

Job Description: WWTP Sr. Operator
SCA Equivalent: Conformed
Effective Date: January 1, 2012
Last Revision: September 1, 2023
AIP Target: 12% of Base Earnings
Profit Centers: 203, 204, 208

Primary Accountability - Responsible for the operation and maintenance activities at a Grade III or Grade IV wastewater treatment plant ("WWTP").

Description of Primary Responsibilities

- 1) Responsible for the ensuring the safe, efficient and economical operations of equipment in wastewater treatment plants to optimize process and protect public health:
 - a) Ensures staff operates facilities in compliance with current rules, regulations, and contract requirements,
 - b) Reviews operation data to ensure facilities operate in compliance with current rules, regulations, and contract requirements,
 - c) Ensures that pumps, meters, gauges and other recording devices are operating correctly on a daily basis,
 - d) Displays adherence to established safety protocol and practice,
 - e) Reads and records readings from meters gauges and other recording devices, makes notes of any plant and/or mechanical equipment malfunctions, irregularities or needed repairs,
 - f) Understands contract scope of work and contract budget constraints; including the understanding of appropriate logs and reports,
 - g) Operates various equipment to regulate the flow of wastewater, air and sludge between the processes of the plant,
 - h) Regularly identifies opportunities for increased efficiencies in power, water and chemical consumption on a monthly basis,
 - i) Provides written and verbal communications on operational matters
 - j) Assists in the preparation of annual operating budget for company managed systems by providing information relating to equipment and supplies.
- 2) Responsible for the maintenance and upkeep of equipment and operating devices:
 - a) Operates and services aeration systems, blowers, filtration system and chemical metering systems,
 - b) Operates and maintains pre-treatment devices, solids handling equipment and aeration equipment of various treatment processes,
 - c) Ensures that process control field testing equipment is properly calibrated and ready for use,
 - d) Maintains facility including painting equipment, buildings and other plant structures,
 - e) Performs general yard work and grounds maintenance tasks,
 - f) Performs routine preventative maintenance, lubricates, changes oil and makes running repairs and adjustments to plant machinery and equipment,
 - g) Submits job orders and requisitions for tools, materials and supplies,
 - h) Drains and cleans settling tanks, clarifiers, chlorine contact chambers, digesters and aeration tanks.
- 3) Responsible for the performing physical and chemical tests:
 - a) Collects and tests fecal coliform samples, as required,
 - b) Conducts evaluations to identify sample content, including settleability, volatile, total, suspended and fixed solids, volatile acids, alkalinity, BOD, settleability, pH, chlorine residual and dissolved oxygen,

- c) Maintains and reviews the wasting, MCRT, settleability, mass balance, SVI, sludge age and F/M ratio.
- 4) Provides leadership to WWTP Operators:
 - a) Assigns duties to plant personnel,
 - b) Provides supportive and corrective training and guidance to division staff,
 - c) Implements, supports, and guides the individualized training and licensing goal program to ensure employees are capable of operating facilities in compliance with current rules, regulations, and contract requirements,
 - d) Provides instructions to plant personnel on efficient equipment maintenance,
 - e) Mentors and trains new operators.
- 5) Responsible for interpreting data and making recommendations to improve plant equipment and processes:
 - a) Maintains and reviews flow data and water and power consumption information,
 - b) Inspects plant equipment to evaluate efficiency and initiates changes as necessary to meet process quality control requirements,
 - c) Evaluates instrument readings and reports of laboratory analyses to improve operations,
 - d) Recommends process modifications to improve plant performance,
 - e) Maintains and evaluates operating and maintenance records.
- 6) Responsible for sewer pump stations (“SPS”):
 - a) Checks pump station routinely,
 - b) Evaluates meter readings; monitors and makes proper adjustments,
 - c) Operates and maintains electrical pump controls and alarms,
 - d) Monitors well levels and pump performance,
 - e) Responds to emergency call outs,
 - f) Schedules routine cleanings.
- 7) Responsible for the troubleshooting of plant equipment:
 - a) Uses operations and maintenance (“O&M”) manual and other technical manuals to properly diagnose problems with equipment,
 - b) Responds to emergency calls,
 - c) Installs emergency by-pass equipment and operates emergency generators as needed,
 - d) Uses proper tools and equipment to identify and resolve problems,
 - e) Participates in the repair and replacement of equipment.
- 8) Responsible for the maintenance and upkeep of plant records:
 - a) Develops, records and maintains preventative maintenance overhaul information,
 - b) Monitors, documents and properly reports storm water, power failure and spills.
- 9) Prepares operational reports:
 - a) Assists Treatment Plant Supervisor and Manager in the preparation of the annual operational and capital improvements budget,
 - b) Collects and reviews for completeness and accuracy: daily, monthly, quarterly and annual information; assists with the development of respective reports as required by contracts.

Description of Primary Attributes

General Development:

- 1) Possesses more advanced organizational skills, typically able to organize projects or the work of others.
- 2) Ability to work independently and as part of a team.
- 3) Manages own duties and responsibilities on a fixed schedule without the need for direction or assistance, if prioritization is required.
- 4) Applies problem solving skills.

- 5) Considers the impact of work product on other employees in the work process.
- 6) Consistently follows appropriate safety rules and practices.
- 7) Exercises leadership authority over other employees, including the WWTP Operators.
- 8) Is able to effectively select from established alternatives to modify approaches in response to situations encountered.

Professional & Technical Knowledge

- 1) Understands different treatment processes, for example; MBBR, MBR, SBR, extended aeration, anaerobic, and aerobic digestion, bio-towers and activated sludge, primary and secondary clarifiers, rotating biological contactor, and trickling filters.
- 2) Possesses knowledge of the practices and procedures used in the operation and maintenance of wastewater treatment plant, collection systems and the treatment and disposal of reuse water at a level expected of a State of Hawaii Grade IV WWTP Operator.
- 3) Possesses a thorough operating knowledge of two of the following processes: anaerobic and aerobic digestion, thickening, chemical and biological, chemical recovery, carbon regeneration, on-site disinfectant generation, oxidation ditch, ultra-violet disinfection, odor scrubbing, chlorination and de-chlorination, membrane and sand filtration or activated sludge.

Technical Skills

- 1) Has the ability to prepare basic correspondence and simple reports in Microsoft Word.
- 2) Has the ability to use Microsoft Excel to create tables and simple displays of information.
- 3) Has the ability to operate and maintain electrical controls and equipment, properly diagnose plant equipment and supervise their correction.
- 4) Has the ability to use computerized maintenance software used by the company.
- 5) Has the ability to review operational reports of equipment and laboratory analyses of wastewater and instruct others in operational practices and procedures relating to equipment.

Licenses & Certifications

- 1) Possesses a valid Hawaii Driver's License.
- 2) Successfully completes Ken Kerri Wastewater Treatment Course Book 1 (Exempt if possesses a valid State of Hawaii Grade IV WWTP License for at least 15 years).
- 3) Successfully completes Ken Kerri Wastewater Treatment Course Book 2 (Exempt if possesses a valid State of Hawaii Grade IV WWTP License for at least 15 years).
- 4) Possesses a valid State of Hawaii Grade IV WWTP Operator License.

Communications Skills

- 1) Effectively interprets and communicates written and verbal opinions and extrapolations of information collected and synthesized/analyzed.
- 2) Resolves conflicts that may arise because of disagreements between employees, between employees and customers/clients or with the public, other legal entities or governmental authorities.
- 3) Compiles, analyzes and prepares information in an effective written form, including correspondence, reports, articles, or other documentation.

Physical Demands

- 1) Meets the health and physical condition standards deemed necessary and proper for performance of these duties.
 - 2) Is able to be exposed to hazardous, unsanitary and unpleasant conditions.
 - 3) Is able to work shift, weekend and holiday schedules.
 - 4) Has ability to perform heavy lifting up to 50 lbs and other manual work under adverse conditions.
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Comments