

FACILITY PERMIT TO OPERATE ORANGE COUNTY SANITATION DISTRICT

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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.

FACILITY PERMIT TO OPERATE ORANGE COUNTY SANITATION DISTRICT

PERMITTED EQUIPMENT LIST

THE FOLLOWING IS A LIST OF ALL PERMITS TO CONSTRUCT AND PERMITS TO OPERATE AT THIS FACILITY:

Application Number	Permit to Construct Granted On	Equipment Description	Page Number
428642	9/22/2004	SEWAGE TREATMENT (>5 MG/D) ANAEROBIC	3
428804	9/22/2004	ODOR CONTROL UNIT	6
453240	10/19/2006	SEWAGE TREATMENT (>5 MG/D) ANAEROBIC	10
453244	10/19/2006	ODOR CONTROL UNIT	15
519422	6/07/2012	ODOR CONTROL SYSTEM, GRANULAR ACTIVATED CARBON	18
518276	6/07/2012	ODOR CONTROL UNIT, BIOFILTER	20
545004	TBD, will supersede R-D94235	BOILER (5-20 MMBTU/HR) DIGESTER GAS AND NATURAL GAS	23
545005	TBD, will supersede R-D94232	BOILER (5-20 MMBTU/HR) DIGESTER GAS AND NATURAL GAS	26

NOTE: EQUIPMENT LISTED ABOVE THAT HAVE NO CORRESPONDING PERMITS TO OPERATE NUMBER ARE ISSUED PERMITS TO CONSTRUCT. THE ISSUANCE OR DENIAL OF THEIR PERMITS TO OPERATE IS SUBJECT TO ENGINEERING FINAL REVIEW. ANY OTHER APPLICATIONS THAT ARE STILL BEING PROCESSED AND HAVE NOT BEEN ISSUED PERMITS TO CONSTRUCT OR PERMITS TO OPERATE WILL NOT BE FOUND IN THIS TITLE V PERMIT.

FACILITY PERMIT TO OPERATE ORANGE COUNTY SANITATION DISTRICT

PERMIT TO CONSTRUCT

A/N 545004
Granted as of TBD

Equipment Description:

MODIFICATION TO BOILER, NO. 1 WITH PERMIT TO OPERATE D94235, BY THE REMOVAL OF THE EXISTING BURNER AND THE ADDITION OF A NEW BURNER, AMERICAN COMBUSTION TECHNOLOGY OR EQUAL, MODEL SLE-05-250 OR EQUAL, 10,205,800 BTU PER HOUR MAXIMUM, DIGESTER GAS AND NATURAL GAS (AS SECONDARY FUEL), AND REHABILITATION OF ANCILLARY EQUIPMENT.

Conditions:

1. CONSTRUCTION AND 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 BOILER SHALL BE FIRED ON DIGESTER GAS AND OR NATURAL GAS ONLY. EXCEPT FOR PILOT GAS, NATURAL GAS SHALL ONLY BE USED IF DIGESTER GAS IS NOT AVAILABLE IN SUFFICIENT AMOUNT.
[RULE 204]
4. A FUEL METER SHALL BE INSTALLED AND MAINTAINED IN THE FUEL SUPPLY LINE(S) TO MEASURE, INDICATE AND RECORD THE AMOUNT OF FUEL(S) (SCFM) BURNED IN THIS EQUIPMENT.
[RULE 1146, RULE 1303 (b) (2) – OFFSET]
5. WHEN IN OPERATION, TOTAL HEAT INPUT FOR THIS EQUIPMENT SHALL NOT EXCEED 10, 205, 800 BTU/HR. A DAILY LOG SHALL BE KEPT FOR FUEL USAGE, AND INDICATING FOR DIGESTER GAS THE TOTAL HEATING VALUE (BTU/SCF) OF FUEL BURNED IN THIS EQUIPMENT BASED ON THE RECORDED FLOW RATE (SCFM) AND THE LATEST MONTHLY BTU CONTENT READING.
[RULE 1303 (b) (2) – OFFSET]
6. THIS EQUIPMENT SHALL BE EQUIPPED WITH A CONTROL SYSTEM TO AUTOMATICALLY REGULATE THE COMBUSTION AIR AND FUEL RATE AS THE BOILER LOAD VARIES. THIS AUTOMATIC CONTROL SYSTEM SHALL BE ADJUSTED AND TUNED PERIODICALLY, ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS TO ASSURE ITS ABILITY TO REPEAT THE SAME PERFORMANCE AT THE SAME BURNER FIRING RATE.
[RULE 204]
7. THE FLUE GAS RECIRCULATION SYSTEM SHALL BE IN FULL USE WHENEVER THE BOILER IS IN OPERATION.
[RULE 204]

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8. THE OWNER OR OPERATOR OF THIS EQUIPMENT SHALL CONDUCT AN INITIAL PERFORMANCE SOURCE TESTS, UNLESS OTHERWISE APPROVED, UNDER THE FOLLOWING CONDITIONS:
- A. A TESTING LABORATORY CERTIFIED BY THE CALIFORNIA AIR RESOURCES BOARD AND IN COMPLIANCE WITH DISTRICT RULE 304 (NO CONFLICT OF INTEREST) SHALL CONDUCT THIS TEST.
 - 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 A DESCRIPTION OF ALL SAMPLING AND ANALYTICAL PROCEDURES TO BE USED.
 - C. SOURCE TESTING 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. THE INITIAL PERFORMANCE SOURCE TESTS SHALL BE PERFORMED WHEN THE BOILER IS OPERATING AT MAXIMUM, MINIMUM AND AVERAGE LOAD FOR EACH FUEL (DIGESTER GAS AND NATURAL GAS) TO BE BURNED. 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 WITHIN 60 DAYS OF THE TESTS COMPLETION. THE REPORT SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:

FUEL FLOW RATE (EACH FUEL)
FLUE GAS FLOW RATE (EACH FUEL)
TOTAL HEAT INPUT RATE, BTU/HR (EACH FUEL)
TOTAL NON-METHANE ORGANICS (EXHAUST) (DIGESTER GAS)
TOTAL PARTICULATES (PM10) (EXHAUST) (DIGESTER GAS)
OXIDES OF NITROGEN (EXHAUST) (EACH FUEL)
CARBON MONOXIDE (EXHAUST) (EACH FUEL)
OXYGEN (EACH FUEL)
DIGESTER GAS BTU (HHV) AND TOTAL SULFUR CONTENT (AS H₂S, PPMV)

THE REPORT SHALL PRESENT THE EMISSIONS DATA IN PARTS PER MILLION (PPMV) ON A DRY BASIS, POUNDS PER HOUR, AND LBS/MMBTU.

[RULE 217, RULE 404, RULE 1146, RULE 1303(A) (1), 1303 (B) (1), 1303(B) (2) - BACT, MODELING AND OFFSET, 1401]

9. THE SOURCE TEST PROTOCOL AND REPORT, PER CONDITION NO. 8, SHALL BE SUBMITTED TO,
SCAQMD – ATTN. GAURANG RAWAL
ENERGY/ PUBLIC SERVICES/WASTE MGMT. / TERMINALS - PERMITTING
ENGINEERING AND COMPLIANCE DIVISION
21865 COPLEY DRIVE
DIAMOND BAR, CA 91765

10. EMISSIONS RESULTING FROM THIS EQUIPMENT SHALL NOT EXCEED THE FOLLOWING:

<u>POLLUTANT</u>	<u>POUNDS PER DAY</u>
CO	90.6
NO _x	5.52 (3.1 WITH NATURAL GAS)
PM10	3.1

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ROG 2.6
SOx 1.4
[RULE 1146, RULE 1303(a) (1) - BACT, 1303(b) (2) - OFFSET]

Periodic Monitoring:

11. THE OPERATOR, AT LEAST ONCE EVERY FIVE YEARS, SHALL DETERMINE COMPLIANCE WITH THE EMISSION LIMITS IN CONDITION NO. 10 OF THIS PERMIT USING AQMD-APPROVED TEST METHODS. THE TEST SHALL BE CONDUCTED WHEN THE EQUIPMENT IS OPERATING UNDER NORMAL CONDITIONS. RULE 1146 COMPLIANCE TESTS MAY BE USED TO SATISFY PART OF THIS REQUIREMENT PROVIDED THAT MASS RATES ARE ALSO REPORTED. TO DEMONSTRATE COMPLIANCE WITH RULE 1146 CONCENTRATIONS LIMITS. THE OPERATOR SHALL COMPLY WITH ALL GENERAL TESTING, REPORTING, AND RECORDKEEPING REQUIREMENTS IN SECTIONS E AND K OF THIS PERMIT.
[RULE 1146, RULE 1303(a) (1) - BACT, 1303(b) (2) - OFFSET, RULE 3004 (a)(4)- PERIODIC MONITORING]

Emissions And Requirements:

12. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
- CO: 2000 PPMV, RULE 407
 - CO: 400 PPMV, @ 3% O2, DRY BASIS, RULE 1146
 - NOx: 30 PPMV, @ 3% O2, DRY BASIS, RULE 1146 (UNTIL 1/1/2015)
 - NOx: 15 PPMV, @ 3% O2, DRY BASIS, ON AND AFTER JANUARY 1, 2015, DIGESTER GAS, RULE 1146
 - NOx: 9 PPMV, @ 3% O2, DRY BASIS, ON AND AFTER JANUARY 1, 2015, NATURAL GAS-RULE 1146
 - PM: RULE 404, SEE APPENDIX B.
 - PM: 0.1 gr/scf, RULE 409
 - SO2: 500 PPMV AS SO2, ORANGE COUNTY, RULE 53
 - H2s: 40 PPMV TOTAL SULFUR, DIGESTER GAS

PERMIT TO CONSTRUCT

FACILITY PERMIT TO OPERATE ORANGE COUNTY SANITATION DISTRICT

**A/N 545005
Granted as of TBD**

Equipment Description:

MODIFICATION TO BOILER, NO. 2 WITH PERMIT TO OPERATE D94232, BY THE REMOVAL OF THE EXISTING BURNER AND THE ADDITION OF A NEW BURNER, AMERICAN COMBUSTION TECHNOLOGY OR EQUAL, MODEL SLE-05-250 OR EQUAL, 10,205,800 BTU PER HOUR MAXIMUM, DIGESTER GAS AND NATURAL GAS (AS SECONDARY FUEL), AND REHABILITATION OF ANCILLARY EQUIPMENT.

Conditions:

1. CONSTRUCTION AND 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 BOILER SHALL BE FIRED ON DIGESTER GAS AND OR NATURAL GAS ONLY. EXCEPT FOR PILOT GAS, NATURAL GAS SHALL ONLY BE USED IF DIGESTER GAS IS NOT AVAILABLE IN SUFFICIENT AMOUNT.
[RULE 204]
4. A FUEL METER SHALL BE INSTALLED AND MAINTAINED IN THE FUEL SUPPLY LINE(S) TO MEASURE, INDICATE AND RECORD THE AMOUNT OF FUEL(S) (SCFM) BURNED IN THIS EQUIPMENT.
[RULE 1146, RULE 1303 (b) (2) – OFFSET]
5. WHEN IN OPERATION, TOTAL HEAT INPUT FOR THIS EQUIPMENT SHALL NOT EXCEED 10, 205, 800 BTU/HR. A DAILY LOG SHALL BE KEPT FOR FUEL USAGE, AND INDICATING FOR DIGESTER GAS THE TOTAL HEATING VALUE (BTU/SCF) OF FUEL BURNED IN THIS EQUIPMENT BASED ON THE RECORDED FLOW RATE (SCFM) AND THE LATEST MONTHLY BTU CONTENT READING.
[RULE 1303 (b) (2) – OFFSET]
6. THIS EQUIPMENT SHALL BE EQUIPPED WITH A CONTROL SYSTEM TO AUTOMATICALLY REGULATE THE COMBUSTION AIR AND FUEL RATE AS THE BOILER LOAD VARIES. THIS AUTOMATIC CONTROL SYSTEM SHALL BE ADJUSTED AND TUNED PERIODICALLY, ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS TO ASSURE ITS ABILITY TO REPEAT THE SAME PERFORMANCE AT THE SAME BURNER FIRING RATE.
[RULE 204]
7. THE FLUE GAS RECIRCULATION SYSTEM SHALL BE IN FULL USE WHENEVER THE BOILER IS IN OPERATION.
[RULE 204]

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8. THE OWNER OR OPERATOR OF THIS EQUIPMENT SHALL CONDUCT AN INITIAL PERFORMANCE SOURCE TESTS, UNLESS OTHERWISE APPROVED, UNDER THE FOLLOWING CONDITIONS:
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TOTAL PARTICULATES (PM10) (EXHAUST) (DIGESTER GAS)
OXIDES OF NITROGEN (EXHAUST) (EACH FUEL)
CARBON MONOXIDE (EXHAUST) (EACH FUEL)
OXYGEN (EACH FUEL)
DIGESTER GAS BTU (HHV) AND TOTAL SULFUR CONTENT (AS H₂S, PPMV)

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[RULE 217, RULE 404, RULE 1146, RULE 1303(A) (1), 1303 (B) (1), 1303(B) (2) - BACT, MODELING AND OFFSET, 1401]

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[RULE 1146, RULE 1303(a) (1) - BACT, 1303(b) (2) - OFFSET]

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11. THE OPERATOR, AT LEAST ONCE EVERY FIVE YEARS, SHALL DETERMINE COMPLIANCE WITH THE EMISSION LIMITS IN CONDITION NO. 10 OF THIS PERMIT USING AQMD-APPROVED TEST METHODS. THE TEST SHALL BE CONDUCTED WHEN THE EQUIPMENT IS OPERATING UNDER NORMAL CONDITIONS. RULE 1146 COMPLIANCE TESTS MAY BE USED TO SATISFY PART OF THIS REQUIREMENT PROVIDED THAT MASS RATES ARE ALSO REPORTED. TO DEMONSTRATE COMPLIANCE WITH RULE 1146 CONCENTRATIONS LIMITS. THE OPERATOR SHALL COMPLY WITH ALL GENERAL TESTING, REPORTING, AND RECORDKEEPING REQUIREMENTS IN SECTIONS E AND K OF THIS PERMIT.
[RULE 1146, RULE 1303(a) (1) - BACT, 1303(b) (2) - OFFSET, RULE 3004 (a)(4)- PERIODIC MONITORING]

Emissions And Requirements:

12. THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:
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 - CO: 400 PPMV, @ 3% O2, DRY BASIS, RULE 1146
 - NOx: 30 PPMV, @ 3% O2, DRY BASIS, RULE 1146
 - NOx: 15 PPMV, @ 3% O2, DRY BASIS, ON AND AFTER JANUARY 1, 2015, DIGESTER GAS, RULE 1146
 - NOx: 9 PPMV, @ 3% O2, DRY BASIS, ON AND AFTER JANUARY 1, 2015, NATURAL GAS-RULE 1146
 - PM: RULE 404, SEE APPENDIX B.
 - PM: 0.1 gr/scf, RULE 409
 - SO2: 500 PPMV AS SO2, ORANGE COUNTY, RULE 53
 - H2s: 40 PPMV TOTAL SULFUR, DIGESTER GAS