CONTAMINANTS
413	STATIONARY GAS TURBINES
420	SULFUR CONTENT OF FUELS
801	NEW SOURCE PERFORMANCE STANDARDS - SUBPART GG STATIONARY GAS TURBINES
904	AIR TOXIC CONTROL MEASURES - CHROMATE TREATED COOLING TOWERS

IN ADDITION, THE CONDITIONS ON THIS PERMIT TO OPERATE MAY REFLECT SOME, BUT NOT ALL, REQUIREMENTS OF THESE RULES. THERE MAY BE OTHER CONDITIONS THAT ARE APPLICABLE TO THE OPERATION OF YOUR EQUIPMENT. FUTURE CHANGES IN PROHIBITORY RULES MAY ESTABLISH MORE STRINGENT REQUIREMENTS WHICH MAY SUPERSEDE THE CONDITIONS LISTED HERE.

FOR FURTHER INFORMATION PLEASE CONSULT YOUR AQMD RULEBOOK OR CONTACT THE AQMD FOR ASSISTANCE.

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ATTACHMENT A

**NO_x, ROC, & PM10 EMISSION CALCULATION METHODOLOGY
FOR UCDMC CENTRAL POWER PLANT OPERATIONAL RESTRICTIONS**

PERMIT NO.	EQUIPMENT	RATING	DAILY USAGE UNITS (U)	EMISSION FACTOR (EF)			EMISSION CALCULATION METHOD LB/DAY
				NO _x (EF _{NO_x})	ROC (EF _{ROC})	PM10 (EF _{PM10})	
18156	GASOLINE DISP.	20,000 GALLONS CAPACITY	1000 GALLONS	-----	1.27 LB/MGAL (C)	-----	= U X EF
12979	BOILERS (8)	3.2 MM BTU/HR	NUMBER OF BOILERS OPERATED/DAY	0.96 LBS/BOILER OPERATED	0.03 LBS/BOILER OPERATED	0.13 LBS/BOILER OPERATED	= U X EF
17549	GAS TURBINE	260 MM BTU/HR NATURAL GAS COOLING TOWERS (A)	(COMBINED) MMCF/DAY 1 /DAY	(CEM DATA) N/A	23.08 LBS/MMCF N/A	9.62 LBS/MMCF 6.5 LBS	(COMBINED) = U _{NG} X EF _{NG} + U _{CT} X EF _{CT}
20216	BOILER #1	31.5 MM BTU/HR NATURAL GAS FUEL OIL (B)	(COMBINED) MMCF/DAY GALLONS/DAY	10.9 LB/MMCF 0.00657 LB/GAL	12 LB/MMCF 0.00328 LB/GAL	10 LB/MMCF 0.00197 LB/GAL	(COMBINED) = U _{NG} X EF _{NG} + U _{FO} X EF _{FO}
20217	BOILER #2	31.5 MM BTU/HR NATURAL GAS FUEL OIL (B)	(COMBINED) MMCF/DAY HOURS/DAY	10.9 LB/MMCF 0.00657 LB/GAL	4 LB/MMCF 0.00328 LB/GAL	10 LB/MMCF 0.00197 LB/GAL	(COMBINED) = U _{NG} X EF _{NG} + U _{FO} X EF _{FO}
20218	BOILER #3	31.5 MM BTU/HR NATURAL GAS FUEL OIL (B)	(COMBINED) MMCF/DAY HOURS/DAY	10.9 LB/MMCF 0.00657 LB/GAL	4 LB/MMCF 0.00328 LB/GAL	10 LB/MMCF 0.00197 LB/GAL	(COMBINED) = U _{NG} X EF _{NG} + U _{FO} X EF _{FO}
20219	BOILER #4	31.5 MM BTU/HR NATURAL GAS FUEL OIL (B)	(COMBINED) MMCF/DAY HOURS/DAY	10.9 LB/MMCF 0.00657 LB/GAL	4 LB/MMCF 0.00328 LB/GAL	10 LB/MMCF 0.00197 LB/GAL	(COMBINED) = U _{NG} X EF _{NG} + U _{FO} X EF _{FO}

- A - THE MAXIMUM DAILY POTENTIAL TO EMIT FOR THE COOLING TOWERS (CALCULATED WITH THE MAXIMUM TDS CONCENTRATION AND MAXIMUM DAILY FLOW RATE) IS USED FOR PM10 EMISSIONS.
 B - FUEL OIL EMISSION FACTORS ARE BASED ON A HEAT CONTENT OF 131,400 BTU/GALLON (PER MANUFACTURER FUEL SPECIFICATION).
 C - THE DAILY FUEL USAGE RATE USED TO CALCULATE THE DAILY EMISSIONS SHALL BE BASED ON THE AVERAGE DAILY USAGE FOR THE MONTH.

SACRAMENTO METROPOLITAN



AIR QUALITY
MANAGEMENT DISTRICT

PERMIT TO OPERATE

ISSUED TO: UCD MEDICAL CENTER

EQUIPMENT LOCATION: 4840 SECOND AVENUE, SACRAMENTO, CA 95817

PERMIT NO.	EQUIPMENT DESCRIPTION
20216	BOILER NO. 1, MAKE: JOHNSTON BOILER COMPANY, MODEL: PFTA750-4LG-150S, SERIAL NO.: 9357-04, RATED HEAT INPUT: 31.5 MMBTU/HR, PRIMARY FUEL: NATURAL GAS, EMERGENCY USE FUEL: DIESEL NO. 2, EQUIPPED WITH INDUSTRIAL COMBUSTION NT ULTRA LOW-NOx BURNER, APPLICATION: SPACE HEATING.
20217	BOILER NO. 2, MAKE: JOHNSTON BOILER COMPANY, MODEL: PFTA750-4LG-150S, SERIAL NO.: 9357-03, RATED HEAT INPUT: 31.5 MMBTU/HR, PRIMARY FUEL: NATURAL GAS, EMERGENCY USE FUEL: DIESEL NO.2, EQUIPPED WITH INDUSTRIAL COMBUSTION NT ULTRA LOW-NOx BURNER, APPLICATION: SPACE HEATING.
20218	BOILER NO. 3, MAKE: JOHNSTON BOILER COMPANY, MODEL: PFTA750-4LG-150S, SERIAL NO.: 9357-02, RATED HEAT INPUT: 31.5 MMBTU/HR, PRIMARY FUEL: NATURAL GAS, EMERGENCY USE FUEL: DIESEL NO.2, EQUIPPED WITH INDUSTRIAL COMBUSTION NT ULTRA LOW-NOx BURNER, APPLICATION: SPACE HEATING.
20219	BOILER NO. 4, MAKE: JOHNSTON BOILER COMPANY, MODEL: PFTA750-4LG-150S, SERIAL NO.: 9357-01, RATED HEAT INPUT: 31.5 MMBTU/HR, PRIMARY FUEL: NATURAL GAS, EMERGENCY USE FUEL: DIESEL NO.2, EQUIPPED WITH INDUSTRIAL COMBUSTION NT ULTRA LOW-NOx BURNER, APPLICATION: SPACE HEATING.

DATE ISSUED: 04-09-2008
DATE EXPIRED: 01-16-2009 (UNLESS RENEWED)

LARRY GREENE
AIR POLLUTION CONTROL OFFICER

BY: 

**SACRAMENTO METROPOLITAN
AIR QUALITY MANAGEMENT DISTRICT**

SUBJECT TO THE FOLLOWING CONDITIONS:

GENERAL

1. THE EQUIPMENT SHALL BE PROPERLY MAINTAINED.
2. THE AIR POLLUTION CONTROL OFFICER AND/OR AUTHORIZED REPRESENTATIVES, UPON THE PRESENTATION OF CREDENTIALS, SHALL BE PERMITTED:
 - A. TO ENTER UPON THE PREMISES WHERE THE SOURCE IS LOCATED OR IN WHICH ANY RECORDS ARE REQUIRED TO BE KEPT UNDER THE TERMS AND CONDITIONS OF THIS PERMIT TO OPERATE, AND
 - B. AT REASONABLE TIMES TO HAVE ACCESS TO AND COPY ANY RECORDS REQUIRED TO BE KEPT UNDER THE TERMS AND CONDITIONS OF THIS PERMIT TO OPERATE, AND
 - C. TO INSPECT ANY EQUIPMENT, OPERATION, OR METHOD REQUIRED IN THIS PERMIT TO OPERATE, AND
 - D. TO SAMPLE EMISSIONS FROM THE SOURCE OR REQUIRE SAMPLES TO BE TAKEN.
3. THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26, PART 4, CHAPTER 3, OF THE CALIFORNIA HEALTH AND SAFETY CODE OR THE RULES AND REGULATIONS OF THE AIR QUALITY MANAGEMENT DISTRICT.
4. A LEGIBLE COPY OF THIS PERMIT SHALL BE MAINTAINED ON THE PREMISES WITH THE EQUIPMENT.

EMISSION LIMITATIONS

5. THE BOILERS SHALL NOT DISCHARGE INTO THE ATMOSPHERE ANY VISIBLE AIR CONTAMINANT OTHER THAN UNCOMBINED WATER VAPOR, FOR A PERIOD OR PERIODS AGGREGATING MORE THAN THREE MINUTES IN ANY ONE HOUR, WHICH IS AS DARK OR DARKER THAN RINGELMANN NO. 1 OR 20% OPACITY OR GREATER.
6. EACH BOILER, WHEN COMBUSTING NATURAL GAS FUEL, SHALL NOT EMIT:
 - A. NITROGEN OXIDES (NO_x) IN EXCESS OF 9 PPMVD, CORRECTED TO 3% O₂.
 - B. CARBON MONOXIDE (CO) IN EXCESS OF 96.6 PPMVD, CORRECTED TO 3% O₂.EXCLUDING STARTUPS AS DEFINED IN CONDITION NO. 13 AND SHUTDOWNS AS DEFINED IN SMAQMD RULE 411 BOILER NO_x.
7. EACH BOILER, WHEN COMBUSTING DIESEL NO. 2 FUEL, SHALL NOT EMIT:
 - A. NITROGEN OXIDES (NO_x) IN EXCESS OF 40 PPMVD, CORRECTED TO 3% O₂.
 - B. CARBON MONOXIDE (CO) IN EXCESS OF 400 PPMVD, CORRECTED TO 3% O₂.EXCLUDING STARTUPS AS DEFINED IN CONDITION NO. 13 AND SHUTDOWNS AS DEFINED IN SMAQMD RULE 411 BOILER NO_x.
8. EMISSIONS FROM EACH BOILER, WHEN COMBUSTING NATURAL GAS, SHALL NOT EXCEED THE FOLLOWING LIMITS:

POLLUTANT	EMISSION FACTOR (A) LB/MMCF	MAXIMUM ALLOWABLE EMISSIONS FOR NATURAL GAS COMBUSTION (B) LB/DAY
ROC	4	3.0
NO _x	10.9	8.2
SO _x	0.6	0.5
PM10	10	7.6
CO	71.4	54.0

- (A) EMISSION FACTORS FOR ROC, NO_x, SO_x, PM10, AND CO ARE BASED ON MANUFACTURER GUARANTEES (WITH NO_x AND CO CORRESPONDING TO RULE 411 LIMIT OF 9 PPM NO_x AND APPLICANT REQUEST OF 96.6 PPM CO @ 3% O₂).
- (B) DAILY EMISSIONS ARE BASED ON OPERATING AT MAXIMUM CAPACITY (0.0315 MMCF/HR) AND 24 HOURS/DAY.

**SACRAMENTO METROPOLITAN
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9. COMBINED EMISSIONS FROM THE FOLLOWING EQUIPMENT SHALL NOT EXCEED THE FOLLOWING LIMITS:

PERMIT NUMBER	EQUIPMENT	MAXIMUM ALLOWABLE COMBINED EMISSIONS (A) LB/DAY		
		NOx	ROC	PM10
12979	BOILERS (8), 3.2 MMBTU/HR TOTAL	150	150	80
17549	GAS TURBINE, 260 MMBTU/HR			
18685	GASOLINE DISPENSING			
20216	BOILER NO. 1, 31.5 MMBTU/HR			
20217	BOILER NO. 2, 31.5 MMBTU/HR			
20218	BOILER NO. 3, 31.5 MMBTU/HR			
20219	BOILER NO. 4, 31.5 MMBTU/HR			

(A) COMPLIANCE WITH THESE EMISSION LIMITATIONS SHALL BE DETERMINED BY USING THE CALCULATION METHODS SPECIFIED IN ATTACHMENT A TO THE GAS TURBINE PERMIT TO OPERATE NO. 17549.

EQUIPMENT OPERATION REQUIREMENTS

10. THE BOILERS SHALL ONLY BE OPERATED SIMULTANEOUSLY WITH THE GAS TURBINE WHEN THE BOILERS AND GAS TURBINE (P/O 17549) ARE COMBUSTING NATURAL GAS, EXCEPT FOR EQUIPMENT MAINTENANCE OR EMISSION TESTING PURPOSES.
11. THE BOILERS SHALL COMBUST NATURAL GAS FUEL AS THE PRIMARY FUEL. DIESEL NO. 2 FUEL SHALL ONLY BE USED IF THERE IS A NATURAL GAS CURTAILMENT FROM THE COMMERCIAL GAS SUPPLY OR FOR EQUIPMENT MAINTENANCE OR EMISSION TESTING PURPOSES.
 - A. EACH BOILER SHALL NOT COMBUST DIESEL NO. 2 FUEL FOR MORE THAN 168 HOURS/YEAR, EXCLUDING EQUIPMENT MAINTENANCE AND EMISSION TESTING PURPOSES.
 - B. EACH BOILER SHALL NOT COMBUST DIESEL NO. 2 FUEL FOR MORE THAN 48 HOURS/YEAR FOR EQUIPMENT MAINTENANCE AND EMISSION TESTING PURPOSES.
12. WHEN COMBUSTING DIESEL NO. 2 FUEL, THE BOILERS SHALL USE DIESEL NO. 2 FUEL WITH A SULFUR CONTENT NO GREATER THAN 0.02% BY WEIGHT (200 PPMW).
13. THE STARTUP PERIOD OF THE BOILER IS DEFINED AS THE TIME WHEN FUEL IS FIRST INTRODUCED TO THE BOILER TO THE TIME WHEN:
 - A. NOx EMISSIONS ARE EQUAL TO OR LESS THAN 9 PPMVD AT 3% O₂ WHEN COMBUSTING NATURAL GAS OR
 - B. NOx EMISSIONS ARE EQUAL TO OR LESS THAN 40 PPMVD AT 3% O₂ WHEN COMBUSTING DIESEL NO. 2 FUEL.
 THE DURATION OF THE BOILER'S STARTUP PERIOD SHALL NOT EXCEED 60 MINUTES.
14. A CONTINUOUS MONITORING SYSTEM THAT EITHER MEASURES OR CALCULATES THE FUEL CONSUMPTION OF THE BOILERS (FUEL USAGE OF ALL FOUR BOILERS COMBINED) SHALL BE OPERATIONAL WHENEVER THE BOILERS ARE COMBUSTING FUEL.
15. EACH BOILER SHALL BE EQUIPPED WITH A NON-RESETTING TOTALIZING HOUR METER TO MEASURE PERIODS WHEN DIESEL NO. 2 FUEL IS BEING COMBUSTED.

EMISSIONS TESTING

16. FOR EACH BOILER FIRING ON NATURAL GAS ONLY, A SOURCE TEST FOR NO_x AND CO SHALL BE CONDUCTED ONCE EVERY CALENDAR YEAR BEGINNING IN 2008 TO DETERMINE COMPLIANCE WITH THE EMISSION LIMITS OF CONDITION NO. 6. THE TEST SHALL CONFORM TO THE FOLLOWING TEST CONDITION AND TIME SCHEDULE:
 - A. A PRE-TEST PLAN OUTLINING THE TEST METHODS AND OPERATING PARAMETERS SHALL BE SUBMITTED FOR DISTRICT APPROVAL AT LEAST 30 DAYS PRIOR TO THE PROPOSED TEST DATE.
 - B. THE DISTRICT SHALL BE GIVEN AT LEAST 7 DAYS NOTICE OF THE ACTUAL TIME AND DATE OF EACH TEST SO THAT A DISTRICT REPRESENTATIVE MAY OBSERVE THE TEST.
 - C. OPERATE THE BOILER AS CLOSE AS PHYSICALLY POSSIBLE TO THE RATED CAPACITY DURING THE SOURCE TEST.

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

- D. THE RESULTS OF EACH TEST SHALL BE SUBMITTED TO THE DISTRICT NO LATER THAN 60 DAYS FOLLOWING EACH TEST.
17. SOURCE TEST METHODS USED SHALL BE THOSE SPECIFIED IN SECTION 501 OF RULE 411, BOILER NOx:
- A. OXIDES OF NITROGEN – ARB METHOD 100 OR EPA METHOD 7E.
 - B. CARBON MONOXIDE – ARB METHOD 100 OR EPA METHOD 10.
 - C. STACK GAS OXYGEN – ARB METHOD 100 OR EPA METHOD 3A.

RECORD KEEPING

18. ALL SOURCE TEST REPORTS SHALL BE CONTINUOUSLY MAINTAINED ON-SITE FOR THE MOST RECENT 5-YEAR PERIOD AND SHALL BE MADE AVAILABLE TO THE AIR POLLUTION CONTROL OFFICER UPON REQUEST.
19. THE FOLLOWING RECORD SHALL BE CONTINUOUSLY MAINTAINED ON SITE FOR THE MOST RECENT FIVE YEAR PERIOD AND SHALL BE MADE AVAILABLE TO THE SMAQMD AIR POLLUTION CONTROL OFFICER UPON REQUEST. MONTHLY AND YEARLY RECORDS SHALL BE MADE AVAILABLE FOR INSPECTION WITHIN 30 DAYS OF THE END OF THE PREVIOUS MONTH OR YEAR RESPECTIVELY.

FREQUENCY	INFORMATION TO BE RECORDED
WHEN COMBUSTING DIESEL NO. 2 FUEL	A. FOR EACH DAY DIESEL NO. 2 FUEL IS COMBUSTED: 1. DATE. 2. IDENTIFY THE BOILER THAT IS COMBUSTING DIESEL NO. 2 FUEL. 3. NUMBER OF HOURS DIESEL NO. 2 FUEL IS COMBUSTED. 4. CATEGORY OF USE (MAINTENANCE/TESTING OR EMERGENCY).
AT ALL TIMES	B. FOR EACH SHIPMENT OF DIESEL NO. 2 FUEL RECEIVED: 1. DATE 2. SULFUR CONTENT
DAILY	C. TOTAL AMOUNT OF NATURAL GAS FUEL USED BY ALL FOUR BOILERS COMBINED. (MMBTU/HOUR) D. TOTAL AMOUNT OF DIESEL NO. 2 FUEL USED BY ALL FOUR BOILERS COMBINED. (MMBTU/HOUR) E. DATE AND QUANTITY OF THE EIGHT "CALIFORNIA SPECIAL" BOILERS (P/O 12979) THAT OPERATED AT ANY TIME DURING THE DAY. F. TOTAL NOx, ROC AND PM10 EMISSIONS AS LIMITED IN CONDITION NO. 8 PURSUANT TO THE CALCULATION METHOD OUTLINED IN ATTACHMENT A TO THE GAS TURBINE PERMIT TO OPERATE NO. 17549. (POUNDS/DAY). 1. GAS TURBINE (P/O 17549) AND BOILER (P/O 20216, 20217, 20218, AND 20219) EMISSIONS SHALL BE CALCULATED DAILY AND UPDATED ON A MONTHLY BASIS TO INCLUDE "CALIFORNIA SPECIAL" BOILERS (P/O 12979) EMISSIONS AND AVERAGE DAILY GASOLINE DISPENSING EMISSIONS (P/O 18685).
MONTHLY	G. TOTAL AMOUNT OF GASOLINE DISPENSED FROM THE GASOLINE DISPENSING FACILITY (P/O 18685). (GALLONS/MONTH) H. DAILY AVERAGE AMOUNT OF GASOLINE DISPENSED CALCULATED BY DIVIDING THE TOTAL MONTHLY DISPENSED AMOUNT BY THE NUMBER OF DAYS IN THE MONTH. (AVERAGE GALLONS/DAY)
YEARLY	I. TOTAL HOURS THAT EACH BOILER COMBUSTED DIESEL NO. 2 FUEL DURING CURTAILMENT OF NATURAL GAS. (HOURS/YEAR) J. TOTAL HOURS THAT EACH BOILER COMBUSTED DIESEL NO. 2 FUEL DURING EQUIPMENT MAINTENANCE OR EMISSION TESTING. (HOURS/YEAR)

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

20. A WRITTEN REPORT SHALL BE SUBMITTED TO THE SMAQMD AIR POLLUTION CONTROL OFFICER BY THE DATES INDICATED AND SHALL CONTAIN THE FOLLOWING INFORMATION:

FREQUENCY	INFORMATION TO BE INCLUDED IN REPORT
SEMIANNUAL: SUBMITTED BY THE FOLLOWING DATES OF EACH YEAR: JANUARY 30 JULY 30	A. SEMIANNUAL SO ₂ COMPLIANCE REPORT TO INCLUDE THE FOLLOWING: 1. CALENDAR DATES COVERED IN THE REPORTING PERIOD. 2. RECORDS OF DIESEL NO. 2 FUEL SUPPLIER CERTIFICATION OF SULFUR CONTENT. 3. CERTIFIED STATEMENT SIGNED BY THE OWNER OR OPERATOR OF THE AFFECTED FACILITY THAT THE RECORDS OF DIESEL NO. 2 FUEL SUPPLIER CERTIFICATION OF SULFUR CONTENT SUBMITTED REPRESENT ALL OF THE FUEL OIL COMBUSTED DURING THE REPORTING PERIOD.

YOUR APPLICATION FOR THIS AIR QUALITY PERMIT TO OPERATE WAS EVALUATED FOR COMPLIANCE WITH SACRAMENTO AIR QUALITY MANAGEMENT DISTRICT (AQMD), STATE AND FEDERAL AIR QUALITY RULES. THE FOLLOWING LISTED RULES ARE THOSE THAT ARE MOST APPLICABLE TO THE OPERATION OF YOUR EQUIPMENT. OTHER RULES MAY ALSO BE APPLICABLE.

AQMD RULE NUMBER	RULE
201	GENERAL PERMIT REQUIREMENTS
202	NEW SOURCE REVIEW
207	ENHANCED NEW SOURCE REVIEW
301	PERMIT FEES - STATIONARY SOURCE
401	RINGLEMANN CHART
402	NUISANCE
406	SPECIFIC CONTAMINANTS
411	BOILER NO _x
420	SULFUR CONTENT OF FUELS

IN ADDITION, THE CONDITIONS ON THIS PERMIT TO OPERATE MAY REFLECT SOME, BUT NOT ALL, REQUIREMENTS OF THESE RULES. THERE MAY BE OTHER CONDITIONS THAT ARE APPLICABLE TO THE OPERATION OF YOUR EQUIPMENT. FUTURE CHANGES IN PROHIBITORY RULES MAY ESTABLISH MORE STRINGENT REQUIREMENTS WHICH MAY SUPERSEDE THE CONDITIONS LISTED HERE.

FOR FURTHER INFORMATION PLEASE CONSULT YOUR AQMD RULEBOOK OR CONTACT THE AQMD FOR ASSISTANCE.

ATTACHMENT A

Version: April 9, 2008

NOx, ROC AND PM10 EMISSION CALCULATION METHODOLOGY FOR UCDMC PERMIT LIMITS (P/O Nos. 12979, 17549, 18685, 20216, 20217, 20218, and 20219)

PERMIT NO.	EQUIPMENT	RATING	DAILY USAGE UNITS U	EMISSION FACTOR EF			EMISSION CALCULATION METHOD lb/day
				NOx	ROC	PM10	
18685	Gasoline dispensing	20,000 gallons capacity	1000 gallons	n/a	1.27 lb/Mgal (C)	n/a	= U x EF
12979	Boilers (8) California Specials	3.2 MMBTU/hr	Number of boilers operated/day	0.96 lb/boiler operated	0.03 lb/boiler operated	0.13 lb/boiler operated	= U x EF
17549	Gas turbine	Natural gas	MMBTU/day	n/a (Use CEMS data)	0.02308 lb/MMBTU	0.00962 lb/MMBTU	= U _T x EF _T
		Cooling towers (A)	each day used	n/a	n/a	6.5 lb/day	= U _{CT} x EF _{CT}
20216	Boiler No. 1	31.5 MMBTU/hr	(Combined)				(Combined)
		Natural gas	MMBTU/day	0.0109 lb/MMBTU	0.004 lb/MMBTU	0.010 lb/MMBTU	= U _{NG} x EF _{NG}
		Fuel oil (B)	MMBTU/day	0.05 lb/MMBTU	0.025 lb/MMBTU	0.015 lb/MMBTU	+ U _{FO} x EF _{FO}
20217	Boiler No. 2	31.5 MMBTU/hr	(Combined)				(Combined)
		Natural gas	MMBTU/day	0.0109 lb/MMBTU	0.004 lb/MMBTU	0.010 lb/MMBTU	= U _{NG} x EF _{NG}
		Fuel oil (B)	MMBTU/day	0.05 lb/MMBTU	0.025 lb/MMBTU	0.015 lb/MMBTU	+ U _{FO} x EF _{FO}
20218	Boiler No. 3	31.5 MMBTU/hr	(Combined)				(Combined)
		Natural gas	MMBTU/day	0.0109 lb/MMBTU	0.004 lb/MMBTU	0.010 lb/MMBTU	= U _{NG} x EF _{NG}
		Fuel oil (B)	MMBTU/day	0.05 lb/MMBTU	0.025 lb/MMBTU	0.015 lb/MMBTU	+ U _{FO} x EF _{FO}
20219	Boiler No. 4	31.5 MMBTU/hr	(Combined)				(Combined)
		Natural gas	MMBTU/day	0.0109 lb/MMBTU	0.004 lb/MMBTU	0.010 lb/MMBTU	= U _{NG} x EF _{NG}
		Fuel oil (B)	MMBTU/day	0.05 lb/MMBTU	0.025 lb/MMBTU	0.015 lb/MMBTU	+ U _{FO} x EF _{FO}

- (A) The maximum daily Potential to Emit for the Cooling Towers (calculated with the maximum allowable TDS concentration and maximum allowable daily flowrate) is used for the PM10 emissions.
- (B) Fuel oil emission factors are based on previously provided manufacturer fuel specifications.
- (C) Daily gasoline dispensing rate used to calculate the daily ROC emissions shall be based on the average daily gasoline dispensed for the month (total amount of gasoline dispensed in the month divided by the number of days in the month).

SACRAMENTO METROPOLITAN



AIR QUALITY
MANAGEMENT DISTRICT

PERMIT TO OPERATE

ISSUED TO: **UCD MEDICAL CENTER**

EQUIPMENT LOCATION: **4800 2ND AVENUE, SACRAMENTO, CA 95817**

PERMIT NO.	EQUIPMENT DESCRIPTION
12979	BOILER, MAKE: BRYAN, MODEL: MOD-400S-100-G, SERIAL NUMBER: 52790, 0.4 MMBTU/HR CAPACITY, NATURAL GAS FIRED.
	BOILER, MAKE: BRYAN, MODEL: MOD-400S-100-G, SERIAL NUMBER: 52791, 0.4 MMBTU/HR CAPACITY, NATURAL GAS FIRED.
	BOILER, MAKE: BRYAN, MODEL: MOD-400S-100-G, SERIAL NUMBER: 52797, 0.4 MMBTU/HR CAPACITY, NATURAL GAS FIRED.
	BOILER, MAKE: BRYAN, MODEL: MOD-400S-100-G, SERIAL NUMBER: 52805, 0.4 MMBTU/HR CAPACITY, NATURAL GAS FIRED.
	BOILER, MAKE: BRYAN, MODEL: MOD-400S-100-G, SERIAL NUMBER: 52858, 0.4 MMBTU/HR CAPACITY, NATURAL GAS FIRED.
	BOILER, MAKE: BRYAN, MODEL: MOD-400S-100-G, SERIAL NUMBER: 52859, 0.4 MMBTU/HR CAPACITY, NATURAL GAS FIRED.
	BOILER, MAKE: BRYAN, MODEL: MOD-400S-100-G, SERIAL NUMBER: 52865, 0.4 MMBTU/HR CAPACITY, NATURAL GAS FIRED.
	BOILER, MAKE: BRYAN, MODEL: MOD-400S-100-G, SERIAL NUMBER: 52868, 0.4 MMBTU/HR CAPACITY, NATURAL GAS FIRED.

SUBJECT TO THE FOLLOWING CONDITIONS:

GENERAL

1. THE EQUIPMENT SHALL BE PROPERLY MAINTAINED AND OPERATED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AT ALL TIMES.

DATE ISSUED: 02-04-1999
DATE MODIFIED: 03-25-2011 (UNLESS RENEWED)
DATE EXPIRES: 01-16-2012 (UNLESS RENEWED)

LARRY GREENE
AIR POLLUTION CONTROL OFFICER

BY: 

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

2. THE AIR POLLUTION CONTROL OFFICER AND/OR AUTHORIZED REPRESENTATIVES, UPON THE PRESENTATION OF CREDENTIALS SHALL BE PERMITTED:
 - A. TO ENTER UPON THE PREMISES WHERE THE SOURCE IS LOCATED OR IN WHICH ANY RECORDS ARE REQUIRED TO BE KEPT UNDER THE TERMS AND CONDITIONS OF THIS PERMIT TO OPERATE, AND
 - B. AT REASONABLE TIMES TO HAVE ACCESS TO AND COPY ANY RECORDS REQUIRED TO BE KEPT UNDER TERMS AND CONDITIONS OF THIS PERMIT TO OPERATE, AND
 - C. TO INSPECT ANY EQUIPMENT, OPERATION, OR METHOD REQUIRED IN THIS PERMIT TO OPERATE, AND
 - D. TO SAMPLE EMISSIONS FROM THE SOURCE OR REQUIRE SAMPLES TO BE TAKEN.
3. THIS PERMIT TO OPERATE DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26, PART 4, CHAPTER 3, OF THE CALIFORNIA HEALTH AND SAFETY CODE OR THE RULES AND REGULATIONS OF THE AIR QUALITY MANAGEMENT DISTRICT.
4. THE EQUIPMENT SHALL NOT DISCHARGE SUCH QUANTITIES OF AIR CONTAMINANTS OR OTHER MATERIALS WHICH CAUSE INJURY, DETRIMENT, NUISANCE OR ANNOYANCE TO ANY CONSIDERABLE NUMBER OF PERSONS OR TO THE PUBLIC, OR WHICH ENDANGER THE COMFORT, REPOSE, HEALTH OR SAFETY OF ANY SUCH PERSONS OR THE PUBLIC, OR WHICH CAUSE, OR HAVE A NATURAL TENDENCY TO CAUSE, INJURY OR DAMAGE TO BUSINESS OR PROPERTY.
5. A LEGIBLE COPY OF THIS PERMIT TO OPERATE SHALL BE MAINTAINED ON THE PREMISES WITH THE EQUIPMENT.

EMISSION LIMITATIONS

6. EACH BOILER SHALL NOT DISCHARGE INTO THE ATMOSPHERE ANY VISIBLE AIR CONTAMINANT OTHER THAN UNCOMBINED WATER VAPOR, FOR A PERIOD OR PERIODS AGGREGATING MORE THAN THREE MINUTES IN ANY ONE HOUR, WHICH IS AS DARK OR DARKER THAN RINGELMANN NO. 1 OR EQUIVALENT TO OR GREATER THAN 20% OPACITY.
7. COMBINED EMISSIONS FROM THE BOILERS SHALL NOT EXCEED THE FOLLOWING LIMITS:

POLLUTANT	EMISSION FACTORS (A) (LB/MMCF)	MAXIMUM ALLOWABLE EMISSION (B) (LB/QUARTER)
ROC	5.28	37
NOx	100	707
SOx	0.6	4
PM10	12	85
CO	296	2091

- (A) EMISSION FACTORS FOR ROC, NOx, SOx, AND PM10 ARE FROM AP-42, TABLES 1.4-1 & 1.4-2 (1/95.) EMISSION FACTOR FOR CO CORRESPONDS TO 400 PPMVD FROM RULE 411 (BOILER NOx.)
- (B) EMISSIONS ARE BASED ON A COMBINED MAXIMUM BOILER CAPACITY OF 3.2 MMBTU/HOUR, 24 HOURS/DAY, 92 DAYS/QUARTER, AND THE EMISSION FACTORS IN THIS TABLE.

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

8. COMBINED EMISSIONS FROM THE FOLLOWING EQUIPMENT SHALL NOT EXCEED THE FOLLOWING LIMITS:

PERMIT NUMBER	EQUIPMENT	MAXIMUM ALLOWABLE COMBINED EMISSIONS (A) (LB/DAY)		
		NOX	ROC	PM10
P/O 12979	BOILERS (8), 3.2 MMBTU/HR TOTAL	150	150	80
P/O 17549	GAS TURBINE, 260 MMBTU/HR			
P/O 20216	AUX. BOILER, 31.5 MMBTU/HR			
P/O 20217	AUX. BOILER, 31.5 MMBTU/HR			
P/O 20218	AUX. BOILER, 31.5 MMBTU/HR			
P/O 20219	AUX. BOILER, 31.5 MMBTU/HR			
P/O 21510	GASOLINE DISPENSING			

(A) COMPLIANCE WITH THESE EMISSION LIMITATIONS SHALL BE DETERMINED BY USING THE CALCULATION METHODS SPECIFIED IN ATTACHMENT A TO THE GAS TURBINE PERMIT TO OPERATE NO. 17549.

EQUIPMENT OPERATION

9. EACH BOILER SHALL BE FIRED ONLY ON NATURAL GAS.
10. COMBINED NATURAL GAS USAGE FOR THE BOILERS SHALL NOT EXCEED THE FOLLOWING LIMIT:

EQUIPMENT	MAXIMUM ALLOWABLE FUEL USE (A) (CUBIC FEET/QUARTER)
BOILERS	7,065,600

(A) BASED ON OPERATING EACH BOILER AT MAXIMUM CAPACITY, 24 HOURS/DAY, AND 92 DAYS/QUARTER.

RECORD KEEPING

11. THE FOLLOWING RECORDS SHALL BE CONTINUOUSLY MAINTAINED ON-SITE FOR THE MOST RECENT FIVE YEAR PERIOD AND MADE AVAILABLE TO THE AIR POLLUTION CONTROL OFFICER UPON REQUEST.

FREQUENCY	INFORMATION TO BE RECORDED
DAILY	A. DATE AND QUANTITY OF THE EIGHT BOILERS THAT ARE OPERATED AT ANY TIME DURING THE DAY. B. TOTAL ROC, NO _x , AND PM10 EMISSIONS FROM THE BOILERS AS CALCULATED IN ATTACHMENT A. EMISSIONS SHALL BE CALCULATED DAILY AND UPDATED ON A MONTHLY BASIS.

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

YOUR APPLICATION FOR THIS AIR QUALITY PERMIT TO OPERATE WAS EVALUATED FOR COMPLIANCE WITH SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT (AQMD), STATE, AND FEDERAL AIR QUALITY RULES. THE FOLLOWING LISTED RULES ARE THOSE THAT ARE MOST APPLICABLE TO THE OPERATION OF YOUR EQUIPMENT. OTHER RULES MAY ALSO BE APPLICABLE.

<u>AQMD RULE NO.</u>	<u>RULE TITLE</u>
201	GENERAL PERMIT REQUIREMENTS
202	NEW SOURCE REVIEW
301	PERMIT FEES
401	RINGELMANN CHART
406	SPECIFIC CONTAMINANTS
411	BOILER NOx
420	SULFUR CONTENT OF FUELS

IN ADDITION, THE CONDITIONS ON THIS PERMIT TO OPERATE MAY REFLECT SOME, BUT NOT ALL, REQUIREMENTS OF THESE RULES. THERE MAY BE OTHER CONDITIONS THAT ARE APPLICABLE TO THE OPERATION OF YOUR EQUIPMENT. FUTURE CHANGES IN PROHIBITORY RULES MAY ESTABLISH MORE STRINGENT REQUIREMENTS WHICH MAY SUPERSEDE THE CONDITIONS LISTED HERE.
FOR FURTHER INFORMATION PLEASE CONSULT YOUR AQMD RULEBOOK OR CONTACT THE AQMD FOR ASSISTANCE.

SACRAMENTO METROPOLITAN



PERMIT TO OPERATE

ISSUED TO: UCD MEDICAL CENTER

EQUIPMENT LOCATION: 4800 2ND AVENUE, SACRAMENTO, CA 95817

PERMIT NO.	EQUIPMENT DESCRIPTION
18533	IC ENGINE #1 (STANDBY), MAKE: CATERPILLAR, MODEL: 3516B DITA SC 140F, SERIAL NUMBER: 6HN00135, 2876 HP @ 1800 RPM, DIESEL NO. 2 FIRED, DRIVING AN EMERGENCY ELECTRICAL GENERATOR.
18534	IC ENGINE #2 (STANDBY), MAKE: CATERPILLAR, MODEL: 3516B DITA SC 140F, SERIAL NUMBER: 6HN00136, 2876 HP @ 1800 RPM, DIESEL NO. 2 FIRED, DRIVING AN EMERGENCY ELECTRICAL GENERATOR.
18535	IC ENGINE #3 (STANDBY), MAKE: CATERPILLAR, MODEL: 3516B DITA SC 140F, SERIAL NUMBER: 6HN00137, 2876 HP @ 1800 RPM, DIESEL NO. 2 FIRED, DRIVING AN EMERGENCY ELECTRICAL GENERATOR.
18536	IC ENGINE #4 (STANDBY), MAKE: CATERPILLAR, MODEL: 3516B DITA SC 140F, SERIAL NUMBER: 6HN00134, 2876 HP @ 1800 RPM, DIESEL NO. 2 FIRED, DRIVING AN EMERGENCY ELECTRICAL GENERATOR.

SUBJECT TO THE FOLLOWING CONDITIONS:

GENERAL

1. THE EQUIPMENT SHALL BE PROPERLY MAINTAINED AND OPERATED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AT ALL TIMES.
2. THE AIR POLLUTION CONTROL OFFICER AND/OR AUTHORIZED REPRESENTATIVES, UPON THE PRESENTATION OF CREDENTIALS SHALL BE PERMITTED:
 - A. TO ENTER UPON THE PREMISES WHERE THE SOURCE IS LOCATED OR IN WHICH ANY RECORDS ARE REQUIRED TO BE KEPT UNDER THE TERMS AND CONDITIONS OF THIS PERMIT TO OPERATE, AND
 - B. AT REASONABLE TIMES TO HAVE ACCESS TO AND COPY ANY RECORDS REQUIRED TO BE KEPT UNDER TERMS AND CONDITIONS OF THIS PERMIT TO OPERATE, AND
 - C. TO INSPECT ANY EQUIPMENT, OPERATION, OR METHOD REQUIRED IN THIS PERMIT TO OPERATE, AND
 - D. TO SAMPLE EMISSIONS FROM THE SOURCE OR REQUIRE SAMPLES TO BE TAKEN.

LARRY GREENE
AIR POLLUTION CONTROL OFFICER

DATE ISSUED: 10-03-2005
DATE REVISED: 04-15-2011 (UNLESS RENEWED)
DATE EXPIRES: 01-16-2012 (UNLESS RENEWED)

BY: 

PAGE 1 OF 4

PERMIT NO.: 18533, 18534, 18535, & 18536

REVOCABLE AND NON-TRANSFERABLE

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

3. THIS PERMIT TO OPERATE DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26, PART 4, CHAPTER 3, OF THE CALIFORNIA HEALTH AND SAFETY CODE OR THE RULES AND REGULATIONS OF THE AIR QUALITY MANAGEMENT DISTRICT.
4. THE EQUIPMENT SHALL NOT DISCHARGE SUCH QUANTITIES OF AIR CONTAMINANTS OR OTHER MATERIALS WHICH CAUSE INJURY, DETRIMENT, NUISANCE OR ANNOYANCE TO ANY CONSIDERABLE NUMBER OF PERSONS OR TO THE PUBLIC, OR WHICH ENDANGER THE COMFORT, REPOSE, HEALTH OR SAFETY OF ANY SUCH PERSONS OR THE PUBLIC, OR WHICH CAUSE, OR HAVE A NATURAL TENDENCY TO CAUSE, INJURY OR DAMAGE TO BUSINESS OR PROPERTY.
5. A LEGIBLE COPY OF THIS PERMIT TO OPERATE SHALL BE MAINTAINED ON THE PREMISES WITH THE EQUIPMENT.

EMISSION LIMITATIONS

6. EACH ENGINE SHALL NOT DISCHARGE INTO THE ATMOSPHERE ANY VISIBLE AIR CONTAMINANT OTHER THAN UNCOMBINED WATER VAPOR, FOR A PERIOD OR PERIODS AGGREGATING MORE THAN THREE MINUTES IN ANY ONE HOUR, WHICH IS AS DARK OR DARKER THAN RINGELMANN NO. 1 OR EQUIVALENT TO OR GREATER THAN 20% OPACITY.
7. EMISSIONS FROM EACH ENGINE SHALL NOT EXCEED THE FOLLOWING LIMITS:

POLLUTANT	EMISSION FACTORS (A) (GRAMS/HP-HR)	MAXIMUM ALLOWABLE EMISSION (B)		
		(LB/DAY)	(LB/QUARTER)	(LB/YEAR)
ROC	0.173	26.3	823	823
NOx	6.558	997.9	31,185	31,185
SOx	0.0055	0.8	26	26
PM10	0.145	22.1	690	690
CO	0.639	97.2	3039	3039

(A) EMISSION FACTORS FOR ROC, NOx, PM10, AND CO ARE FROM MANUFACTURER'S DATA. EMISSION FACTOR FOR SOx IS FROM AP-42, TABLES 3.4-1 (10/96) USING A FUEL SULFUR CONTENT OF 0.0015% BY WEIGHT.

(B) EMISSIONS ARE BASED ON A 2876 HP, 24 HOURS/DAY, 750 HOURS/QUARTER, AND 750 HOURS/YEAR.

EQUIPMENT OPERATION

8. EACH IC ENGINE SHALL OPERATE ONLY FOR THE FOLLOWING PURPOSES AND SHALL NOT OPERATE MORE THAN THE FOLLOWING HOURS.

TYPE OF OPERATIONAL HOURS	MAXIMUM ALLOWABLE OPERATION	
	(HOURS/QUARTER)	(HOURS/YEAR)
MAINTENANCE PURPOSES (A)	50	50
ALL OPERATION - MAINTENANCE AND EMERGENCY (B)	750	750

(A) MAINTENANCE PURPOSES IS DEFINED AS THE OPERATION OF AN IC ENGINE IN ORDER TO PRESERVE THE INTEGRITY OF THE IC ENGINE AND ITS ASSOCIATED GENERATOR, THE FACILITY'S ELECTRICAL DISTRIBUTION SYSTEM, OR WHEN REQUIRED BY THE DISTRICT TO VERIFY COMPLIANCE WITH APPLICABLE RULES AND REGULATIONS.

(B) EMERGENCY IS DEFINED AS AN OCCURRENCE WHEN ELECTRICAL SERVICE FROM THE SERVICING UTILITY IS INTERRUPTED BY AN UNFORESEEABLE EVENT.

9. EACH IC ENGINE SHALL BE EQUIPPED WITH A NON-RESETTING HOUR METER WITH A MINIMUM DISPLAY CAPABILITY OF 9999 HOURS TO ENSURE COMPLIANCE WITH CONDITION NUMBERS 7 AND 8.

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

10. UPON REQUEST OF THE AIR POLLUTION CONTROL OFFICER OR DESIGNEE, ONCE EACH YEAR DURING DAYLIGHT HOURS, THE IC ENGINE SHALL BE RUN AT MAXIMUM ANTICIPATED LOAD FROM A COLD START CONDITION FOR OBSERVATION OF COMPLIANCE WITH THE OPACITY LIMITATIONS SPECIFIED IN CONDITION 6.
11. THE IC ENGINE SHALL BE FUELED WITH CARB DIESEL FUEL, OR AN ALTERNATIVE DIESEL FUEL THAT MEETS THE REQUIREMENTS OF THE VERIFICATION PROCEDURE AS CODIFIED IN TITLE 13, CCR SECTIONS 2700-2710, OR AN ALTERNATIVE FUEL, OR CARB DIESEL USED WITH FUEL ADDITIVES THAT MEETS THE REQUIREMENTS OF THE VERIFICATION PROCEDURE, OR ANY COMBINATION OF FUELS LISTED IN THIS CONDITION.
12. IF A K-12 SCHOOL OCCUPIES THE PROPERTY AT 2850 49TH STREET, SACRAMENTO, EACH IC ENGINE SHALL NOT BE OPERATED FOR ROUTINE MAINTENANCE PURPOSES BETWEEN THE HOURS OF 7:30 AM AND 4:30 PM, MONDAY THROUGH FRIDAY. THIS RESTRICTION DOES NOT APPLY TO ANY OPERATION REQUIRED BY CONDITION NO. 10 OR FOR ANY EMERGENCY OPERATION.

RECORD KEEPING

13. THE FOLLOWING RECORDS SHALL BE CONTINUOUSLY MAINTAINED ON-SITE FOR EACH IC ENGINE FOR THE MOST RECENT THREE YEAR PERIOD AND SHALL BE MADE AVAILABLE TO THE AIR POLLUTION CONTROL OFFICER UPON REQUEST. MONTHLY, QUARTERLY, AND YEARLY RECORDS SHALL BE MADE AVAILABLE WITHIN 30 DAYS OF THE END OF THE REPORTING PERIOD.

FREQUENCY	INFORMATION TO BE RECORDED
WHENEVER OPERATED	A. DATE. B. PURPOSE – EITHER MAINTENANCE (M) OR EMERGENCY (E.) C. NUMBER OF HOURS OF OPERATION.
MONTHLY	D. TOTAL NUMBER OF HOURS OF OPERATION FOR EACH OPERATING MODE (HOURS/MONTH.)
QUARTERLY	E. TOTAL NUMBER OF HOURS OF OPERATION FOR EACH OPERATING MODE (HOURS/QUARTER.)
YEARLY	F. TOTAL NUMBER OF HOURS OF OPERATION FOR EACH OPERATING MODE (HOURS/YEAR.)
ALL FUEL DELIVERIES	G. RETAIN FUEL PURCHASE RECORDS THAT ACCOUNT FOR ALL FUEL PURCHASED FOR USE IN THE ENGINE. FUEL PURCHASE RECORDS SHALL INCLUDE: 1. IDENTIFICATION OF TYPE OF FUEL (CARB DIESEL, ALTERNATIVE DIESEL, ETC.) 2. QUANTITY OF FUEL PURCHASED. 3. DATE OF FUEL PURCHASED. 4. SIGNATURE OF PERSON RECEIVING FUEL. 5. SIGNATURE OF FUEL PROVIDER INDICATING THAT FUEL WAS DELIVERED.

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

YOUR APPLICATION FOR THIS AIR QUALITY PERMIT TO OPERATE WAS EVALUATED FOR COMPLIANCE WITH SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT (AQMD), STATE AND FEDERAL AIR QUALITY RULES. THE FOLLOWING LISTED RULES ARE THOSE THAT ARE MOST APPLICABLE TO THE OPERATION OF YOUR EQUIPMENT. OTHER RULES MAY ALSO BE APPLICABLE.

<u>AQMD RULE NO.</u>	<u>RULE TITLE</u>
201	GENERAL PERMIT REQUIREMENTS
202	NEW SOURCE REVIEW
301	PERMIT FEES
401	RINGELMANN CHART
402	NUISANCE
406	SPECIFIC CONTAMINANTS
420	SULFUR CONTENT OF FUELS
801	NEW SOURCE PERFORMANCE STANDARDS (40 CFR 60 SUBPART IIII)
904	AIR TOXICS CONTROL MEASURES – STATIONARY COMPRESSION IGNITION ENGINES
40 CFR 63 SUBPART ZZZZ	NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES.

IN ADDITION, THE CONDITIONS ON THIS PERMIT TO OPERATE MAY REFLECT SOME, BUT NOT ALL, REQUIREMENTS OF THESE RULES. THERE MAY BE OTHER CONDITIONS THAT ARE APPLICABLE TO THE OPERATION OF YOUR EQUIPMENT. FUTURE CHANGES IN PROHIBITORY RULES MAY ESTABLISH MORE STRINGENT REQUIREMENTS WHICH MAY SUPERSEDE THE CONDITIONS LISTED HERE.

FOR FURTHER INFORMATION PLEASE CONSULT YOUR AQMD RULEBOOK OR CONTACT THE AQMD FOR ASSISTANCE.

SACRAMENTO METROPOLITAN



PERMIT TO OPERATE

ISSUED TO: **UCD MEDICAL CENTER**

EQUIPMENT LOCATION: **2315 STOCKTON BLVD., SACRAMENTO, CA 95817**

PERMIT NO.	EQUIPMENT DESCRIPTION
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14475	IC ENGINE #5 (STANDBY), MAKE: CATERPILLAR, MODEL: 3516B DITA SC 140F, SERIAL NO.: 6HN00361, 2876 HP @ 1800 RPM, DIESEL NO. 2 FIRED, DRIVING AN EMERGENCY ELECTRICAL GENERATOR
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SUBJECT TO THE FOLLOWING CONDITIONS:

GENERAL

1. THE EQUIPMENT SHALL BE PROPERLY MAINTAINED AND OPERATED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AT ALL TIMES.
2. THE AIR POLLUTION CONTROL OFFICER AND/OR AUTHORIZED REPRESENTATIVES, UPON THE PRESENTATION OF CREDENTIALS SHALL BE PERMITTED:
 - A. TO ENTER UPON THE PREMISES WHERE THE SOURCE IS LOCATED OR IN WHICH ANY RECORDS ARE REQUIRED TO BE KEPT UNDER THE TERMS AND CONDITIONS OF THIS PERMIT TO OPERATE, AND
 - B. AT REASONABLE TIMES TO HAVE ACCESS TO AND COPY ANY RECORDS REQUIRED TO BE KEPT UNDER TERMS AND CONDITIONS OF THIS PERMIT TO OPERATE, AND
 - C. TO INSPECT ANY EQUIPMENT, OPERATION, OR METHOD REQUIRED IN THIS PERMIT TO OPERATE, AND
 - D. TO SAMPLE EMISSIONS FROM THE SOURCE OR REQUIRE SAMPLES TO BE TAKEN.
3. THIS PERMIT TO OPERATE DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26, PART 4, CHAPTER 3, OF THE CALIFORNIA HEALTH AND SAFETY CODE OR THE RULES AND REGULATIONS OF THE AIR QUALITY MANAGEMENT DISTRICT.
4. THE EQUIPMENT SHALL NOT DISCHARGE SUCH QUANTITIES OF AIR CONTAMINANTS OR OTHER MATERIALS WHICH CAUSE INJURY, DETRIMENT, NUISANCE OR ANNOYANCE TO ANY CONSIDERABLE NUMBER OF PERSONS OR TO THE PUBLIC, OR WHICH ENDANGER THE COMFORT, REPOSE, HEALTH OR SAFETY OF ANY SUCH PERSONS OR THE PUBLIC, OR WHICH CAUSE, OR HAVE A NATURAL TENDENCY TO CAUSE, INJURY OR DAMAGE TO BUSINESS OR PROPERTY.
5. A LEGIBLE COPY OF THIS PERMIT TO OPERATE SHALL BE MAINTAINED ON THE PREMISES WITH THE EQUIPMENT.

EMISSION LIMITATIONS

6. THE ENGINE SHALL NOT DISCHARGE INTO THE ATMOSPHERE ANY VISIBLE AIR CONTAMINANT OTHER THAN UNCOMBINED WATER VAPOR, FOR A PERIOD OR PERIODS AGGREGATING MORE THAN THREE MINUTES IN ANY ONE HOUR, WHICH IS AS DARK OR DARKER THAN RINGELMANN NO. 1 OR EQUIVALENT TO OR GREATER THAN 20% OPACITY.

DATE ISSUED: 10-16-2001
DATE REVISED: 04-15-2011 (UNLESS RENEWED)
DATE EXPIRES: 01-16-2012 (UNLESS RENEWED)

LARRY GREENE
AIR POLLUTION CONTROL OFFICER

BY: 

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

7. EMISSIONS FROM THE ENGINE SHALL NOT EXCEED THE FOLLOWING LIMITS:

POLLUTANT	EMISSION FACTORS (A) (GRAMS/HP-HR)	MAXIMUM ALLOWABLE EMISSION (B)		
		(LB/DAY)	(LB/QUARTER)	(LB/YEAR)
ROC	0.132	20.1	167	167
NOx	5.465	831.6	6930	6930
SOx	0.0055	0.8	7	7
PM10	0.10	15.2	132	132
CO	0.355	54.0	450	450

- (A) EMISSION FACTORS FOR ROC, NOx, PM10, AND CO ARE FROM MANUFACTURER'S DATA. EMISSION FACTOR FOR SOx IS FROM AP-42, TABLES 3.4-1 (10/96) USING A FUEL SULFUR CONTENT OF 0.0015% BY WEIGHT.
(B) EMISSIONS ARE BASED ON A 2876 HP, 24 HOURS/DAY, 200 HOURS/QUARTER, AND 200 HOURS/YEAR.

EQUIPMENT OPERATION

8. THE IC ENGINE SHALL OPERATE ONLY FOR THE FOLLOWING PURPOSES AND SHALL NOT OPERATE MORE THAN THE FOLLOWING HOURS.

TYPE OF OPERATIONAL HOURS	MAXIMUM ALLOWABLE OPERATION	
	(HOURS/QUARTER)	(HOURS/YEAR)
MAINTENANCE PURPOSES (A)	50	50
ALL OPERATION - MAINTENANCE AND EMERGENCY (B)	200	200

- (A) MAINTENANCE PURPOSES IS DEFINED AS THE OPERATION OF AN IC ENGINE IN ORDER TO PRESERVE THE INTEGRITY OF THE IC ENGINE AND ITS ASSOCIATED GENERATOR, THE FACILITY'S ELECTRICAL DISTRIBUTION SYSTEM, OR WHEN REQUIRED BY THE DISTRICT TO VERIFY COMPLIANCE WITH APPLICABLE RULES AND REGULATIONS.
(B) EMERGENCY IS DEFINED AS AN OCCURRENCE WHEN ELECTRICAL SERVICE FROM THE SERVICING UTILITY IS INTERRUPTED BY AN UNFORESEEABLE EVENT.
9. THE IC ENGINE SHALL BE EQUIPPED WITH A NON-RESETTING HOUR METER WITH A MINIMUM DISPLAY CAPABILITY OF 999 HOURS TO ENSURE COMPLIANCE WITH CONDITION NUMBERS 7 AND 8.
10. UPON REQUEST OF THE AIR POLLUTION CONTROL OFFICER OR DESIGNEE, ONCE EACH YEAR DURING DAYLIGHT HOURS, THE IC ENGINE SHALL BE RUN AT MAXIMUM ANTICIPATED LOAD FROM A COLD START CONDITION FOR OBSERVATION OF COMPLIANCE WITH THE OPACITY LIMITATIONS SPECIFIED IN CONDITION 6.
11. THE IC ENGINE EXHAUST STACK SHALL EXHAUST VERTICALLY AND AT LEAST 42 FEET ABOVE GROUND LEVEL.
12. THE EXHAUST STACK SHALL NOT HAVE A RAIN CAP OR ANY OTHER OBSTRUCTION THAT HINDERS OR BLOCKS THE EXIST AIR VELOCITY.
13. THE IC ENGINE SHALL BE FUELED WITH CARB DIESEL FUEL, OR AN ALTERNATIVE DIESEL FUEL THAT MEETS THE REQUIREMENTS OF THE VERIFICATION PROCEDURE AS CODIFIED IN TITLE 13, CCR SECTIONS 2700-2710, OR AN ALTERNATIVE FUEL, OR CARB DIESEL USED WITH FUEL ADDITIVES THAT MEETS THE REQUIREMENTS OF THE VERIFICATION PROCEDURE, OR ANY COMBINATION OF FUELS LISTED IN THIS CONDITION.
14. IF A K-12 SCHOOL OCCUPIES THE PROPERTY AT 2850 49TH STREET, SACRAMENTO, EACH IC ENGINE SHALL NOT BE OPERATED FOR ROUTINE MAINTENANCE PURPOSES BETWEEN THE HOURS OF 7:30 AM AND 4:30 PM, MONDAY THROUGH FRIDAY. THIS RESTRICTION DOES NOT APPLY TO ANY OPERATION REQUIRED BY CONDITION NO. 10 OR FOR ANY EMERGENCY OPERATION.

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

RECORD KEEPING

15. THE FOLLOWING RECORDS SHALL BE CONTINUOUSLY MAINTAINED ON-SITE FOR THE MOST RECENT THREE YEAR PERIOD AND SHALL BE MADE AVAILABLE TO THE AIR POLLUTION CONTROL OFFICER UPON REQUEST. MONTHLY, QUARTERLY, AND YEARLY RECORDS SHALL BE MADE AVAILABLE WITHIN 30 DAYS OF THE END OF THE REPORTING PERIOD.

FREQUENCY	INFORMATION TO BE RECORDED
WHENEVER OPERATED	A. DATE. B. PURPOSE – EITHER MAINTENANCE (M) OR EMERGENCY (E.) C. NUMBER OF HOURS OF OPERATION.
MONTHLY	D. TOTAL NUMBER OF HOURS OF OPERATION FOR EACH OPERATING MODE (HOURS/MONTH.)
QUARTERLY	E. TOTAL NUMBER OF HOURS OF OPERATION FOR EACH OPERATING MODE (HOURS/QUARTER.)
YEARLY	F. TOTAL NUMBER OF HOURS OF OPERATION FOR EACH OPERATING MODE (HOURS/YEAR.)
ALL FUEL DELIVERIES	G. RETAIN FUEL PURCHASE RECORDS THAT ACCOUNT FOR ALL FUEL PURCHASED FOR USE IN THE ENGINE. FUEL PURCHASE RECORDS SHALL INCLUDE: 1. IDENTIFICATION OF TYPE OF FUEL (CARB DIESEL, ALTERNATIVE DIESEL, ETC.) 2. QUANTITY OF FUEL PURCHASED. 3. DATE OF FUEL PURCHASED. 4. SIGNATURE OF PERSON RECEIVING FUEL. 5. SIGNATURE OF FUEL PROVIDER INDICATING THAT FUEL WAS DELIVERED.

YOUR APPLICATION FOR THIS AIR QUALITY PERMIT TO OPERATE WAS EVALUATED FOR COMPLIANCE WITH SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT (AQMD), STATE AND FEDERAL AIR QUALITY RULES. THE FOLLOWING LISTED RULES ARE THOSE THAT ARE MOST APPLICABLE TO THE OPERATION OF YOUR EQUIPMENT. OTHER RULES MAY ALSO BE APPLICABLE.

<u>AQMD RULE NO.</u>	<u>RULE TITLE</u>
201	GENERAL PERMIT REQUIREMENTS
202	NEW SOURCE REVIEW
301	PERMIT FEES
401	RINGELMANN CHART
402	NUISANCE
406	SPECIFIC CONTAMINANTS
420	SULFUR CONTENT OF FUELS
801	NEW SOURCE PERFORMANCE STANDARDS (40 CFR 60 SUBPART IIII)
904	AIR TOXICS CONTROL MEASURES – STATIONARY COMPRESSION IGNITION ENGINES
40 CFR 63 SUBPART ZZZZ	NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES.

IN ADDITION, THE CONDITIONS ON THIS PERMIT TO OPERATE MAY REFLECT SOME, BUT NOT ALL, REQUIREMENTS OF THESE RULES. THERE MAY BE OTHER CONDITIONS THAT ARE APPLICABLE TO THE OPERATION OF YOUR EQUIPMENT. FUTURE CHANGES IN PROHIBITORY RULES MAY ESTABLISH MORE STRINGENT REQUIREMENTS WHICH MAY SUPERSEDE THE CONDITIONS LISTED HERE.

FOR FURTHER INFORMATION PLEASE CONSULT YOUR AQMD RULEBOOK OR CONTACT THE AQMD FOR ASSISTANCE.

SACRAMENTO METROPOLITAN



PERMIT TO OPERATE

Issued to: UC Davis Medical Center

Equipment Location: 2315 Stockton Boulevard, Lot 7
Sacramento, CA 95817

Permit No.	Equipment Description
22314	IC Engine (Lot 7), emergency use: Make: Cummins Model: KTTA19G2 Serial No.: 37124440 Model Year: pre 1990 EPA Family No.: none Emissions Certification: Tier 0 Engine Type: 6 cylinder, 4 cycle Aspiration: turbocharged, aftercooled Engine BHP: 750 hp at 1800 rpm Displacement: 1150 cubic inches (18.8 liters) Fuel: CARB diesel Equipment Driven: Electrical generator

SUBJECT TO THE FOLLOWING CONDITIONS:

GENERAL REQUIREMENTS

1. The equipment shall be properly maintained.
2. The SMAQMD Air Pollution Control Officer and/or authorized representatives, upon the presentation of credentials, shall be permitted:
 - A. To enter upon the premises where the source is located or in which any records are required to be kept under the terms and conditions of this Permit to Operate.
 - B. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this Permit to Operate.

DATE ISSUED: 05-13-2010
DATE EXPIRES: 01-16-2011 (unless renewed)

Larry Greene
SMAQMD Air Pollution Control Officer

by: Bruce Nixon

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT
PERMIT TO OPERATE

- C. To inspect any equipment, operation or method required in this Permit to Operate.
- D. To sample emissions from the source or require samples to be taken.
- 3. This Permit to Operate does not authorize the emission of air contaminants in excess of those allowed by Division 26, Part 4, Chapter 3, of the California Health and Safety Code or the rules and regulations of the SMAQMD.
- 4. A legible copy of this Permit to Operate shall be maintained on the premises with the equipment.
- 5. The IC engine (Lot 7) shall not discharge such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

EMISSIONS LIMIT REQUIREMENTS

- 6. The IC engine (Lot 7) shall not discharge into the atmosphere any visible air contaminants other than uncombined water vapor, for a period or periods aggregating more than three minutes in any one hour, which are as dark or darker than Ringelmann No. 1 or equivalent to or greater than 20% opacity.
- 7. Emissions from the IC engine (Lot 7) shall not exceed the following limits:

Pollutant	Emission Factor grams/hp-hour	Maximum Allowable Emissions (C)	
		lb/quarter	lb/year
ROC	0.36 (A)	119	119
NOx	11.4 (A)	3770	3770
SO2	0.005 (B)	2	2
PM10	0.12 (A)	40	40
CO	1.26 (A)	417	417

(A) The emission factors for ROC, NOx, PM10 and CO are from the manufacturer's Exhaust Emissions Data Sheet, November 1992.

(B) The emission factor for SO2 is based on 0.0015% sulfur by weight in the diesel fuel.

(C) Maximum Allowable Emissions are based on 750 hp, 200 hours/calendar quarter and 200 hours/year.

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT
PERMIT TO OPERATE

EQUIPMENT OPERATION REQUIREMENTS

8. The IC engine (Lot 7) shall operate only for the following purposes and shall not operate more than the following hours:

Type of Operational Hours	Maximum Allowable Operation	
	Hours/Quarter	Hours/Year
Maintenance Purposes (A)	50	50
All purposes - Maintenance and Emergency (B)	200	200

(A) Maintenance purposes is defined as: the operation of an IC engine in order to preserve the integrity of the IC engine, its associated generator or the facility's electrical distribution system or when required by the SMAQMD to verify compliance with the applicable rules and regulations.

(B) Emergency is defined as: when electrical service from the serving utility is interrupted by an unforeseeable event.

9. The IC engine (Lot 7) shall be equipped with a non-resetting hour meter, with a minimum display capability of 9999 hours, to ensure compliance with Condition Nos. 7 and 8.

10. Upon request of the SMAQMD Air Pollution Control Officer, once each year, during daylight hours, the IC engine (Lot 7) shall be run from a cold start condition at maximum anticipated load, for observation of compliance with opacity limitations.

11. The IC engine (Lot 7) shall be fueled with:

A. CARB diesel fuel; or

B. an alternative diesel fuel that is:

i. biodiesel;

ii. a biodiesel blend that does not meet the definition of CARB diesel fuel;

iii. a Fischer-Tropsch fuel; or

iv. an emulsion of water in diesel fuel; or

C. any alternative diesel fuel that is not identified in Condition 11.B above and meets the requirements of the CARB Verification Procedure; or

D. an alternative fuel; or

E. CARB diesel fuel used with fuel additives that meets the requirements of the CARB Verification Procedure; or

F. any combination of (A) through (E) above.

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT
PERMIT TO OPERATE

RECORDKEEPING AND REPORTING REQUIREMENTS

12. The following records shall be continuously maintained on-site for the most recent five year period and shall be made available to the SMAQMD Air Pollution Control Officer upon request. Monthly, quarterly and yearly records shall be made available for inspection within 30 days from the end of the reporting period.

Frequency	Information To Be Recorded
When operated	A. Date B. Purpose - either maintenance or emergency power operating mode. C. Number of hours of operation.
Monthly	D. Total number of hours of operation for each operating mode. (hours/month)
Quarterly	E. Total number of hours of operation for each operating mode. (hours/quarter)
Yearly	F. Total number of hours of operation for each operating mode. (hours/year)
All fuel deliveries	G. Retain fuel purchase records that account for all fuel purchased for use in the IC engine. Fuel purchase records shall include: i. Identification of type of fuel (i.e. CARB diesel, alternate diesel, etc.). ii. Quantity of fuel purchased. iii. Date of fuel purchase. iv. Signature of person receiving fuel. v. Signature of fuel provider indicating that fuel was delivered.

EMISSION TESTING REQUIREMENTS

No periodic emission testing requirements.

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT
PERMIT TO OPERATE

Your application for this air quality Permit to Operate was evaluated for compliance with Sacramento Metropolitan Air Quality Management District (SMAQMD), state and federal air quality rules. The following listed rules are those that are most applicable to the operation of your equipment. Other rules may also be applicable.

<u>SMAQMD Rule No.</u>	<u>Rule Title</u>
201	General Permit Requirements
202	New Source Review
301	Permit Fees - Stationary Sources
401	Ringelmann Chart
402	Nuisance
406	Specific Contaminants
412	Stationary Internal Combustion Engines Located at Major Stationary Sources of NOx
420	Sulfur Content of Fuels
CARB ATCM	Airborne Toxic Control Measure for Stationary Compression Ignition Engines [California Code of Regulations, Title 17, begin at Section 93115]

In addition, the conditions on this Permit to Operate may reflect some, but not all, requirements of these rules. There may be other conditions that are applicable to the operation of your equipment. Future changes in prohibitory rules may establish more stringent requirements which may supersede the conditions listed here.

For further information please consult your SMAQMD Rulebook or contact the SMAQMD for assistance.

SACRAMENTO METROPOLITAN



PERMIT TO OPERATE

ISSUED TO: UCD MEDICAL CENTER

EQUIPMENT LOCATION: 2315 STOCKTON BLVD., SACRAMENTO, CA 95817

PERMIT NO.	EQUIPMENT DESCRIPTION
10707	IC ENGINE (STANDBY), MAKE: CATERPILLAR, MODEL: FM/ULI/3208DINA, SERIAL NO.: 90N72000, 156 HP @ 1800 RPM, DIESEL FIRED, DRIVING AN EMERGENCY STANDBY FIRE PUMP.

SUBJECT TO THE FOLLOWING CONDITIONS:

GENERAL

1. THE EQUIPMENT SHALL BE PROPERLY MAINTAINED AND OPERATED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AT ALL TIMES.
2. THE AIR POLLUTION CONTROL OFFICER AND/OR AUTHORIZED REPRESENTATIVES, UPON THE PRESENTATION OF CREDENTIALS SHALL BE PERMITTED:
 - A. TO ENTER UPON THE PREMISES WHERE THE SOURCE IS LOCATED OR IN WHICH ANY RECORDS ARE REQUIRED TO BE KEPT UNDER THE TERMS AND CONDITIONS OF THIS PERMIT TO OPERATE, AND
 - B. AT REASONABLE TIMES TO HAVE ACCESS TO AND COPY ANY RECORDS REQUIRED TO BE KEPT UNDER TERMS AND CONDITIONS OF THIS PERMIT TO OPERATE, AND
 - C. TO INSPECT ANY EQUIPMENT, OPERATION, OR METHOD REQUIRED IN THIS PERMIT TO OPERATE, AND
 - D. TO SAMPLE EMISSIONS FROM THE SOURCE OR REQUIRE SAMPLES TO BE TAKEN.
3. THIS PERMIT TO OPERATE DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26, PART 4, CHAPTER 3, OF THE CALIFORNIA HEALTH AND SAFETY CODE OR THE RULES AND REGULATIONS OF THE AIR QUALITY MANAGEMENT DISTRICT.
4. THE EQUIPMENT SHALL NOT DISCHARGE SUCH QUANTITIES OF AIR CONTAMINANTS OR OTHER MATERIALS WHICH CAUSE INJURY, DETRIMENT, NUISANCE OR ANNOYANCE TO ANY CONSIDERABLE NUMBER OF PERSONS OR TO THE PUBLIC, OR WHICH ENDANGER THE COMFORT, REPOSE, HEALTH OR SAFETY OF ANY SUCH PERSONS OR THE PUBLIC, OR WHICH CAUSE, OR HAVE A NATURAL TENDENCY TO CAUSE, INJURY OR DAMAGE TO BUSINESS OR PROPERTY.
5. A LEGIBLE COPY OF THIS PERMIT TO OPERATE SHALL BE MAINTAINED ON THE PREMISES WITH THE EQUIPMENT.

EMISSION LIMITATIONS

6. THE ENGINE SHALL NOT DISCHARGE INTO THE ATMOSPHERE ANY VISIBLE AIR CONTAMINANT OTHER THAN UNCOMBINED WATER VAPOR, FOR A PERIOD OR PERIODS AGGREGATING MORE THAN THREE MINUTES IN ANY ONE HOUR, WHICH IS AS DARK OR DARKER THAN RINGELMANN NO. 1 OR EQUIVALENT TO OR GREATER THAN 20% OPACITY.

DATE ISSUED: 10-20-1994
DATE REVISED: 04-15-2011 (UNLESS RENEWED)
DATE EXPIRES: 01-16-2012 (UNLESS RENEWED)

LARRY GREENE
AIR POLLUTION CONTROL OFFICER

BY: 

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

7. EMISSIONS FROM THE ENGINE SHALL NOT EXCEED THE FOLLOWING LIMITS:

POLLUTANT	EMISSION FACTORS (A) (GRAMS/HP-HR)	MAXIMUM ALLOWABLE EMISSION (B)		
		(LB/DAY)	(LB/QUARTER)	(LB/YEAR)
ROC	1	8.3	69	69
NOx	14	115.6	963	963
SOx	0.0049	0.04	0.3	0.3
PM10	1.00	8.3	69	69
CO	3.03	25.0	208	208

(A) EMISSION FACTORS FOR ROC, NOx, PM10, AND CO ARE FROM AP-42, TABLE 3.3.3-1 (1/75.) EMISSION FACTOR FOR SOx IS FROM AP-42, TABLES 3.3-1 (10/96) USING A FUEL SULFUR CONTENT OF 0.0015% BY WEIGHT.

(B) EMISSIONS ARE BASED ON A 156 HP, 24 HOURS/DAY, 200 HOURS/QUARTER, AND 200 HOURS/YEAR.

EQUIPMENT OPERATION

8. THE IC ENGINE SHALL OPERATE ONLY FOR THE FOLLOWING PURPOSES AND SHALL NOT OPERATE MORE THAN THE FOLLOWING HOURS.

TYPE OF OPERATIONAL HOURS	MAXIMUM ALLOWABLE OPERATION	
	(HOURS/QUARTER)	(HOURS/YEAR)
MAINTENANCE PURPOSES (A)	40	40
ALL OPERATION – MAINTENANCE AND EMERGENCY (B)	200	200

(A) MAINTENANCE PURPOSES IS DEFINED AS THE OPERATION OF AN IC ENGINE IN ORDER TO COMPLY WITH THE TESTING REQUIREMENTS OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 25 – “STANDARDS FOR INSPECTION, TESTING, AND MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS” (2002 EDITION OR THE MOST CURRENT EDITION APPROVED BY THE ARB EXECUTIVE OFFICER) OR WHEN REQUIRED BY THE DISTRICT TO VERIFY COMPLIANCE WITH APPLICABLE RULES AND REGULATIONS.

(B) EMERGENCY IS DEFINED AS AN OCCURRENCE WHEN WATER IS REQUIRED TO BE PUMPED FOR FIRE FIGHTING PURPOSES OR WHEN THE FIRE SUPPRESSION SYSTEM IS REQUIRED TO BE PRESSURIZED DUE TO AN UNFORESEEABLE DROP IN WATER PRESSURE.

9. THE IC ENGINE SHALL BE EQUIPPED WITH A NON-RESETTING HOUR METER WITH A MINIMUM DISPLAY CAPABILITY OF 999 HOURS TO ENSURE COMPLIANCE WITH CONDITION NUMBERS 7 AND 8.

10. UPON REQUEST OF THE AIR POLLUTION CONTROL OFFICER OR DESIGNEE, ONCE EACH YEAR DURING DAYLIGHT HOURS, THE IC ENGINE SHALL BE RUN AT MAXIMUM ANTICIPATED LOAD FROM A COLD START CONDITION FOR OBSERVATION OF COMPLIANCE WITH THE OPACITY LIMITATIONS SPECIFIED IN CONDITION 6.

11. THE IC ENGINE SHALL BE FUELED WITH CARB DIESEL FUEL, OR AN ALTERNATIVE DIESEL FUEL THAT MEETS THE REQUIREMENTS OF THE VERIFICATION PROCEDURE AS CODIFIED IN TITLE 13, CCR SECTIONS 2700-2710, OR AN ALTERNATIVE FUEL, OR CARB DIESEL USED WITH FUEL ADDITIVES THAT MEETS THE REQUIREMENTS OF THE VERIFICATION PROCEDURE, OR ANY COMBINATION OF FUELS LISTED IN THIS CONDITION.

RECORD KEEPING

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

RECORD KEEPING

12. THE FOLLOWING RECORDS SHALL BE CONTINUOUSLY MAINTAINED ON-SITE FOR THE MOST RECENT THREE YEAR PERIOD AND SHALL BE MADE AVAILABLE TO THE AIR POLLUTION CONTROL OFFICER UPON REQUEST. MONTHLY, QUARTERLY, AND YEARLY RECORDS SHALL BE MADE AVAILABLE WITHIN 30 DAYS OF THE END OF THE REPORTING PERIOD.

FREQUENCY	INFORMATION TO BE RECORDED
WHENEVER OPERATED	A. DATE. B. PURPOSE – EITHER MAINTENANCE (M) OR EMERGENCY (E.) C. NUMBER OF HOURS OF OPERATION.
MONTHLY	D. TOTAL NUMBER OF HOURS OF OPERATION FOR EACH OPERATING MODE (HOURS/MONTH.)
QUARTERLY	E. TOTAL NUMBER OF HOURS OF OPERATION FOR EACH OPERATING MODE (HOURS/QUARTER.)
YEARLY	F. TOTAL NUMBER OF HOURS OF OPERATION FOR EACH OPERATING MODE (HOURS/YEAR.)
ALL FUEL DELIVERIES	G. RETAIN FUEL PURCHASE RECORDS THAT ACCOUNT FOR ALL FUEL PURCHASED FOR USE IN THE ENGINE. FUEL PURCHASE RECORDS SHALL INCLUDE: 1. IDENTIFICATION OF TYPE OF FUEL (CARB DIESEL, ALTERNATIVE DIESEL, ETC.) 2. QUANTITY OF FUEL PURCHASED. 3. DATE OF FUEL PURCHASED. 4. SIGNATURE OF PERSON RECEIVING FUEL. 5. SIGNATURE OF FUEL PROVIDER INDICATING THAT FUEL WAS DELIVERED.

YOUR APPLICATION FOR THIS AIR QUALITY PERMIT TO OPERATE WAS EVALUATED FOR COMPLIANCE WITH SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT (AQMD), STATE AND FEDERAL AIR QUALITY RULES. THE FOLLOWING LISTED RULES ARE THOSE THAT ARE MOST APPLICABLE TO THE OPERATION OF YOUR EQUIPMENT. OTHER RULES MAY ALSO BE APPLICABLE.

<u>AQMD RULE NO.</u>	<u>RULE TITLE</u>
201	GENERAL PERMIT REQUIREMENTS
202	NEW SOURCE REVIEW
301	PERMIT FEES
401	RINGELMANN CHART
402	NUISANCE
406	SPECIFIC CONTAMINANTS
420	SULFUR CONTENT OF FUELS
801	NEW SOURCE PERFORMANCE STANDARDS (40 CFR 60 SUBPART IIII)
904	AIR TOXICS CONTROL MEASURES – STATIONARY COMPRESSION IGNITION ENGINES
40 CFR 63 SUBPART ZZZZ	NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES.

IN ADDITION, THE CONDITIONS ON THIS PERMIT TO OPERATE MAY REFLECT SOME, BUT NOT ALL, REQUIREMENTS OF THESE RULES. THERE MAY BE OTHER CONDITIONS THAT ARE APPLICABLE TO THE OPERATION OF YOUR EQUIPMENT. FUTURE CHANGES IN PROHIBITORY RULES MAY ESTABLISH MORE STRINGENT REQUIREMENTS WHICH MAY SUPERSEDE THE CONDITIONS LISTED HERE.

FOR FURTHER INFORMATION PLEASE CONSULT YOUR AQMD RULEBOOK OR CONTACT THE AQMD FOR ASSISTANCE.

SACRAMENTO METROPOLITAN



PERMIT TO OPERATE

ISSUED TO: UCD MEDICAL CENTER

EQUIPMENT LOCATION: 2315 STOCKTON BLVD., SACRAMENTO, CA 95817

PERMIT NO.	EQUIPMENT DESCRIPTION
11494	IC ENGINE (STANDBY), MAKE: CATERPILLAR, MODEL: 3412, SERIAL NO.: 81Z08979, 890 HP @ 1800 RPM, DIESEL FIRED, DRIVING AN EMERGENCY ELECTRICAL GENERATOR.

SUBJECT TO THE FOLLOWING CONDITIONS:

GENERAL

1. THE EQUIPMENT SHALL BE PROPERLY MAINTAINED AND OPERATED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AT ALL TIMES.
2. THE AIR POLLUTION CONTROL OFFICER AND/OR AUTHORIZED REPRESENTATIVES, UPON THE PRESENTATION OF CREDENTIALS SHALL BE PERMITTED:
 - A. TO ENTER UPON THE PREMISES WHERE THE SOURCE IS LOCATED OR IN WHICH ANY RECORDS ARE REQUIRED TO BE KEPT UNDER THE TERMS AND CONDITIONS OF THIS PERMIT TO OPERATE, AND
 - B. AT REASONABLE TIMES TO HAVE ACCESS TO AND COPY ANY RECORDS REQUIRED TO BE KEPT UNDER TERMS AND CONDITIONS OF THIS PERMIT TO OPERATE, AND
 - C. TO INSPECT ANY EQUIPMENT, OPERATION, OR METHOD REQUIRED IN THIS PERMIT TO OPERATE, AND
 - D. TO SAMPLE EMISSIONS FROM THE SOURCE OR REQUIRE SAMPLES TO BE TAKEN.
3. THIS PERMIT TO OPERATE DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26, PART 4, CHAPTER 3, OF THE CALIFORNIA HEALTH AND SAFETY CODE OR THE RULES AND REGULATIONS OF THE AIR QUALITY MANAGEMENT DISTRICT.
4. THE EQUIPMENT SHALL NOT DISCHARGE SUCH QUANTITIES OF AIR CONTAMINANTS OR OTHER MATERIALS WHICH CAUSE INJURY, DETRIMENT, NUISANCE OR ANNOYANCE TO ANY CONSIDERABLE NUMBER OF PERSONS OR TO THE PUBLIC, OR WHICH ENDANGER THE COMFORT, REPOSE, HEALTH OR SAFETY OF ANY SUCH PERSONS OR THE PUBLIC, OR WHICH CAUSE, OR HAVE A NATURAL TENDENCY TO CAUSE, INJURY OR DAMAGE TO BUSINESS OR PROPERTY.
5. A LEGIBLE COPY OF THIS PERMIT TO OPERATE SHALL BE MAINTAINED ON THE PREMISES WITH THE EQUIPMENT.

EMISSION LIMITATIONS

6. THE ENGINE SHALL NOT DISCHARGE INTO THE ATMOSPHERE ANY VISIBLE AIR CONTAMINANT OTHER THAN UNCOMBINED WATER VAPOR, FOR A PERIOD OR PERIODS AGGREGATING MORE THAN THREE MINUTES IN ANY ONE HOUR, WHICH IS AS DARK OR DARKER THAN RINGELMANN NO. 1 OR EQUIVALENT TO OR GREATER THAN 20% OPACITY.

DATE ISSUED: 01-16-1997
DATE REVISED: 04-15-2011 (UNLESS RENEWED)
DATE EXPIRES: 01-16-2012 (UNLESS RENEWED)

LARRY GREENE
AIR POLLUTION CONTROL OFFICER

BY: 

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

7. EMISSIONS FROM THE ENGINE SHALL NOT EXCEED THE FOLLOWING LIMITS:

POLLUTANT	EMISSION FACTORS (A) (GRAMS/HP-HR)	MAXIMUM ALLOWABLE EMISSION (B)		
		(LB/DAY)	(LB/QUARTER)	(LB/YEAR)
ROC	0.917	43.2	360	360
NOx	11.47	540.1	4501	4501
SOx	0.0055	0.3	2	2
PM10	0.82	38.6	322	322
CO	2.5	117.5	981	981

(A) EMISSION FACTORS FOR ROC, NOx, PM10, AND CO(LB/1000 GALLON) ARE FROM AP-42, TABLE 3.3.3-1 (1/75.) EMISSION FACTOR FOR SOx IS FROM AP-42, TABLES 3.4-1 (10/96) USING A FUEL SULFUR CONTENT OF 0.0015% BY WEIGHT.

(B) EMISSIONS ARE BASED ON AN 890 HP, 24 HOURS/DAY, 200 HOURS/QUARTER, AND 200 HOURS/YEAR.

EQUIPMENT OPERATION

8. THE IC ENGINE SHALL OPERATE ONLY FOR THE FOLLOWING PURPOSES AND SHALL NOT OPERATE MORE THAN THE FOLLOWING HOURS.

TYPE OF OPERATIONAL HOURS	MAXIMUM ALLOWABLE OPERATION	
	(HOURS/QUARTER)	(HOURS/YEAR)
MAINTENANCE PURPOSES (A)	40	40
ALL OPERATION – MAINTENANCE AND EMERGENCY (B)	200	200

(A) MAINTENANCE PURPOSES IS DEFINED AS THE OPERATION OF AN IC ENGINE IN ORDER TO PRESERVE THE INTEGRITY OF THE IC ENGINE AND ITS ASSOCIATED GENERATOR, THE FACILITY'S ELECTRICAL DISTRIBUTION SYSTEM, OR WHEN REQUIRED BY THE DISTRICT TO VERIFY COMPLIANCE WITH APPLICABLE RULES AND REGULATIONS.

(B) EMERGENCY IS DEFINED AS AN OCCURRENCE WHEN ELECTRICAL SERVICE FROM THE SERVICING UTILITY IS INTERRUPTED BY AN UNFORESEEABLE EVENT.

9. THE IC ENGINE SHALL BE EQUIPPED WITH A NON-RESETTING HOUR METER WITH A MINIMUM DISPLAY CAPABILITY OF 999 HOURS TO ENSURE COMPLIANCE WITH CONDITION NUMBERS 7 AND 8.
10. UPON REQUEST OF THE AIR POLLUTION CONTROL OFFICER OR DESIGNEE, ONCE EACH YEAR DURING DAYLIGHT HOURS, THE IC ENGINE SHALL BE RUN AT MAXIMUM ANTICIPATED LOAD FROM A COLD START CONDITION FOR OBSERVATION OF COMPLIANCE WITH THE OPACITY LIMITATIONS SPECIFIED IN CONDITION 6.
11. THE IC ENGINE SHALL BE FUELED WITH CARB DIESEL FUEL, OR AN ALTERNATIVE DIESEL FUEL THAT MEETS THE REQUIREMENTS OF THE VERIFICATION PROCEDURE AS CODIFIED IN TITLE 13, CCR SECTIONS 2700-2710, OR AN ALTERNATIVE FUEL, OR CARB DIESEL USED WITH FUEL ADDITIVES THAT MEETS THE REQUIREMENTS OF THE VERIFICATION PROCEDURE, OR ANY COMBINATION OF FUELS LISTED IN THIS CONDITION.

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

RECORD KEEPING

12. THE FOLLOWING RECORDS SHALL BE CONTINUOUSLY MAINTAINED ON-SITE FOR THE MOST RECENT THREE YEAR PERIOD AND SHALL BE MADE AVAILABLE TO THE AIR POLLUTION CONTROL OFFICER UPON REQUEST. MONTHLY, QUARTERLY, AND YEARLY RECORDS SHALL BE MADE AVAILABLE WITHIN 30 DAYS OF THE END OF THE REPORTING PERIOD.

FREQUENCY	INFORMATION TO BE RECORDED
WHENEVER OPERATED	A. DATE. B. PURPOSE – EITHER MAINTENANCE (M) OR EMERGENCY (E.) C. NUMBER OF HOURS OF OPERATION.
MONTHLY	D. TOTAL NUMBER OF HOURS OF OPERATION FOR EACH OPERATING MODE (HOURS/MONTH.)
QUARTERLY	E. TOTAL NUMBER OF HOURS OF OPERATION FOR EACH OPERATING MODE (HOURS/QUARTER.)
YEARLY	F. TOTAL NUMBER OF HOURS OF OPERATION FOR EACH OPERATING MODE (HOURS/YEAR.)
ALL FUEL DELIVERIES	G. RETAIN FUEL PURCHASE RECORDS THAT ACCOUNT FOR ALL FUEL PURCHASED FOR USE IN THE ENGINE. FUEL PURCHASE RECORDS SHALL INCLUDE: 1. IDENTIFICATION OF TYPE OF FUEL (CARB DIESEL, ALTERNATIVE DIESEL, ETC.) 2. QUANTITY OF FUEL PURCHASED. 3. DATE OF FUEL PURCHASED. 4. SIGNATURE OF PERSON RECEIVING FUEL. 5. SIGNATURE OF FUEL PROVIDER INDICATING THAT FUEL WAS DELIVERED.

YOUR APPLICATION FOR THIS AIR QUALITY PERMIT TO OPERATE WAS EVALUATED FOR COMPLIANCE WITH SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT (AQMD), STATE AND FEDERAL AIR QUALITY RULES. THE FOLLOWING LISTED RULES ARE THOSE THAT ARE MOST APPLICABLE TO THE OPERATION OF YOUR EQUIPMENT. OTHER RULES MAY ALSO BE APPLICABLE.

<u>AQMD RULE NO.</u>	<u>RULE TITLE</u>
201	GENERAL PERMIT REQUIREMENTS
202	NEW SOURCE REVIEW
301	PERMIT FEES
401	RINGELMANN CHART
402	NUISANCE
406	SPECIFIC CONTAMINANTS
420	SULFUR CONTENT OF FUELS
801	NEW SOURCE PERFORMANCE STANDARDS (40 CFR 60 SUBPART IIII)
904	AIR TOXICS CONTROL MEASURES – STATIONARY COMPRESSION IGNITION ENGINES
40 CFR 63 SUBPART ZZZZ	NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES.

IN ADDITION, THE CONDITIONS ON THIS PERMIT TO OPERATE MAY REFLECT SOME, BUT NOT ALL, REQUIREMENTS OF THESE RULES. THERE MAY BE OTHER CONDITIONS THAT ARE APPLICABLE TO THE OPERATION OF YOUR EQUIPMENT. FUTURE CHANGES IN PROHIBITORY RULES MAY ESTABLISH MORE STRINGENT REQUIREMENTS WHICH MAY SUPERSEDE THE CONDITIONS LISTED HERE.

FOR FURTHER INFORMATION PLEASE CONSULT YOUR AQMD RULEBOOK OR CONTACT THE AQMD FOR ASSISTANCE.

SACRAMENTO METROPOLITAN



PERMIT TO OPERATE

ISSUED TO: UCD MEDICAL CENTER

EQUIPMENT LOCATION: 2315 STOCKTON BLVD., SACRAMENTO, CA 95817

PERMIT NO.	EQUIPMENT DESCRIPTION
13421	IC ENGINE (STANDBY), MAKE: CUMMINS, MODEL: 4B3.9-G, SERIAL NO.: 44982109, 68 HP @ 1800 RPM, DIESEL FIRED, DRIVING AN EMERGENCY ELECTRICAL GENERATOR

SUBJECT TO THE FOLLOWING CONDITIONS:

GENERAL

1. THE EQUIPMENT SHALL BE PROPERLY MAINTAINED AND OPERATED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AT ALL TIMES.
2. THE AIR POLLUTION CONTROL OFFICER AND/OR AUTHORIZED REPRESENTATIVES, UPON THE PRESENTATION OF CREDENTIALS SHALL BE PERMITTED:
 - A. TO ENTER UPON THE PREMISES WHERE THE SOURCE IS LOCATED OR IN WHICH ANY RECORDS ARE REQUIRED TO BE KEPT UNDER THE TERMS AND CONDITIONS OF THIS PERMIT TO OPERATE, AND
 - B. AT REASONABLE TIMES TO HAVE ACCESS TO AND COPY ANY RECORDS REQUIRED TO BE KEPT UNDER TERMS AND CONDITIONS OF THIS PERMIT TO OPERATE, AND
 - C. TO INSPECT ANY EQUIPMENT, OPERATION, OR METHOD REQUIRED IN THIS PERMIT TO OPERATE, AND
 - D. TO SAMPLE EMISSIONS FROM THE SOURCE OR REQUIRE SAMPLES TO BE TAKEN.
3. THIS PERMIT TO OPERATE DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26, PART 4, CHAPTER 3, OF THE CALIFORNIA HEALTH AND SAFETY CODE OR THE RULES AND REGULATIONS OF THE AIR QUALITY MANAGEMENT DISTRICT.
4. THE EQUIPMENT SHALL NOT DISCHARGE SUCH QUANTITIES OF AIR CONTAMINANTS OR OTHER MATERIALS WHICH CAUSE INJURY, DETRIMENT, NUISANCE OR ANNOYANCE TO ANY CONSIDERABLE NUMBER OF PERSONS OR TO THE PUBLIC, OR WHICH ENDANGER THE COMFORT, REPOSE, HEALTH OR SAFETY OF ANY SUCH PERSONS OR THE PUBLIC, OR WHICH CAUSE, OR HAVE A NATURAL TENDENCY TO CAUSE, INJURY OR DAMAGE TO BUSINESS OR PROPERTY.
5. A LEGIBLE COPY OF THIS PERMIT TO OPERATE SHALL BE MAINTAINED ON THE PREMISES WITH THE EQUIPMENT.

EMISSION LIMITATIONS

6. THE ENGINE SHALL NOT DISCHARGE INTO THE ATMOSPHERE ANY VISIBLE AIR CONTAMINANT OTHER THAN UNCOMBINED WATER VAPOR, FOR A PERIOD OR PERIODS AGGREGATING MORE THAN THREE MINUTES IN ANY ONE HOUR, WHICH IS AS DARK OR DARKER THAN RINGELMANN NO. 1 OR EQUIVALENT TO OR GREATER THAN 20% OPACITY.

DATE ISSUED: 02-02-1999
DATE REVISED: 04-15-2011 (UNLESS RENEWED)
DATE EXPIRES: 01-16-2012 (UNLESS RENEWED)

LARRY GREENE
AIR POLLUTION CONTROL OFFICER

BY: 

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

7. EMISSIONS FROM THE ENGINE SHALL NOT EXCEED THE FOLLOWING LIMITS:

POLLUTANT	EMISSION FACTORS (A) (GRAMS/HP-HR)	MAXIMUM ALLOWABLE EMISSION (B)		
		(LB/DAY)	(LB/QUARTER)	(LB/YEAR)
ROC	0.57	2.1	17	17
NOx	9.23	33.2	277	277
SOx	0.0049	0.02	0.1	0.1
PM10	0.25	0.9	7	7
CO	6.59	23.7	198	198

(A) EMISSION FACTORS FOR ROC, NOx, PM10, AND CO ARE FROM MANUFACTURER'S DATA. EMISSION FACTOR FOR SOx IS FROM AP-42, TABLES 3.3-1 (10/96) USING A FUEL SULFUR CONTENT OF 0.0015% BY WEIGHT.

(B) EMISSIONS ARE BASED ON A 68 HP, 24 HOURS/DAY, 200 HOURS/QUARTER, AND 200 HOURS/YEAR.

EQUIPMENT OPERATION

8. THE IC ENGINE SHALL OPERATE ONLY FOR THE FOLLOWING PURPOSES AND SHALL NOT OPERATE MORE THAN THE FOLLOWING HOURS.

TYPE OF OPERATIONAL HOURS	MAXIMUM ALLOWABLE OPERATION	
	(HOURS/QUARTER)	(HOURS/YEAR)
MAINTENANCE PURPOSES (A)	40	40
ALL OPERATION – MAINTENANCE AND EMERGENCY (B)	200	200

(A) MAINTENANCE PURPOSES IS DEFINED AS THE OPERATION OF AN IC ENGINE IN ORDER TO PRESERVE THE INTEGRITY OF THE IC ENGINE AND ITS ASSOCIATED GENERATOR, THE FACILITY'S ELECTRICAL DISTRIBUTION SYSTEM, OR WHEN REQUIRED BY THE DISTRICT TO VERIFY COMPLIANCE WITH APPLICABLE RULES AND REGULATIONS.

(B) EMERGENCY IS DEFINED AS AN OCCURRENCE WHEN ELECTRICAL SERVICE FROM THE SERVICING UTILITY IS INTERRUPTED BY AN UNFORESEEABLE EVENT.

9. THE IC ENGINE SHALL BE EQUIPPED WITH A NON-RESETTING HOUR METER WITH A MINIMUM DISPLAY CAPABILITY OF 999 HOURS TO ENSURE COMPLIANCE WITH CONDITION NUMBERS 7 AND 8.

10. UPON REQUEST OF THE AIR POLLUTION CONTROL OFFICER OR DESIGNEE, ONCE EACH YEAR DURING DAYLIGHT HOURS, THE IC ENGINE SHALL BE RUN AT MAXIMUM ANTICIPATED LOAD FROM A COLD START CONDITION FOR OBSERVATION OF COMPLIANCE WITH THE OPACITY LIMITATIONS SPECIFIED IN CONDITION 6.

11. THE IC ENGINE SHALL BE FUELED WITH CARB DIESEL FUEL, OR AN ALTERNATIVE DIESEL FUEL THAT MEETS THE REQUIREMENTS OF THE VERIFICATION PROCEDURE AS CODIFIED IN TITLE 13, CCR SECTIONS 2700-2710, OR AN ALTERNATIVE FUEL, OR CARB DIESEL USED WITH FUEL ADDITIVES THAT MEETS THE REQUIREMENTS OF THE VERIFICATION PROCEDURE, OR ANY COMBINATION OF FUELS LISTED IN THIS CONDITION.

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

RECORD KEEPING

12. THE FOLLOWING RECORDS SHALL BE CONTINUOUSLY MAINTAINED ON-SITE FOR THE MOST RECENT THREE YEAR PERIOD AND SHALL BE MADE AVAILABLE TO THE AIR POLLUTION CONTROL OFFICER UPON REQUEST. MONTHLY, QUARTERLY, AND YEARLY RECORDS SHALL BE MADE AVAILABLE WITHIN 30 DAYS OF THE END OF THE REPORTING PERIOD.

FREQUENCY	INFORMATION TO BE RECORDED
WHENEVER OPERATED	A. DATE. B. PURPOSE – EITHER MAINTENANCE (M) OR EMERGENCY (E.) C. NUMBER OF HOURS OF OPERATION.
MONTHLY	D. TOTAL NUMBER OF HOURS OF OPERATION FOR EACH OPERATING MODE (HOURS/MONTH.)
QUARTERLY	E. TOTAL NUMBER OF HOURS OF OPERATION FOR EACH OPERATING MODE (HOURS/QUARTER.)
YEARLY	F. TOTAL NUMBER OF HOURS OF OPERATION FOR EACH OPERATING MODE (HOURS/YEAR.)
ALL FUEL DELIVERIES	G. RETAIN FUEL PURCHASE RECORDS THAT ACCOUNT FOR ALL FUEL PURCHASED FOR USE IN THE ENGINE. FUEL PURCHASE RECORDS SHALL INCLUDE: 1. IDENTIFICATION OF TYPE OF FUEL (CARB DIESEL, ALTERNATIVE DIESEL, ETC.) 2. QUANTITY OF FUEL PURCHASED. 3. DATE OF FUEL PURCHASED. 4. SIGNATURE OF PERSON RECEIVING FUEL. 5. SIGNATURE OF FUEL PROVIDER INDICATING THAT FUEL WAS DELIVERED.

YOUR APPLICATION FOR THIS AIR QUALITY PERMIT TO OPERATE WAS EVALUATED FOR COMPLIANCE WITH SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT (AQMD), STATE AND FEDERAL AIR QUALITY RULES. THE FOLLOWING LISTED RULES ARE THOSE THAT ARE MOST APPLICABLE TO THE OPERATION OF YOUR EQUIPMENT. OTHER RULES MAY ALSO BE APPLICABLE.

<u>AQMD RULE NO.</u>	<u>RULE TITLE</u>
201	GENERAL PERMIT REQUIREMENTS
202	NEW SOURCE REVIEW
301	PERMIT FEES
401	RINGELMANN CHART
402	NUISANCE
406	SPECIFIC CONTAMINANTS
420	SULFUR CONTENT OF FUELS
801	NEW SOURCE PERFORMANCE STANDARDS (40 CFR 60 SUBPART IIII)
904	AIR TOXICS CONTROL MEASURES – STATIONARY COMPRESSION IGNITION ENGINES
40 CFR 63 SUBPART ZZZZ	NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES.

IN ADDITION, THE CONDITIONS ON THIS PERMIT TO OPERATE MAY REFLECT SOME, BUT NOT ALL, REQUIREMENTS OF THESE RULES. THERE MAY BE OTHER CONDITIONS THAT ARE APPLICABLE TO THE OPERATION OF YOUR EQUIPMENT. FUTURE CHANGES IN PROHIBITORY RULES MAY ESTABLISH MORE STRINGENT REQUIREMENTS WHICH MAY SUPERSEDE THE CONDITIONS LISTED HERE.

FOR FURTHER INFORMATION PLEASE CONSULT YOUR AQMD RULEBOOK OR CONTACT THE AQMD FOR ASSISTANCE.



AIR QUALITY
MANAGEMENT DISTRICT

PERMIT TO OPERATE

ISSUED TO: UCD MEDICAL CENTER

EQUIPMENT LOCATION: 2315 STOCKTON BLVD., SACRAMENTO, CA 95817

PERMIT NO.	EQUIPMENT DESCRIPTION
19775	IC ENGINE - STANDBY, MAKE: JOHN DEERE, MODEL: 4045H275H, SERIAL NO: PE4045H378606, FAMILY NO.: 4JDXL06.8039, 157 BHP @ 1800 RPM, 276 CUBIC INCH DISPLACEMENT, DIESEL FIRED, DRIVING AN EMERGENCY ELECTRIC GENERATOR.

SUBJECT TO THE FOLLOWING CONDITIONS:

GENERAL

1. THE EQUIPMENT SHALL BE PROPERLY MAINTAINED.
2. THE AIR POLLUTION CONTROL OFFICER AND/OR AUTHORIZED REPRESENTATIVES, UPON THE PRESENTATION OF CREDENTIALS SHALL BE PERMITTED:
 - A. TO ENTER UPON THE PREMISES WHERE THE SOURCE IS LOCATED OR IN WHICH ANY RECORDS ARE REQUIRED TO BE KEPT UNDER THE TERMS AND CONDITIONS OF THIS PERMIT TO OPERATE, AND
 - B. AT REASONABLE TIMES TO HAVE ACCESS TO AND COPY ANY RECORDS REQUIRED TO BE KEPT UNDER TERMS AND CONDITIONS OF THIS PERMIT TO OPERATE, AND
 - C. TO INSPECT ANY EQUIPMENT, OPERATION, OR METHOD REQUIRED IN THIS PERMIT TO OPERATE, AND
 - D. TO SAMPLE EMISSIONS FROM THE SOURCE OR REQUIRE SAMPLES TO BE TAKEN.
3. THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26, PART 4, CHAPTER 3, OF THE CALIFORNIA HEALTH AND SAFETY CODE OR THE RULES AND REGULATIONS OF THE AIR QUALITY MANAGEMENT DISTRICT.
4. A LEGIBLE COPY OF THIS PERMIT SHALL BE MAINTAINED ON THE PREMISES WITH THE EQUIPMENT.

EMISSIONS LIMITATIONS

5. THE IC ENGINE SHALL NOT DISCHARGE INTO THE ATMOSPHERE ANY VISIBLE AIR CONTAMINANTS OTHER THAN UNCOMBINED WATER VAPOR, FOR A PERIOD OR PERIODS AGGREGATING MORE THAN THREE MINUTES IN ANY ONE HOUR, WHICH ARE AS DARK OR DARKER THAN RINGELMANN NO. 1 OR EQUIVALENT TO OR GREATER THAN 20% OPACITY.

LARRY GREENE

AIR POLLUTION CONTROL OFFICER

DATE ISSUED: 1-12-2010

DATE EXPIRES: 1-16-2011 (UNLESS RENEWED)

BY: 

PAGE 1 OF 3 PAGES

PERMIT NO.: 19775

REVOCABLE AND NON-TRANSFERABLE

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

6. THE EMISSIONS FROM THE IC ENGINE SHALL NOT EXCEED THE FOLLOWING LIMITS:

POLLUTANT	EMISSION FACTOR (A) (G/HP-HR)	MAXIMUM ALLOWABLE EMISSIONS (B)	
		(LB/QUARTER)	(LB/YEAR)
ROC	1.0	69	69
NOx	4.9	339	339
NMHC+NOx	4.9	339	339
SOx	0.0049	0.3	0.3
PM10	0.15	10	10
CO	3.7	256	256

- (A) EMISSION FACTORS FOR NMHC+NOx, PM10, AND CO ARE BASED ON BACT LIMITS (EPA TIER 2 STANDARDS.) EMISSION FACTOR FOR NOx IS BASED ON THE NMHC+NOx FACTOR WITH THE NMHC PORTION CREDITED AS NOx. EMISSION FACTOR FOR ROC IS AN UNCONTROLLED VALUE FROM AP-42, TABLE 3.3-1 (10/96.) EMISSION FACTOR FOR SOx IS BASED ON AP-42, TABLE 3.3-1 (10/96) USING A FUEL SULFUR CONTENT OF 15 PPM.
- (B) EMISSIONS ARE BASED ON 157 BHP, 200 HOURS/QUARTER, 200 HOURS/YEAR, AND THE EMISSION FACTORS IN THIS TABLE.

EQUIPMENT OPERATION

7. THE IC ENGINE SHALL OPERATE ONLY FOR THE FOLLOWING PURPOSES AND SHALL NOT OPERATE MORE THAN THE FOLLOWING HOURS.

TYPE OF OPERATIONAL HOURS	MAXIMUM ALLOWABLE OPERATION	
	(HOURS/QUARTER)	(HOURS/YEAR)
MAINTENANCE PURPOSES (A)	50	50
ALL OPERATION - MAINTENANCE AND EMERGENCY (B)	200	200

- (A) MAINTENANCE PURPOSES IS DEFINED AS THE OPERATION OF AN IC ENGINE IN ORDER TO PRESERVE THE INTEGRITY OF THE IC ENGINE AND ITS ASSOCIATED GENERATOR, THE FACILITY'S ELECTRICAL DISTRIBUTION SYSTEM, OR WHEN REQUIRED BY THE DISTRICT TO VERIFY COMPLIANCE WITH APPLICABLE RULES AND REGULATIONS.
- (B) EMERGENCY IS DEFINED AS AN OCCURRENCE WHEN ELECTRICAL SERVICE FROM THE SERVICING UTILITY IS INTERRUPTED BY AN UNFORESEEABLE EVENT.
8. THE IC ENGINE SHALL BE EQUIPPED WITH A NON-RESETTING HOUR METER WITH A MINIMUM DISPLAY CAPABILITY OF 9,999 HOURS TO ENSURE COMPLIANCE WITH CONDITION NUMBERS 6 AND 7.
9. UPON REQUEST OF THE AIR POLLUTION CONTROL OFFICER OR DESIGNEE, ONCE EACH YEAR DURING DAYLIGHT HOURS, THE IC ENGINE SHALL BE RUN AT MAXIMUM ANTICIPATED LOAD FROM A COLD START CONDITION FOR OBSERVATION OF COMPLIANCE WITH THE OPACITY LIMITATIONS SPECIFIED IN CONDITION 5.
10. THE IC ENGINE SHALL BE FUELED WITH CARB DIESEL FUEL, OR AN ALTERNATIVE DIESEL FUEL THAT MEETS THE REQUIREMENTS OF THE VERIFICATION PROCEDURE AS CODIFIED IN TITLE 13, CCR SECTIONS 2700-2710, OR AN ALTERNATIVE FUEL, OR CARB DIESEL USED WITH FUEL ADDITIVES THAT MEETS THE REQUIREMENTS OF THE VERIFICATION PROCEDURE, OR ANY COMBINATION OF FUELS LISTED IN THIS CONDITION.
11. THE EXHAUST STACK OF THE IC ENGINE SHALL EXIT VERTICALLY AND SHALL NOT BE OBSTRUCTED DURING ENGINE OPERATION. A FLAPPER-TYPE RAIN CAP WILL COMPLY WITH THIS CONDITION PROVIDED IT DOES NOT IMPEDE THE VERTICAL FLOW OF EXHAUST.

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

RECORD KEEPING

12. THE FOLLOWING RECORDS SHALL BE CONTINUOUSLY MAINTAINED ON-SITE FOR THE MOST RECENT THREE YEAR PERIOD AND SHALL BE MADE AVAILABLE TO THE AIR POLLUTION CONTROL OFFICER UPON REQUEST. MONTHLY, QUARTERLY, AND YEARLY RECORDS SHALL BE MADE AVAILABLE WITHIN 30 DAYS OF THE END OF THE REPORTING PERIOD.

FREQUENCY	INFORMATION TO BE RECORDED
WHENEVER OPERATED	A. DATE. B. PURPOSE - EITHER MAINTENANCE (M) OR EMERGENCY (E.) C. NUMBER OF HOURS OF OPERATION.
MONTHLY	D. TOTAL NUMBER OF HOURS OF OPERATION FOR EACH OPERATING MODE (HOURS/MONTH.)
QUARTERLY	E. TOTAL NUMBER OF HOURS OF OPERATION FOR EACH OPERATING MODE (HOURS/QUARTER.)
YEARLY	F. TOTAL NUMBER OF HOURS OF OPERATION FOR EACH OPERATING MODE (HOURS/YEAR.)
ALL FUEL DELIVERIES	G. RETAIN FUEL PURCHASE RECORDS THAT ACCOUNT FOR ALL FUEL PURCHASED FOR USE IN THE ENGINE. FUEL PURCHASE RECORDS SHALL INCLUDE: 1. IDENTIFICATION OF TYPE OF FUEL (CARB DIESEL, ALTERNATIVE DIESEL, ETC.) 2. QUANTITY OF FUEL PURCHASED. 3. DATE OF FUEL PURCHASED. 4. SIGNATURE OF PERSON RECEIVING FUEL. 5. SIGNATURE OF FUEL PROVIDER INDICATING THAT FUEL WAS DELIVERED.

YOUR APPLICATION FOR THIS AIR QUALITY PERMIT TO OPERATE WAS EVALUATED FOR COMPLIANCE WITH SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT (AQMD), STATE AND FEDERAL AIR QUALITY RULES. THE FOLLOWING LISTED RULES ARE THOSE THAT ARE MOST APPLICABLE TO THE OPERATION OF YOUR EQUIPMENT. OTHER RULES MAY ALSO BE APPLICABLE.

<u>AQMD RULE NO.</u>	<u>RULE TITLE</u>
201	GENERAL PERMIT REQUIREMENTS
202	NEW SOURCE REVIEW
301	PERMIT FEES
401	RINGELMANN CHART
402	NUISANCE
406	SPECIFIC CONTAMINANTS
420	SULFUR CONTENT OF FUELS
904	AIR TOXICS CONTROL MEASURES - STATIONARY COMPRESSION IGNITION ENGINES

IN ADDITION, THE CONDITIONS ON THIS PERMIT TO OPERATE MAY REFLECT SOME, BUT NOT ALL, REQUIREMENTS OF THESE RULES. THERE MAY BE OTHER CONDITIONS THAT ARE APPLICABLE TO THE OPERATION OF YOUR EQUIPMENT. FUTURE CHANGES IN PROHIBITORY RULES MAY ESTABLISH MORE STRINGENT REQUIREMENTS WHICH MAY SUPERSEDE THE CONDITIONS LISTED HERE.

FOR FURTHER INFORMATION PLEASE CONSULT YOUR AQMD RULEBOOK OR CONTACT THE AQMD FOR ASSISTANCE.

PERMIT NO.: 19775

SACRAMENTO METROPOLITAN



PERMIT TO OPERATE

Issued to: UC Davis Medical Center

Equipment Location: 2315 Stockton Boulevard, Bldg 34
Sacramento 95817

Permit No.	Equipment Description
22060	IC Engine (Bldg 34), emergency use: Make: Caterpillar Model: C32 Serial No.: SYC02850 Model Year: 2008 EPA Family No.: 8CPXL32.OESW Emissions Certification: Tier 2 Engine Type: V-12, 4-stroke, diesel Aspiration: Turbocharged, aftercooled Engine BHP: 1502 HP at 1800 RPM Displacement: 1959 cubic inches (32 liter) Fuel: CARB diesel Equipment Driven: Electrical generator

SUBJECT TO THE FOLLOWING CONDITIONS:

GENERAL REQUIREMENTS

1. The equipment shall be properly maintained.
2. The SMAQMD Air Pollution Control Officer and/or authorized representatives, upon the presentation of credentials, shall be permitted:
 - A. To enter upon the premises where the source is located or in which any records are required to be kept under the terms and conditions of this Permit to Operate.
 - B. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this Permit to Operate.

DATE ISSUED: 05-11-2010
DATE EXPIRES: 01-16-2011 (unless renewed)

Larry Greene
SMAQMD Air Pollution Control Officer

by: Bruce Nixon

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT
PERMIT TO OPERATE

- C. To inspect any equipment, operation or method required in this Permit to Operate.
 - D. To sample emissions from the source or require samples to be taken.
3. This Permit to Operate does not authorize the emission of air contaminants in excess of those allowed by Division 26, Part 4, Chapter 3, of the California Health and Safety Code or the rules and regulations of the SMAQMD.
4. A legible copy of this Permit to Operate shall be maintained on the premises with the equipment.

EMISSIONS LIMIT REQUIREMENTS

5. The IC engine (Bldg 34) shall not discharge into the atmosphere any visible air contaminants other than uncombined water vapor, for a period or periods aggregating more than three minutes in any one hour, which are as dark or darker than Ringelmann No. 1 or equivalent to or greater than 20% opacity.
6. Emissions from the IC engine (Bldg 34) shall not exceed the following limits:

Pollutant	Emission Factor grams/hp-hour	Maximum Allowable Emissions (C)	
		lb/quarter	lb/year
ROC+NOx	4.8 (A)	NA	NA
ROC	0.29 (B)	192	192
NOx	4.8 (B)	3179	3179
SO2	0.005 (C)	3.3	3.3
PM10	0.15 (A)	99	99
CO	2.6 (A)	1722	1722

- (A) The emission factors for ROC+NOx, PM10 and CO are the U.S. EPA Tier 2 standards for a 1502 hp IC engine for model year 2008.
- (B) For the purpose of calculating NOx and ROC individually, ROC emissions are assessed at the uncontrolled U.S. EPA AP-42 emission factor of 0.29 grams/hp-hour and NOx emissions are assessed at the worst case limit of 4.8 grams/hp-hour.
- (C) The emission factor for SO2 is based on 0.0015% sulfur by weight in the diesel fuel.
- (D) Maximum Allowable Emissions are based on 1502 hp, 24 hours/day, 200 hours/calendar quarter and 200 hours/year.

EQUIPMENT OPERATION REQUIREMENTS

7. The IC engine (Bldg 34) shall operate only for the following purposes and shall not operate more than the following hours:

Type of Operational Hours	Maximum Allowable Operation	
	Hours/Quarter	Hours/Year
Maintenance Purposes (A)	50	50
All purposes - Maintenance and Emergency (B)	200	200

(A) Maintenance purposes is defined as: the operation of an IC engine in order to preserve the integrity of the IC engine, its associated generator or the facility's electrical distribution system or when required by the SMAQMD to verify compliance with the applicable rules and regulations.

(B) Emergency is defined as: when electrical service from the serving utility is interrupted by an unforeseeable event.

8. The IC engine (Bldg 34) shall be equipped with a non-resetting hour meter, with a minimum display capability of 9999 hours, to ensure compliance with Condition Nos. 6 and 7.

9. Upon request of the SMAQMD Air Pollution Control Officer, once each year, during daylight hours, the IC engine (Bldg 34) shall be run from a cold start condition at maximum anticipated load, for observation of compliance with opacity limitations.

10. The IC engine (Bldg 34) shall be fueled with:

- A. CARB diesel fuel; or
- B. an alternative diesel fuel that is:
 - i. biodiesel;
 - ii. a biodiesel blend that does not meet the definition of CARB diesel fuel;
 - iii. a Fischer-Tropsch fuel; or
 - iv. an emulsion of water in diesel fuel; or
- C. any alternative diesel fuel that is not identified in Condition 10.B above and meets the requirements of the CARB Verification Procedure; or
- D. an alternative fuel; or
- E. CARB diesel fuel used with fuel additives that meets the requirements of the CARB Verification Procedure; or
- F. any combination of (A) through (E) above.

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT
PERMIT TO OPERATE

RECORDKEEPING AND REPORTING REQUIREMENTS

11. The following records shall be continuously maintained on-site for the most recent five year period and shall be made available to the SMAQMD Air Pollution Control Officer upon request. Monthly, quarterly and yearly records shall be made available for inspection within 30 days from the end of the reporting period.

Frequency	Information To Be Recorded
When operated	A. Date B. Purpose - either maintenance or emergency power operating mode. C. Number of hours of operation.
Monthly	D. Total number of hours of operation for each operating mode. (hours/month)
Quarterly	E. Total number of hours of operation for each operating mode. (hours/quarter)
Yearly	F. Total number of hours of operation for each operating mode. (hours/year)
All fuel deliveries	G. Retain fuel purchase records that account for all fuel purchased for use in the IC engine. Fuel purchase records shall include: i. Identification of type of fuel (i.e. CARB diesel, alternate diesel, etc.). ii. Quantity of fuel purchased. iii. Date of fuel purchase. iv. Signature of person receiving fuel. v. Signature of fuel provider indicating that fuel was delivered.

EMISSION TESTING REQUIREMENTS

No periodic emission testing requirements.

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT
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Your application for this air quality Permit to Operate was evaluated for compliance with Sacramento Metropolitan Air Quality Management District (SMAQMD), state and federal air quality rules. The following listed rules are those that are most applicable to the operation of your equipment. Other rules may also be applicable.

<u>SMAQMD Rule No.</u>	<u>Rule Title</u>
201	General Permit Requirements
202	New Source Review
301	Permit Fees - Stationary Sources
401	Ringelmann Chart
402	Nuisance
406	Specific Contaminants
412	Stationary Internal Combustion Engines Located at Major Stationary Sources of NOx
420	Sulfur Content of Fuels
CARB ATCM	Airborne Toxic Control Measure for Stationary Compression Ignition Engines [California Code of Regulations, Title 17, begin at Section 93115]
U.S. EPA NSPS	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines [40 CFR Part 60 Subpart IIII, begin at 60.4200]
U.S. EPA NESHAP	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [40 CFR 63 Subpart ZZZZ, begin at 63.6580]

In addition, the conditions on this Permit to Operate may reflect some, but not all, requirements of these rules. There may be other conditions that are applicable to the operation of your equipment. Future changes in prohibitory rules may establish more stringent requirements which may supersede the conditions listed here.

For further information please consult your SMAQMD Rulebook or contact the SMAQMD for assistance.

SACRAMENTO METROPOLITAN



PERMIT TO OPERATE

ISSUED TO: UCD MEDICAL CENTER

EQUIPMENT LOCATION: 2315 STOCKTON BLVD., SACRAMENTO, CA 95817

PERMIT NO.: 21510

EQUIPMENT DESCRIPTION: GASOLINE STORAGE AND DISPENSING FACILITY CONSISTING OF:

PHASE I EQUIPMENT		PHASE II EQUIPMENT	
NUMBER & SIZE OF TANKS (GALLONS)	PHASE I TYPE	NUMBER OF NOZZLES	PHASE II TYPE
2-10,000	OPW - EVR	3	HEALY EVR
1-10,000	EXEMPT -- DIESEL	2	EXEMPT -- DIESEL

SUBJECT TO THE FOLLOWING CONDITIONS:

GENERAL

1. THE EQUIPMENT SHALL BE PROPERLY MAINTAINED AND OPERATED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AT ALL TIMES.
2. THE AIR POLLUTION CONTROL OFFICER AND/OR AUTHORIZED REPRESENTATIVES, UPON THE PRESENTATION OF CREDENTIALS SHALL BE PERMITTED:
 - A. TO ENTER UPON THE PREMISES WHERE THE SOURCE IS LOCATED OR IN WHICH ANY RECORDS ARE REQUIRED TO BE KEPT UNDER THE TERMS AND CONDITIONS OF THIS PERMIT TO OPERATE, AND
 - B. AT REASONABLE TIMES TO HAVE ACCESS TO AND COPY ANY RECORDS REQUIRED TO BE KEPT UNDER TERMS AND CONDITIONS OF THIS PERMIT TO OPERATE, AND
 - C. TO INSPECT ANY EQUIPMENT, OPERATION, OR METHOD REQUIRED IN THIS PERMIT TO OPERATE, AND
 - D. TO SAMPLE EMISSIONS FROM THE SOURCE OR REQUIRE SAMPLES TO BE TAKEN.
3. THIS PERMIT TO OPERATE DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26, PART 4, CHAPTER 3, OF THE CALIFORNIA HEALTH AND SAFETY CODE OR THE RULES AND REGULATIONS OF THE AIR QUALITY MANAGEMENT DISTRICT.
4. THE EQUIPMENT SHALL NOT DISCHARGE SUCH QUANTITIES OF AIR CONTAMINANTS OR OTHER MATERIALS WHICH CAUSE INJURY, DETRIMENT, NUISANCE OR ANNOYANCE TO ANY CONSIDERABLE NUMBER OF PERSONS OR TO THE PUBLIC, OR WHICH ENDANGER THE COMFORT, REPOSE, HEALTH OR SAFETY OF ANY SUCH PERSONS OR THE PUBLIC, OR WHICH CAUSE, OR HAVE A NATURAL TENDENCY TO CAUSE, INJURY OR DAMAGE TO BUSINESS OR PROPERTY.
5. A LEGIBLE COPY OF THIS PERMIT TO OPERATE SHALL BE MAINTAINED ON THE PREMISES WITH THE EQUIPMENT.

DATE ISSUED: 03-31-2009

DATE MODIFIED: 04-14-2011 (UNLESS RENEWED)

DATE EXPIRES: 01-16-2012 (UNLESS RENEWED)

PAGE 1 OF 5

LARRY GREENE
AIR POLLUTION CONTROL OFFICER

BY: 

PERMIT NO.: 21510

REVOCABLE AND NON-TRANSFERABLE

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

6. REACTIVE ORGANIC COMPOUND (ROC) EMISSIONS AND GASOLINE THROUGHPUT FROM THIS FACILITY SHALL NOT EXCEED:

POLLUTANT	EMISSION FACTOR (A) (LB/1000 GAL)	GASOLINE THROUGHPUT (ALL GRADES COMBINED)		MAXIMUM ALLOWABLE EMISSIONS	
		(GAL/QTR)	(GAL/YEAR)	(LBS/QTR)	(LBS/YEAR)
ROC	1.27	250,000	599,999	318	762

(A) EMISSION FACTOR IS FROM THE CALIFORNIA AIR POLLUTION CONTROL OFFICERS ASSOCIATION (CAPCOA) GASOLINE SERVICE STATION INDUSTRY WIDE RISK ASSESSMENT GUIDELINES, DECEMBER 1997, APPENDIX A, SCENARIO 6B.

7. EMISSIONS FROM THE FOLLOWING EQUIPMENT SHALL NOT EXCEED THE FOLLOWING LIMIT:

PERMIT NUMBER	EQUIPMENT	MAXIMUM ALLOWABLE EMISSIONS (A) (LBS/DAY)		
		NOX	ROC	PM10
P/O 17549	GAS TURBINE	150	150	80
P/O 12979	BOILER (3.2 MM BTU/HR)			
P/O 20216	AUX. BOILER (31.5 MM BTU/HR)			
P/O 20217	AUX. BOILER (31.5 MM BTU/HR)			
P/O 20218	AUX. BOILER (31.5 MM BTU/HR)			
P/O 20219	AUX. BOILER (31.5 MM BTU/HR)			
P/O 21510	GASOLINE DISPENSING			

(A) COMPLIANCE WITH THESE EMISSION LIMITATIONS IS TO BE DETERMINED BY USING THE CALCULATION METHODS OUTLINED IN ATTACHMENT A.

8. ANY PERSON(S) ENGAGED IN THE INSTALLATION, ALTERATION, REPAIR, OR REPLACEMENT OF A VAPOR RECOVERY SYSTEM OR ITS COMPONENTS SHALL MEET THE FOLLOWING REQUIREMENTS.
- ARE CERTIFIED BY THE INTERNATIONAL CODE COUNCIL (ICC) FOR VAPOR RECOVERY SYSTEM TESTING AND REPAIR.
 - IF REQUIRED BY THE EXECUTIVE ORDER, BE CERTIFIED BY THE SYSTEM MANUFACTURER.
 - MAINTAIN AND MAKE AVAILABLE ANY AND ALL CERTIFICATIONS AS REQUIRED IN PARAGRAPH A AND B.
9. THE REQUIREMENTS OF CONDITION 8 SHALL NOT APPLY TO THE OWNER/OPERATOR OF A GASOLINE DISPENSING FACILITY OR HIS/HER DIRECT EMPLOYEE(S) WHEN REPLACING ANY DEFECTIVE NOZZLES, HOSES AND BREAKAWAYS WITH NEW OR CARB CERTIFIED RE-MANUFACTURED COMPONENTS OF THE SAME MAKE AND MODEL, OR ALTERNATIVES SPECIFICALLY IDENTIFIED IN THE LATEST APPLICABLE CARB EXECUTIVE ORDER. ANY REPLACEMENT ALLOWED UNDER THIS CONDITION MUST BE PERFORMED IN ACCORDANCE WITH THE APPLICABLE EXECUTIVE ORDER.

EQUIPMENT OPERATION

10. THE GASOLINE DISPENSING FACILITY SHALL BE MAINTAINED, AND OPERATED IN ACCORDANCE WITH THE FOLLOWING CALIFORNIA AIR RESOURCES BOARD (CARB) EXECUTIVE ORDERS. SECTION 41954(F) OF THE CALIFORNIA HEALTH AND SAFETY CODE PROHIBITS THE INSTALLATION OF ANY VAPOR CONTROL SYSTEM UNLESS THE SYSTEM HAS BEEN CERTIFIED BY THE STATE BOARD.

NUMBER	DESCRIPTION
VR-102	OPW PHASE I ENHANCED VAPOR RECOVERY SYSTEM
VR-201	HEALY SYSTEMS INC. PHASE II ENHANCED VAPOR RECOVERY (EVR)

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

11. THE VAPOR RECOVERY SYSTEM SHALL BE OPERATED IN ACCORDANCE WITH THE APPLICABLE CALIFORNIA AIR RESOURCES BOARD CERTIFICATION, THE MANUFACTURER'S SPECIFICATIONS, AND MAINTAINED TO BE LEAK-FREE, VAPOR TIGHT, AND IN GOOD WORKING ORDER.
12. ALL EQUIPMENT SHALL BE OPERATED AND MAINTAINED WITHOUT ANY OF THE APPLICABLE DEFECTS LISTED IN THE VAPOR RECOVERY EQUIPMENT DEFECTS (VRED) LIST.
13. THE OWNER/OPERATOR OF A VAPOR RECOVERY SYSTEM SHALL HAVE AVAILABLE AN OPERATION AND MAINTENANCE MANUAL. THE MANUAL SHALL BE KEPT ON-SITE AND MADE AVAILABLE TO ANY PERSON WHO OPERATES, INSPECTS, MAINTAINS, REPAIRS, OR TESTS THE VAPOR RECOVERY EQUIPMENT AS WELL AS THE AIR POLLUTION CONTROL OFFICER UPON REQUEST. THE MANUAL SHALL, AT MINIMUM, INCLUDE THE FOLLOWING CURRENT INFORMATION:
 - A. ALL APPLICABLE CARB EXECUTIVE ORDERS, APPROVAL LETTERS, AND SMAQMD PERMITS.
 - B. MANUFACTURER'S MANUAL(S) FOR INSTALLATION, OPERATION, AND MAINTENANCE PROCEDURES AS REQUIRED TO BE PROVIDED BY CARB CERTIFICATION PROCEDURE CP-201 AND ANY ADDITIONAL INSTRUCTION PROVIDED BY THE MANUFACTURER
 - C. SYSTEM AND/OR COMPONENT TESTING REQUIREMENTS, INCLUDING TEST SCHEDULES AND PASSING CRITERIA FOR EACH OF THE STANDARD TESTS LISTED IN SMAQMD RULES 448 & 449, AND
 - D. PROTOCOL FOR PERFORMING DAILY MAINTENANCE INSPECTIONS, INCLUDING THE COMPONENTS TO BE INSPECTED AND THE DEFECTS REQUIRING REPAIR.
14. MAINTENANCE INSPECTIONS:
 - A. EXCEPT AS PROVIDED IN CONDITION NUMBER 15, MAINTENANCE INSPECTION SHALL BE CONDUCTED FOR EACH DAY THE VAPOR RECOVERY SYSTEM IS OPERATED TO ENSURE THAT VAPOR RECOVERY SYSTEM COMPONENTS THAT ARE VERIFIABLE THROUGH DIRECT MEASUREMENT OR OBSERVATION ARE IN PROPER WORKING ORDER. ANY EQUIPMENT WITH A MAJOR DEFECT LISTED IN THE VRED LIST, SHALL BE REMOVED FROM SERVICE AND TAGGED TO ENSURE THAT IT IS NOT USED UNTIL IT IS REPAIRED AND BROUGHT INTO COMPLIANCE BEFORE BEING RETURNED TO SERVICE.
 - B. WEEKLY, QUARTERLY, AND ANNUAL INSPECTION AND TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH THE APPLICABLE CARB APPROVED IOM MANUAL.
15. THE MAINTENANCE INSPECTION REQUIREMENTS IN CONDITION NUMBER 14 SHALL NOT BE REQUIRED ON SATURDAYS, SUNDAYS, AND HOLIDAYS FOR GASOLINE DISPENSING FACILITIES WITH A SIX MONTH AVERAGE MONTHLY GASOLINE THROUGHPUT OF LESS THAN 100,000 GALLONS.
16. THE OWNER OR OPERATOR OF A VAPOR RECOVERY SYSTEM SHALL ENSURE THAT THE REMOVAL FROM SERVICE OF ONE COMPONENT OF A VAPOR RECOVERY SYSTEM WITH MULTIPLE COMPONENTS WILL NOT RESULT IN GASOLINE LIQUID OR VAPORS ENTERING THE ATMOSPHERE.
17. DEFECTS DISCOVERED DURING THE MAINTENANCE INSPECTION AND REPAIRED IN ACCORDANCE WITH TITLE 17, DIVISION 3, SUBCHAPTER 7.5, CHAPTER 1, SECTION 93101 OF CALIFORNIA CODE OF REGULATIONS SUCH THAT AFTER REPAIR GASOLINE LIQUID OR VAPORS DO NOT ENTER THE ATMOSPHERE SHALL NOT CONSTITUTE A VIOLATION OF RULE 449.

TESTING

18. THE FOLLOWING PERFORMANCE AND REVERIFICATION TESTS ARE APPLICABLE TO THE GASOLINE DISPENSING FACILITY AND SHALL BE CONDUCTED AND PASSED ONCE EVERY TWELVE MONTHS.
 - A. STATIC PRESSURE (LEAK DECAY) TEST, IN ACCORDANCE WITH CARB TEST PROCEDURE TP-201.
 - B. DYNAMIC BACK-PRESSURE TEST, IN ACCORDANCE WITH THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT MANUAL OF PROCEDURES, SOURCE TEST PROCEDURE ST-27 OR CARB TEST PROCEDURE TP-201.
 - C. DETERMINATION OF STATIC PRESSURE PERFORMANCE OF THE HEALY CLEAN AIR SEPARATOR, IN ACCORDANCE WITH CARB EXECUTIVE ORDER VR-201.
 - D. VAPOR TO LIQUID VOLUME RATIO FOR HEALY PHASE II EVR SYSTEM, IN ACCORDANCE WITH CARB EXECUTIVE ORDER VR-201.
 - E. NOZZLE BAG TEST PROCEDURE, IN ACCORDANCE WITH CARB EXECUTIVE ORDER VR-201
 - F. STATIC TORQUE OF ROTATABLE PHASE I ADAPTERS, IN ACCORDANCE WITH CARB TEST PROCEDURE TP-201.1B
 - G. PRESSURE INTEGRITY OF DROP TUBE/DRAIN VALVE ASSEMBLY, IN ACCORDANCE WITH CARB TEST PROCEDURE TP-201.1C
 - H. DISPENSER VAPOR TIGHTNESS TEST, IN ACCORDANCE WITH HEALY CARB APPROVED IOM MANUAL
 - I. ANY OTHER TESTS REQUIRED BY AN APPLICABLE CARB EXECUTIVE ORDER.

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19. ANY PERSON WHO CONDUCTS PERFORMANCE AND REVERIFICATION TESTS SHALL MEET ALL OF THE FOLLOWING:
- A. BE CERTIFIED BY THE INTERNATIONAL CODE COUNCIL (ICC) FOR VAPOR RECOVERY SYSTEM TESTING AND REPAIR.
 - B. IF REQUIRED BY THE CARB EXECUTIVE ORDER, BE CERTIFIED BY THE SYSTEM MANUFACTURER.
 - C. MAINTAIN AND MAKE AVAILABLE ANY AND ALL CERTIFICATIONS AS REQUIRED IN PARAGRAPH A. AND B.

NOTIFICATION AND REPORTING

20. AT LEAST 7 DAYS PRIOR TO THE PERFORMANCE OF REVERIFICATION TESTING, THE OWNER OR OPERATOR SHALL NOTIFY THE AIR POLLUTION CONTROL OFFICER OF THE EXACT DATE AND TIME OF THE TEST. IF THE VAPOR RECOVERY SYSTEM FAILS ANY OF THE APPLICABLE TESTS AND THE NECESSARY REPAIRS ARE PERFORMED THAT SAME DAY, THE OWNER OR OPERATOR MAY RETEST THE VAPOR RECOVERY SYSTEM ON THE SAME DAY WITHOUT RE-NOTIFICATION, PROVIDED THAT THE REASONS FOR THE TEST FAILURE AND ANY REPAIRS PERFORMED ARE PROPERLY DOCUMENTED IN THE TEST REPORTS AND REPAIR RECORDS.
21. RESULTS OF THE REVERIFICATION TESTS SHALL BE DELIVERED TO THE AIR POLLUTION CONTROL OFFICER WITHIN THIRTY DAYS OF COMPLETION OF THE TESTS. THE TEST RESULTS SHALL CONTAIN THE FOLLOWING INFORMATION:
- A. NAME, LOCATION, ADDRESS, AND TELEPHONE NUMBER OF THE FACILITY TESTED, AND SMAQMD PERMIT NUMBER
 - B. NAME, ADDRESS AND PHONE NUMBER OF THE PERSON OR COMPANY PERFORMING THE TEST
 - C. DATE OF THE TEST
 - D. TEST DATA
 - E. NUMBER OF NOZZLES TESTED
 - F. NUMBER OF TANKS TESTED
 - G. STATEMENT OF PASS OR FAIL

RECORD KEEPING

22. THE FOLLOWING RECORD SHALL BE CONTINUOUSLY MAINTAINED ON SITE FOR THE MOST RECENT FIVE YEAR PERIOD AND SHALL BE MADE AVAILABLE TO THE AIR POLLUTION CONTROL OFFICER UPON REQUEST. MONTHLY AND QUARTERLY RECORDS SHALL BE MADE AVAILABLE FOR INSPECTION WITHIN 30 DAYS OF THE END OF THE PREVIOUS MONTH OR QUARTER, RESPECTIVELY.

FREQUENCY	INFORMATION TO BE RECORDED
AT ALL TIMES	A. MAINTENANCE RECORDS FOR THE VAPOR RECOVERY SYSTEM. B. REPAIR RECORDS FOR THE VAPOR RECOVERY SYSTEM. C. DAILY MAINTENANCE INSPECTION REPORTS. D. PERFORMANCE TEST RESULTS. E. REVERIFICATION OF PERFORMANCE TEST RESULTS.
DAILY	DAILY MAINTENANCE INSPECTION REPORTS INCLUDING AT LEAST THE FOLLOWING: A. DATE AND TIME OF INSPECTION. B. LIST OF DEFECTS FROM THE VRED LIST THAT ARE APPLICABLE TO THE VAPOR RECOVERY EQUIPMENT AND HAVE A VERIFICATION PROCEDURE OF "DIRECT OBSERVATION" OR "DIRECT MEASUREMENT". C. NOTATION BY PERSON PERFORMING INSPECTION WHETHER EACH DEFECT IS PRESENT. D. DESCRIPTION OF ANY DEFECTS DISCOVERED. E. ACTION TAKEN UPON DISCOVERY OF A DEFECT. F. NAME AND SIGNATURE OF PERSON PERFORMING INSPECTION. G. TOTAL ROC EMISSIONS FROM THE GASOLINE DISPENSING FACILITY AS CALCULATED IN ATTACHMENT A. EMISSIONS SHALL BE CALCULATED DAILY AND UPDATED ON A MONTHLY BASIS.
WEEKLY	H. INSPECTION AND TESTING CHECKLIST AS REQUIRED BY THE HEALY IOM MANUAL
MONTHLY	I. TOTAL GASOLINE THROUGHPUT (GALLONS PER MONTH)
QUARTERLY	J. TOTAL GASOLINE THROUGHPUT (GALLONS PER QUARTER) K. INSPECTION AND TESTING CHECKLIST AS REQUIRED BY THE HEALY IOM MANUAL
ANNUALLY	L. INSPECTION AND TESTING CHECKLIST AS REQUIRED BY THE HEALY IOM MANUAL

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

YOUR APPLICATION FOR THIS AIR QUALITY PERMIT TO OPERATE WAS EVALUATED FOR COMPLIANCE WITH SACRAMENTO AIR QUALITY MANAGEMENT DISTRICT (AQMD), STATE AND FEDERAL AIR QUALITY RULES. THE FOLLOWING LISTED RULES ARE THOSE THAT ARE MOST APPLICABLE TO THE OPERATION OF YOUR EQUIPMENT. OTHER RULES MAY ALSO BE APPLICABLE.

<u>AQMD RULE NO.</u>	<u>RULE TITLE</u>
201	GENERAL PERMIT REQUIREMENTS
202	NEW SOURCE REVIEW
301	STATIONARY SOURCE PERMIT FEES
448	GASOLINE TRANSFER INTO STATIONARY STORAGE CONTAINERS
449	TRANSFER OF GASOLINE INTO VEHICLE FUEL TANKS
40 CFR PART 63 SUBPART CCCCCC	NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORY: GASOLINE DISPENSING FACILITIES

IN ADDITION, THE CONDITIONS ON THIS PERMIT TO OPERATE MAY REFLECT SOME, BUT NOT ALL, REQUIREMENTS OF THESE RULES. THERE MAY BE OTHER CONDITIONS THAT ARE APPLICABLE TO THE OPERATION OF YOUR EQUIPMENT. FUTURE CHANGES IN PROHIBITORY RULES MAY ESTABLISH MORE STRINGENT REQUIREMENTS WHICH MAY SUPERSEDE THE CONDITIONS LISTED HERE.

FOR FURTHER INFORMATION PLEASE CONSULT YOUR AQMD RULE BOOK OR CONTACT THE AQMD FOR ASSISTANCE