

FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT

PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE (SECTION H):

This section consists of a table listing all equipment with Permits to Construct and copies of all individual Permits to Construct 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.

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PERMITTED EQUIPMENT LIST

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

Application number	Equipment description	Page #
R-446534	FLARE, ENCLOSED LANDFILL/DIGESTER GAS	3
R-475845	BIOFILTER (> 100 CFM)	8
R-503050	BOILER (5-20MMBTU/HR), DIGESTER GAS	9
503053	BOILER (5-20MMBTU/HR), NATURAL GAS	13
503055	ICE (>500 HP) EMERGENCY ELEC. GENERATOR, DIESEL	16
512190	SEWAGE TREATMENT (>5 MG/D) ANAEROBIC	18

NOTE: 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.

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PERMIT TO CONSTRUCT

GRANTED AS OF: TBD
A/N R-446534

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 50'-0" H.
2. NATURAL GAS PILOT SYSTEM WITH ELECTRIC IGNITION.
3. ULTRA-VIOLET FLAME DETECTOR.
4. KNOCKOUT VESSEL
5. ONE (1) COMBUSTION AIR BLOWER, ¾ HP.

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. AT LEAST TWO (2) 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 204]
5. A SAMPLING PORT SHALL BE INSTALLED AT THE INLET GAS LINE TO THE FLARE TO ALLOW THE COLLECTION OF A DIGESTER GAS SAMPLE
[RULE 204]

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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 SYSTEM SHALL BE TESTED MONTHLY FOR PROPER OPERATION AND THE RESULTS RECORDED.
[RULE 1303]
10. 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 (IN SCFM) BEING BURNED IN THE FLARE.
[RULE 1303]
11. THE TOTAL VOLUME OF DIGESTER GAS BURNED IN THE FLARE SHALL NOT EXCEED 480 STANDARD CUBIC FEET PER MINUTE.
[RULE 1303]
12. THE HEAT INPUT THROUGH THE FLARE SHALL NOT EXCEED 18 MILLION BTUS PER HOUR.
[RULE 1303]
13. 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 204]
14. ALL DIGESTER GAS COLLECTED SHALL BE DIRECTED EITHER TO THE FLARE FOR COMBUSTION OR TO A TREATMENT FACILITY WHICH HAS A VALID PERMIT TO CONSTRUCT OR OPERATE, AS APPLICABLE, FOR THE SCAQMD.
[RULE 204]
15. ALL RECORDING DEVICES SHALL BE SYNCHRONIZED WITH RESPECT TO THE TIME OF DAY.
[RULE 204]

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16. THE FLARE SHALL BE EQUIPPED WITH A SUFFICIENT NUMBER OF VIEW PORTS TO ALLOW VISUAL INSPECTION OF THE FLAME HEIGHT WITHIN THE FLARE AT ALL TIMES. THE VIEW PORTS SHALL BE LOCATED AT THE ELEVATION OF THE TEMPERATURE SENSOR LOCATIONS. SAFE AND ADEQUATE ACCESS SHALL BE PROVIDED FOR ALL VIEW PORTS UPON REQUEST BY SCAQMD PERSONNEL.
[RULE 204]
17. THE FLARE SHALL BE DESIGNED AND OPERATED SO THAT THE FLAME IN THE FLARE REMAINS BELOW THE HEIGHT OF THE FLARE'S OPERATING THERMOCOUPLE AT ALL TIMES.
[RULE 1303]
18. THE MAXIMUM FLARE SKIN TEMPERATURE AT ANY LOCATION SHALL NOT EXCEED 250 DEGREES F.
[RULE 1303]
19. 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 MANAGER OF PUBLIC FACILITIES BRACH WITHIN ONE HOUR AFTER OCCURRENCE AND IMMEDIATE REMEDIAL MEASURES SHALL BE UNDERTAKEN TO CORRECT THE PROBLEM AND PREVENT FURTHER EMISSION INTO THE ATMOSPHERE.
[RULE 204]
20. WITHIN 180 DAYS OF INITIAL START-UP UNLESS OTHERWISE APPROVED BY THE EXECUTIVE OFFICER, THE APPLICANT SHALL CONDUCT PERFORMANCE TESTS IN ACCORDANCE WITH SCAQMD APPROVED TEST PROCEDURES AND FURNISH THE SCAQMD WRITTEN RESULTS OF SUCH PERFORMANCE TESTS WITHIN THIRTY (30) DAYS AFTER TESTING. WRITTEN NOTICE OF THE TEST SHALL BE PROVIDED TO THE SCAQMD TEN (10) DAYS PRIOR TO TESTING SO THAT AN OBSERVER MAY BE PRESENT. ALL SOURCE TESTING AND ANALYTICAL METHODS SHALL BE SUBMITTED TO THE SCAQMD FOR APPROVAL AT LEAST SIXTY (60) DAYS PRIOR TO START OF TESTS.

THE TEST SHALL INCLUDE, BUT MAY NOT BE LIMITED TO, A TEST OF THE INLET GAS TO THE FLARE AND THE FLARE EXHAUST FOR:

- A. METHANE
- B. TOTAL NON-METHANE ORGANICS
- C. OXIDES OF NITROGEN (EXHAUST ONLY)
- D. CARBON MONOXIDE (EXHAUST ONLY)
- E. TOTAL (PM10) PARTICULATES (EXHAUST ONLY)
- F. HYDROGEN SULFIDE (INLET ONLY)
- G. C1 THROUGH C3 SULFUR COMPOUNDS (SPECIATED) (INLET ONLY)
- H. CARBON DIOXIDE
- I. TOXIC AIR CONTAMINANTS INCLUDING, BUT NOT LIMITED TO, ACROLEIN, ACETYLENE, BENZENE, CHLOROBENZENE, CHLOROFORM, DICHLOROBENZENE, 1,2-DICHLOROETHANE, FORMALDEHYDE, TETRACHLOROETHYLENE, TOLUENE, 1,1,1-TRICHLOROETHANE, TRICHLOROETHYLENE, VINYL CHLORIDE, AND XYLENE ISOMERS (EXHAUST ONLY)
- J. OXYGEN
- K. NITROGEN

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- L. MOISTURE CONTENT
 - M. TEMPERATURE
 - N. FLOW RATE
 - O. BTU VALUE.
- [RULE 1303]
- 21. OXIDES OF NITROGEN EMISSIONS SHALL NOT EXCEED 0.06 POUNDS PER MILLION BTUS INLET GAS.
[RULE 1303]
 - 22. EMISSIONS OF TOTAL SULFUR COMPOUNDS FROM COMBUSTION OF DIGESTER GAS AT THIS FACILITY SHALL NOT EXCEED 5 LB/DAY MEASURE AS H₂S.
[RULE 431.1]
 - 23. ALL RECORDS SHALL BE KEPT FOR A PERIOD OF AT LEAST FIVE (5) YEARS AND SHALL BE MADE AVAILABLE TO SCAQMD PERSONNEL UPON REQUEST.
[RULE 204]
 - 24. APPLICANT SHALL PERFORM A FULL RISK ASSESSMENT ON THE EMISSION FROM THE FLARE WITHIN NINETY (90) DAYS AFTER REQUEST FROM THE SCAQMD IF THE SOURCE TEST RESULTS SHOW THE EMISSIONS ARE GREATER THAN THAT CALCULATED UNDER THE PERMIT TO CONSTRUCT EVALUATION.
[RULE 1401]
 - 25. APPLICANT SHALL SUBMIT FINAL DESIGN SPECIFICATIONS AND DIMENSIONS IN SUFFICIENT DETAIL TO DEMONSTRATE COMPLIANCE WITH THE FOLLOWING REQUIREMENTS. FOLLOWING SUBMITTAL, WRITTEN APPROVAL OF SUCH SPECIFICATIONS AND PLANS SHALL BE OBTAINED FROM SCAQMD PRIOR TO STARTING CONSTRUCTION.
 - A. CONDENSATE KNOCKOUT MAKE, MODEL NO., AND EFFICIENCY.
 - B. BLOWER MAKE AND MODEL NO.
 - C. FLAME ARRESTOR MAKE AND MODEL NO.
 - D. FLARE MAKE, MODEL NO., DIAMETER, HEIGHT, FLOW RATE, VELOCITY, RESIDENCE TIME AT 1400 DEGREES F., COMBUSTION AIR AND TEMPERATURE CONTROL SYSTEM, AUTOMATIC NOTIFICATION SYSTEM, GUARANTEED EMISSION RATES OF NOX AND CO, AND GUARANTEED DESTRUCTION RATES OF NMHC AND TOXICS.
 - E. CONDENSATE FEED AND NOZZLE CONFIGURATION.
- [RULE 1303]

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Emissions and Requirements:

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

PM: RULE 404, SEE APPENDIX B FOR EMISSION LIMITS

PM: 0.1 GR/SCF, RULE 409

PM10: 0.52 LB/HR, RULE 1303

NOX: 1.08 LB/HR, RULE 1303

CO: 3.6 LB/HR, RULE 1303

VOC: 0.65 LB/HR, RULE 1303

SOX: 0.31 LB/HR, RULE 1303

THIS PERMIT TO CONSTRUCT R-446534 SUPERSEDES PERMIT TO CONSTRUCT 446534 ISSUED ON NOVEMBER 4, 2005.

FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT

PERMIT TO CONSTRUCT

GRANTED AS OF: TBD
A/N R-475845

Equipment Description:

AIR POLLUTION CONTROL SYSTEM CONSISTING OF:

1. BIOFILTER, CUSTOM, TWO CELLS OPERATING IN PARALLEL, EACH CELL 75'-0" W. X 75'-0" L.,
2. TWO BLOWERS, EACH 15,000 CFM
3. EXHAUST SYSTEM, 30,000 CFM MAXIMUM CAPACITY, VENTING THE WET WELL, HEADWORKS, GRIT CHAMBER, AND 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 H₂S 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 H₂S CONCENTRATION SHALL NOT EXCEED 0.5 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]
7. THE OPERATOR SHALL MAINTAIN ADEQUATE RECORDS TO VERIFY COMPLIANCE WITH THE CONDITIONS ABOVE. SUCH RECORDS SHALL BE KEPT ON THE PREMISES FOR AT LEAST TWO YEARS AND BE MADE AVAILABLE TO THE EXECUTIVE OFFICER OR HIS REPRESENTATIVE UPON REQUEST.
[RULE 3003]

THIS PERMIT TO CONSTRUCT R-475845 SUPERSEDES PERMIT TO CONSTRUCT 475845 ISSUED ON JANUARY 1, 2010.

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PERMIT TO CONSTRUCT

GRANTED AS OF: TBD
A/N R-503050

Equipment Description:

BOILER, 5.3 MMBTU PER HOUR, DIGESTER GAS FIRED, WITH ULTRA LOW NO_x BURNER.

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. EASTERN MUNICIPAL WATER DISTRICT SHALL INSTALL, A JOHNSTON BOILER MODEL 509, 5.3 MMBTU/HR, DIGESTER GAS FIRED, WITH ULTRA-LOW NO_x BURNER; OR A HURST BOILER, SERIES 500, 5.3 MMBTU/HR, DIGESTER GAS FIRED, WITH ULTRA-LOW NO_x BURNER; OR AN EQUIVALENT BOILER.
[RULE 204]
4. THE OWNER OR OPERATOR OF THIS EQUIPMENT SHALL PROVIDE TO SCAQMD FOR APPROVAL, THE FINAL BOILER DESIGN DRAWINGS, P&I DIAGRAMS, CONTROLS, EQUIPMENT SPECIFICATIONS (MAKE, MODEL, DIMENSIONS, SIZE AND MAXIMUM CAPACITY) AND MANUFACTURER'S EMISSION CERTIFICATION, PRIOR TO INSTALLATION OF THE EQUIPMENT.
[RULE 204]
5. THIS BOILER SHALL BE FIRED PRIMARILY ON DIGESTER GAS. NATURAL GAS MAY BE USED AS A STANDBY FUEL AS ALLOWED PER RULE 1146.
[RULE 204, 1146]
6. NON-RESETTABLE, TOTALIZING FUEL METERS SHALL BE INSTALLED AND MAINTAINED IN EACH FUEL SUPPLY LINE TO MEASURE AND RECORD THE AMOUNT OF FUEL BURNED.
RULE 1303(b)(1), 1303(b)(2) – MODELING & OFFSET]
7. WHEN IN OPERATION, TOTAL HEAT INPUT FOR THIS EQUIPMENT SHALL NOT EXCEED 5.3 MMBTU/HR. A LOG SHALL BE KEPT INDICATING THE TOTAL HEATING VALUE (BTU/SCF) OF FUEL GAS BURNED IN THIS EQUIPMENT BASED ON THE RECORDED FLOW RATE (SCFM) AND THE LATEST MONTHLY BTU CONTENT READING.
[RULE 1303(b)(1), 1303(b)(2) – MODELING & OFFSET]

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8. THIS EQUIPMENT SHALL BE EQUIPPED WITH A CONTROL SYSTEM TO REGULATE AUTOMATICALLY THE COMBUSTION AIR AND FUEL RATE AS THE BOILER LOAD VARIES. THIS AUTOMATIC CONTROL SYSTEM SHALL BE ADJUSTED AND TUNED PERIODICALLY, ACCORDING TO ATTACHMENT I OF RULE 1146.
[RULE 1146]

9. EMISSIONS SHALL NOT EXCEED THE FOLLOWING LIMITS AND SHALL BE MEASURED BY VOLUME AT 3% O₂, DRY BASIS.

FUEL USED	NOX AS NO ₂	CO
DIGESTER GAS	30 PPMV	<100 PPMV
NATURAL GAS	12 PPMV	<50 PPMV

[RULE 1146, RULE 1303(a)(1) – BACT/LAER]

10. ON AND AFTER JANUARY 1, 2015, EMISSIONS OF NOX SHALL NOT EXCEED 15 PPMV (CORRECTED TO 3% O₂, DRY) WHILE FIRING ON DIGESTER GAS.
[RULE 1146]

11. THE OWNER OR OPERATOR OF THIS EQUIPMENT SHALL CONDUCT AN INITIAL SOURCE TEST, AND SUBSEQUENT SOURCE TESTS ONCE EVERY FIVE YEARS THEREAFTER, UNDER THE FOLLOWING CONDITIONS AND PER RULE 1146:

- A. TESTING SHALL BE CONDUCTED BY AN APPROVED CONTRACTOR UNDER THE SCAQMD LABORATORY APPROVAL PROGRAM AND IN COMPLIANCE WITH DISTRICT RULE 304 (NO CONFLICT OF INTEREST).
- B. A SOURCE TEST PROTOCOL SHALL BE SUBMITTED TO AQMD WITHIN 30 DAYS OF INITIAL START UP AND SHALL BE APPROVED BY AQMD BEFORE THE TEST COMMENCES. THE PROTOCOL SHALL INCLUDE PROPOSED OPERATING CONDITIONS OF THE EQUIPMENT DURING THE TEST AND DESCRIPTIONS OF ALL SAMPLING AND ANALYTICAL PROCEDURES TO BE USED.
- C. SOURCE TESTS SHALL BE CONDUCTED WITHIN 60 CALENDAR DAYS AFTER NORMAL OPERATION OF THE EQUIPMENT HAS BEEN ESTABLISHED, BUT NO LATER THAN 180 DAYS AFTER INITIAL START UP.
- D. SOURCE TESTS SHALL BE PERFORMED WHEN THE BOILER IS OPERATING AT MAXIMUM, MINIMUM AND AVERAGE LOADS FOR EACH FUEL (DIGESTER GAS AND NATURAL GAS). THE SAMPLING TIME AT EACH LOAD SHALL BE FOR A MINIMUM OF 15 CONSECUTIVE MINUTES.
- E. TWO COPIES OF THE SOURCE TEST RESULTS SHALL BE SUBMITTED TO AQMD WITHIN 60 DAYS OF TESTING. THE REPORT SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:
 - I. FUEL FLOW RATE FOR EACH FUEL
 - II. FLUE GAS FLOW RATE FOR EACH FUEL
 - III. METHANE CONTENT FOR DIGESTER GAS

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- IV. TOTAL NON-METHANE ORGANICS FOR DIGESTER GAS AND EXHAUST GAS
 - V. SPECIATED TRACE ORGANICS FOR DIGESTER GAS AND EXHAUST GAS
 - VI. TOTAL PARTICULATES OF EXHAUST GAS
 - VII. OXIDES OF NITROGEN FOR EXHAUST GAS
 - VIII. CARBON MONOXIDE FOR EXHAUST GAS
 - IX. OXYGEN FOR EXHAUST GAS
 - X. HIGHER HEATING VALUE FOR DIGESTER GAS
 - XI. TOTAL SULFUR CONTENT, AS H₂S, PPMV FOR DIGESTER GAS
- [RULE 217, RULE 404, RULE 1146, RULE 1303(a)(1), 1303(b)(1), 1303(b)(2)-BACT, MODELING AND OFFSET, RULE 1401]

12. EMISSIONS FROM THIS EQUIPMENT SHALL NOT EXCEED THE FOLLOWING:

POLLUTANT	POUNDS PER HOUR
CO	0.41 (0.2 FOR NATURAL GAS)
NOX	0.20 (0.19 FOR NATURAL GAS)
PM10	0.05
ROG	0.047
SOX	0.095

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

13. THIS EQUIPMENT SHALL BE OPERATED IN COMPLIANCE WITH APPLICABLE REQUIREMENTS OF 40 CFR 63 SUBPART DDDDD.
[40 CFR 63 SUBPART DDDDD]
14. ALL RECORDS REQUIRED BY THIS PERMIT SHALL BE KEPT AND MAINTAINED FOR A MINIMUM OF FIVE YEARS AND SHALL BE MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.
[RULE 3004(A)(1)]

Periodic Monitoring:

15. THE OPERATOR SHALL DETERMINE COMPLIANCE WITH THE EMISSION LIMITS IN CONDITION NO. 12, AT LEAST ONCE EVERY FIVE YEARS USING AQMD-APPROVED TEST METHODS. THE TEST SHALL BE CONDUCTED WHEN THE EQUIPMENT IS OPERATING UNDER NORMAL CONDITIONS. THE OPERATOR SHALL COMPLY WITH ALL GENERAL TESTING, REPORTING AND RECORDKEEPING REQUIREMENTS IN SECTION E AND K OF THIS PERMIT.

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Emissions and Requirements:

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

CO: 2000 PPMV, RULE 407
CO: 400 PPMV @ 3% O₂, DRY BASIS, RULE 1146
PM: 0.1 GR/SCF, RULE 409

THIS PERMIT TO CONSTRUCT R-503050 SUPERSEDES PERMIT TO CONSTRUCT 503050 ISSUED ON MARCH 9, 2010.

FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT

PERMIT TO CONSTRUCT

GRANTED AS OF: March 9, 2010
A/N 503053

Equipment Description:

BOILER, 5.3 MMBTU PER HOUR, NATURAL GAS FIRED, WITH ULTRA LOW NOX BURNER.

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. EASTERN MUNICIPAL WATER DISTRICT SHALL INSTALL, A JOHNSTON BOILER MODEL 509, 5.3 MMBTU/HR, NATURAL GAS FIRED, WITH ULTRA-LOW NO_x BURNER; OR A HURST BOILER, SERIES 500, 5.3 MMBTU/HR, NATURAL GAS FIRED, WITH ULTRA-LOW NO_x BURNER; OR AN EQUIVALENT BOILER.
[RULE 204]
4. THE OWNER OR OPERATOR OF THIS EQUIPMENT SHALL PROVIDE TO SCAQMD FOR APPROVAL, THE FINAL BOILER DESIGN DRAWINGS, P&I DIAGRAMS, CONTROLS, EQUIPMENT SPECIFICATIONS (MAKE, MODEL, DIMENSIONS, SIZE AND MAXIMUM CAPACITY) AND MANUFACTURER'S EMISSION CERTIFICATION, PRIOR TO INSTALLATION OF THE EQUIPMENT.
[RULE 204]
5. THIS BOILER SHALL BE FIRED ON NATURAL GAS ONLY.
[RULE 204, 1146]
6. A NON-RESETTING, TOTALIZING FUEL METER SHALL BE INSTALLED AND MAINTAINED IN THE FUEL SUPPLY LINE TO MEASURE AND RECORD THE AMOUNT OF FUEL BURNED.
[RULE 1303(b)(1), 1303(b)(2) – MODELING & OFFSET]
7. WHEN IN OPERATION, TOTAL HEAT INPUT FOR THIS EQUIPMENT SHALL NOT EXCEED 5.3 MMBTU/HR. A LOG SHALL BE KEPT INDICATING THE TOTAL HEATING VALUE (BTU/SCF) OF FUEL GAS BURNED IN THIS EQUIPMENT BASED ON THE RECORDED FLOW RATE (SCFM) AND THE LATEST MONTHLY BTU CONTENT READING.
[RULE 1303(b)(1), 1303(b)(2) – MODELING & OFFSET]
8. THIS EQUIPMENT SHALL BE EQUIPPED WITH A CONTROL SYSTEM TO REGULATE AUTOMATICALLY THE COMBUSTION AIR AND FUEL RATE AS THE BOILER LOAD VARIES. THIS AUTOMATIC CONTROL SYSTEM SHALL BE ADJUSTED AND TUNED PERIODICALLY, ACCORDING TO ATTACHMENT I OF RULE 1146.
[RULE 1146]

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9. EMISSIONS SHALL NOT EXCEED THE FOLLOWING LIMITS AND SHALL BE MEASURED BY VOLUME AT 3% O₂, DRY BASIS.

FUEL USED	NOX AS NO ₂	CO
NATURAL GAS	12 PPMV	<50 PPMV

[RULE 1303(a)(1) – BACT/LAER]

10. ON AND AFTER JANUARY 1, 2015, EMISSIONS OF NOX SHALL NOT EXCEED 9 PPMV (CORRECTED TO 3% O₂, DRY).
 [RULE 1146]

11. THE OWNER OR OPERATOR OF THIS EQUIPMENT SHALL CONDUCT AN INITIAL SOURCE TEST, AND SUBSEQUENT SOURCE TESTS ONCE EVERY FIVE YEARS THEREAFTER, UNDER THE FOLLOWING CONDITIONS AND PER RULE 1146:

- A. TESTING SHALL BE CONDUCTED BY AN APPROVED CONTRACTOR UNDER THE SCAQMD LABORATORY APPROVAL PROGRAM AND IN COMPLIANCE WITH DISTRICT RULE 304 (NO CONFLICT OF INTEREST).
- B. A SOURCE TEST PROTOCOL SHALL BE SUBMITTED TO AQMD WITHIN 30 DAYS OF INITIAL START UP AND SHALL BE APPROVED BY AQMD BEFORE THE TEST COMMENCES. THE PROTOCOL SHALL INCLUDE PROPOSED OPERATING CONDITIONS OF THE EQUIPMENT DURING THE TEST AND DESCRIPTIONS OF ALL SAMPLING AND ANALYTICAL PROCEDURES TO BE USED.
- C. SOURCE TESTS SHALL BE CONDUCTED WITHIN 60 CALENDAR DAYS AFTER NORMAL OPERATION OF THE EQUIPMENT HAS BEEN ESTABLISHED, BUT NO LATER THAN 180 DAYS AFTER INITIAL START UP.
- D. SOURCE TESTS SHALL BE PERFORMED WHEN THE BOILER IS OPERATING AT MAXIMUM, MINIMUM AND AVERAGE LOADS. THE SAMPLING TIME AT EACH LOAD SHALL BE FOR A MINIMUM OF 15 CONSECUTIVE MINUTES.
- E. TWO COPIES OF THE SOURCE TEST RESULTS SHALL BE SUBMITTED TO AQMD WITHIN 60 DAYS OF TESTING. THE REPORT SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:
 - I. FUEL FLOW RATE
 - II. FLUE GAS FLOW RATE
 - III. TOTAL NON-METHANE ORGANICS FOR EXHAUST GAS
 - IV. SPECIATED TRACE ORGANICS FOR EXHAUST GAS
 - V. OXIDES OF NITROGEN FOR EXHAUST GAS
 - VI. CARBON MONOXIDE FOR EXHAUST GAS
 - VII. OXYGEN FOR EXHAUST GAS

[RULE 217, RULE 1146, RULE 1303(a)1), 1303(b)(1), 1303(b)(2)-BACT, MODELING AND OFFSET, RULE 1401]

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12. EMISSIONS FROM THIS EQUIPMENT SHALL NOT EXCEED THE FOLLOWING:

POLLUTANT	POUNDS PER HOUR
CO	0.28
NOX	0.06
PM10	0.05
ROG	0.05
SOX	0.003

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

13. THIS EQUIPMENT SHALL BE OPERATED IN COMPLIANCE WITH APPLICABLE REQUIREMENTS OF 40 CFR 63 SUBPART DDDDD.
[40 CFR 63 SUBPART DDDDD]
14. ALL RECORDS REQUIRED BY THIS PERMIT SHALL BE KEPT AND MAINTAINED FOR A MINIMUM OF FIVE YEARS AND SHALL BE MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.
[RULE 3004(A)(1)]

Periodic Monitoring:

15. THE OPERATOR SHALL DETERMINE COMPLIANCE WITH THE EMISSION LIMIT(S) IN CONDITION NO. 12, AT LEAST ONCE EVERY FIVE YEARS USING AQMD-APPROVED TEST METHODS. THE TEST SHALL BE CONDUCTED WHEN THE EQUIPMENT IS OPERATING UNDER NORMAL CONDITIONS. THE OPERATOR SHALL COMPLY WITH ALL GENERAL TESTING, REPORTING AND RECORDKEEPING REQUIREMENTS IN SECTION E AND K OF THIS PERMIT.
[RULE 1303 – OFFSET, 3004(a)(4)]

Emissions and Requirements:

16. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULE AND REGULATIONS:
- CO: 2000 PPMV, RULE 407
CO: 400 PPMV @ 3% O₂, DRY BASIS, RULE 1146
PM: 0.1 GR/SCF, RULE 409

FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT

PERMIT TO CONSTRUCT

GRANTED AS OF: March 9, 2010
A/N 503055

Equipment Description:

INTERNAL COMBUSTION ENGINE, CATERPILLAR, 12 CYLINDERS, TURBOCHARGED, AFTERCOOLED, MODEL 3512C, 2000 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]

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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

FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT

PERMIT TO CONSTRUCT

GRANTED AS OF: TBD
A/N 512190

Equipment Description:

MODIFICATION OF A WATER RECLAMATION PLANT, ANAEROBIC, 11 MGD CAPACITY, CONSISTING OF:

I. HEADWORKS PROCESSES CONSISTING OF:

1. ONE (1) CLIMBING BAR SCREEN WITH RAG COMPACTOR AND ONE (1) COMMINUTOR FOR BACKUP.
2. ONE (1) STORAGE TANK, FERRIC CHLORIDE, 2,500 GALS.
3. THREE (3) AERATED GRIT CHAMBERS WITH ASSOCIATED PUMPS AND MOTORS.
4. ONE (1) GRIT WASHER AND HOPPER WITH ASSOCIATED PUMPS AND MOTORS.

II. PRIMARY TREATMENT PROCESSES CONSISTING OF:

5. FIVE (5) PRIMARY SEDIMENTATION TANKS, UNCOVERED, EACH 16' W X 123' L X 12' H, WITH ASSOCIATED DRIVES, PUMPS AND MOTORS.
6. FIVE (5) AERATION TANKS, EACH 24' W X 210' L X 15' H, WITH ASSOCIATED PUMPS AND MOTORS.

III. SECONDARY TREATMENT PROCESSES CONSISTING OF:

7. ELEVEN (11) SECONDARY SEDIMENTATION TANKS, EACH 16' W X 110' L X 12' H, WITH ASSOCIATED PUMPS AND MOTORS.
8. TWO (2) FLOW EQUALIZATION BASINS, EACH 2.5 MILLION GALLONS PER DAY CAPACITY, 150' W X 420' L X 3' H, WITH ASSOCIATED PUMPS AND MOTORS.
9. TWO (2) STORAGE TANKS, CHLORINE, 10 TON CAPACITY, EACH 4'-6" D X 16'-11" L.
10. SCRUBBER, CHLORINE NEUTRALIZING, RJ-2000 BULK.
11. ONE (1) STORAGE TANK, CAUSTIC SODA, 14,500 GALLON CAPACITY, 16' D X 10' H.
12. TWO (2) CHLORINE CONTACT TANKS, EACH 28'-6" W X 235' L X 12' H.
13. TEN (10) SECONDARY EFFLUENT EVAPORATION/STORAGE PONDS, 264 MILLION GALLONS TOTAL CAPACITY.
14. TWELVE (12) WETLAND RESEARCH CELLS, EACH 45' W X 225' L X 2' H.
15. ONE (1) CONSTRUCTED WETLANDS, 40 MILLION GALLON CAPACITY, 25 ACRES, 5' DEEP.

IV. TERTIARY TREATMENT PROCESSES, 22 MGD CAPACITY, CONSISTING OF:

16. FOUR TERTIARY FILTERS, ROTARY DISC CLOTH TYPE, EACH 636 SQUARE FEET.

V. SLUDGE PROCESSES CONSISTING OF:

17. TWO (2) DISSOLVED AIR FLOATATION (DAF) SLUDGE THICKENER TANKS, EACH 30' D X 6' H, WITH ASSOCIATED PUMPS AND MOTORS.
18. THREE (3) PRIMARY DIGESTERS WITH FIXED ROOF, EACH 50' D X 22' H, EACH 309,000 GALLONS, WITH ASSOCIATED PUMPS AND MOTORS.
19. ONE (1) SECONDARY DIGESTER WITH FLOATING ROOF, 50' D X 22' H, 309,000 GALLONS.
20. ONE (1) GAS DRYER WITH ASSOCIATED MOTOR.
21. ONE (1) DIGESTER GAS STORAGE SPHERE, 35' D, WITH GAS COMPRESSOR.

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22. ONE (1) DIGESTER GAS DESULFURIZATION (IRON SPONGE), GROTH EQUIPMENT CORPORATION, DUAL VESSEL, EACH VESSEL, 5' W X 9'-9" L X 7'-1" H, EACH CELL CONTAINING 112 CUBIC FEET OF FERRIC OXIDE MATERIAL.
23. ONE (1) SLUDGE OFF-LOADING STATION.
24. TWO (2) SLUDGE DRYING BEDS, EACH 160' W X 140' L X 1' H.
25. EIGHT (8) SLUDGE DRYING BEDS, EACH 40' W X 140' L X 1' H.
26. ONE (1) STORAGE TANK, CAUSTIC SODA, 1,000 GALLONS.
27. TWO (2) BOILERS, FULTON PULSEPAK, MODEL PHW 1400, 1.4 MMBTU/HR EACH, NATURAL GAS FIRED.
28. ONE (1) SCRUBBER, WESTERN TECHNOLOGY, PACKED BED, 8' D X 16'-8" H.
29. PASTEURIZATION SYSTEM, FULLY ENCLOSED TO THE ATMOSPHERE, ECO-THERM, WITH A VARIABLE SPEED FEED PUMP, SPIRAL-TYPE HEAT EXCHANGERS AND TWO SERPENTINE PIPE REACTORS.

BY THE ADDITION OF:

I. HEADWORKS:

1. TWO MECHANICAL BAR SCREENS AND ONE BY-PASS MANUAL BAR SCREEN. ONE UNUSED INFLUENT CHANNEL FOR FUTURE BAR SCREEN.
2. TWO HORIZONTAL SCREW CONVEYORS
3. ONE SCREENINGS COMPACTOR
4. TWO STORAGE TANKS, FERRIC CHLORIDE, 11,000 GALS.
5. ONE GRIT WASHER AND ONE HOPPER WITH ASSOCIATED PUMPS AND MOTORS.
6. TWO GRIT BASINS, CIRCULAR VORTEX TYPE, 18'-0" DIA, WITH ASSOCIATED GRIT PUMPS AND GRIT CLASSIFIER
7. SPLITTER BOX

II. PRIMARY TREATMENT PROCESS:

8. INFLUENT SPLITTER BOX
9. FIVE PRIMARY SEDIMENTATION TANKS, COVERED, EACH 16'W X 123'L X 10'H WITH ASSOCIATED DRIVERS, PUMPS AND MOTORS.
10. TWO PRIMARY CLARIFIERS, COVERED, EACH 100'-0" DIA. X 12'-0" D., WITH ASSOCIATED DRIVES, PUMPS, MOTORS. (PLANT 2)
11. PRIMARY EFFLUENT SPLITTER BOX.

III. SECONDARY TREATMENT PROCESS:

12. FIVE AERATION TANKS, EACH 24'W X 210'L X 12'H, WITH ASSOCIATED PUMPS AND MOTORS.
13. THREE AERATION BLOWERS, EACH AT 6000 SCFM.
14. ELEVEN (11) SECONDARY SEDIMENTATION TANKS, EACH 16' W X 110" L X 10' H WITH ASSOCIATED PUMPS AND MOTORS.
15. ONE FLOW EQUALIZATION BASIN, 2.0 MILLION GALLONS PER DAY CAPACITY, 138' W X 452' L X 3' H, WITH ASSOCIATED PUMPS AND MOTORS.
16. ONE FLOW EQUALIZATION BASIN, 2.3 MILLION GALLONS PER DAY CAPACITY, 160' W X 452' L X 3' H, WITH ASSOCIATED PUMPS AND MOTORS.
17. ONE (1) CHLORINE CONTACT TANK, 28'-6" W X 235' L X 12' H.
18. AERATION TANK, 168' W X 207' L X 12' H WITH ASSOCIATED MIXERS
19. TWO AERATION BLOWERS, 6400 SCFM EACH
20. THREE SECONDARY CLARIFIERS, EACH 125' DIA X 14'H, WITH ASSOCIATED DRIVERS, PUMPS AND MOTORS. (PLANT 2)
21. FIVE SECONDARY PONDS:

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POND 1 -- 7.5 MG
POND 3 -- 15.5 MG
POND 4 -- 26 MG
POND 8 -- 27 MG
POND 9 -- 26.5 MG

IV. TERTIARY TREATMENT PROCESS:

22. FILTER INFLUENT PUMP STATION WITH 5000 GPM PUMP.
23. ONE FILTER INFLUENT PUMP STATION WITH 3 PUMPS.
24. SIX TERTIARY CLOTH FILTERS, 636 SQ. FT EACH.
25. THREE (2) CHLORINE CONTACT TANKS, EACH 9.5' W (3 PASS) X 235' L X 10' H".
26. TERTIARY CHEMICAL BUILDING WITH ONE ALUM STORAGE TANK (13,000 GALLONS) WITH ASSOCIATED PUMPS AND TWO POLYMER TOTES AT 260 GALLONS EACH AND ASSOCIATED BLENDERS.
27. TWO FLOCCULATION BASINS, EACH 18'-0" L X 18'-0" W X 18'-0" H, WITH ALUM AND POLYMER STORAGE, PUMPING EQUIPMENT, ONE RAPID MIXER AND FOUR FLOCCULATORS.
28. TERTIARY EFFLUENT DIVERSION BOX.
29. TERTIARY EFFLUENT/UTILITY WATER PUMP STATION WITH TEN PUMPS.
30. SIX (6) TERTIARY STORAGE PONDS:
PONDS 2A & 2B -- 19.7 MG
POND 5 -- 28 MG
POND 6 -- 40 MG
POND 7 -- 50 MG
WETLAND -- 40 MG

V. SLUDGE PROCESSES:

31. THREE (3) PRIMARY DIGESTERS WITH FIXED ROOF, EACH 50' D X 21' H, EACH 309,000 GALLONS.
32. SCUM DECANT STATION.
33. THREE ROTARY DRUM THICKENERS, WITH ASSOCIATED PUMPS AND POLYMER BLENDING UNITS.
34. TWO DIGESTERS, DOMED ROOF, 80'-0" D X 30'-0" H EACH.
35. ONE (1) OPTIONAL STORAGE TANK, COLD SLUDGE, WITH FLOATING ROOF, 50'-0" D. X 22'-0" H., 309,000 GALLONS.
36. ONE STORAGE TANK, COLD SLUDGE, WITH FIXED DOMED COVER, 50' D X 22' H, 293,005 GALLONS.
37. ONE STORAGE TANK, DIGESTED SLUDGE, 80'-0" DIA X 23'-0" H, 864,767 GALLONS CAPACITY.
38. ONE PREHEAT TANK.
39. ONE STORAGE TANK, DIGESTER GAS, LOW PRESSURE, 24' D X 30'-0" H.
40. THREE CONVEYORS, SLUDGE CAKE.

BY THE REMOVAL OF:

I. HEADWORKS:

1. ONE (1) CLIMBING BAR SCREEN WITH RAG COMPACTOR AND ONE (1) COMMINUTOR FOR BACKUP.
2. ONE (1) STORAGE TANK, FERRIC CHLORIDE, 2,500 GALS.
3. THREE (3) AERATED GRIT CHAMBERS WITH ASSOCIATED PUMPS AND MOTORS.

FACILITY PERMIT TO OPERATE EASTERN MUNICIPAL WATER DISTRICT

II. PRIMARY TREATMENT PROCESSES CONSISTING OF:

4. FIVE (5) PRIMARY SEDIMENTATION TANKS, UNCOVERED, EACH 16' W X 123' L X 12' H, WITH ASSOCIATED DRIVES, PUMPS AND MOTORS.
5. FIVE (5) AERATION TANKS, EACH 24' W X 210' L X 15' H, WITH ASSOCIATED PUMPS AND MOTORS.

III. SECONDARY TREATMENT PROCESSES CONSISTING OF:

6. ELEVEN (11) SECONDARY SEDIMENTATION TANKS, EACH 16' W X 110' L X 12' H, WITH ASSOCIATED PUMPS AND MOTORS.
7. TWO (2) FLOW EQUALIZATION BASINS, EACH 2.5 MILLION GALLONS PER DAY CAPACITY, 150' W X 420' L X 3' H, WITH ASSOCIATED PUMPS AND MOTORS.
8. TEN (10) SECONDARY EFFLUENT EVAPORATION/STORAGE PONDS, 264 MILLION GALLONS TOTAL CAPACITY.
9. TWELVE (12) WETLAND RESEARCH CELLS, EACH 45' W X 225' L X 2' H.
10. ONE (1) CONSTRUCTED WETLANDS, 40 MILLION GALLON CAPACITY, 25 ACRES, 5' DEEP.

IV. TERTIARY TREATMENT PROCESSES, 22 MGD CAPACITY, CONSISTING OF:

11. FOUR TERTIARY FILTERS, ROTARY DISC CLOTH TYPE, EACH 636 SQUARE FEET.

IV. SLUDGE PROCESSES CONSISTING OF:

12. THREE (3) PRIMARY DIGESTERS WITH FIXED ROOF, EACH 50' D X 22' H, EACH 309,000 GALLONS, WITH ASSOCIATED PUMPS AND MOTORS.
13. ONE (1) SECONDARY DIGESTER WITH FLOATING ROOF, 50' D X 22' H, 309,000 GALLONS.
14. ONE (1) SLUDGE OFF-LOADING STATION.
15. TWO (2) SLUDGE DRYING BEDS, EACH 160' W X 140' L X 1' H.
16. EIGHT (8) SLUDGE DRYING BEDS, EACH 40' W X 140' L X 1' H.
17. TWO (2) BOILERS, FULTON PULSEPAK, MODEL PHW 1400, 1.4 MMBTU/HR EACH, NATURAL GAS FIRED.
18. PASTEURIZATION SYSTEM, FULLY ENCLOSED TO THE ATMOSPHERE, ECO-THERM, WITH A VARIABLE SPEED FEED PUMP, SPIRAL-TYPE HEAT EXCHANGERS AND TWO SERPENTINE PIPE REACTORS.

AND BY INCREASING THE PLANTS CAPACITY FROM 11 MGD TO 14 MGD.

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]

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4. THE CONCENTRATION OF FUGITIVE H₂S EMISSIONS FROM THE OPTIONAL COLD SLUDGE STORAGE TANK WITH FLOATING ROOF SHALL BE MEASURED AT LEAST ONCE PER WEEK, AT A MINIMUM OF 4 POINTS ON TOP OF THE FLOATING ROOF. THE H₂S CONCENTRATION SHALL NOT EXCEED 1 PPMV.
[RULE 204]
5. THE MONITORING FREQUENCY IN CONDITION NO. 4 CAN BE CHANGED TO ONCE A MONTH IF NO EXCEEDANCE IS MEASURED IN FOUR CONSECUTIVE WEEKS.
[RULE 204]
6. THE PRIMARY DIGESTERS AND SECONDARY DIGESTERS SHALL BE VENTED TO THE INTERNAL COMBUSTION ENGINES, DIGESTER GAS STORAGE FACILITY, MICROTURBINES AND/OR DIGESTER GAS FLARE WHICH ARE IN FULL USE AND HAVE BEEN ISSUED PERMITS TO CONSTRUCT OR OPERATE BY THE SCAQMD OR TO EQUIPMENT EXEMPT PER SCAQMD RULE 219.
[RULE 1303]
7. THE MAXIMUM QUANTITY OF WASTEWATER TREATED BY THIS EQUIPMENT SHALL NOT EXCEED 14 MILLION GALLONS IN ANY ONE DAY, EXCEPT DURING WET WEATHER CONDITIONS.
[RULE 1303]
8. ALL SLUDGE SHALL BE PIPED AND STORED IN AN ENCLOSED MANNER TO PREVENT THE RELEASE OF AIR CONTAMINANTS UNTIL AFTER IT IS DEWATERED.
[RULE 1303]
9. A FLOW INDICATOR AND RECORDER SHALL BE INSTALLED AND MAINTAINED TO MEASURE AND RECORD THE DIGESTER GAS FLOW RATE TO THE FLARE(S), BOILERS, COGEN, AND ANY OTHER COMBUSTION DEVICE. THE FLOW INDICATOR AND RECORDER SHALL OPERATE WHENEVER THE FLARE IS IN OPERATION.
[431.1]
10. THIS EQUIPMENT SHALL NOT BE OPERATED UNLESS THE HEADWORKS, GRIT CHAMBERS, AND PRIMARY CLARIFIERS (PLANT 2) ARE VENTED TO AN AIR POLLUTION CONTROL SYSTEM WHICH IS IN FULL USE AND HAS A VALID PERMIT TO OPERATE ISSUED BY THE SCAQMD.
[RULE 402]
11. DAILY RECORDS SHALL BE KEPT TO SHOW COMPLIANCE WITH THE ABOVE CONDITIONS FOR PERIOD OF AT LEAST FIVE YEARS AND SHALL BE MADE AVAILABLE TO SCAQMD PERSONNEL UPON REQUEST.
[RULE 204]