

## **FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT**

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

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

## FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT

### PERMITTED EQUIPMENT LIST

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

Application No.	Permit No.	Equipment description	Page No.
282151	R-D93897	DIGESTER GAS DESULPHURIZATION SYSTEM	4
299074	R-F21782	ICE (>500 HP) NG/PG & LPG	5
338292	R-N7637	SERV STAT STORAGE & DISPENSING GASOLINE	7
369219	G5387	BIOFILTER	9
415794	G5398	FLARE, ENCLOSED LANDFILL/DIGESTER GAS	11
435791	F97959	SEWAGE TREATMENT (>5 MG/D) ANAEROBIC	14
451122	F81224	SLUDGE DEWATERING SYSTEM	18
451352	F81225	ODOR CONTROL UNIT	19
466456	G5388	STORAGE TANK, LPG	21
482172	G5392	ICE (>500 HP) N-EM STAT GAS-LPG	23
485848	G5394	ICE (50-500 HP) N-EM STAT NAT GAS ONLY	25
485849	G5390	ICE (>500 HP) NAT & DIGESTER GAS	27
485850	G5391	ICE (>500 HP) NAT & DIGESTER GAS	29
486641	G5393	ICE (>500 HP) N-EM STAT GAS-LPG	31
486644	G5389	ICE (>500 HP) N-EM STAT NAT GAS	33

**NOTE: ANY OTHER APPLICATIONS THAT ARE STILL BEING PROCESSED AND HAVE NOT BEEN ISSUED PERMITS TO CONSTRUCT OR PERMITS TO OPERATE WILL NOT BE FOUND IN THIS TITLE V PERMIT.**

## **FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT**

### **FACILITY WIDE CONDITION(S)**

#### **Condition(s):**

1. THE OPERATOR SHALL NOT USE FUEL OIL CONTAINING SULFUR COMPOUNDS IN EXCESS OF 0.05 PERCENT BY WEIGHT. AFTER JUNE 1, 2004, THE OPERATOR SHALL NOT PURCHASE ANY DIESEL FUEL UNLESS THE FUEL IS LOW SULFUR DIESEL FOR WHICH THE SULFUR CONTENT SHALL NOT EXCEED 15 PPM BY WEIGHT AS SUPPLIED BY THE SUPPLIER  
[RULE 431.2]
2. THE FACILITY SHALL NOT EMIT MORE THAN 5 LBS/DAY OF TOTAL SULFUR COMPOUNDS, CALCULATED AS H<sub>2</sub>S, FROM BURNING OF GASEOUS FUELS OTHER THAN NATURAL GAS.  
[RULE 431.1]
3. THE OWNER/OPERATOR SHALL NOT DISCHARGE FROM ANY SINGLE SOURCE SULFUR COMPOUNDS IN ANY STATE OR COMBINATION IN EXCESS OF 0.05 PERCENT BY VOLUME AS SO<sub>2</sub>.  
[RULE 53(a)(1)]
4. ACCIDENTAL RELEASE PREVENTION REQUIREMENTS OF SECTION 112( R )(7):  
THE OPERATOR SHALL COMPLY WITH THE ACCIDENTAL RELEASE PREVENTION REQUIREMENTS PURSUANT TO 40 CFR PART 68 AND SHALL SUBMIT TO THE EXECUTIVE OFFICER, AS PART OF ANNUAL COMPLIANCE CERTIFICATION, A STATEMENT THAT CERTIFIES COMPLIANCE WITH ALL THE REQUIREMENTS OF 40 CFR PART 68, INCLUDING THE REGISTRATION AND SUBMISSION OF A RISK MANAGEMENT PLAN (RMP).  
THE OPERATOR SHALL SUBMIT ANY ADDITIONAL RELEVANT INFORMATION REQUESTED BY THE EXECUTIVE OFFICER OR DESIGNATED AGENCY.  
[40 CFR68-ACCIDENTAL RELEASE PREVENTION]

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

**PERMIT TO OPERATE**

**Permit No. R-D93897  
A/N 282151**

**Equipment Description:**

DIGESTER GAS DESULPHURIZATION SYSTEM, WITH TWO IRON SPONGE UNITS, EACH 9'-6" L. X 5'-6" W.  
X 7'-0" H.

**Conditions:**

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.  
[RULE 204]
2. THIS EQUIPMENT MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
[RULE 204]

**THIS PERMIT TO OPERATE R-D93897 SUPERSEDES PERMIT TO OPERATE D93897 ISSUED ON OCTOBER, 17, 1995.**

## FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT

### PERMIT TO OPERATE

Permit No. R-F21782  
A/N 299074

#### Equipment Description

INTERNAL COMBUSTION ENGINE, CATERPILLAR MODEL NO. G-399TA, SIXTEEN CYLINDER, 930 BHP, TURBOCHARGED, AFTERCOOLED, NATURAL GAS FIRED WITH LPG BACKUP, WITH A JOHNSON MATTHEY DE-NOX "HATCHBACK" CATALYTIC CONVERTER AND AN AIR/FUEL RATIO CONTROLLER, DRIVING AN ELECTRICAL GENERATOR.

#### Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.  
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
[RULE 204]
3. A PRESSURE DIFFERENTIAL MEASURING DEVICE SHALL BE INSTALLED TO MEASURE PRESSURE DROP ACROSS THE CATALYST BED, WHILE THE EQUIPMENT IS IN OPERATION, THE PRESSURE DROP SHALL NOT EXCEED 5 INCHES OF WATER COLUMN.  
[RULE 204, 1110.2, 1303]
4. THIS ENGINE SHALL NOT BE OPERATED WITHOUT THE USE OF AN AUTOMATIC AIR TO FUEL RATIO CONTROLLER WHICH SHALL BE MAINTAINED AND KEPT IN PROPER OPERATING CONDITIONS AT ALL TIMES AS SPECIFIED BY THE MANUFACTURER.  
[RULE 1110.2]
5. THIS ENGINE SHALL BE OPERATED IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS OF RULE 1110.2, WHETHER OR NOT EXPLICITLY STATED ON THIS PERMIT.  
[RULE 1110.2]

## **FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT**

**Emissions and Requirements:**

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

PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS

NOX: 0.15 GM/BHP-HR, RULE 1303

NOX: 36 PPMV, RULE 1110.2

VOC: 0.15 GM/BHP-HR, RULE 1303

VOC: 250 PPMV, RULE 1110.2

CO: 0.6 GM/BHP-HR, RULE 1303

CO: 2000 PPMV, RULE 1110.2

**THIS PERMIT TO OPERATE R-F21782 SUPERSEDES PERMIT TO OPERATE F21782 ISSUED ON AUGUST 23, 1999.**

## FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT

### PERMIT TO OPERATE

Permit No. R-N7637  
A/N 338292

#### Equipment Description:

#### FUEL STORAGE AND DISPENSING SYSTEM CONSISTING OF:

1. STORAGE TANK, ABOVEGROUND, GASOLINE/DIESEL, CON VAULT, 11'-3" W. X 8'-0" L. X 5'-6" H. 2,000 GALLONS (SPLIT 1,000 GAL. GASOLINE/1,000 GAL. DIESEL), WITH CONCRETE INSULATION, A PRESSURE RELIEF VALVE AND A COAXIAL DROP TUBE.
2. GASOLINE DISPENSING NOZZLE WITH A 12'-6" L. HOSE ON A SIDE MOUNTED DISPENSE, PHASE II VAPOR RECOVERY SYSTEM AND A BALANCE HI HOSE BALANCE SYSTEM.

#### Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.  
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
[RULE 204]
3. PHASE I VAPOR RECOVERY SYSTEMS SHALL BE IN FULL OPERATION WHENEVER FUEL IS BEING TRANSFERRED INTO STORAGE TANKS.  
[RULE 461]
4. PHASE II VAPOR RECOVERY SYSTEMS SHALL BE IN FULL OPERATION WHENEVER FUEL IS BEING TRANSFERRED INTO VEHICLE FUEL TANKS.  
[RULE 461]
5. ALL PHASE I AND PHASE II VAPOR RECOVERY EQUIPMENT AT THIS FACILITY SHALL BE INSTALLED, OPERATED AND MAINTAINED TO MEET ALL CALIFORNIA AIR RESOURCES BOARD CERTIFICATION REQUIREMENTS.  
[RULE 461]
6. THE MAXIMUM QUANTITY OF GASOLINE TRANSFERRED INTO THE STORAGE TANK AT THIS FACILITY SHALL NOT EXCEED 5,000 GALLONS IN ANY ONE CALENDAR MONTH NOR 60,000 GALLONS IN ANY ONE CALENDAR YEAR.  
[RULE 1303]

## **FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT**

**Emissions and Requirements:**

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

VOC: RULE 461

## FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT

### PERMIT TO OPERATE

**Permit No. G5387  
A/N 369219**

**Equipment Description:**

AIR POLLUTION CONTROL SYSTEM CONSISTING OF:

1. BIOFILTERS, NO. 1 AND NO. 2, SOIL TYPE, EACH 60'- 0" W. X 60'- 0" L. X 6'- 6" TO 7' - 9" D., OVERALL DIMENSIONS, CONTAINING 3 FEET OF BIOFILTER MEDIA, SPRINKLER SYSTEM, WITH INCOMING FOUL AIR AND EXHAUST AIR HUMIDIFICATION.
2. EXHAUST SYSTEM WITH TWO VENTILATION FANS, EACH 30 H.P. AND 10,750 CFM, VENTING THE HEADWORKS SYSTEM CONSISTING OF A GRINDING/SCREENING REMOVAL UNITS' CHANNEL, A BYPASS MANUAL BAR SCREEN CHANNEL, VORTEX GRIT BASINS, HEADWORKS SPLITTER BOX, AND COVERED PRIMARY CLARIFIERS.

**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 CONCENTRATION OF H<sub>2</sub>S EMISSIONS FROM THE BIOFILTER SHALL BE MEASURED AT LEAST ONCE PER WEEK, AT A MINIMUM OF 10 POINTS, REPRESENTATIVE OF THE ENTIRE SURFACE. THE AVERAGE H<sub>2</sub>S CONCENTRATION SHALL NOT EXCEED 1 PPMV AT ANY POINT ON THE SURFACE OF THE BIOFILTER.  
[RULE 402]
5. THE FOUL AIR STREAM MOISTURIZING SYSTEM AND/OR THE SPRINKLERS SHOULD BE UTILIZED AS NEEDED TO MAINTAIN THE BIOFILTERS AT THE OPTIMAL MOISTURE CONTENT.  
[RULE 204]
6. THE BIOFILTER MEDIA SHOULD BE REPLACED OR REPLENISHED AS NEEDED TO MAINTAIN ADEQUATE PERFORMANCE.  
[RULE 402]

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

7. ONCE EVERY SIX MONTHS, SMOKE TESTS SHALL BE CONDUCTED TO ENSURE EVEN DISTRIBUTION OF FOUL AIR THROUGH EACH BIOFILTER.

## FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT

### PERMIT TO OPERATE

**Permit No. G5398  
A/N 415794**

**Equipment Description:**

DIGESTER GAS FLARING SYSTEM CONSISTING OF:

1. ONE (1) ENCLOSED FLARE, JOHN ZINK, MODEL ZTOF, 18,000,000 BTU/HR, 5'- 0" DIA. X 40'-0" H.
2. DIGESTER GAS PILOT SYSTEM WITH NATURAL GAS BACK-UP PILOT SYSTEM AND ELECTRIC IGNITION.
3. ULTRAVIOLET FLAME DETECTOR.
4. KNOCKOUT VESSEL.
5. TWO COMBUSTION AIR BLOWERS, ¼ H.P. EACH.

**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 AND MAINTAINED BY PERSONNEL PROPERLY TRAINED IN ITS OPERATION.  
[RULE 204]
4. FOUR (4) SAMPLING PORTS SHALL BE PROVIDED IN THE FLARE STACK AT LEAST ONE-HALF DUCT DIAMETER UPSTREAM OF THE FLARE OUTLET, 90 DEGREES APART. EACH SAMPLING PORT SHALL CONSIST OF A FOUR-INCH COUPLING WITH PLUG. ALL PORTS SHALL BE PROPERLY CENTERED. AN EQUIVALENT METHOD OF EMISSION SAMPLING MAY BE USED UPON APPROVAL BY THE EXECUTIVE OFFICER. ADEQUATE AND SAFE ACCESS TO ALL SOURCE TEST PORTS SHALL BE PROVIDED WITHIN 48 HOURS NOTICE BY SCAQMD.  
[RULE 1303]

## **FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT**

5. A SAMPLING PORT SHALL BE INSTALLED AT THE INLET GAS LINE TO THE FLARE TO ALLOW COLLECTION OF DIGESTER GAS SAMPLES.  
[RULE 1303]
6. THE FLARE SHALL BE EQUIPPED WITH AT LEAST ONE TEMPERATURE INDICATOR AND RECORDING DEVICE WHICH MEASURES AND RECORDS THE GAS TEMPERATURE IN THE FLARE STACK. THE TEMPERATURE INDICATOR AND RECORDING DEVICE SHALL OPERATE WHENEVER THE FLARE IS IN OPERATION. THE TEMPERATURE SHALL BE MEASURED AT A LOCATION ABOVE THE FLAME ZONE, AT LEAST 0.6 SECOND DOWNSTREAM OF THE BURNER AND NOT LESS THAN FIVE (5) FEET FROM THE TOP OF THE STACK.  
[RULE 1303]
7. WHENEVER THE FLARE IS IN OPERATION, A TEMPERATURE OF NOT LESS THAN 1400 DEGREES F, AS MEASURED BY AN APPROVED TEMPERATURE INDICATOR, SHALL BE MAINTAINED IN THE FLARE STACK.  
[RULE 1303]
8. THE FLARE SHALL BE EQUIPPED WITH AN AUTOMATIC SHUT-DOWN SYSTEM WITH A FAILURE ALARM, WHICH HAS BEEN APPROVED BY THE SCAQMD, TO AUTOMATICALLY ISOLATE THE FLARE FROM THE DIGESTER GAS SUPPLY LINE, SHUT OFF THE BLOWER AND IMMEDIATELY NOTIFY A RESPONSIBLE PARTY OF THE SHUT-DOWN.  
[RULE 1303]
9. THE AUTOMATIC SHUT-DOWN SAFETY SYSTEM SHALL BE TESTED MONTHLY FOR PROPER OPERATION AND THE RESULTS RECORDED.  
[RULE 1303]
10. THE TOTAL VOLUME OF DIGESTER GAS BURNED IN THE FLARE SHALL NOT EXCEED 480 STANDARD CUBIC FEET PER MIN.  
[RULE 1303]
11. THE HEAT INPUT THROUGH THE FLARE SHALL NOT EXCEED 18 MILLION BTU'S PER HOUR.  
[RULE 1303]
12. WEEKLY READINGS OF BTU CONTENT OF THE GAS AT THE INLET TO THE FLARE SHALL BE TAKEN USING AN INSTRUMENT APPROVED BY THE SCAQMD. ALL RESULTS SHALL BE RECORDED.  
[RULE 1303]
13. ALL DIGESTER GAS COLLECTED SHALL BE DIRECTED TO THE FLARE FOR COMBUSTION OR TO A TREATMENT FACILITY WHICH HAS A VALID PERMIT TO CONSTRUCT OR OPERATE OR IS EXEMPT PER RULE 219 FROM THE SCAQMD.  
[RULE 1303]
14. ALL RECORDING DEVICES SHALL BE SYNCHRONIZED WITH RESPECT TO THE TIME OF DAY.  
[RULE 1303]
15. THE MAXIMUM FLARE SKIN TEMPERATURE AT ANY LOCATION SHALL NOT EXCEED 250 DEGREES FAHRENHEIT.  
[RULE 217]

## FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT

16. A FLOW INDICATING AND RECORDING DEVICE SHALL BE INSTALLED IN THE DIGESTER GAS SUPPLY LINE TO THE FLARE TO MEASURE AND RECORD THE QUANTITY OF DIGESTER GAS BURNED IN THE FLARE.  
[RULE 1303]
  
17. THE OPERATION OF THIS EQUIPMENT SHALL NOT RESULT IN THE RELEASE OF ANY RAW DIGESTER GAS INTO THE ATMOSPHERE. ANY BREAKDOWN OR MALFUNCTION WHICH RESULTS IN EMISSIONS OF RAW DIGESTER GAS SHALL BE REPORTED TO THE SCAQMD WITHIN ONE HOUR AFTER OCCURRENCE AND IMMEDIATE REMEDIAL MEASURES SHALL BE UNDERTAKEN TO CORRECT THE PROBLEM AND PREVENT FURTHER EMISSIONS INTO THE ATMOSPHERE.  
[RULE 1303]

### **Emissions and Requirements:**

18. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:  
  
PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS  
PM10: 26 LBS/MMSCF OF INLET GAS, RULE 1303  
NOX: 1.44 LB/HR, RULE 1303  
NOX: 0.06 LB/MMBTU OF INLET GAS, RULE 1303  
CO: 3.60 LB/HR, RULE 1303  
SOX: 0.31 LB/HR, RULE 1303

## FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT

### PERMIT TO OPERATE

Permit No. F97959  
A/N 435791

#### Equipment Description:

#### 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.
    - 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.

## FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT

### 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".

### 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 FLOATATION (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.
4. FOUR ANAEROBIC DIGESTERS, EACH 56'-0" DIA. X 22'-0" H., WITH ASSOCIATED HEAT EXCHANGERS, PUMPS AND PIPING.

## **FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT**

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.

### **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]

## **FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT**

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 OPERATE EASTERN MUNICIPAL WATER DISTRICT

### PERMIT TO CONSTRUCT/OPERATE

Permit No. F81224  
A/N 451122

#### Equipment Description:

SLUDGE DEWATERING SYSTEM CONSISTING OF:

1. CENTRIFUGE, CENTRISYS, MODEL CS26-4, 350 GPM, 100 HP DRIVE
2. TWO BELT FILTER PRESSES, ASHBROOK-SIMON-HARTELY, EACH 6'-0" WIDE, AND WITH ASSOCIATED CONVEYORS.
3. ASSOCIATED PIPING, PUMPS, AND MOTORS.

LOCATED IN THE SLUDGE DEWATERING BUILDING WHICH IS VENTED TO AIR POLLUTION CONTROL 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. THIS EQUIPMENT SHALL BE OPERATED BY PERSONNEL PROPERLY TRAINED IN ITS OPERATION.  
[RULE 204]
4. THE BELT FILTER PRESSES SHALL ONLY BE OPERATED AS BACKUP TO THE CENTRIFUGE.  
[RULE 1303]
5. ALL SLUDGE SHALL BE PIPED AND STORED IN AN ENCLOSED MANNER TO PREVENT THE RELEASE OF AIR CONTAMINANTS UNTIL AFTER IT IS DEWATERED.  
[RULE 402]
6. THE SLUDGE DEWATERING SYSTEM SHALL ONLY BE OPERATED IN THE SLUDGE DEWATERING BUILDING WHICH IS VENTED ONLY TO AN AIR-POLLUTION CONTROL (APC) DEVICE WHICH HAS BEEN ISSUED VALID PERMIT TO CONSTRUCT OR OPERATE.  
[RULE 402]

## **FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT**

### **PERMIT TO OPERATE**

**Permit No. F81225  
A/N 451352**

**Equipment Description:**

AIR POLLUTION CONTROL SYSTEM CONSISTING OF:

1. SCRUBBER, ODOR CONTROL, HARRINGTON INDUSTRIAL PLASTICS, MODEL ECG 67-5, 7'-0" L. X 6'-0" W. X 14'-0"H., PACKED, WITH A RECIRCULATION PUMP.
2. EXHAUST SYSTEM WITH A 20 H.P. BLOWER VENTING THE SLUDGE DEWATERING BUILDING.

**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 MAY BE SHUTDOWN FOR A PERIOD NOT EXCEEDING 72 HOURS FOR MAINTENANCE AND NOT EXCEEDING 60 MINUTES DURING ELECTRICAL POWER SOURCE CHANGEOVER DUE TO HIGH POWER DEMAND. SHUTDOWNS DUE TO ELECTRICAL POWER SOURCE CHANGEOVERS SHALL NOT OCCUR MORE THAN ONCE DURING ANY CALENDAR MONTH. EACH SHUTDOWN MUST BE RECORDED WITH DATE, TIME, DURATION AND PURPOSE OF THE SHUTDOWN.  
[RULE 402]
4. HYDROGEN SULFIDE FROM THE OUTLET OF THIS AIR POLLUTION CONTROL SYSTEM SHALL NOT EXCEED 1.0 PARTS PER MILLION.  
[RULE 402]
5. COMPLIANCE WITH CONDITION NO. 4 SHALL BE DETERMINED WEEKLY USING DRAEGER TEST TUBES OR ANOTHER TEST METHOD APPROVED BY THE SCAQMD.  
[RULE 402]
6. A FLOWMETER INDICATING GALLONS PER MINUTE (GPM) SHALL BE INSTALLED IN THE SCRUBBER SOLUTION RECIRCULATION LINE. NOT LESS THAN 150 GALLONS PER MINUTE OF SOLUTION SHALL BE RECIRCULATED THROUGH THE SCRUBBER WHEN THE SCRUBBER IS IN OPERATION.  
[RULE 402]

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

7. A PH METER SHALL BE INSTALLED TO MONITOR THE SCRUBBER SOLUTION. THE PH OF THE SCRUBBER SOLUTION SHALL NOT BE LESS THAN 9.0 WHEN THE BELT PRESS IS IN OPERATION.  
[RULE 402]
8. THE OPERATOR SHALL MAINTAIN RECORDS TO SHOW COMPLIANCE WITH THESE CONDITIONS. ALL RECORDS SHALL BE KEPT FOR AT LEAST TWO YEARS AND MADE AVAILABLE TO SCAQMD PERSONNEL UPON REQUEST.  
[RULE 204]

## FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT

### PERMIT TO OPERATE

Permit No. G5388  
A/N 466456

#### Equipment Description:

STORAGE TANK, LIQUEFIED PROPANE GAS, 7'-0" D. X 25' L., PRESSURIZED, 6,565 GALLONS (27,400 POUNDS) CAPACITY, WITH PRESSURE RELIEF VALVE.

#### Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.  
[RULE 204]
2. THIS EQUIPMENT MUST BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
[RULE 204]
3. THIS EQUIPMENT SHALL BE USED ONLY TO STORE LIQUEFIED PROPANE GAS.  
[RULE 204]
4. THE OPERATOR SHALL FILL THE TANK ONLY WITH A CLOSED SYSTEM WHICH DOES NOT VENT VAPORIZED GAS INTO THE ATMOSPHERE  
[RULE 204]
5. THE OPERATOR SHALL INSTALL AND MAINTAIN PRESSURE RELIEF VALVE WHICH IS SET AT A MINIMUM PRESSURE OF 250 PSIG.  
[RULE 204]
6. THE OPERATOR SHALL FILL THE TANK AT A FLOW RATE AND TEMPERATURE WHICH DOES NOT CAUSE THE PRESSURE INSIDE THE STORAGE TANK TO EXCEED 250 PSIG.  
[RULE 204]
7. THE OPERATOR SHALL INSTALL AND MAINTAIN A PRESSURE GAGE TO MONITOR THE PRESSURE INSIDE THE STORAGE TANK  
[RULE 204]
8. ONCE PER MONTH AND AFTER EACH TANK FILLING OPERATION, THE OPERATOR SHALL MEASURE AND RECORD THE TEMPERATURE AND PRESSURE OF THE STORAGE TANK  
[RULE 204]
9. THE OPERATOR SHALL NOT FILL THIS STORAGE TANK MORE THAN ONCE PER CALENDAR MONTH.  
[RULE 1304 - OFFSET]

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

10. RECORDS SHALL BE MAINTAINED AND RETAINED FOR A PERIOD NOT LESS THAN FIVE YEARS, AND INCLUDE THE TEMPERATURE AND PRESSURE INSIDE THE STORAGE TANK, QUANTITY OF THE MOST RECENT FILLING OF THE STORAGE TANK, AND THE DATE OF THE DELIVERY OF THE LPG  
[RULE 204]

**Emissions and Requirements:**

11. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:  
VOC: RULE 442

## **FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT**

### **PERMIT TO OPERATE**

**Permit No. G5392  
A/N 482172**

#### **Equipment Description:**

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL, NO. G399 SI-TA-HCR, NATURAL GAS FIRED WITH LPG STAND-BY, TURBOCHARGED, AFTERCOOLED, RICH BURN, 8 CYLINDER, 930 BHP, WITH A JOHNSON MATTHEY NON-SELECTIVE CATALYTIC REACTOR OR EQUIVALENT, AND A AIR TO FUEL RATIO CONTROLLER, ALTRONIC, MODEL EPC 100, DRIVING AN ELECTRIC GENERATOR.

#### **Conditions:**

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.  
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
[RULE 204]
3. A MANOMETER OR PRESSURE GAUGE SHALL BE MAINTAINED TO MEASURE THE PRESSURE DIFFERENCE ACROSS THE CATALYST BED. THE PRESSURE DROP SHALL NOT EXCEED 5 INCHES OF WATER COLUMN.  
[RULE 204, 1110.2, 1303]
4. 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 1110.2]
5. THE OPERATOR SHALL MAINTAIN RECORDS OF CATALYST CLEANING PERIODS AND REPLACEMENT FREQUENCY.  
[RULE 1303]

## **FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT**

**Emissions and Requirements:**

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

PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS  
NOX: 0.15 GM/BHP-HR, RULE 1303  
NOX: 36 PPMV, RULE 1110.2  
VOC: 0.15 GM/BHP-HR, RULE 1303  
VOC: 250 PPMV, RULE 1110.2  
CO: 0.6 GM/BHP-HR, RULE 1303  
CO: 2000 PPMV, RULE 1110.2

## FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT

### PERMIT TO OPERATE

Permit No. G5394  
A/N 485848

#### Equipment Description:

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL NO. G379 SI-TA-HCR, NATURAL GAS FIRED WITH LPG STANDBY, TURBOCHARGED, AFTERCOOLED, RICH BURN, 8 CYLINDER, 465 BHP, WITH A JOHNSON MATTHEY NON-SELECTIVE CATALYTIC REACTOR, AND AIR TO FUEL RATIO CONTROLLER, ALTRONIC, MODEL EPC 100, DRIVING AN AERATION BLOWER.

#### Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.  
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
[RULE 204]
3. A MANOMETER OR PRESSURE GAUGE SHALL BE MAINTAINED TO MEASURE THE PRESSURE DIFFERENCE ACROSS THE CATALYST BED. THE PRESSURE DROP SHALL NOT EXCEED 5 INCHES OF WATER COLUMN.  
[RULE 204, 1110.2, 1303]
4. 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 1110.2]
5. THE OPERATOR SHALL MAINTAIN RECORDS OF CATALYST CLEANING PERIODS AND REPLACEMENT FREQUENCY.  
[RULE 1303]
6. 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]

## **FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT**

**Emissions and Requirements:**

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

PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS

NOX: 0.15 GM/BHP-HR, RULE 1303

NOX: 36 PPMV, RULE 1110.2

VOC: 0.15 GM/BHP-HR, RULE 1303

VOC: 250 PPMV, RULE 1110.2

CO: 0.6 GM/BHP-HR, RULE 1303

CO: 2000 PPMV, RULE 1110.2

## FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT

### PERMIT TO OPERATE

Permit No. G5390  
A/N 485849

#### Equipment Description:

INTERNAL COMBUSTION ENGINE, WAUKESHA, MODEL NO. H24 GLD, SPARK IGNITION, FOUR CYCLE, 8-CYLINDER, LEAN BURN, TURBOCHARGED AND AFTERCOOLED, DIGESTER GAS OR NATURAL GAS/AIR BLEND FIRED, 530 BHP, WITH AN EXHAUST HEAT RECOVERY SYSTEM, AND AIR TO FUEL RATIO CONTROLLER, WAUKESHA, MODEL CEC, DRIVING AN AERATION BLOWER.

#### Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT TO CONSTRUCT 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 IS TO BE FIRED PRIMARILY ON DIGESTER GAS. THIS EQUIPMENT MAY BE FIRED ON NATURAL GAS/AIR MIXTURE, WITH AN EQUIVALENT HEATING VALUE OF THE DIGESTER GAS, ONLY WHEN THE SUPPLY OF DIGESTER GAS IS INSUFFICIENT TO OPERATE THE ENGINE.  
[RULE 1303]
4. THIS EQUIPMENT SHALL BE OPERATED IN COMPLIANCE WITH ALL PROVISIONS OF RULE 1110.2.  
[RULE 1110.2]
5. AN ENGINE OPERATING LOG LISTING THE DATE OF OPERATION, THE NATURAL GAS USED IN CUBIC FEET PER DAY, AND THE REASON FOR OPERATION UNDER NATURAL GAS/AIR MIXTURE SHALL BE KEPT AND MAINTAINED ON FILE FOR A MINIMUM OF TWO YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.  
[RULE 1303]
6. THE ENGINE SHALL OPERATE BETWEEN 1539 AND 1881 RPM, EXCEPT DURING START-UP OR SHUT-DOWN OPERATION WHICH DOES NOT EXCEED 30 MINUTES PER EVENT.  
[RULE 1110.2]

## **FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT**

### **Emissions and Requirements:**

7. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
  - PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
  - NOX: 0.6 GM/BHP-HR, RULE 1303
  - NOX: 36 PPMV, RULE 1110.2
  - VOC: 0.8 GM/BHP-HR, RULE 1303
  - VOC: 250 PPMV, RULE 1110.2
  - CO: 2.5 GM/BHP-HR, RULE 1303
  - CO: 2000 PPMV, RULE 1110.2

## FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT

### PERMIT TO OPERATE

Permit No. G5391  
A/N 485850

#### Equipment Description:

INTERNAL COMBUSTION ENGINE, WAUKESHA, MODEL NO. H24 GLD, SPARK IGNITION, FOUR CYCLE, 8-CYLINDER, LEAN BURN, TURBOCHARGED AND AFTERCOOLED, DIGESTER GAS OR NATURAL GAS/AIR BLEND FIRED, 530 BHP, WITH AN EXHAUST HEAT RECOVERY SYSTEM, AND AIR TO FUEL RATIO CONTROLLER, WAUKESHA, MODEL NO. CEC, DRIVING AN AERATION BLOWER.

#### Conditions:

4. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT TO CONSTRUCT IS ISSUED, UNLESS OTHERWISE NOTED BELOW.  
[RULE 204]
5. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
[RULE 204]
6. THIS EQUIPMENT IS TO BE FIRED PRIMARILY ON DIGESTER GAS. THIS EQUIPMENT MAY BE FIRED ON NATURAL GAS/AIR MIXTURE, WITH AN EQUIVALENT HEATING VALUE OF THE DIGESTER GAS, ONLY WHEN THE SUPPLY OF DIGESTER GAS IS INSUFFICIENT TO OPERATE THE ENGINE.  
[RULE 1303]
4. THIS EQUIPMENT SHALL BE OPERATED IN COMPLIANCE WITH ALL PROVISIONS OF RULE 1110.2.  
[RULE 1110.2]
5. AN ENGINE OPERATING LOG LISTING THE DATE OF OPERATION, THE NATURAL GAS USED IN CUBIC FEET PER DAY, AND THE REASON FOR OPERATION UNDER NATURAL GAS/AIR MIXTURE SHALL BE KEPT AND MAINTAINED ON FILE FOR A MINIMUM OF TWO YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.  
[RULE 1303]
6. THE ENGINE SHALL OPERATE BETWEEN 1539 AND 1881 RPM, EXCEPT DURING START-UP OR SHUT-DOWN OPERATION WHICH DOES NOT EXCEED 30 MINUTES PER EVENT.  
[RULE 1110.2]

## **FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT**

**Emissions and Requirements:**

7. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
- PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS
  - NOX: 0.6 GM/BHP-HR, RULE 1303
  - NOX: 36 PPMV, RULE 1110.2
  - VOC: 0.8 GM/BHP-HR, RULE 1303
  - VOC: 250 PPMV, RULE 1110.2
  - CO: 2.5 GM/BHP-HR, RULE 1303
  - CO: 2000 PPMV, RULE 1110.2

## FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT

### PERMIT TO OPERATE

Permit No. G5393  
A/N 486641

#### Equipment Description:

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL NO. G398-TA-HCR, SERIAL NO. 73B02135, TWELVE CYLINDERS, TURBOCHARGED, AFTERCOOLED, 700 BHP, RICH-BURN, NATURAL GAS OR LIQUID PROPANE GAS FIRED, WITH A JOHNSON MATTHEY CATALYST, MODEL NO. MX-80-8 MODULE X, AND AN AIR/FUEL RATIO CONTROLLER, DRIVING A 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. A TIMER SHALL BE MAINTAINED TO INDICATE THE ENGINE ELAPSED OPERATING TIME.  
[RULE 1110.2]
4. 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 1303]
5. AN ENGINE OPERATING LOG LISTING THE DATE OF OPERATION, THE NATURAL GAS USED IN CUBIC FEET PER DAY, AND THE REASON FOR OPERATION UNDER NATURAL GAS/AIR MIXTURE SHALL BE KEPT AND MAINTAINED ON FILE FOR A MINIMUM OF TWO YEARS AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.  
[RULE 1303]
6. 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]

## FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT

### Emissions and Requirements:

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

PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS  
NOX: 0.15 GR/BHP-HR, RULE 1303  
NOX: 10 PPM @ 15% O<sub>2</sub>, AVERAGED 15 MINUTE, RULE 1110.2  
VOC: 0.15 GR/BHP-HR, RULE 1303  
VOC: 28 PPM @ 15% O<sub>2</sub>, AVERAGED 15 MINUTE, RULE 1110.2  
CO: 0.6 GR/BHP-HR, RULE 1303  
CO: 65 PPM @ 15% O<sub>2</sub>, AVERAGED 15 MINUTE, RULE 1110.2

## **FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT**

### **PERMIT TO OPERATE**

**Permit No. G5389  
A/N 486644**

#### **Equipment Description:**

INTERNAL COMBUSTION ENGINE, CATERPILLAR, MODEL NO. G3512, TURBOCHARGED, AFTERCOOLED, 815 BHP, RICH-BURN, NATURAL GAS FIRED, WITH A CLEAN AIR POWER 3 WAY CATALYST, MODEL NO. DN/S-35/45W10L, AND AIR TO FUEL RATIO CONTROLLER, CLEAN AIR POWER, 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 ANC ACCORDING TO THE ENGINE MANUFACTURER'S PROCEDURES.  
[RULE 1303]
4. A TIMER SHALL BE MAINTAINED TO INDICATE THE ELAPSED OPERATING TIME.  
[RULE 1303]
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 (WC).  
[RULE 204, 1110.2, 1303]
7. THE OPERATOR SHALL MAINTAIN AN AUTOMATIC AIR-TO-FUEL RATIO CONTROLLER SO AS TO REGULATE THE AIR-TO-FUEL RATIO WITHIN TOLERANCE LIMITS AS RECOMMENDED BY THE CATALYST SUPPLIER OR MANUFACTURER.  
[RULE 1110.2]

## **FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT**

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. CARON 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 OF 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]
13. THE OPERATOR SHALL INSTALL AND MAINTAIN A NON-RESETTABLE 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]

## **FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT**

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 9 PPMV, RULE 1303(b)(1)
  - NOX: 36 PPMV, RULE 1110.2
  - VOC: 26 PPMV, RULE 1303(b)(1)
  - VOC: 250 PPMV, RULE 1110.2
  - CO 60 PPMV, RULE 1303(b)(1)
  - CO: 2000 PPMV, RULE 1110.2

## **FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT**

### **RULE 219 EQUIPMENT**

**Equipment Description:**

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

**Emissions and Requirements:**

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

PM: 0.1 GR/SCF, RULE 409  
NO<sub>x</sub>: 30 PPMV, RULE 1146.2  
CO: 400 PPMV, RULE 1146.2  
CO: 2000 PPMV, RULE 407

## FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT

### RULE 219 EQUIPMENT

**Equipment Description:**

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

**Periodic Monitoring:**

1. THE OPERATOR SHALL KEEP RECORDS, IN A MANNER APPROVED BY THE DISTRICT, FOR THE FOLLOWING PARAMETER(S) OR ITEM(S):

FOR ARCHITECTURAL APPLICATIONS WHERE NO THINNERS, REDUCERS, OR OTHER VOC CONTAINING MATERIALS ARE ADDED, MAINTAIN SEMI-ANNUAL RECORDS OF ALL COATINGS CONSISTING OF:

- A. COATING TYPE,
- B. VOC CONTENT AS SUPPLIED IN GRAMS PER LITER (g/l) OF MATERIALS FOR LOW-SOLIDS COATINGS,
- C. VOC CONTENT AS SUPPLIED IN g/l OF COATING, LESS WATER AND EXEMPT SOLVENT, FOR OTHER COATINGS.

FOR OTHER ARCHITECTURAL APPLICATIONS WHERE THINNERS, REDUCERS, OR OTHER VOC CONTAINING MATERIALS ARE ADDED, MAINTAIN DAILY RECORDS FOR EACH COATING CONSISTING OF:

- A. COATING TYPE,
- B. VOC CONTENT AS APPLIED IN GRAMS PER LITER (g/l) OF MATERIALS USED FOR LOW-SOLIDS COATINGS,
- C. VOC CONTENT AS APPLIED IN g/l OF COATING, LESS WATER AND EXEMPT SOLVENT, FOR OTHER COATINGS.  
[RULE 3004 (a) (4)]

**Emissions And Requirements:**

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

VOC: RULE 1113, SEE APPENDIX B FOR EMISSION LIMITS.  
VOC: RULE 1171, SEE APPENDIX B FOR EMISSION LIMITS.

## **FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT**

### **RULE 219 EQUIPMENT**

**Equipment Description:**

RULE 219 EXEMPT EQUIPMENT, HAND WIPING OPERATIONS.

**Emissions And Requirements:**

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

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

## **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:

<b>Application No.</b>	<b>Permit No.</b>	<b>Equipment description</b>	<b>Page No.</b>
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

**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<sub>x</sub>, CO, ROG, AND O<sub>2</sub> 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% O<sub>2</sub>, RULE 1303  
NOX: 36 PPM, RULE 1110.2  
CO: 86 PPM@15% O<sub>2</sub>, RULE 1303  
CO: 2000 PPM, RULE 1110.2  
VOC: 37 PPM@15% O<sub>2</sub>, 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 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]

### **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 FLOATATION (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: Draft 1/2/2010  
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 III  
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 III  
NOx+NMHC 7.87 G/BHP-HR, 40CFR Subpart III