

Wastewater Treatment Operator Task List

Lubrication and Preventative Maintenance

1. Lubricates various equipment by performing activities, such as oiling moving parts, greasing bearings, and changing oil in reservoirs, while ensuring the correct schedule, type, and amount of lubrication in order to extend equipment service life.
2. Performs preventative maintenance, such as exercising equipment (e.g., opens and closes valves or briefly operates off-line equipment), draining tanks and trap assemblies, and tightening belts and connections, in order to ensure that plant equipment operates properly and safely.
3. Cleans equipment and work area and looks for safety hazards, such as missing guards on moving parts, tripping hazards, and fluid spills, in order to ensure a safe and sanitary working environment.

Process Monitoring

4. Reads dials, gauges, meters, and digital read outs that show information, such as temperature, pressure, fluid flow rates, and tank levels, interprets these readings by comparing them to process control parameters, and either corrects or reports any process deficiencies in order to monitor plant processes and ensure safe and efficient operations.
5. Retrieves information, such as tank levels, flow rate, operation run time, and process temperature from a computer, interprets numbers by comparing them to process control parameters, and either corrects or reports any process deficiencies in order to monitor plant processes and ensure safe and efficient operations.
6. Visually inspects groups of related equipment, such as a series of pumps and a tank or a set of screens and conveyors, to make sure that they are operating properly and in coordination and, if not, either corrects or reports any process or equipment deficiencies in order to monitor plant processes and ensure safe and efficient operations.
7. Performs calculations, such as figuring flow rate through a pump or run time for an operation, in order to monitor plant processes.
8. Collects samples of wastewater and its by-products (e.g., sludge and grit) at various stages of the treatment process and either performs simple test on the sample or submits the sample to laboratory for analysis in order to monitor plant processes.

9. Completes chain of custody documentation for wastewater samples submitted to a laboratory in order to ensure compliance sampling documentation procedures.

Process Adjustments

10. Determines that process adjustments are necessary as a result of observed variations in operating conditions or discrepancies between process readings and process control parameters in order to ensure permit compliance.
11. Receives and follows verbal instructions or written operating orders, such as chemical dosage changes and flow adjustments, in order to maintain process quality.
12. Operates equipment manually on-site, such as by turning handwheel to open or close a valve, and observes equipment and/or monitors process in order to make sure process adjustments have been successful.
13. Operates equipment locally or remotely by pushing buttons, opening or closing switches, and turning knobs on a control panel and observes equipment (or checks with coworker who is observing the equipment) and/or monitors process in order to make sure process adjustments have been successful.
14. Operates equipment remotely by accessing a computer terminal and executing the appropriate commands and checks with co-worker on-site and/or monitors process on computer in order to make sure process adjustments have been successful.

Equipment Inspection

15. Visually monitors alarm systems that relay or display information, such as temperature, pressure, fluid flow rate, and tank levels, in order to ensure that equipment failures do not endanger the safety of plant personnel or the public or cause significant interruptions in plant operation.
16. Visually inspects individual pieces of equipment, such as pumps, motors, drives, valves, and compressors, for conditions including, lubrication, operating speed and temperature, suction and discharge pressure, tight fittings and connections, and any unusual noises or vibrations, in order to monitor the condition and operation of plant equipment.

Equipment Repair and Maintenance

17. Makes minor repairs to plant equipment, such as by replacing oil filters, clearing obstructed pipes or vents, or removing debris that have impaired the operation of moving machinery (deragging), in order to ensure that plant equipment remains in proper working order.

18. Reports the need for major repairs to plant equipment by preparing a work request and informing supervisor in order to ensure that plant equipment remains in proper working order.
19. Prepares plant equipment for maintenance by isolating, flushing, depressurizing and issuing work permits for the equipment in order to ensure the safety of plant personnel.

Other

20. Fills out documentation, such as Log Books, Round Sheets, Chemical Logs, and Flow Charts, in order to maintain a chronological activity record and document process readings and adjustments.
21. Confers with other plant personnel, either in person or over a telephone or two-way radio, in order to coordinate plant operations or provide notification of an emergency situation.
22. Uses an atmospheric analyzer (e.g., Gas Tech) to test work area for oxygen level and the presence of hazardous gases in order to ensure the safety of self and others.