



MOJAVE DESERT AIR QUALITY MANAGEMENT DISTRICT

14306 Park Avenue Victorville, CA 92392-2310
760.245.1661 -- 800.635.4617 -- FAX 760.245.2022

PERMIT TO OPERATE

B003415

Operation under this permit must be conducted in compliance with all information included with the initial application, initial permit condition, and conditions contained herein. The equipment must be maintained and kept in good operating condition at all times. This Permit to Operate or copy must be posted on or within 8 meters of equipment. If a copy is posted, the original must be maintained on site, available for inspection at all times.

EXPIRES LAST DAY OF: OCTOBER 2025

OWNER OF OPERATOR (Co. #453)

Victor Valley Wastewater Reclamation Authority
20111 Shay Road
Victorville, CA 92394

EQUIPMENT LOCATION (Fac. #1124)

VVWRA - 20111 Shay
20111 Shay Road
Victorville, CA 92394

Description:

POTW - ANAEROBIC DIGESTER SYSTEM consisting of: Anaerobic sewage sludge digester system, with three dissolved air flotation thickeners, and five anaerobic digester tanks. External feedstock processing equipment includes four food waste storage tanks.

EQUIPMENT

| Capacity | Equipment Description |
|----------|---|
| 1.5 | Dissolved Air Flotation Thickener Drives, 2 @ 0.75 hp |
| 15 | Thickened Waste Activated Sludge Pumps, 2 @ 7.5 hp |
| 15 | Dissolved Air Flotation Thickener Air Compressors, 2 @ 7.5 hp |
| 80 | Dissolved Air Flotation Thickener Recycle Pumps, 2 @ 40 hp |
| 1.14 | Polymer Feed Package Unit |
| 60 | Anaerobic Digester Tank Mixing Pumps, 3 @ 20 hp |
| 15 | Anaerobic Digester Tank Recirculation Pump |
| 9 | Anaerobic Digester Tank Macerators, 3 @ 3 hp |
| 0.99 | Anaerobic Digester Tank Hoist Motors, 2 @ 0.33 hp |
| 3 | Anaerobic Digester Tank Hoist Motor |
| 30 | Anaerobic Digester Tank Digested Sludge Pump |
| 30 | Anaerobic Digester Tank High Pressure Sludge Gas Compressor |
| 3 | Anaerobic Digester Tank Medium Pressure Sludge Gas Blower |

Fee Schedule: 1 (c) Rating: 989.6 bhp SIC: 4952 SCC: 50100781 Location/UTM(Km): 467E/3831N

This permit does not authorize the emission of air contaminants in excess of those allowed by law, including Division 26 of the Health and Safety Code of the State of California and the Rules and Regulations of the District. This permit cannot be construed as permission to violate existing laws, ordinances, statutes or regulations of this or other governmental agencies. This permit must be renewed by the expiration date above. If billing for renewal fee required by Rule 301(c) is not received by expiration date above, please contact the District.

Victor Valley Wastewater Reclamation
Authority
P.O. Box 370
Adelanto, CA 92301

By: **COPY**
Brad Poiriez
Air Pollution Control Officer

| Capacity | Equipment Description |
|----------|---|
| 5 | Anaerobic Digester Tank Natural Gas Blower |
| 6 | Anaerobic Digester Tank Sump Pumps, 2 @ 3 hp |
| 25 | Anaerobic Digester Tank Digested Sludge Pump |
| 30 | Anaerobic Digester Tank Digested Sludge Transfer Pump |
| 75 | Anaerobic Digester Tank Digested Sludge Mixing Pumps, 3 @ 25 hp |
| 6 | Anaerobic Digester Tank Heat Exchanger Water Pumps, 3 @ 2 hp |
| 30 | Anaerobic Digester Tank Heated Sludge Return Pumps, 3 @ 10 hp |
| 7.5 | Treated Decant Recycle Pump Motor |
| 15 | TPS Pump 33 Motor |
| 0.5 | 33 DAFT Sludge Coll Motor |
| 50 | RAS Pump #9 Motor |
| 15 | DAFT #4 Air Compressor |
| 25 | Dig Sludge Transfer Pump #2 Motor |
| 25 | Dig Sludge Transfer Pump #4 Motor |
| 30 | Dig Sludge Transfer Pump #5 Motor |
| 30 | Dig Sludge Transfer Pump #6 Motor |
| 20 | Sludge Recirculation Pump #4 Motor |
| 20 | Sludge Recirculation Pump #5 Motor |
| 20 | Sludge Recirculation Pump #6 Motor |
| 5 | Digs Sludge Grinder #4 Motor |
| 5 | Digs Sludge Grinder #5 Motor |
| 5 | Digs Sludge Grinder #6 Motor |
| 30 | Digs Cleaning Pump Motor |
| 75 | Digs #4 Sludge Mixing Pump Motor |
| 75 | Digs #5 Sludge Mixing Pump Motor |
| 75 | Common #6 Sludge Mixing Pump Motor |
| 5 | Heat Exchange H2O Recirculation Pump Motor #4 |
| 5 | Heat Exchange H2O Recirculation Pump Motor #4 |
| 5 | NG/Air Mixing Blower Motor |
| 3 | Dig Gas Blower #1 |
| 3 | Dig Gas Blower #2 |
| 30 | Hose pumps P-33000A and P-33000B, 15 hp and 330 GPM each. |
| 80 | Dynamic cyclones DC-33000A and DC-33000B, 40 hp and 220 GPM each. |
| 0.75 | Screw conveyor SCR-33000A, 0.75 hp. |
| 160 | Centrifugal pumps P-34000A, P-34000B, P-34001A, and P-34002B, 40 hp and 220 GPM each. |
| 20 | Grit classifiers SCN-34000A and SCN-34000B, 10 hp each. |
| 0 | Blending tanks TK-34000A and TK-34000B, 1500 gallons each. |
| 0 | Polished tanks TK-34001A and TK34002B, 500 gallons each. |
| 15 | Shredders SH-6611 and SH-6615, 7.5 hp and 250-400 GPM each. |
| 60 | Reception Skid Pumps P-6610 and P-6613, 30 hp and 400 GPM each. |
| 10 | Mixers MX-6651 and MX-6681, 5 hp each. |
| 5 | Tank1 discharge PC pump, 5 hp, 10-50 GPM |
| 20 | Storage tank 4 mixing pump, 20 hp, 200 GPM. |
| 15 | Food waste storage tank 3 pump P-6614 and tank 4 pump P-6615, 7.5 hp and 75 GPM each. |
| 204 | PSM 940 mixers, 12 @ 17 hp each (Digester tanks 1-5) |
| 1 | Condensate sump pumps P-6641 and P-6640, 0.5 hp and 32 GPM each. |
| 0.99 | Antifoam dosing pumps P-6801, P-6802, and P-6803, 0.33 hp and 200 ml/min. each. |
| 6 | Digester #1 and #2 membrane blowers 1 and 2, 4 @ 1.5 hp and 277 cfm each. |

| Capacity | Equipment Description |
|----------|--|
| 0 | Food waste storage tanks: #1 - 12 ft. diam. x 14 ft. 10 in. H, 12,100 gallon capacity. #2 - 11 ft. diam. x 17.5 ft. H, 12,000 gallon capacity #3 - 14 ft. diam. x 45 ft. H, 50,000 gallon capacity #4 - 14.85 ft. diam. x 42.6 ft. H, 50,000 gallon capacity |
| 0 | Anaerobic digester tanks: #1 - 330,000 gallon capacity. #2 - 330,000 gallon capacity. #3 - 330,000 gallon capacity #4 - 1.2 million gallon capacity #5 - 1.2 million gallon capacity |

CONDITIONS:

1.This facility shall not treat more than 14.5 million gallons of waste water per day.

1.This equipment shall be installed, operated, and maintained in strict accordance with those recommendations of the manufacturer/supplier and/or sound engineering principles which produce the minimum emissions of contaminants. Unless otherwise noted, this equipment shall also be operated in accordance with all data and specifications submitted with the application for this permit.
[District Rule 1302]

2.Digester gas produced by these five (5) anaerobic sewage sludge digesters shall not be released directly to atmosphere under normal operations.

2.This facility shall not treat more than 14.5 million gallons of waste water per day.
[District Rule 1302]

3.Digester gas shall be stored in the digesters, burned in the three (3) IC engines (Permit B003418), upgraded to biomethane using the equipment associated with the thermal oxidizer (Permit C014056), and/or disposed of through the two digester gas flares (Permit C008356 & C010756).

3.Digester gas produced by these five (5) anaerobic sewage sludge digesters shall not be released directly to atmosphere under normal operations.
[District Rule 1302]

4.The pressure relief devices on the anaerobic digester tanks shall be set at no less than 12" water column.

4.The facility shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public.
[District Rule 402]

5.The vacuum relief devices on the anaerobic digester tanks shall be set at no more than one inch mercury (13.6" water column).

5.Digester gas shall be stored in the digesters, burned in the three (3) IC engines (Permit B003418), upgraded to biomethane using the equipment associated with the thermal oxidizer (Permit C014056), and/or disposed of through the two digester gas flares (Permit C008356 & C010756).
[District Rule 1302]

6.An operations log shall be maintained on-site for at least two (2) years and be made available to MDAQMD personnel on request. This log shall contain, as a minimum, the amount of sludge treated and digester gas produced per day.

6.The pressure relief devices on the anaerobic digester tanks shall be set at no less than 12" water column.
[District Rule 1302]

7.This equipment shall only be operated/maintained in strict accord with manufacturer's/supplier's recommendations; sound engineering principles; and/or federal, state, regional and local waste water discharge permits.

7.The vacuum relief devices on the anaerobic digester tanks shall be set at no more than one inch mercury (13.6" water column).
[District Rule 1302]

8.Emissions from this facility, including all stationary and portable emissions, may not exceed the following emission limits, based on a rolling 12 month summary:

- a. NOx - 24.9 tons/year, verified by compliance tests and hours of operation,
- b. VOC as CH4 - 24.9 tons/year, verified by compliance tests and hours of operation,
- c. PM10 - 14.9 tons/year, verified by compliance tests and hours of operation,
- d. Single Federal Hazardous Air Pollutant (HAP) - 9.9 ton/year, verified by emission calculations, and
- e. All HAPs - 24.9 tons/year, verified by emission calculations.

8.An operations log shall be maintained on-site for at least two (2) years and be made available to MDAQMD personnel on request. This log shall contain, as a minimum:

- a. Daily and monthly records of the quantity of wastewater processed at this source;
- b. Daily and monthly records of the quantity of digester gas produced;
- c. Repairs made to the system (Note: This does NOT include routine maintenance actions); and,
- d. The total facility-wide Volatile Organic Compound (VOC) emissions, in pounds or tons, for the most recent calendar year.

[District Rule 1302]

9.A facility wide Comprehensive Emission Inventory (CEI) for all emitted criteria and toxic air pollutants must be submitted to the District, in a format approved by the District, upon District request.

[District Rule 107(b), H&S Code 39607 & 44341-44342, and 40 CFR 51, Subpart A]

9.This equipment shall only be operated/maintained in strict accord with federal, state, regional and local waste water discharge permits.
[District Rule 1302]

10.Emissions from this facility, including all stationary and portable emissions, may not exceed the following emission limits, based on a rolling 12 month summary:

- a. NOx - 24.9 tons/year, verified by compliance tests and hours of operation,
- b. VOC as CH4 - 24.9 tons/year, verified by compliance tests and hours of operation,
- c. PM10 - 14.9 tons/year, verified by compliance tests and hours of operation,
- d. Single Federal Hazardous Air Pollutant (HAP) - 9.9 ton/year, verified by emission calculations, and
- e. All HAPs - 24.9 tons/year, verified by emission calculations.

[District Rule 1303]

11.A facility wide Comprehensive Emission Inventory (CEI) for all emitted criteria and toxic air pollutants must be submitted to the District, in a format approved by the District, upon District request.

[District Rule 107(b), H&S Code 39607 & 44341-44342, and 40 CFR 51, Subpart A]