



FACILITY PERMIT TO OPERATE

**EASTERN MUNICIPAL WATER DISTRICT
42565 AVENIDA ALVARADO
TEMECULA, CA 92590**

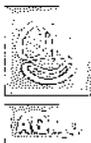
NOTICE

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

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

Barry R. Wallerstein, D. Env.
EXECUTIVE OFFICER

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



FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT

TABLE OF CONTENTS

Section	Description	Revision #	Date Issued
A	Facility Information	0	10/13/2008
B	RECLAIM Annual Emission Allocation	0	10/13/2008
C	Facility Plot Plan	TO BE DEVELOPED	
D	Facility Description and Equipment Specific Conditions	1	12/10/2009
E	Administrative Conditions	0	10/13/2008
F	RECLAIM Monitoring and Source Testing Requirements	0	10/13/2008
G	Recordkeeping and Reporting Requirements for RECLAIM Sources	0	10/13/2008
H	Permit To Construct and Temporary Permit to Operate	2	03/09/2010
I	Compliance Plans & Schedules	0	10/13/2008
J	Air Toxics	0	10/13/2008
K	Title V Administration	0	10/13/2008
Appendix			
A	NOx and SOx Emitting Equipment Exempt From Written Permit Pursuant to Rule 219	0	10/13/2008
B	Rule Emission Limits	0	10/13/2008



**FACILITY PERMIT TO CONSTRUCT
EASTERN MUNICIPAL WATER DISTRICT**

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

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



**FACILITY PERMIT TO CONSTRUCT
EASTERN MUNICIPAL WATER DISTRICT**

PERMITTED EQUIPMENT LIST

The following is a list of all permits to construct and temporary permits to operate at this facility:

Application No.	Permit No.	Equipment description	Page No.
373968	-	ICE (>500 HP) N-EM STAT GAS-LPG	3
454578	-	ICE (>500 HP) N-EM STAT GAS-LPG	5
486643	-	ICE (>500 HP) N-EM STAT GAS-LPG	8
495605	-	SEWAGE TREATMENT (>5 MG/D) ANAEROBIC	11
503585	-	ICE (>500 HP) EM ELEC GEN, DIESEL	15

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



FACILITY PERMIT TO CONSTRUCT EASTERN MUNICIPAL WATER DISTRICT

PERMIT TO CONSTRUCT

A/N 373968
Granted 9/26/2000

Equipment Description:

INTERNAL COMBUSTION ENGINE, NO. 151, CATERPILLAR, MODEL NO.G3512 SITA SCAC, NATURAL GAS FIRED, RICH BURN, 814 BHP, WITH A MIRATECH EQ-1501-12-D2 OR EQUIVALENT NON-SELECTIVE CATALYTIC REACTOR, AND AN AUTOMATIC AIR-TO-FUEL RATIO CONTROLLER, DRIVING AN EFFLUENT PUMP.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THE AIR-TO-FUEL RATIO CONTROLLER SHALL BE MAINTAINED ON THIS ENGINE AND SET TO MAINTAIN THE AIR TO FUEL RATIO WITHIN TOLERANCE LIMITS AS SPECIFIED BY THE CATALYTIC CONVERTER SUPPLIER OR AS DEMONSTRATED BY A SOURCE TEST TO MAINTAIN THE SUPPLIER GUARANTEED EMISSION REDUCTION EFFICIENCIES OR LIMITS.
[RULE 204]
4. A PRESSURE DIFFERENTIAL MEASURING DEVICE OR A MANOMETER SHALL BE INSTALLED AND MAINTAINED TO MEASURE THE PRESSURE DROP ACROSS THE CATALYST BED. WHILE THE EQUIPMENT IS IN OPERATION, THE PRESSURE DROP SHALL NOT EXCEED 2 INCHES OF WATER COLUMN.
[RULE 1303]
5. THIS ENGINE SHALL BE SOURCE TESTED UNDER THE FOLLOWING CONDITIONS:
 - A. A TEST PROTOCOL MUST BE SUBMITTED TO AQMD NO LATER THAN 45 DAYS BEFORE THE PROPOSED TEST DATE AND MUST BE APPROVED BY THE EXECUTIVE OFFICER BEFORE THE TEST COMMENCES.
 - B. ENGINE SHALL BE SOURCE TESTED WITHIN 60 CALENDAR DAYS AFTER ACHIEVING NORMAL OPERATION WITH CONTROL EQUIPMENT, BUT NOT LATER THAN 180 DAYS AFTER START-UP. THE SOURCE TEST SHALL MEASURE NO_x, CO, ROG, AND O₂ USING EPA TEST METHODS, OR ANY METHOD APPROVED BY THE EXECUTIVE OFFICER, WHILE THE ENGINE IS RUNNING AT MAXIMUM LOAD. THE SAMPLING TIME SHALL BE A MINIMUM OF 15 CONSECUTIVE MINUTES.



FACILITY PERMIT TO CONSTRUCT EASTERN MUNICIPAL WATER DISTRICT

- C. A TESTING LABORATORY CERTIFIED BY THE CALIFORNIA AIR RESOURCES BOARD SHALL BE USED FOR THE REQUIRED TEST METHODS FOR EACH CRITERIA POLLUTANT TO BE MEASURED, AND SHALL BE IN COMPLIANCE WITH THE AQMD RULE 304 (NO CONFLICT OF INTEREST).
- D. A WRITTEN REPORT OF THE SOURCE TEST RESULTS SHALL BE RECEIVED BY THE AQMD NO LATER THAN 30 DAYS AFTER THE DATE OF THE SOURCE TEST. THE SOURCE TEST REPORT SHALL INCLUDE OPERATING CONDITIONS OF THE ENGINE DURING THE TEST; FUEL FLOW RATE, AIR/FUEL RATIO, AND EXHAUST GAS TEMPERATURE AND FLOW RATE. THE REPORT SHALL PRESENT ALSO THE EMISSIONS DATA IN UNITS OF GM/BHP-HR, LBS/HR, AND PARTS PER MILLION BY VOLUME (PPMV), ON A DRY BASIS, CORRECTED TO 15% OXYGEN. THE REPORT SHALL BE SENT TO THE ATTENTION OF THE ENGINEER, ENGINEERING AND COMPLIANCE DIVISION, AIR TOXICS AND WASTE MANAGEMENT UNIT.

[RULE 1110.2, 1303]

6. THIS ENGINE SHALL BE OPERATED IN COMPLIANCE WITH RULE 1110.2.
[RULE 1110.2]

7. THE FOLLOWING OPERATING PARAMETERS SHALL BE MONITORED AND RECORDED,
- A. THE EXHAUST GA OXYGEN SENSOR SHALL BE REPLACED AT LEAST ONCE PER YEAR.
 - B. THE OXYGEN CONTENT OF THE EXHAUST GAS ENTERING THE CATALYST SHALL NOT EXCEED 0.5% ON A VOLUME BASIS.
 - C. THE TEMPERATURE OF THE EXHAUST GAS ENTERING THE CATALYST SHALL BE MAINTAINED BETWEEN 750 AND 1200 DEGREES F.
 - D. THE TEMPERATURE INDICATOR SHALL BE INSTALLED UPSTREAM OF THE CATALYST TO VERIFY COMPLIANCE WITH CONDITION NO. 8C.

[RULE 1110.2, 1303]

8. OPERATING RECORDS SHALL BE MAINTAINED TO RECORD THE MONTHLY USAGE OF NATURAL GAS AND HOURS OF OPERATION, CATALYST CLEANING PERIODS AND REPLACEMENT FREQUENCY, AND THE ENGINE OPERATING PARAMETERS. THE RECORDS SHALL BE KEPT ON FILE FOR AT LEAST TWO YEARS AND MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.

[RULE 1110.2, 1303]

Emissions and Requirements:

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

NOX: 11 PPM@15% O₂, RULE 1303
NOX: 36 PPM, RULE 1110.2
CO: 86 PPM@15% O₂, RULE 1303
CO: 2000 PPM, RULE 1110.2
VOC: 37 PPM@15% O₂, RULE 1303
VOC: 250 PPM, RULE 1110.2



**FACILITY PERMIT TO CONSTRUCT
EASTERN MUNICIPAL WATER DISTRICT**

PERMIT TO CONSTRUCT

A/N 454578
Granted 4/14/2006

Equipment Description:

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL NO. G-3512 SITA SCAC, TURBOCHARGED, AFTERCOOLED, 814 BHP, RICH-BURN, NATURAL GAS FIRED, WITH A MIRATECH NSCR CATALYST, MODEL NO. DLC 2-DC74-10, AND AN AIR/FUEL RATIO CONTROLLER, DRIVING A WATER PUMP.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THE IGNITION TIMING OF THIS ENGINE SHALL BE INSPECTED, ADJUSTED AND CERTIFIED AT A MINIMUM ONCE EVERY THREE YEARS OF OPERATION. INSPECTIONS, ADJUSTMENTS AND CERTIFICATIONS SHALL BE PERFORMED BY A QUALIFIED MECHANIC AND ACCORDING TO THE ENGINE MANUFACTURER'S PROCEDURES.
[RULE 204]
4. A TIMER SHALL BE MAINTAINED TO INDICATE THE ENGINE ELAPSED OPERATING TIME.
[RULE 1110.2]
5. THE CATALYST IN THE CONVERTER SHALL BE MAINTAINED IN GOOD WORKING CONDITION. THE OPERATOR SHALL MAINTAIN RECORDS OF CATALYST CLEANING PERIODS AND REPLACEMENT FREQUENCY.
[RULE 1303]
6. A MANOMETER SHALL BE INSTALLED TO MEASURE THE PRESSURE DROP ACROSS THE CATALYST. THE PRESSURE DROP SHALL NOT EXCEED 2 INCHES OF WATER COLUMN (W.C.).
[RULE 204, 1110.2, 1303]



FACILITY PERMIT TO CONSTRUCT EASTERN MUNICIPAL WATER DISTRICT

7. THE OPERATOR SHALL MAINTAIN AN AUTOMATIC AIR-TO-FUEL RATIO CONTROLLER, FROM THE LIST BELOW, SO AS TO REGULATE THE AIR-TO-FUEL RATIO WITHIN TOLERANCE LIMITS AS RECOMMENDED BY THE CATALYST SUPPLIER OR MANUFACTURER:

CONTINENTAL CONTROLS CORPORATION, MODEL ECV5
ALTRONIC, MODEL EPC-100
COMPLIANCE CONTROLS, MODEL MEC-R
WOODWARD-GAS ENGINE CONTROL, MODEL GECCO
[RULE 1110.2, RULE 1303]

8. TESTING SHALL BE CONDUCTED AT THE OUTLET OF THE ENGINE WITHIN 180 DAYS OF STARTUP. THE RESULTS OF THESE TESTS SHALL BE FURNISHED TO THE SCAQMD IN WRITING WITHIN 45 DAYS AFTER THE TESTS ARE CONDUCTED. WRITTEN NOTICE OF THE PERFORMANCE TESTS SCHEDULE SHALL BE PROVIDED TO THE SCAQMD 7 DAYS PRIOR TO THE TESTS SO THAT AN OBSERVER MAY BE PRESENT. THE TESTING SHALL INCLUDE, BUT NOT BE LIMITED TO:

- A. TOTAL NON-METHANE ORGANICS
- B. OXIDES OF NITROGEN
- C. CARBON MONOXIDE
- D. CARBON DIOXIDE
- E. OXYGEN
- F. NITROGEN
- G. MOISTURE CONTENT
- H. TEMPERATURE
- I. FLOW RATE

THE FINAL REPORT SHALL INCLUDE FUEL CONSUMPTION AND THE ENGINE LOAD DURING THE TESTS.
[RULE 1110.2, 1303]

9. A HIGH TEMPERATURE SHUT-DOWN MECHANISM SHALL BE INSTALLED AT THE OUTLET PORT OF THE CONVERTER AND SET TO 1200 DEGREES FAHRENHEIT OR LESS.
[RULE 1303]
10. A TEMPERATURE MEASUREMENT AND RECORDING DEVICE SHALL BE INSTALLED AND MAINTAINED AT THE INLET AND OUTLET OF THE CATALYST.
[RULE 1303]
11. WHENEVER THE ENGINE IS OPERATING, THE TEMPERATURE AT THE INLET OF THE CATALYTIC OXIDIZER SHALL BE 750 DEGREES FAHRENHEIT OR HIGHER.
[RULE 1303]
12. THE OPERATOR SHALL USE THIS EQUIPMENT IN SUCH A MANNER THAT THE OXYGEN CONCENTRATION BEING MONITORED, AS INDICATED BELOW, DOES NOT EXCEED 0.5%. TO COMPLY WITH THIS CONDITION, THE OPERATOR SHALL INSTALL AND MAINTAIN A SENSOR TO ACCURATELY INDICATE THE OXYGEN CONCENTRATION OF THE EXHAUST GAS ENTERING THE CATALYST. THE OPERATOR SHALL ALSO INSTALL AND MAINTAIN A DEVICE TO CONTINUOUSLY RECORD THE PARAMETER BEING MEASURED.
[RULE 1303]



FACILITY PERMIT TO CONSTRUCT EASTERN MUNICIPAL WATER DISTRICT

13. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE TOTALIZING FUEL METER TO ACCURATELY INDICATE THE FUEL USAGE IN THE FUEL SUPPLY LINE TO THE ENGINE.
[RULE 1110.2]
14. AN ENGINE OPERATING LOG LISTING THE DATE OF OPERATION, THE ELAPSED TIME IN HOURS, AND THE REASON FOR OPERATION SHALL BE KEPT AND MAINTAINED ON FILE FOR A MINIMUM OF TWO YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1110.2]

Emissions and Requirements:

15. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
 - PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
 - NOx: 36 PPMV, RULE 1110.2
 - NOX: 11 PPMV, RULE 1303, @15% O2 DRY, ONE HOUR AVERAGE @ 29% EFFICIENCY
 - VOC: 250 PPMV, RULE 1110.2
 - VOC: 37 PPMV, RULE 1303, @15% O2 DRY, ONE HOUR AVERAGE @ 29% EFFICIENCY
 - CO: 2000 PPMV, RULE 1110.2
 - CO: 86 PPMV, RULE 1303, @15% O2 DRY, ONE HOUR AVERAGE @ 29% EFFICIENCY



FACILITY PERMIT TO CONSTRUCT EASTERN MUNICIPAL WATER DISTRICT

PERMIT TO CONSTRUCT

A/N 486643
Granted 12/10/2009

Equipment Description:

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL NO. G-3512 SITA SCAC, TURBOCHARGED, AFTERCOOLED, 814 BHP, RICH-BURN, NATURAL GAS FIRED, WITH A MIRATECH NSCR CATALYST, MODEL NO. DLC 2-DC74-10, AND AN AIR/FUEL RATIO CONTROLLER, DRIVING A WATER PUMP.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THE IGNITION TIMING OF THIS ENGINE SHALL BE INSPECTED, ADJUSTED AND CERTIFIED AT A MINIMUM ONCE EVERY THREE YEARS OF OPERATION. INSPECTIONS, ADJUSTMENTS AND CERTIFICATIONS SHALL BE PERFORMED BY A QUALIFIED MECHANIC AND ACCORDING TO THE ENGINE MANUFACTURER'S PROCEDURES.
[RULE 204]
4. A TIMER SHALL BE MAINTAINED TO INDICATE THE ENGINE ELAPSED OPERATING TIME.
[RULE 1110.2]
5. THE CATALYST IN THE CONVERTER SHALL BE MAINTAINED IN GOOD WORKING CONDITION. THE OPERATOR SHALL MAINTAIN RECORDS OF CATALYST CLEANING PERIODS AND REPLACEMENT FREQUENCY.
[RULE 1303]
6. A MANOMETER SHALL BE INSTALLED TO MEASURE THE PRESSURE DROP ACROSS THE CATALYST. IF THE PRESSURE DROP EXCEEDS 2 INCHES OF WATER COLUMN (W.C.), AS COMPARED TO THE PRESSURE MEASURED AFTER THE MOST RECENT CLEANING, THE CATALYST SHALL BE CLEANED ACCORDING TO THE PROCEDURE RECOMMENDED BY THE MANUFACTURER. THE TOTAL PRESSURE DROP SHALL NOT EXCEED 7 INCHES W.C.
[RULE 204, 1110.2, 1303]



FACILITY PERMIT TO CONSTRUCT EASTERN MUNICIPAL WATER DISTRICT

7. THE OPERATOR SHALL MAINTAIN AN AUTOMATIC AIR-TO-FUEL RATIO CONTROLLER, FROM THE LIST BELOW, SO AS TO REGULATE THE AIR-TO-FUEL RATIO WITHIN TOLERANCE LIMITS AS RECOMMENDED BY THE CATALYST SUPPLIER OR MANUFACTURER:

CONTINENTAL CONTROLS CORPORATION, MODEL ECV5
ALTRONIC, MODEL EPC-100
COMPLIANCE CONTROLS, MODEL MEC-R
WOODWARD-GAS ENGINE CONTROL, MODEL GECO
[RULE 1110.2, RULE 1303]

8. TESTING SHALL BE CONDUCTED AT THE OUTLET OF THE ENGINE WITHIN 180 DAYS OF STARTUP. THE RESULTS OF THESE TESTS SHALL BE FURNISHED TO THE SCAQMD IN WRITING WITHIN 45 DAYS AFTER THE TESTS ARE CONDUCTED. WRITTEN NOTICE OF THE PERFORMANCE TESTS SCHEDULE SHALL BE PROVIDED TO THE SCAQMD 7 DAYS PRIOR TO THE TESTS SO THAT AN OBSERVER MAY BE PRESENT. THE TESTING SHALL INCLUDE, BUT NOT BE LIMITED TO:

- A. TOTAL NON-METHANE ORGANICS
- B. OXIDES OF NITROGEN
- C. CARBON MONOXIDE
- D. CARBON DIOXIDE
- E. OXYGEN
- F. NITROGEN
- G. MOISTURE CONTENT
- H. TEMPERATURE
- I. FLOW RATE

THE FINAL REPORT SHALL INCLUDE FUEL CONSUMPTION AND THE ENGINE LOAD DURING THE TESTS.
[RULE 1110.2, 1303]

9. A HIGH TEMPERATURE SHUT-DOWN MECHANISM SHALL BE INSTALLED AT THE OUTLET PORT OF THE CONVERTER AND SET TO 1200 DEGREES FAHRENHEIT OR LESS.
[RULE 1303]
10. A TEMPERATURE MEASUREMENT AND RECORDING DEVICE SHALL BE INSTALLED AND MAINTAINED AT THE INLET AND OUTLET OF THE CATALYST.
[RULE 1303]
11. WHENEVER THE ENGINE IS OPERATING, THE TEMPERATURE AT THE INLET OF THE CATALYTIC OXIDIZER SHALL BE 750 DEGREES FAHRENHEIT OR HIGHER.
[RULE 1303]
12. THE OPERATOR SHALL USE THIS EQUIPMENT IN SUCH A MANNER THAT THE OXYGEN CONCENTRATION BEING MONITORED, AS INDICATED BELOW, DOES NOT EXCEED 0.5%. TO COMPLY WITH THIS CONDITION, THE OPERATOR SHALL INSTALL AND MAINTAIN A SENSOR TO ACCURATELY INDICATE THE OXYGEN CONCENTRATION OF THE EXHAUST GAS ENTERING THE CATALYST. THE OPERATOR SHALL ALSO INSTALL AND MAINTAIN A DEVICE TO CONTINUOUSLY RECORD THE PARAMETER BEING MEASURED.
[RULE 1303]



FACILITY PERMIT TO CONSTRUCT EASTERN MUNICIPAL WATER DISTRICT

13. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE TOTALIZING FUEL METER TO ACCURATELY INDICATE THE FUEL USAGE IN THE FUEL SUPPLY LINE TO THE ENGINE.
[RULE 1110.2]
14. AN ENGINE OPERATING LOG LISTING THE DATE OF OPERATION, THE ELAPSED TIME IN HOURS, AND THE REASON FOR OPERATION SHALL BE KEPT AND MAINTAINED ON FILE FOR A MINIMUM OF TWO YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 1110.2]
15. THE ENGINE SHALL OPERATE BETWEEN 1044 AND 1276 RPM, EXCEPT DURING START-UP OR SHUT-DOWN OPERATION WHICH DOES NOT EXCEED 30 MINUTES PER EVENT.
[RULE 1110.2]

Emissions and Requirements:

16. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
 - PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
 - NOx: 36 PPMV, RULE 1110.2
 - NOX: 11 PPMV, RULE 1303, @15% O2 DRY, ONE HOUR AVERAGE @ 29% EFFICIENCY
 - VOC: 250 PPMV, RULE 1110.2
 - VOC: 37 PPMV, RULE 1303, @15% O2 DRY, ONE HOUR AVERAGE @ 29% EFFICIENCY
 - CO: 2000 PPMV, RULE 1110.2
 - CO: 86 PPMV, RULE 1303, @15% O2 DRY, ONE HOUR AVERAGE @ 29% EFFICIENCY



**FACILITY PERMIT TO CONSTRUCT
EASTERN MUNICIPAL WATER DISTRICT**

PERMIT TO CONSTRUCT

**A/N 495605
Granted 12/10/2009**

Equipment Description:

ALTERATION OF PERMIT TO OPERATE F97959, APPLICATION NO. 435791:

SEWAGE TREATMENT PLANT, 18 MGD CAPACITY CONSISTING OF:

- I. PRELIMINARY TREATMENT (HEADWORKS):
 1. TWO SCREENING REMOVAL UNITS,
 2. ONE MANUAL BYPASS BAR SCREEN
 3. TWO VORTEX GRIT BASINS, 16'-0" DIA. X 6' - 10" D.
 4. SPLITTER BOX WITH ASSOCIATED CONVEYORS, WASHERS, BINS, PIPING AND PUMPS.
 5. STORAGE TOTES, EACH 250 GALLONS CAPACITY, POLYMER, WITH ASSOCIATED PUMPS AND PIPING.
 6. STORAGE TANK, 6,000 GALLON CAPACITY FRP, FERRIC CHLORIDE, WITH ASSOCIATED PUMPS AND PIPING.
- II. PLANT NO. 1
 1. PRIMARY TREATMENT:
 - A. FOUR PRIMARY CLARIFIERS, COVERED, EACH 20'-0" W. X 89'-0" L X 10'-0" D., WITH ASSOCIATED COLLECTORS, DRIVES, PUMPS AND PIPING.
 - B. PRIMARY FLOW EQUALIZATION BASIN, 75'-0" W. X 280'-0" L X 15'-0" D., WITH ASSOCIATED AERATORS AND PUMPS.
 2. SECONDARY TREATMENT:
 - A. SIX AERATION BASINS, EACH 30'-0" W. X 150'-0" L X 15'-0" D., WITH ASSOCIATED AERATION SYSTEM, MIXERS, PUMPS AND PIPING.
 - B. SEVEN SECONDARY CLARIFIERS, EACH 20'-0" W. X 100'-0" L. X 10'-0" D., WITH ASSOCIATED COLLECTORS, DRIVES, PUMPS AND PIPING.
- III. PLANT NO. 2
 1. PRIMARY TREATMENT:
 - A. SIX PRIMARY CLARIFIERS, COVERED, EACH 20'-0" W. X 90'-0" L X 12'-0" D., WITH ASSOCIATED COLLECTORS, DRIVES, PUMPS AND PIPING.
 2. SECONDARY TREATMENT:
 - A. TWO AERATION BASINS, EACH 80'-0" W. X 200'-0" L X 15'-0" D., WITH ASSOCIATED AERATION SYSTEM, MIXERS, PUMPS AND PIPING.



FACILITY PERMIT TO CONSTRUCT EASTERN MUNICIPAL WATER DISTRICT

- B. FIVE SECONDARY CLARIFIERS, EACH 20'-0" W. X 150'-0" L. X 14'-0" D., WITH ASSOCIATED COLLECTORS, DRIVES, PUMPS AND PIPING.
3. SECONDARY EFFLUENT STORAGE POND, 180'-0" W. X 180'-0" L. X 15'-0" D.
- IV. ADVANCED WASTE TREATMENT (AWT):
1. TWO DENITRIFICATION TOWERS, THREE CELLS EACH, EACH CELL 12'-0" W. X 21'-0" L. X 14'-0" D., WITH ASSOCIATED PUMPS.
 2. FLOW DIVERSION STRUCTURE, 6'-0" W. X 13'-0" L. X 17'-0" H.
 3. TWO BACKWASH BASINS, EACH 101'-0" W. X 111'-0" L. X 18'-0" D.
 4. TWO FLOCCULATION BASINS, EACH 30'-0" W. X 45'-0" L. X 10'-0" D. WITH ASSOCIATED PUMPS.
 5. TWO TERTIARY CLARIFIERS, EACH 86'-0" DIA. X 15'-0" D., WITH TWO COLLECTOR DRIVES, AND ONE SCUM PUMP.
 6. THREE STORAGE TANKS, ALUM, EACH 12'-0" DIA. X 10'-0" H.
 7. FOUR STORAGE TANKS, CAUSTIC SODA, EACH 7'-0" DIA. X 10'-0" H.
- V. TERTIARY TREATMENT:
1. SIX ADVANCED WATER TREATMENT (AWT) SLUDGE DEWATERING PONDS/DRYING BEDS, EACH 90'-0" W. X 90'-0" L. X 3'-6" D.
 2. THREE RETURN WATER PUMPS, EACH 15 H.P.
 3. EIGHT DUAL MEDIA GRAVITY FILTERS, EACH 15'-0" W. X 23'-0" L. X 13'-0" D., AND ASSOCIATED BLOWERS, PUMPS AND PIPING.
 4. FOUR CLOTH FILTERS, EACH WITH A RATED PEAK FLOW OF 4.16 MGD
 5. FOUR CHLORINE CONTACT CHAMBERS, EACH 6'-9" W. X 554'-0" L. X 15'-0" D., WITH CHLORINE SOLUTION DIFFUSER ASSEMBLY, AND THREE STANDBY WASHWATER PUMPS.
 6. TERTIARY EFFLUENT STORAGE POND, 180'-0" W. X 180'-0" L. X 15'-0" D., WITH THREE ELECTRICAL EFFLUENT PUMPS.
 7. EMERGENCY EFFLUENT STORAGE POND, 480'-0" W. X 500'-0" L. X 7'-0" D.
 8. EMERGENCY EFFLUENT STORAGE POND, 350'-0" W. X 420'-0" L. X 8'-0" D.
 9. EMERGENCY EFFLUENT STORAGE POND, 210'-0" W. X 310'-0" L. X 8'-0" D.
 10. TWO 17-TON BULK CHLORINE STORAGE TANKS WITH ASSOCIATED EVAPORATORS, CHLORINATORS, INJECTORS, CHLORINE SCRUBBER SYSTEM AND PIPING.
- VI. SOLIDS HANDLING:
1. ONE DISSOLVED AIR FLOTATION (DAF) TANK, 30'-0" DIA. X 22'-0" H., WITH ASSOCIATED PUMPS.
 2. ONE GRAVITY BELT THICKENER, 6'-0" W. BELT AND ASSOCIATED POLYMER SYSTEM, PUMPS AND PIPING.
 3. ONE ROTARY DRUM THICKENER.



FACILITY PERMIT TO CONSTRUCT EASTERN MUNICIPAL WATER DISTRICT

4. FOUR ANAEROBIC DIGESTERS, EACH 56'-0" DIA. X 22'-0" H., WITH ASSOCIATED HEAT EXCHANGERS, PUMPS AND PIPING.
5. BOILER, WALKER, HEAT-X, 1 MM BTU/HR, NATURAL GAS FIRED, WITH ASSOCIATED PUMP AND BLOWER.
6. DIGESTED SLUDGE HOLDING TANK, UNDER GROUND, 40'-0" DIA. X 20'-0" H., WITH ASSOCIATED MIXER AND PUMPS.
7. DIGESTED SLUDGE HOLDING TANK, ABOVE GROUND, 45'-0" DIA. X 32'-0" H., WITH ASSOCIATED MIXER AND PUMPS.
8. CENTRIFUGE, 300 GPM CAPACITY.
9. TWO BELT FILTER PRESSES, ASHBROOK-SIMON-HARTLEY, 6'-0" WIDE BELT, WITH ASSOCIATED CONVEYORS.
10. SLUDGE OFF-LOADING STATION, WITH A 27 CUBIC FOOT HOPPER.
11. LOW PRESSURE GAS HOLDER TANK, DIGESTER GAS, 24'-0" DIA. X 24'-0" H., WITH ASSOCIATED HERMETIC GAS BOOSTERS.
12. GAS STORAGE SPHERE, DIGESTER GAS, 35'-0" DIA., WITH A GAS COMPRESSOR.

BY THE ADDITION OF:

1. ONE SECONDARY CLARIFIERS, 20'-0" W. X 150'-0" L. X 14'-0" D., WITH ASSOCIATED COLLECTORS, DRIVES, PUMPS AND PIPING. [III. PLANT NO.2, SECONDARY TREATMENT, ITEM (2)(B).]
2. ONE SECONDARY EFFLUENT STORAGE POND, 180'-0" W. X 180'-0" L. X 15'-0" D. [IDENTICAL TO III. PLANT NO.2, SECONDARY TREATMENT ITEM NO.3]
3. TWO OUT-OF-COMPLIANCE EFFLUENT STORAGE PONDS, 22 MILLION GALLONS CAPACITY. [V. TERTIARY TREATMENT, ITEM NO.11]
4. TWO ANAEROBIC DIGESTERS, EACH 80'-0" DIA. X 30'-0" H., WITH ASSOCIATED HEAT EXCHANGERS, PUMPS AND PIPING. [VI SOLIDS HANDLING, NEW ITEM NO. 5]
5. ONE TERTIARY EFFLUENT POND, 6 MG CAPACITY WITH THREE ELECTRICAL EFFLUENT PUMPS.
6. TWO OUT-OF-COMPLIANCE WATER PUMPS, 75 HP EACH.

BY THE ALTERATION OF:

1. EMERGENCY EFFLUENT STORAGE POND, 22.1 MILLION GALLONS [V. TERTIARY TREATMENT, ITEM NO.7]
2. EMERGENCY EFFLUENT STORAGE POND, 5.3 MILLION GALLONS [V. TERTIARY TREATMENT, ITEM NO.9]

AND BY THE REMOVAL OF:

1. EMERGENCY EFFLUENT STORAGE POND, 350'-0" W. X 420'-0" L. X 8'-0" D. [V. TERTIARY TREATMENT, ITEM NO. 8]
2. TERTIARY EFFLUENT STORAGE POND 180'-0" W. X 180'-0" L. X 15'-0" D WITH THREE ELECTRICAL EFFLUENT PUMPS.



FACILITY PERMIT TO CONSTRUCT EASTERN MUNICIPAL WATER DISTRICT

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. THIS EQUIPMENT SHALL BE OPERATED BY PERSONNEL PROPERLY TRAINED IN ITS OPERATION.
[RULE 204]
4. THE HEADWORKS, VORTEX GRIT BASIN, PRIMARY CLARIFIERS, SLUDGE TRANSFER STORAGE, AND SLUDGE SYSTEMS WITHIN THE SLUDGE DEWATERING BUILDING, SHALL NOT BE OPERATED UNLESS THEY ARE VENTED TO AIR POLLUTION CONTROL EQUIPMENT WHICH IS IN FULL OPERATION AND WHICH HAS BEEN ISSUED A PERMIT TO CONSTRUCT OR OPERATE BY THE SCAQMD.
[RULE 1303]
5. THE DIGESTER GAS PRODUCED AT THIS FACILITY SHALL BE STORED IN THE GAS STORAGE SPHERE OR INCINERATED BY EQUIPMENT THAT HAS A VALID PERMIT, OR IS EXEMPTED BY RULE 219.
[RULE 1303]
6. THE MAXIMUM QUANTITY OF WASTEWATER TREATED BY THIS EQUIPMENT, ON AN ANNUAL BASIS, SHALL NOT EXCEED 18 MILLION GALLONS PER DAY (MGD), EXCEPT DURING WET WEATHER CONDITIONS.
[RULE 1303]
7. UNTIL SLUDGE IS DEWATERED IT SHALL BE PIPED AND STORED IN AN ENCLOSED MANNER TO PREVENT THE RELEASE OF AIR CONTAMINANTS.
[RULE 402]
8. THE BELT FILTER PRESSES SHALL BE OPERATED ONLY AS BACKUP TO THE CENTRIFUGE.
[RULE 1303]
9. DEWATERED SLUDGE SHALL BE STORED IN THE STORAGE HOPPER PRIOR TO TRUCK LOADING.
[RULE 402]
10. RECORDS SHALL BE KEPT TO SHOW COMPLIANCE WITH THE ABOVE CONDITIONS FOR A PERIOD OF AT LEAST FIVE YEARS AND SHALL BE MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.
[RULE 204]



FACILITY PERMIT TO CONSTRUCT EASTERN MUNICIPAL WATER DISTRICT

PERMIT TO CONSTRUCT

GRANTED AS OF: March 9, 2010
A/N 503585

Equipment Description:

INTERNAL COMBUSTION ENGINE, CATERPILLAR, 12 CYLINDERS, TURBOCHARGED, AFTERCOOLED, MODEL C32, 1502 BHP, DIESEL FUELED, DRIVING AN EMERGENCY ELECTRICAL GENERATOR, OR AN EQUIVALENT SCAQMD CERTIFIED EQUIPMENT.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
[RULE 204]
3. A NON-RESETTABLE TOTALIZING TIMER SHALL BE INSTALLED AND MAINTAINED TO INDICATE THE ENGINE ELAPSED OPERATING TIME.
[RULE 1110.2, 40CFR Subpart III]
4. AN ENGINE OPERATING LOG SHALL BE KEPT AND MAINTAINED ON FILE TO RECORD WHEN THIS ENGINE IS STARTED MANUALLY. THE LOG SHALL LIST THE DATE OF OPERATION, THE TIMER READING IN HOURS AT THE BEGINNING AND END OF OPERATION, AND THE REASON FOR OPERATION FOR A MINIMUM OF THREE YEARS FROM THE DATE OF ENTRY AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST. THE TOTAL HOURS OF OPERATION (INCLUDING HOURS FOR MANUAL AND AUTOMATIC OPERATION) SHALL BE RECORDED SOMETIME DURING THE FIRST 15 DAYS OF JANUARY OF EACH YEAR.
[RULE 1110.2, RULE 1470]
5. THIS ENGINE SHALL NOT OPERATE MORE THAN 200 HOURS IN ANY ONE YEAR, WHICH INCLUDES NO MORE THAN 50 HOURS IN ANY ONE YEAR FOR MAINTENANCE AND TESTING.
[RULE 1470]
6. OPERATION BEYOND THE 50 HOURS PER YEAR ALLOCATED FOR ENGINE MAINTENANCE AND TESTING SHALL BE ALLOWED ONLY IN THE EVENT OF A LOSS OF GRID POWER OR UP TO 30 MINUTES PRIOR TO A ROTATING OUTAGE, PROVIDED THAT: (A) THE UTILITY DISTRIBUTION COMPANY HAS ORDERED ROTATING OUTAGES IN THE CONTROL AREA WHERE THE ENGINE IS LOCATED OR HAS INDICATED THAT IT EXPECTS TO ISSUE SERVICE BLOCK THAT IS SUBJECT TO THE ROTATING OUTAGE. ENGINE OPERATION SHALL BE TERMINATED IMMEDIATELY AFTER THE UTILITY DISTRIBUTION COMPANY ADVISES THAT A ROTATING OUTAGE IS NO LONGER IMMINENT OR IN EFFECT.
[RULE 1470]



FACILITY PERMIT TO CONSTRUCT EASTERN MUNICIPAL WATER DISTRICT

7. THE OPERATOR SHALL USE ONLY DIESEL FUEL WITH A SULFUR CONTENT THAT DOES NOT EXCEED 15 PPM BY WEIGHT.
[RULE 431.2, RULE 1470]
8. THE OPERATOR SHALL PROVIDE THE FINAL EQUIPMENT SPECIFICATIONS, AND EMISSION CERTIFICATIONS, MORE THAN 30 DAYS PRIOR TO INSTALLATION.
[RULE 204]

Emissions and Requirements:

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

PM:	RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
PM10:	0.12 G/BHP-HR, RULE 1303
PM10:	0.40 G/BHP-HR, 40CFR Subpart IIII
NOX:	4.0 G/BHP-HR, RULE 1303
VOC:	0.19 G/BHP-HR, RULE 1303
CO:	0.82 G/BHP-HR, RULE 1303
CO:	2.61 G/BHP-HR, 40CFR Subpart IIII
NOx+NMHC	7.87 G/BHP-HR, 40CFR Subpart IIII