

DATE: March 26, 2021
WWM PERMIT NO.: HI21WWIP213

PERMIT RATIONALE: APPLICATION FOR WASTEWATER MANAGEMENT
PERMIT

PERMITTEE: CITY AND COUNTY OF HONOLULU
DEPARTMENT OF ENVIRONMENTAL SERVICES

AND

LAIE TREATMENT WORKS, INC

FACILITY/SITE: Laie Wastewater Reclamation Facility

FACILITY/SITE ADDRESS

55-280 Kamehameha Highway
Laie, Hawaii 96762

PERMITTEE MAILING ADDRESS

City and County of Honolulu
Department of Environmental Services
1000 Uluohia Street, Suite 308
Kapolei, Hawaii 96707
Contact: Wesley Yokoyama, P.E.
Director
Phone No.: (808) 692-5159
Fax No.: (808) 692-5113

Laie Treatment Works, Inc.
55-510 Kamehameha Highway
Laie, Hawaii 96762
Contact: R. Eric Beaver
President
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PERMIT STATUS

The Director of Health (Director) proposes to issue a permit for the treatment and preparation of compost containing wastewater sludge, also known as biosolids, that will be land applied as soil amendment. The Director has included in the proposed draft permit those terms and conditions which the Director determined are necessary to carry out the provisions of the Hawaii Revised Statutes (HRS), Chapter 342D, and Chapter 11-62, Hawaii Administrative Rules (HAR), "Wastewater Systems."

SCOPE OF THE ACTIVITY AND LOCATION OF THE PROJECT

The proposed project is located at the Laie Water Reclamation Facility (WRF) in the town of Laie, on the Island of Oahu, Hawaii. The scope of the proposed project is to operate the Laie WRF, which includes a Biosolids Composting Facility that treats wastewater sludge combined with processed green waste obtained from a third party into a Class A/exceptional quality (EQ) compost mixture that will be land applied as a soil amendment.

DESCRIPTION OF THE PROJECT

The Laie WRF is an activated sludge tertiary treatment plant that collects wastewater generated within the town of Laie and utilizes Ultra Violet(UV) disinfection to produce R-1 recycled water. There is no discharge of industrial wastewater within the collection area. The flow into this facility can be characterized as either commercial or domestic wastewater. The wastewater effluent is regulated under Hawaii state rules outlined in Subchapter 2- Wastewater Treatment Works, Chapter 11-62, HAR. Conditions regarding effluent quality will not be covered under this permit.

Raw wastewater enters the Laie WRF 'headworks' where large objects and debris are screened out and de-gritted. The aerated sludge storage tank receives waste activated sludge and scum from the secondary treatment plant units. The effluent portion is treated with a UV disinfection system to R-1 standards and is used for irrigation. The sludge is dewatered using a screw press to a solid concentration of 16 to 17 percent. This dewatered sludge is mixed onsite with processed green waste to form windrows. The windrows are periodically mixed/turned to achieve adequate aerobic composting for a minimum of 14-days (>40° C) prior to the final curing step. This procedure ensures that the permittee meets the requirements of both Vector Attraction Reduction (VAR) and the Process to Further Reduce Pathogens (PFRP). The finished biosolid compost product consists of beneficial nutrients and soil amendments necessary to promote healthy plant growth.

WASTEWATER SLUDGE CRITERIA

The EPA has promulgated regulations for the use and disposal of wastewater sludge in 40 Code of Federal Regulations Part 503. In addition, the Director has also promulgated administrative rules for wastewater systems in Chapter 11-62, HAR. The Director has considered the criteria established in both the federal and state regulations and has determined that the facility and the land application of the treated compost will not endanger human health or the environment. For instances where there is a redundancy between state and federal rules, the permittee will be required to follow the most stringent criteria. Based on current information, the Director proposes to issue a permit.

PERMIT CONDITIONS

The Director has considered the permit conditions to wastewater and wastewater sludge associated with the facility, established pursuant to the HAR and HRS. The Director has determined that the operation of the facility and the land application of the biosolids compost will not endanger human health and the environment when the Permittee complies with all the conditions of the permit. Therefore, based on current information, the Director proposes to issue a permit.

PROPOSED DETERMINATION

1. The General Conditions as stated in Part A of the permit are necessary to ensure compliance with administrative, reporting, and record keeping requirements that are referenced in both federal and state regulations.
2. The Special Conditions as stated in Part B of the permit are implemented to prevent pollution or run-off from the facility, adequate treatment to meet VAR/PFRP requirements, and testing of pollutants prior to distribution of EQ compost.
3. The Director may require a modification of this permit if either federal or state rules referenced in this permit are revised after the issuance of this permit.

PUBLIC COMMENT AND CONTACT INFORMATION

Persons wishing to comment upon to the proposed Draft Wastewater Management Permit in accordance with HAR Chapter 11-62-54.07, HAR, may submit their comments in writing either in person or by mail, to:

State of Hawaii
Wastewater Branch
2827 Waimano Home Road #207
Pearl City, Hawaii 96782