



**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**

**ENGINEERING AND COMPLIANCE DIVISION**

**APPLICATION PROCESSING AND CALCULATIONS**

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**APPLICATION NO. 485850 (MODIFICATION TO PO R-F83913, APPL.NO.485939)**  
INTERNAL COMBUSTION ENGINE, NO. 172, 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, DRIVING AN AERATION BLOWER.

**APPLICATION NO. 482172 (MODIFICATION TO PO F21409, APPL.NO.331502)**  
INTERNAL COMBUSTION ENGINE, NO. 120, 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, DRIVING AN ELECTRIC GENERATOR.

**APPLICATION NO. 482173 (MODIFICATION TO PO R-F21784, APPL.NO.331499)**  
[TO BE CANCELLED (SUPERSEDED BY APPLICATION NO. 485848) ]

**APPLICATION NO. 485848 (MODIFICATION TO PO R-F21784, APPL.NO.331499)**  
INTERNAL COMBUSTION ENGINE, NO. 117, 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.

**APPLICATION NO. 486641 (MODIFICATION TO PO R-F31594, APPL.NO.356818)**  
INTERNAL COMBUSTION ENGINE, NO. 119, 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.

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**APPLICATION NO. 369219 ( PC TO PO)**

**[ SAME AS PERMIT TO CONSTRUCT ISSUED ON 8-01-2000 ]**

**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.

**APPLICATION NO. 415794 ( PC TO PO)**

**[ SAME AS PERMIT TO CONSTRUCT ISSUED ON 10-02-03 ]**

**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, X H.P. EACH.

**APPLICATION NO. 495605 (MODIFICATION TO PO F97959, APPL.NO. 435791)**

**[EVALUATION FOR PERMIT TO CONSTRUCT - SECTION H]**

**ALTERATION OF PERMIT TO OPERATE F97959 APPL.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.

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**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.

**IV. ADVANCED WASTE TREATMENT (AWT):**

1. TWO DENITRIFICATION TOWERS, THREE CELLS EACH, EACH CELL 12'-0" W. X 21'-0" L. X 14'-0"
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:**

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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' W. X 420' L. X 8' D.
9. EMERGENCY EFFLUENT STORAGE POND, 210' W. X 310' L. X 8' 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 FLOATION (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.
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.

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**BY THE ADDITION OF:**

1. ONE SECONDARY CLARIFIER, 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) {INCREASE TOTAL TO SIX FROM FIVE}.]
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. [TO BE ADDED AS: V. TERTIARY TREATMENT, ITEM NO.11 ]
4. TWO ANAEROBIC DIGESTERS, EACH 80'- 0" DIA. X 35'- 0" H., WITH ASSOCIATED HEAT EXCHANGERS, PUMPS AND PIPING. [VI SOLIDS HANDLING, NEW ITEM NO. 5]

**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 ]

**APPLICATION NO. 495606**

APPLICATION FOR A DEMINIMUS SIGNIFICANT REVISION TO THE FACILITY PERMIT ISSUED ON DECEMBER 20, 2006.

**CONDITIONS: (See Draft Title V Facility Permit Sections D and H )**

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**BACKGROUND**

The Eastern Municipal Water District Temecula (EMWD), facility ID No.1703, is a publicly owned sewage treatment facility serving the city of Temecula and the surrounding communities. This facility is currently subject to Title V, and it is operating under its initial Facility Permit to Operate (Sections D, and H, Revision #0 ) issued on October 13, 2008. An Initial Study, and an EIR have been completed and a Notice of Determination was filed on March 6, 2009, which indicated there are no adverse environmental impacts associated with the proposed projects.

Application No. 369219 was filed on July 29, 2000, and subsequently was issued a Permit to Construct (PC) on August 1, 2000, and then extended on July 26, 2001. The permit to construct was issued for a new biofilter which is currently in service. A performance source test was conducted on May 11, 12, and 13, 2004, to show compliance with permit conditions.

Application No. 415794 was filed on May 23, 2003, and subsequently was issued a PC on October 2, 2003, for a new digester gas fired flare which is currently in service. A performance source test was conducted on October 26, and 27, 2005, to show compliance with permit conditions.

Application No. 466456 was filed on February 14, 2007, for a permit to operate a Liquid Propane Gas (LPG) Storage Tank which was previously exempt from permit requirements under Rule 219.

Application No. 471053 was filed on 6-21-07, to correct the NSCR unit, and ATF ratio controller which are described on PO F70958, which was issued under application No. 426335, for an existing ICE. According to EMWD, PO F70958 reflects the description of the NSCR and ATF ratio controller which was proposed before the control system specifications were finalized. The changes proposed under application 471053 reflect the originally installed NSCR and ATF ratio controller.

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Appl.No.472722 was filed on August 1, 2007, to correct the non-selective catalytic reduction (NSCR) unit, and the air to fuel ratio (ATF) controller described on the permit to construct for an existing Internal combustion engine (ICE) which was originally issued under application No. 373968, and then modified by a PC issued under application No. 454578. A change of permit condition was also requested to reflect that the maximum pressure drop across the catalyst is 7 inch W.C., because the intial pressure drop before cleaning is 5 inches W.C. and an increase of 2 inches W.C. indicates potential fouling of the catalyst.

Appl.No. 471247 was filed on June 26, 2007, for an administrative amendment to PO F83912, issued under application No.458938 for an existing ICE (#171), to remove the serial number from the permit description, and then superseded by application No. 485849. Application No. 485849 was filed on 7-31-08 to add a permit condition specifying operation at a single load, and identify the ATF ratio controller on the permit description.

Application No. 485850, was filed on 7-31-08 to add a permit condition specifying operation at a single load and identify the ATF ratio controller for the engine operated under permit F83913 which was issued under application No. 458939.

Appl.No. 482173 was filed on 4-30-08, to identify the ATF ratio controller on PO R-F21784, which was issued under application No. 331499, for an existing ICE (#117) then it was superseded by application No. 485848, which was filed on 7-31-08 to add a permit condition specifying operation at a single load.

Application No. 482172 was filed on 4-30-2008, to identify the ATF ratio controller on PO F21409, which was issued under application No. 331502, for an existing ICE (#120).

Applications No. 486641, 486644, and 486643, were filed on August 6, 2008, to add permit conditions to three ICEs operated under PO R-F36594 (a/n 356818), PO F70958 (a/n 426335), and PC (a/n 454578). The requested change is to limit the operation to one load to comply with Rule 1110.2.

Application No. 495605, and 495606, were filed on February 3, 2009, for modifications to PO F97959 (Appl.No. 435791) for a sewage treatment plant, and for a De Minimus Significant Revision of the Title Facility Permit to Operate.

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The following sections, Emissions, Process Description, and Rules Evaluation, of this engineering report will show that the modification/changes of permit conditions, and administrative change of permit status from PC to PO, will not significantly increase the emissions of criteria emissions (<0.1 lb/day), and a De minimus Significant Revision to the Title V Facility Permit can be recommended.

**PROCESS DESCRIPTION**

The current sewage treatment plant located at this facility has a permitted raw sewage capacity of 18 MGD. A complete process description was filed under previous application No. 435791. There are two projects to modify this existing sewage treatment plant. The first project is to add additional equalization and storage ponds to provide the plant with greater operational flexibility during peak flow and the second project is to optimize the plant and enable the sewage treatment plant to operate at full capacity. According to the applicant, the previous modifications to increase the capacity to 18 MGD were not sufficient to operate at the maximum capacity of 18 MGD under all conditions, and the following modifications are proposed.

An emergency effluent storage pond ( item No. V(7) ) will be split to reduce its stated capacity to 22.1 Million gallons and to create an additional secondary equalization basin equal in sized to the existing secondary equalization basin [ item no. III(3) ]. An existing tertiary storage pond [ item no. V(8) ] will be converted to a secondary equalization basin and a new 5.3 MG tertiary storage pond will be constructed. The out of compliance effluent storage ponds will be increased by the construction of two additional ponds with a total volume of 22 MG. The capacity of each pond is specified in volumetric capacity because each pond is irregularly shaped.

The weir troughs in the existing headworks splitter box are retrofitted with new higher weir plates, and flow guides to better control the flow split to plants 1 and 2. No changes to the permit description in the preliminary treatment (headworks), item No. I(4) is required.

The hydraulic gradients in the effluent channel of the plant 2 aeration basin, which is listed as Item No. III(2)(A), are modified to improve flow split to the existing secondary clarifiers, and the new additional clarifier. No changes to the permit description is required.

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The hydraulic gradients in the effluent channel of the plant 2 aeration basin, which is listed as Item No.III(2)(A), are modified to improve flow split to the existing secondary clarifiers, and the new additional clarifier. No changes to the permit description is required.

Plant 2 will be modified additionally by the installation of one new secondary clarifier to reduce the excessive suspended solids concentrations in the existing operation, and by the installation of one additional RAS pump. The secondary clarifier is reflected in item No. III(2)(B) by increase the total number of secondary clarifiers to six from five.

The solids handling system no. VI. will be improved by the installation of two new digesters to operate in parallel with the four existing digesters which are listed as item No. VI(5) in the existing permit. According to the applicant, no additional changes to the digester gas handling system is required because the existing system has adequate capacity to process the additional digester gas expected from the new digesters.

**EMISSIONS**

Since there is no physical modification of each internal combustion engine, except for the installation of an air to fuel ratio controller, there is no change in emissions. There is also no change in emissions due to the change of permit conditions to designate operation at 1158 rpm plus or minus 10 percent, which is equivalent to operation at a single load. Therefore, Table 1, summarizes the previous and current emissions for each engine, and the emission previously estimated under previous applications No. 426335, 458938, 454578, 482162, 331502, and 331499. Table 1, also summarized the emission reported under 369219 for the sewage treatment system.

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The VOC emissions from the modification of the sewage treatment system proposed under applications No. 495605 is estimated in Appendix C based on the JEIP factors. The JEIP VOC emission factor used is 1250 lb/yr/MGD, which is the same as the factor used to estimate VOC emissions under previous applications No. 435791. There is no increase of VOC emissions because there is no increase in rated flow capacity, and the propose modification does not add processes which are not reflected in the emission rate determined from JEIP factors. The ammonia emissions from application No. 435791 is based on the Lake Michigan, Air Director's Consortium emissions factors, and permit limits for the odor control permit units. The H2S emissions is based on the permit limits for the biofilter.

There is no expected increase in emissions of Toxic Air Contaminants (TAC) because there is no increase in rated flow capacity and the proposed modification does not add processes which are expected to change the rate of TAC.

Table 1 - Estimated Hourly Emissions

Appl.No.	Rating	NOx lb/hr	CO lb/hr	ROG lb/hr	PM10 lb/hr	SOx lb/hr
486643 ( F70958, 426335)	815 bhp	0.27	1.08	0.27	0.11	0.01
486644 ( prev A/N454573)	814 bhp	0.27	1.08	0.27	-----	-----
486641 (R-F36594, 356818)	700 bhp	0.23	0.93	0.23	0.00	0.00
485849 ( F83912, 458938)	530 bhp	0.70	2.39	0.29	0.03	0.00
485850 (R-F83913, 482162)	530 bhp	0.70	2.39	0.29	0.03	0.00
482172 ( F21409, 331502)	530 bhp	0.31	1.20	0.31	0.03	0.00
485848 (R-F21784, 331499)	465 bhp	0.02	0.62	0.15	0.00	0.02
415794 (Flare	18 mmbtu/hr	1.08	3.60	0.01	0.52	0.31
495605 (Sewage Treatment)	18 MGD	-----	-----	2.57	-----	-----
466446 (Prev. 219 exempt)	6,565 Gal	-----	-----	1.02	-----	-----

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Table 2 - Estimated Daily Emissions

Appl.No.	Rating	NOx lb/day	CO lb/day	ROG lb/day	PM10 lb/day	SOx lb/day
486643 ( F70958, 426335)	815 bhp	7	26	7	3	0
486644 ( prev A/N454578)	814 bhp	0	0	0	3	0
486641 (R-F36594, 356818)	700 bhp	6	22	6	0	0
485849 ( F83912, 458938)	530 bhp	17	58	7	1	0
485850 (R-F93913, 482162)	530 bhp	0	0	0	0	0
482172 ( F21409, 331502)	930 bhp	8	29	8	0	0
485848 (R-F21784, 331499)	465 bhp	4	15	4	0	0
415794 (Flare	18 mmbtu/hr	26	88	0.00	13	8
495605 (Sewage Treatment)	18 MGD	-----	-----	61.64	-----	-----
466446 (Prev. 219 exempt)	6,565 Gal	-----	-----	0.00	-----	-----

Flare - Based on the results of the source test conducted on October 26, and 27, 2005, the Nox emissions were 0.0451 lb/MMbtu and less than maximum permit limit of 0.06 lbNOx/MMbtu. The hourly rate of NOx was 0.287 lb/hr and less than the permit limit of 1.44 lb/hr. The Co Emissions measured in the report was 20 ppmv, and 0.264 lb/hr which is less than the permit limit of 3.6 lb/hr. The measured flow rate was 208 dscfm and less than the permit limit of 480 dscfm. The heat rate was 6.3 mmbtu/hr and less than the permit limit of 18 mmbtu/hr. PM emissions measured in the report was 5.51 lb/hr and less than the permit limit of 26 lb/hr. Sox emissions measured in the report was 0.299 lb/hr and less than the permit limit of 0.31 lb/hr.

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EVALUATION

**Rule 212**

Rule 212(c)(2)- The emissions increase due to this modification does not exceed the limits specified in subdivision (g) of this Rule, and this facility is not a major source of emissions. Furthermore, the MICR associated with the sewage treatment plant expansion (0.3 MGD) will be less than 1 in a million, and there is no school located within 1000 feet of this facility. No public notice is required and the proposed project complies with Rule 212.

**Rule 401**

No visible emissions are expected from the normal operation of this equipment. Therefore compliance with Rule 401 is expected.

**Rule 402**

Since the headworks, sludge dewatering building, and primary clarifiers are vented to air pollution controls, no public nuisance is expected to be generated by normal operation of this equipment. Furthermore, there is no modification to the air pollution control equipment associated with the proposed construction. Based on the permitted H<sub>2</sub>S concentration of 1 ppmv at the outlet of each biofilter, the maximum ground level concentration at the fence line, was estimated at 5.2 ppbv at the west fence line (closest to the biofilter).

Therefore, the maximum ground level concentrations for H<sub>2</sub>S are less than 30 ppbv which is the California State Ambient Air Quality Standard at the facility property boundary. This standard was adopted to protect against nuisance odor for the general public. The 5.2 ppbv concentrations are also less than 8 ppbv odor threshold level listed by California Office of Environmental Health Hazard Assessment Office (OEHHA) which can be detected but unlikely to be recognized or found annoying by more than a few people. Therefore, all equipment is expected to comply with Rule 402.

**Rule 431.1**

The facility is exempt from this Rule because the maximum facility emissions of sulfur compounds (calculated as H<sub>2</sub>S) are less than 5 pounds per day, and limited by Facility Permit Conditions Limiting the Sox emissions to less than 5 pounds per day.

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**Rule 1110.2**

All applications for alteration or change of permit conditions for the engines were filed to comply with the requirements to equip each engine with an ATF ratio controller, or permit condition to operate at a single load, or to designate operation on an emergency basis only. The existing monitoring, source testing, and record keeping requirements in Rule 1110.2 will ensure compliance with the Nox, VOC, and CO, emission limits required by Rule 1110.2. Therefore, compliance with Rule 1110.2 is expected.

In addition, a subsequent applications No. 495602, and 495603, have been filed for a Rule 1110.2, inspection and maintenance plan, and a Title V permit revision. Evaluation of application No. 495602, and 495603 will be conducted in a subsequent report.

**Rule 1303 - BACT & Offsets**

The installation of an air to fuel ratio controller on the digester gas fired engine, and the modification of the permit condition for the remaining engines subject to this evaluation is not expected to change the criteria emissions recorded in the NSR data base. Therefore, a BACT analysis or Offsets are not required. Therefore, the proposed operation of the engines subject to this evaluation is expected to comply with this Rule.

There is no revision of the VOC emissions estimated or the Criteria emissions estimated for the flare permitted under application No. 415794. Based on the engineering evaluation dated 09-03-2003, the new flare meets the emissions requirement to comply with current BACT limits. A source test conducted on October 26, 2005, confirmed that the emissions of Nox, and CO were less than permit limits. Therefore, the flare complies with BACT. There is no changes from the previously assessed emissions listed in the NSR database. Therefore, no additional offsets required, and the flare complies with the offsets requirements.

Since there is no increase in criteria emissions from the permitted modification of the sewage treatment plant, neither, a BACT analysis nor offsets were required. However, the biofilter subject to application No. 369219, is used to control odors generated by the headworks, and primary clarifiers, to comply with BACT. Therefore, the proposed modification of the sewage treatment system, under application No. 495605 is expected to comply with Rule 1303.

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Since the LPG storage is pressurized, and a closed loop vapor return line, is used when the tank is filled, the proposed operation of the storage tank complies with BACT.

**Rule 1401**

Since the Storage Tank is permitted to store liquefied propane gas, no emissions of toxic air contaminants are expected, and compliance with Rule 1401 is expected.

Since there is no expected increase from the emissions of TAC from each engine, evaluation of compliance with Rule 1401 is not required.

Based on the Tier 2 risk screening filed under application No. 415794 when the permit to construct for the flare was issued, the increase in risk was estimated at 0.0797 in a million, which is less than 1 in a million, and the HIC and HIA was less than 1. Since no change is expected to the rate of TAC emissions, there is no reassessment of TAC emissions required, and therefore the flare is expected to comply with Rule 1401 Risk assessment.

Based on the Tier 2 risk screening filed under application No. 368219, when the permit to construct the biofilter was issued, the increase in risk is estimated at 0.062 in a million, which is less than 1 in a million., and the HIC and HIA was less than 1. Since no change is expected to the rate of TAC emissions, there is no reassessment of TAC emissions required, and therefore, the biofilter is expected to comply with Rule 1401.

Since there is no increase of influent flow rate and there is no significant alteration of the sewage treatment system which would result in a change in the emissions of TAC, no risk assessment is required for the proposed modification of the sewage treatment system, under application 495605. Therefore, the proposed modification is expected to comply with Rule 1401 risk assessment.

**Rule 1401.1**

Not applicable because this is an existing facility, and no school is located within 1000 feet of the facility.

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**Regulation XXX**

Since the proposed changes to the Title V facility permit is not expected to cause the increase of the emissions of criteria pollutants, above significant levels or HAPs, and does not requires any significant change in monitoring terms or conditions in the permit, nor relaxation of any recordkeeping or reporting requirement, the proposed revision of the Title V permit is expected to meet the revision criteria for de Minimus Significant permit Revision in Table 3-8 of the TGD.

**RECOMMENDATION**

1. Approve applications No. 466456, 472722, 482172, 485848, 485849, 485850, 486641, and 486643, for permit to operate with the proposed equipment description and conditions.
2. Convert P/Cs to PO for construction of the biofilter (appl.No. 369219), and flare (appl.No. 415794).
3. Approve applications No. 495605 (Sewage Treatment System) for permit to construct the proposed modifications, and application No.486644 (ICE no. 151 ) for permit to construct with the proposed conditions.
4. Cancel applications No. 471247 (superseded by a/n 485849), 471053 (superseded by a/n 486643), 472722 (Superseded by a/n 486644), and 482173 (superseded by a/n 485848).
5. Issue a De Minimus Significant Revision of the Title V Facility Permit for the approval of the above applications, under application No. 495606.

**APPENDIXES**

- A. NSR TRANSACTION REPORT
- B. PREVIOUS NSR EMISSIONS
- C. EMISSION CALCULATIONS
- D. MODELING