

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING AND COMPLIANCE DIVISION PERMIT APPLICATION EVALUATION AND CALCULATIONS	PAGES 10	PAGE 1
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Alteration/Modification (Permit to Construct)

Applicant's Name Eastern Municipal Water District (EMWD)
San Jacinto Valley Regional Water Reclamation Facility

Mailing Address 2270 Trumble Road
P.O. Box 8300
Perris, CA 92580-8300

Equipment Location 770 N Sanderson Avenue
San Jacinto, CA 92582

FACILITY ID 019159
APPLICATION 508839- Title V De Minimis Significant Permit Revision

Equipment Description
APPLICATION 512190

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.

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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.
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)

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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:
 - 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 BLENDEES.
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.

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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.

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.
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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.

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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.

Background/Process Description

Eastern Municipal Water District (EMWD) A/N 512190 was submitted for a Proposed Alteration/Modification to Permitted Equipment of a sewage treatment plant Permit to Operate F83291, A/N 448181 on June 29, 2010. EMWD- San Jacinto Valley Regional Water Reclamation Facility (SJVRWRF) collects and treats municipal sewage and produces recycled water for a 167 square mile area include the cities of Hemet and San Jacinto. The applicant is requesting to convert a secondary digester into a temporary cold sludge storage tank. Permit to Construct A/N 475846, which is a modification to Permit F83291, is to be cancelled, since A/N 512190 shall supersede A/N 475846. A/N 512190 will reflect the construction activities and modifications which were encompassed in A/N 475846.

SJVRWRF currently operates three anaerobic primary digesters with fixed covers and one secondary digester with a floating roof in its sludge processing system. Digester gas from the primary and secondary digesters is conveyed to a high pressure storage sphere or flare, if necessary. The secondary digester was originally constructed in 1964 and has since experienced corrosion that has damaged the piping and roof. Comprehensive repairs were done in February 2010 under a short variance granted in Case No. 4937-34. The digester was taken out of service for these repairs to be completed. Currently, the secondary digester has a roof damaged by corrosion with small holes that allow digester gas leaks. This application was filed in response to Ex Parte Emergency Variance Case No. 4937-40. During routine inspection on April 7, 2010, plant personnel discovered that digester gas was leaking from the vessel and being emitted into the atmosphere from several very small holes in the roof dome. In the petition for variance EMWD indicated that they planned on welding the holes shut and therefore needed to remove the sludge and digester gas from the vessel. Under the variance EMWD shut off the influent sludge flow, the remaining sludge was then pumped out and sent to the dewatering building, then digester gas was drawn out of the vessel and released to the atmosphere from a hatch on the floating roof from April 9, 2010 to April 14, 2010. Then the remainder of the digester gas was degassed through an open valve of an inspection vent to the atmosphere. Currently, the secondary digester is empty and is not operating pending this application.

The applicant has conducted repairs of the secondary digester (see previous variances) totaling the repair and maintenance costs to approximately \$350,000. Therefore the applicant wishes to use the secondary digester as a cold sludge storage tank to 1) allow the facility to continue operation of the sewage treatment plant allowing them to have somewhere to hold the sludge as an intermediate location from the primary digesters to the dewatering facility and 2) reduce potential fugitive emission. The difference between using the secondary digester as a digester and a cold storage tank is that a secondary digester requires heating and mixing to facilitate the production of digester gas, a cold sludge storage tank does not. The applicant expects the potential fugitive emissions will decrease since less digester gas will be produced and the dispersion of the vapors from the vessel will decrease since there will not be any mixing or

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heating. As part of a future expansion project under A/N 475846 (expected to be 2-3 years from now) the secondary digester vessel will be converted into a fixed, low-profile aluminum dome covered digested sludge storage tank. Therefore this proposed alteration/modification will be an interim solution for digester sludge holding.

This application will also supersede and assume all of the alterations from A/N 475846. The sewage treatment plant capacity will be increased from 11 MGD to 14 MGD, new equipment will be installed and existing equipment will be modified or removed.

There is no school within 1000 feet of the emission source. A Notice to Comply D11617 was issued on August 7, 2007 to provide the following information for Permit to Construct 446534: date the mist eliminator was ordered, final specifications submitted to AQMD, dates operated, duration of operations, quantity of digester gas consumed, and temperature of flare during operations. A Notice to Comply D04630 was issued on September 8, 2006 for the following compliance required: posting permits for flare Permit to Operate F80951, odor scrubber Permit to Operate F81078, portable flare A/N 457924, and sludge dewatering Permit to Operate F81077; place AQMD permit number on all recordkeeping forms & resubmit for approval; repair VPR recovery hose; and verify John Deere PWRD. There has been one complaint filed against the above facility in the past year (4/19/2009) regarding foul odors.

Calculations for A/N 512190

VOC emissions

Existing VOC emissions calculated based on SCAQMD "Joint Emissions Inventory Program (JEIP) Executive Summary Table 1-7." It is assumed R1 = R2, since the control equipment for the sewage treatment plant, a biofilter, is not considered as VOC control.

	Mass Emission Rate			
	Average	Minimum	Maximum	Modified Emission Factor based on A/N 475846 (lb/yr/mgd)
Preliminary/Primary Treatment				
Headworks-Ducted	86.37	1.08	357.14	86.37
Headworks- Non ducted	0.1	0.03	0.24	0
Inlet Open Channel Flow Meter	0.07	0.02	0.12	0.12
Septage Dumping Facility	0.29	0.09	0.5	0
Grit Removal - Aerated	7.54	0.27	37.82	0
Grit Removal - Nonaerated	0.6	0.6	0.6	0.6
Primary Sedimentation	36.69	6.06	139.35	139.35
Flow Equalization- Primary Effluent	106.96	61.56	152.35	106.96
Biological Treatment				
Activated Sludge – Diffused Air	185.75	124.38	1342.31	185.75
Activated Sludge – Mechanical	27.27	17.81	32.98	0
Activated Sludge – HPO	5.55	0.26	10.64	0
Trickling Filters	111.7	46.82	188.2	0
Post – Biological Treatment				

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Flow Equalization – Secondary Effluent	29.98	27.36	33.5	33.5
Secondary Clarifiers	12.29	3.17	36.64	12.29
Gravity Filtration	0.58	0.13	2.72	0
Chlorination	0.91	0.18	2.67	0.91
Final Effluent Discharge Weir	0.14	0.01	1.51	1.51
Final Effluent Evaporation Ponds	523.56	234.31	1091.1	523.56
Solids Handling				
Dissolved Air Flootation	12.28	0.21	35.32	12.28
Primary Sludge Thickening – Gravity	0.14	0.14	0.14	0.14
Sludge Digestion – Aerobic	10.25	10.25	10.25	0
Sludge Digestion - Anaerobic - Fixed Covers	0.04	0.01	0.38	0.38
Sludge Dewatering – Centrifuges	6.65	0.93	11.54	0
Sludge Dewatering - Belt Presses	58.81	3.38	252.56	58.81
Sludge Cake Handling - Conveyor Belts	0.03	0	0.1	0.1
Sludge Cake Storage	6.1	0.05	19.74	6.1
Digested Sludge Storage	14.77	14.14	15.02	15.02
Sludge Cake Truck Loading Operations	1.73	0	13.17	1.73
Sludge Dehydration – Multieffect Evaporation	8.14	8.14	8.14	0
Sludge Drying Bed - Static	13.01	13.01	13.01	0
Sludge Drying Bed – Mechanically Mixed	32.69	32.69	32.69	32.69
Primary Skimmings Concentration Box	0.07	0	0.07	0
Secondary Sludge Thickening Mechanical	0.02	0.02	0.02	0
Digester Cleaning Storage	0.18	0.18	0.18	0
Sludge Screening	8.63	2.5	6.03	0
Sludge Blending	1.96	1.96	1.96	0
Primary Effluent Screening Dewatering Station	0.56	0.56	0.56	0.56
Digester Cleaning Screenings Building	0.45	0.45	0.45	0
Facility Total VOC Emissions (calculated) (lb/yr)	176.51	88.62	421.33	1,218.73
Facility Rated Capacity (mgd)				14
Facility Total VOC Emissions (calculated) (lb/yr)				17,062.22

Previous application A/N 448181, Permit F83291 = 1.58 lbs/hr = 37.91 lbs/day

Emission calculation replicated from A/N 475846.
17,062.22 lbs/year x year/365days x day/24 hours = 1.95 lbs/hr = 46.80 lbs/day

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There is an overall VOC emission increase of 0.37 lbs/hr from previous application A/N 448181. Although there is no increase in VOC emissions due to the requested conversion of a secondary digester to a cold sludge storage tank.

Toxic Risk Analysis for A/N 512190

Nearest Residential Receptor Distance: 2577 ft. (786 m)
Nearest Commercial Receptor Distance: 729 ft. (222 m)

Compound	MW (lbs/lbmole)	Outlet emission (lb/hr)
Ammonia	17.03	9.33
Bis(2-ethylhexyl)phthalate (DEHP)	390.54	6.21E-6
Chloroform	119.38	0.011529
1,4-Dichlorobenzene	147.01	0.005973
Hydrogen Sulfide	34.08	0.161858
Phenol	94.11	3.41E-5
Toluene	92.13	0.002949

The emission rates for the toxic air contaminants (TACs) were based on A/N 475846 BASTE modeling emission rates for DEHP, Chloroform, 1,4-Dichlorobenzene, Phenol and Toluene developed by the applicant and A/N 475845 biofilter emission rates for Ammonia and Hydrogen Sulfide.

Tier II analysis was used since the nearest receptor is greater than 25 m from the emission source. Tier II risk analysis was based on the emission rates listed in the above table. The MICR values are determined to be 9.21×10^{-8} for residential and 1.38×10^{-7} for commercial receptors. HIA and HIC were less than 1, $3.72E-1$ and $3.35E-1$ respectively. Cancer Burden was less than 0.5.

Project totals (based on NSR lbs/day values)

A/N 512190 (Sewage Treatment Plant)

CO	= 0 lbs/hr	= 0 lbs/day	0 lbs/year	0 tons/year
NOx	= 0 lbs/hr	= 0 lbs/day	0 lbs/year	0 tons/year
PM10	= 0 lbs/hr	= 0 lbs/day	0 lbs/year	0 tons/year
ROG	= 1.95 lbs/hr	= 47.45 lbs/day	17,035.20	8.5 tons/year
SOx	= 0 lbs/hr	= 0 lbs/day	0 lbs/year	0 tons/year

Previous totals (based on NSR lbs/day values)

A/N 448181 (Sewage Treatment)

CO	= 0 lbs/hr	= 0 lbs/day	0 lbs/year	0 tons/year
NOx	= 0 lbs/hr	= 0 lbs/day	0 lbs/year	0 tons/year
PM10	= 0 lbs/hr	= 0 lbs/day	0 lbs/year	0 tons/year
ROG	= 1.58 lbs/hr	= 38 lbs/day	13,802.88 lbs/year	6.9 tons/year
SOx	= 0 lbs/hr	= 0 lbs/day	0 lbs/year	0 tons/year

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Emission Increase (based on NSR lbs/day values)

CO	= 0 lbs/hr	= 0 lbs/day	0 lbs/year	0 tons/year
NOx	= 0 lbs/hr	= 0 lbs/day	0 lbs/year	0 tons/year
PM10	= 0 lbs/hr	= 0 lbs/day	0 lbs/year	0 tons/year
ROG	= 0.37 lbs/hr	= 9.45 lbs/day	3,232.32 lbs/year	1.6 tons/year
SOx	= 0 lbs/hr	= 0 lbs/day	0 lbs/year	0 tons/year

Rules Evaluation

- Rule 212: Rule 212 (c)(1)- There is no school within 1000 feet of the facility.
Rule 212 (c)(2)- On-site emission increases do not exceed the following:
- | | |
|----------------------------|-------------|
| Volatile Organic Compounds | 30 lbs/day |
| Nitrogen Oxides | 40 lbs/day |
| PM10 | 30 lbs/day |
| Sulfur Dioxide | 60 lbs/day |
| Carbon Monoxide | 220 lbs/day |
| Lead | 3 lbs/day |
- Rule 212 (c)(3)(A)(i)- MICR is below 1 in a million
Public Notice is not required.
- Rule 401: Visible Emissions
No violations are expected, limits are listed under Rule 401(b)(1).
- Rule 402: Nuisance
Nuisance is not expected.
- Rule 431.1: Sulfur Content of Gaseous Fuels
Rule 431.1(g)(8)- Any facility which emits < 5 pounds per day total sulfur compounds, calculated as H2S from the burning of gaseous fuels other than natural gas is exempt from this rule. Facility emission < 5 lbs/day, see facility-wide condition in Section D of facility permit pertaining to the Rule 431.1 exemption. Compliance is expected.
- Reg. XIII: Rule 1303(a)(1)- Equipment is equipped with BACT.
Rule 1303(a)(2)- BACT includes a carbon adsorber or scrubbing system, covers for primary raw sewage processing, and digester gas incineration or recovery for VOC and ferrous chloride injection and caustic scrubber for hydrogen removal.
The facility has covers for primary raw sewage processing, which is vented to a biofilter for air pollution control. Also a scrubber is used in the secondary treatment process and sludge processing.
Rule 1303(b)(1)- Modeling for VOC and SOx is not required (1303 Appendix A). NOx, CO and PM10 are less than the allowable emissions in Table A-1, no further analysis is required (1301 Appendix A).
Rule 1303(b)(2)- There is no increase of emissions for: CO, NOx, SOx. There is an increase of emissions for ROG from previous application (A/N 448181, Permit F83291).

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Since the facility is an essential public service, required offsets shall be provided through priority reserve.
Compliance with Regulation XIII is expected.

- Rule 1401: Toxic Air Contaminants
Rule 1401(d)(1)(A)- MICR is estimated to be less than 1.0×10^{-6} limit.
Rule 1401(d)(1)(C)- Cancer burden is estimated to be less than 0.5.
Rule 1401(d)(2) and Rule 1401(d)(3)- HIC and HIA values are estimated to be less than 1 respectively.
- Rule 1401.1: Rule 1401.1(b)- Equipment is exempt since it is located at an existing facility.
- Reg. XXX: The modification of the t sewage treatment plant a is considered a Title V De Minimis Significant permit revision under Rule 3000(b)(6), since the cumulative emission increases of non-RECLAIM pollutants or HAPs do not exceed the emissions in Table 5-4 of the Draft Title V TDG March 2005 and does not result in new or additional NSPS or NESHAP requirements and will be subject to an EPA review (Rule 3003(j)). A public notice is not required.
Compliance is expected.

Conclusions and Recommendations

The equipment is in compliance with the Rules and Regulations of the AQMD. A Permit to Construct is recommended for application 512190. For Permit Conditions please see Sample Permit. A revised Title V permit is recommended after EPA review.