FACILITY PERMIT TO OPERATE

EASTERN MUNICIPAL WATER DIST
770 N SANDERSON AVE
SAN JACINTO, CA 92582

NOTICE

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

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

Barry R. Wallerstein, D. Env.
EXECUTIVE OFFICER

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

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 Copley Drive, Diamond Bar, CA 91765

FACILITY PERMIT TO OPERATE
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SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 Copley Drive, Diamond Bar, CA 91765

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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 #
446534	FLARE, ENCLOSED LANDFILL/DIGESTER GAS	3
475846	SEWAGE TREATMENT (>5 MG/D) ANAEROBIC	7
475845	BIOFILTER	12

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: November 4, 2005
A/N 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, AND RULE 217]

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, AND RULE 217]

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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 217]

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]

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/SF, 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

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PERMIT TO CONSTRUCT

GRANTED AS OF: January 1, 2010
A/N 475846

Equipment Description:

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

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. SC RUBBER, CHLORINE NEUTRALIZING, RJ-2000 BULK.
11. ONE (1) S TORAGE 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.

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14. TW ELVE (12) WETLAND RESEARCH CELLS, EACH 45' W X 225' L X 2' H.

15. ONE (1) CONSTRUCTED W ETLANDS, 40 MILLION GALLON CAPACITY, 25 ACRES, 5' DEEP.

IV. SLUDGE PROCESSES CONSISTING OF:

16. TWO (2) DISSOLVED AIR FLOATATION (DAF) SLUDGE THICKENER TANKS, EACH 30' D X 6' H, WITH ASSOCIATED PUMPS AND MOTORS.

17. THREE (3) PRIMARY DIGESTERS WITH FIXED ROOF, EACH 50' D X 22' H, EACH 309,000 GALLONS, WITH ASSOCIATED PUMPS AND MOTORS.

18. ONE (1) SECOND ARY DIGESTER WITH FLOATING ROOF, 50' D X 22' H, 309,000 GALLONS.

19. ONE (1) GAS DR YER WITH ASSOCIATED MOTOR.

20. ONE (1) DIGES TER GAS STORAGE SPHERE, 35' D, WITH GAS COMPRESSOR.

21. ONE (1) DIGES TER 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.

22. ONE (1) SLUDGE OF F-LOADING STATION.

23. TWO (2) SLUDGE DRYING BEDS, EACH 160' W X 140' L X 1' H.

24. EIGHT (8) SLUDGE DRYING BEDS, EACH 40' W X 140' L X 1' H.

25. ONE (1) S TORAGE TANK, CAUSTIC SODA, 1,000 GALLONS.

26. TWO (2) BOILERS, FULTON PULSEPAK, MODEL PHW 1400, 1.4 MMBTU/HR EACH, NATURAL GAS FIRED.

27. ONE (1) SCRUBBER, WEST ERN TECHNOLOGY, PACKED BED, 8' D X 16'-8" H.

28. PASTEURIZ ATION SYSTEM, FULLY ENCLOSED TO THE ATMOSPHERE, ECO-THERM, WITH A VARIABLE SPEED FEED PUMP, SPIRAL-TYPE HEAT EXCHANGERS AND TWO SERPENTINE PIPE REACTORS.

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

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

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BY THE ADDITION OF:

I. HEADWORKS:

1. TWO BAR SCREENS, WITH SCREW CONVEYOR, WASHER, COMPACTOR, AND BIN
2. TWO GRIT BASINS, CIRCULAR VORTEX TYPE, 18'-0" DIA.
3. SPLITTER BOX, WITH ASSOCIATED DRIVES, PUMPS AND MOTORS.

II. PRIMARY TREATMENT:

4. TWO STORAGE TANKS, FERRIC CHLORIDE, EACH 11,000 GALLONS CAPACITY.
5. FIVE PRIMARY CLARIFIERS, COVERED, EACH 16' W X 123' L. X 12' H., WITH ASSOCIATED DRIVES, PUMPS AND MOTORS.
6. INFLUENT SPLITTER BOX, WITH ASSOCIATED DRIVES, PUMPS AND MOTORS. (PLANT 2)
7. TWO PRIMARY CLARIFIERS, COVERED, EACH 100'-0" DIA.X 12'-0" D., WITH ASSOCIATED DRIVES, PUMPS AND MOTORS. (PLANT2)
8. PRIMARY EFFLUENT SPLITTER BOX, WITH ASSOCIATED DRIVES, PUMPS AND MOTORS. (PLANT 2)

III. SECONDARY TREATMENT:

9. AERATION TANK, 160' W X 200' L X 15' H, WITH ASSOCIATED PUMPS AND MOTORS.(Plant 2)
10. THREE SECONDARY CLARIFIERS, EACH 125' DIA X 14' H, WITH ASSOCIATED DRIVES, PUMPS AND MOTORS.(PLANT 2)
11. ONE CHLORINE CONTACT TANK, 28'-6" W X 235' L X 12' H.
12. FLOW EQUALIZATION BASIN, NO.1 (NORTH), 452' L. X 138' W. X 5' D., 2.5 MILLION GALLONS CAPACITY.
13. FLOW EQUALIZATION BASIN, NO.2 (SOUTH), 452' L. X 160' W. X 5' D., 2.5 MILLION GALLONS CAPACITY.
14. FOUR SECONDARY EFFLUENT AND SIX TERTIARY EFFLUENT STORAGE PONDS, 264 MILLION GALLONS TOTAL CAPACITY.

IV. SLUDGE PROCESSES:

15. SCUM DECANT STATION.
16. THREE ROTARY DRUM THICKENERS, WITH ASSOCIATED PUMPS AND POLYMER BLENDING UNITS.
17. TWO PRIMARY DIGESTERS, DOMED ROOF, 80'-0"DIA. X 42'-0" H., EACH 1,127,958 GALLONS CAPACITY, WITH ASSOCIATED PUMPS, MOTORS, AND HEATING EQUIPMENT.
18. ONE STORAGE TANK, COLD SLUDGE, WITH FIXED DOMED COVER, 50' D X 22' H, 293,005 GALLONS.
19. ONE STORAGE TANK, DIGESTED SLUDGE, 80'-0" DIA. X 23'-0" H., 864,767 GALLONS CAPACITY.
20. ONE PRE-HEAT TANK. (EXISTING BUT NOT LISTED)
21. ONE STORAGE TANK, DIGESTER GAS (LOW PRESSURE), 24' D X 30'-0" H.
22. THREE CONVEYORS, SLUDGE CAKE.
23. PASTEURIZATION SYSTEM, WITH VARIABLE SPEED FEED PUMP, SPIRAL-TYPE HEAT EXCHANGERS, TWO SERPENTINE PIPE REACTORS, AND CARBON ADSORBER.
24. TWO DIGESTER GAS DESULPHURIZATION TANKS, IRON SPONGE, VAREC MODEL VB2350800, EACH 9'-11' L. X 5'-7" W. X 6'-3" H., ONE BACK-UP
25. SLUDGE DRYING BEDS,
    A. TWO BEDS, 160' W. X 140' L. X 1' D.
    B. TWO BEDS, 40' W. X 140' L. X 1' D.
    C. TWO BEDS, 120' W. X 140' L. X 1' D.

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V. TERTIARY TREATMENT PROCESSES:

26. SECONDARY EFFLUENT EQUALIZATION BASIN, NO.1, 138'-0" W. X 452'-0" L. X 4'-0" H., 2.0 MILLION GALLONS CAPACITY.
27. SECONDARY EFFLUENT EQUALIZATION BASIN, NO.2, 160'-0" W. X 452'-0" L. X 4'-0" H., 2.3 MILLION GALLONS CAPACITY.
28. TWO FLOCCULATION BASINS, EACH 18'-0" L. X 18'-0" W. X 20'-0" H., WITH ALUM AND POLYMER STORAGE, PUMPING EQUIPMENT, TWO RAPID MIX BOXES, FOUR FLOCCULATORS, AND ASSOCIATED PUMPS AND MOTORS.
29. TWO TERTIARY FILTERS, ROTARY DISC CLOTH TYPE, EACH 636 SQUARE FEET.
30. TERTIARY EFFLUENT DIVERSION BOX.
31. SEVEN STORAGE PONDS, TREATED EFFLUENT, 223.6 MILLION GALLONS CAPACITY
32. THREE STORAGE PONDS, OUT-OF-COMPLIANCE EFFLUENT, 34.2 MILLION GALLONS CAPACITY.
33. STORAGE TANK, ALUM/POLYMER, 10' DIA. X 12' H.

AND THE REMOVAL OF:

I. HEADWORKS:

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

II. PRIMARY TREATMENT:

5. FIVE PRIMARY SEDIMENTATION TANKS, COVERED, EACH 16' W X 123' L. X 12' H., WITH ASSOCIATED DRIVES, PUMPS AND MOTORS.

III. SECONDARY TREATMENT

6. TEN SECONDARY EFFLUENT EVAPORATION/STORAGE PONDS, 264 MILLION GALLONS TOTAL CAPACITY.

IV. SLUDGE PROCESSES

7. TWO DISSOLVED AIR FLOATATION (DAF) SLUDEGE THICKENER TANKS, EACH 30'-0" DIA. X 6'-0" H. WITH ASSOCIATED PUMPS AND MOTORS.
8. ONE SECONDARY DIGESTER WITH FLOATING ROOF, 50' D X 22' H, 293,005 GALLONS.
9. EIGHT SLUDGE DRYING BEDS, EACH 40' W X 140' L X 1' H.
10. ONE STORAGE TANK, CAUSTIC SODA, 1,000 GALLONS.
11. ONE SCRUBBER, WESTERN TECHNOLOGY, PACKED BED, 8' D X 16'-8" H.
12. PASTEURIZATION SYSTEM, FULLY ENCLOSED TO THE ATMOSPHERE, ECO-THERM, WITH A VARIABLE SPEED FEED PUMP, SPIRAL-TYPE HEAT EXCHANGERS TWO SERPENTINE PIPE REACTORS.
13. 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.

V. TERTIARY TREATMENT PROCESSES:

14. TWO FLOW EQUALIZATION BASINS, EACH 2.5 MILLION GALLONS PER DAY CAPACITY, 150' W X 420' L X 3' H, WITH ASSOCIATED PUMPS AND MOTORS.

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

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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. 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]

5. 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]

6. AT LEAST ONE SAMPLE OF THE TREATED DIGESTER GAS DOWNSTREAM OF THE GAS PURIFIER SHALL BE ANALYZED FOR H2S DAILY AND RECORDED. ANALYTICAL METHODS SHALL BE APPROVED BY THE AQMD.
[RULE 431.1]

7. H2S CONCENTRATION OF THE DIGESTER GAS SHALL NOT EXCEED 200 PPMV.
[RULE 431.1]

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.
[RULE 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 A PERIOD OF AT LEAST FIVE YEARS AND SHALL BE MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.
[RULE 3003]

FACILITY PERMIT TO OPERATE
EASTERN MUNICIPAL WATER DISTRICT

PERMIT TO CONSTRUCT

GRANTED AS OF: January 1, 2010
A/N 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 CONCENTRATION OF H2S SHALL BE MEASURED AT LEAST ONCE PER WEEK, AT THE INLET TO THE BIOFILTER. THE H2S CONCENTRATION SHALL NOT EXCEED 40 PPM.
[RULE 402]

8. THE OPERATOR SHALL MAINTAIN ADEQUATE RECORDS TO VERIFY COMPLIANCE WITH THE CONDITIONS ABOVE. SUCH RECORDS SHALL BE KEPT ON THE PREMISES FOR AT LEAST FIVE YEARS AND BE MADE AVAILABLE TO THE EXECUTIVE OFFICER OR HIS REPRESENTATIVE UPON REQUEST.
[RULE 3003]