

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.

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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
457410	10/24/2006	ACTIVATED CARBON ADSORBER, DRUM VENT SINGLE SOURCE	18
471696	3/05/2008	ODOR CONTROL UNIT	20
519422	TBD will supersede A/N 471696	ODOR CONTROL SYSTEM, GRANULAR ACTIVATED CARBON	22
518276	TBD	ODOR CONTROL UNIT, BIOFILTER	24

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.

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PERMIT TO CONSTRUCT

A/N 519422
Granted as of TBD

Equipment Description:

ODOR CONTROL SYSTEM FOR THE BIOSOLIDS TRUCK LOADING STATION, CONSISTING OF;

1. EXHAUST BLOWER, MAXIMUM 3000 CFM, 15 H. P., VENTING TWO (2) BIOSOLIDS STORAGE SILOS (PART OF THE SLUDGE PROCESSING STATION, PC 453240).
2. ADSORBER, BAY PRODUCTS, SPARROW 3000, 8' DIA. X 7'- 3" H. OVERALL, CONTAINING MINIMUM OF 3800 LBS OF ACTIVATED CARBON (BOTTOM LAYER) AND 1500 LBS OF POTASSIUM PERMANGANATE (KMNO4) IMPREGNATED MEDIA (TOP LAYER). EQUIPPED WITH DIFFERENTIAL PRESSURE GAUGE AND A DEMISTER.
3. EXHAUST STACK, 1' - 6" DIA. X 13' - 6" HIGH ABOVE GROUND.

Conditions:

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATIONS UNDER WHICH THIS PERMIT IS ISSUED.
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITIONS AT ALL TIMES.
[RULE 204]
3. THE OPERATOR MAY USE ALTERNATE MEDIA AND AMOUNTS IN ORDER TO OPTIMIZE THE ODOR CONTROL SYSTEM, PROVIDED SUCH ALTERNATE MEDIA AND AMOUNTS ARE GUARANTEED BY THE VENDOR TO MEET THE EMISSION LIMITS IN THIS PERMIT.
[RULE 204]
4. THIS PERMIT SHALL EXPIRE IF CONSTRUCTION OF THE EQUIPMENT IS NOT COMPLETED WITHIN ONE YEAR FROM THE DATE OF ISSUANCE OF THIS PERMIT UNLESS AN EXTENSION IS GRANTED BY THE EXECUTIVE OFFICER.
[RULE 205]
5. SAMPLING PORTS SHALL BE PROVIDED AT THE INLET AND OUTLET OF THE ODOR CONTROL SYSTEM TO ALLOW COLLECTION/ANALYSIS OF THE INLET FOUL AIR AND TREATED EXHAUST STREAM.
[RULE 204]
6. THE OPERATOR SHALL INSTALL AND MAINTAIN A DIFFERENTIAL PRESSURE GAUGE TO ACCURATELY INDICATE THE DIFFERENTIAL PRESSURE, IN INCHES OF WATER COLUMN, ACROSS THE MEDIA BED.
[RULE 204]

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7. THE OPERATOR SHALL, ON A WEEKLY BASIS, MEASURE AND RECORD THE DIFFERENTIAL PRESSURE DROP, IN INCHES OF WATER COLUMN, ACROSS THE MEDIA BED.
[RULE 204]
8. IN OPERATION, THE PRESSURE DROP MEASURED ACROSS THE MEDIA BED SHALL BE MAINTAINED BETWEEN 4.8 AND 8.4 INCHES OF WATER COLUMN, OR ANOTHER RANGE SPECIFIED BY THE MANUFACTURER. MANUFACTURER'S PRESSURE DROP RANGE SPECIFICATIONS FOR THIS EQUIPMENT SHALL BE KEPT ON FILE AND SHALL BE MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.
[RULE 204]
9. THE HYDROGEN SULFIDE (H₂S) CONCENTRATION (PPMV) AT THE INLET TO ODOR CONTROL SYSTEM SHALL BE MONITORED AND RECORDED ON A WEEKLY BASIS FOR THE FIRST MONTH OF OPERATION, AND MONTHLY THEREAFTER USING COLORIMETRIC H₂S TUBES OR ANY OTHER DISTRICT APPROVED METHOD.
[RULE 204]
10. THE HYDROGEN SULFIDE (H₂S) CONCENTRATION (PPMV) IN THE EXHAUST OF THE ODOR CONTROL SYSTEM SHALL BE MEASURED AND RECORDED AT LEAST ONCE A WEEK USING COLORIMETRIC H₂S TUBES, HANDHELD H₂S ANALYZER, OR ANY OTHER DISTRICT APPROVED METHOD.
[RULE 204]
11. IN OPERATION, THE HYDROGEN SULFIDE (H₂S) CONCENTRATION IN THE EXHAUST OF THE ODOR CONTROL SYSTEM SHALL NOT EXCEED 1.0 PPMV.
[RULE 402, 1401]
12. THE MEDIA IN THE ADSORBER SHALL BE REPLACED WITH MINIMUM AMOUNT (LBS) OF FRESH CARBON MEDIA, AS DESCRIBED UNDER EQUIPMENT DESCRIPTION OR CONDITION NO. 3, WHENEVER NECESSARY TO COMPLY WITH THE CONDITIONS OF THIS PERMIT.
[RULE 204]
13. SPENT MEDIA REMOVED FROM THIS SYSTEM SHALL BE MAINTAINED OR STORED IN CLOSED CONTAINERS PRIOR TO REMOVAL FROM SITE.
[RULE 402]
14. RECORDS SHALL BE MAINTAINED AS REQUIRED BY THIS PERMIT INCLUDING MEDIA CHANGE OVER DATE(S), QUANTITY, AND VENDOR GUARANTEES FOR COMPLIANCE. THE RECORDS SHALL BE KEPT FOR AT LEAST FIVE YEARS AND MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.
[RULE 204]

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PERMIT TO CONSTRUCT

A/N 518276
Granted as of TBD

Equipment Description:

ODOR CONTROL SYSTEM, TREATING EXHAUST FROM DISSOLVED AIR FLOATATION THICKENERS (DAFTS), CONSISTING OF:

1. EXHAUST HEADER FROM FOUR (4) DISSOLVED AIR FLOATATION THICKENERS (DAFTS) AND TWO (2) POLYMER MIX TANKS.
2. THREE (3) FOUL-AIR EXHAUST FANS (ONE STANDBY), EACH 100 H.P., MAXIMUM 35,000 CFM CAPACITY.
3. HUMIDIFICATION, IN-DUCT, WITH TWELVE (12) SPARY NOZZLES, AND EQUIPPED WITH HYDROGEN SULFIDE (H₂S) ANALYZER. AND THREE (3) BIOFILTER
4. THREE (3) BIOFILTER CELLS, CONCRETE WALLED, CUSTOM DESIGNED, EACH BIOFILTER CELL 20' W. X 33' L. X 9' D., CONTAINING PROPRIETARY INORGANIC MINERAL BASED MEDIA, EQUIPPED WITH INLET FOUL-AIR FLOW METERS, SAMPLING PORTS AND SURFACE IRRIGATION SYSTEM.

Conditions:

1. CONSTRUCTION AND 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. THIS EQUIPMENT SHALL BE OPERATED BY PERSONNEL PROPERLY TRAINED IN ITS OPERATION.
[RULE 204]
4. THIS PERMIT SHALL EXPIRE IF CONSTRUCTION OF THE EQUIPMENT IS NOT COMPLETED WITHIN ONE YEAR FROM THE DATE OF ISSUANCE OF THIS PERMIT UNLESS AN EXTENSION IS GRANTED BY THE EXECUTIVE OFFICER.
[RULE 205]
5. A TEMPERATURE INDICATOR SHALL BE INSTALLED AND MAINTAINED IN THE MAIN FOUL-AIR HEADER PRIOR TO FOUL-AIR DISTRIBUTION TO THE BIOFILTERS. THE INLET FOUL AIR TEMPERATURE READINGS, TAKEN ON A MONTHLY BASIS, SHALL BE MAINTAINED IN THE RANGE OF EQUIPMENT DESIGN SPECIFICATIONS OR AS PER MANUFACTURER'S RECOMMENDATION, AND WRITTEN SPECIFICATIONS SHALL BE KEPT ON FILE.
[RULE 204]

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6. A HYDROGEN SULFIDE (H₂S) ANALYZER SHALL BE INSTALLED AND MAINTAINED IN THE MAIN FOUL-AIR HEADER PRIOR TO FOUL-AIR DISTRIBUTION TO THE BIOFILTERS. FOUL-AIR H₂S CONCENTRATION (PPMV) SHALL BE MONITORED ON A MONTHLY BASIS AND RESULTS RECORDED. WHEN H₂S ANALYZER IS NOT OPERATING, COLORIMETRIC H₂S TUBES, HAND HELD H₂S ANALYZERS OR ANY OTHER DISTRICT APPROVED METHODS SHALL BE USED FOR H₂S MONITORING.
[RULE 204]
7. FOUL-AIR FLOW RATE (SCFM) MONITORING AND INDICATING DEVICE OR SYSTEM SHALL BE INSTALLED AND MAINTAINED IN THE FOUL AIR INLET DUCT TO EACH BIOFILTER.
[RULE 204]
8. FOUL-AIR FLOW RATE SHALL BE MONITORED AND RECORDED ON A DAILY BASIS. TOTAL FLOW RATE READING FOR INLET FOUL-AIR TO THREE (3) BIOFILTER CELLS SHALL NOT EXCEED 35, 000 SCFM.
[RULE 402, 1401]
9. THE INCOMING FOUL AIR HUMIDIFICATION AND SURFACE IRRIGATION SYSTEMS SHALL BE MAINTAINED IN GOOD OPERATING CONDITION, AT ALL TIMES, AND SHALL BE UTILIZED TO MAINTAIN THE DESIRED MOISTURE CONTENT FOR THE BIOFILTER MEDIA.
[RULE 204]
10. HYDROGEN SULFIDE (H₂S) AND AMMONIA (NH₃) EMISSIONS FROM EACH BIOFILTER SURFACE (MULTI-POINT) SHALL BE MONITORED AT LEAST ONCE A MONTH USING PORTABLE ANALYZERS. THE MULTI-POINT SURFACE READINGS (PPMV) SHALL BE AVERAGED AND RECORDED.
[RULE 204]
11. EMISSIONS OF H₂S FROM THE BIOFILTER SHALL NOT EXCEED 0.0175 LB/HR (93 PPBV AT THE SURFACE AT 35,000 CFM).
[RULE 204]
12. THE OWNER OR OPERATOR OF THE EQUIPMENT SHALL CONDUCT SOURCE PERFORMANCE TESTS UNDER THE FOLLOWING CONDITIONS:
 - I. A TEST PROTOCOL SHALL BE SUBMITTED TO AQMD NO LATER THAN 45 DAYS BEFORE THE PROPOSED TEST DATE AND SHALL BE APPROVED BY THE EXECUTIVE OFFICER BEFORE THE TEST COMMENCES. AT A MINIMUM, THE TEST PROTOCOL SHOULD INCLUDE THE FOLLOWING:
 - a. A DESCRIPTION OF THE EQUIPMENT TESTED. INCLUDE A PROCESS SCHEMATIC INDICATING SAMPLING LOCATIONS/PORTS; SAMPLING DUCT/STACK DIMENSIONS ALONG WITH UPSTREAM AND DOWNSTREAM FLOW DISTURBANCES (E.G. ELBOWS, TEES AND FANS).
 - b. A BRIEF PROCESS DESCRIPTION.
 - c. OPERATING CONDITIONS UNDER WHICH THE TEST WILL BE PERFORMED, INCLUDING INLET AIR FLOW RATE (SCFM), TEMPERATURE, AND % MOISTURE.

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- d. A DESCRIPTION OF THE SAMPLING AND ANALYTICAL METHODS FOR EACH CONSTITUENT MEASURED.
 - e. COMPLETE CALCULATIONS FOR FLOW RATES, CONCENTRATIONS (PPMV), EMISSION RATES AND CONTROL EFFICIENCIES.
 - f. A DESCRIPTION OF THE CALIBRATION AND QUALITY ASSURANCE PROCEDURES.
 - g. SAMPLING FACILITIES SHALL COMPLY WITH THE DISTRICT GUIDELINES FOR CONSTRUCTION OF SAMPLING AND TESTING FACILITIES, PURSUANT TO RULE 217.
 - h. A STATEMENT DETERMINING THAT THE TESTING LABORATORY QUALIFIES AS AN "INDEPENDENT TESTING LABORATORY" UNDER RULE 304 (NO CONFLICT OF INTEREST) AND SIGNED BY THE RESPONSIBLE AUTHORITY.
- II. THE TESTS SHALL DETERMINE BIOFILTER'S INLET AND OUTLET EMISSIONS FOR TOTAL NON-METHANE ORGANIC COMPOUNDS (TNMOC), H₂S AND AMMONIA TO DETERMINE BIOFILTER'S CONTROL EFFICIENCY, IN WEIGHT PERCENT. TEST RESULTS SHOULD INCLUDE INLET AND OUTLET TNMOC AND AMMONIA CONCENTRATIONS (PPMV), AND EMISSIONS (LBS/HR), AND SPECIATED ANALYSIS FOR TNMOCS,
- III. THE TESTS SHALL BE CONDUCTED AND A WRITTEN REPORT SUBMITTED TO THE SCAQMD WITHIN 60 DAYS AT MAXIMUM FOUL-AIR INLET FLOW RATE AT WHICH THE EQUIPMENT WILL BE OPERATED, BUT NOT LATER THAN 180 DAYS AFTER INITIAL START-UP.
[RULE 204, 217, 402, 1401]
13. SMOKE BOMB TESTS SHALL BE CONDUCTED INITIALLY AND, THEREAFTER, EVERY THREE (3) YEARS TO DEMONSTRATE UNIFORM DISTRIBUTION OF AIR FLOWS, AREA OF COMPACTION AND/OR CHANNELING THAT NEEDS REPAIR.
[RULE 204]
14. ANY BREAKDOWN OR MALFUNCTION OF THIS EQUIPMENT RESULTING IN EXCESSIVE ODOR EMISSIONS INTO THE ATMOSPHERE SHALL BE REPORTED TO THE SCAQMD WITHIN TWENTY FOUR HOURS AFTER OCCURRENCE, AND IMMEDIATE REMEDIAL MEASURES SHALL BE UNDERTAKEN TO CORRECT THE PROBLEM AND PREVENT FURTHER EMISSIONS INTO THE ATMOSPHERE.
[RULE 430, 402]
15. ALL RECORDS REQUIRED BY THIS PERMIT SHALL BE KEPT AND MAINTAINED FOR AT LEAST FIVE YEARS, AND SHALL BE MADE AVAILABLE TO AQMD PERSONNEL UPON REQUEST.
[RULE 204]