

California Water Environment Association | Technical Certification Program

ESSENTIAL DUTIES

Industrial Waste Treatment Plant Operations Grade I

101. Participates in assigned treatment plant rounds, inspecting, monitoring and documenting plant operations by reading plant equipment gauges, dials, graphs, digital readouts, recorders, indicator lights and other instrumentation.
102. Assists in starting, stopping and regulation of equipment including pumps, valves, electric motors, compressors mixers, internal combustion engines, automatic samplers, flow monitoring devices, hydraulic equipment, pneumatic equipment and heating and ventilating equipment.
103. Assists in the operation and maintenance of equipment including hydro-cleaning equipment tractor (with loader and disc), equipment truck, yard vacuum and spraying equipment.
104. As directed, compiles, updates and maintains accurate records including; operating log, dissolved oxygen levels, pH levels, flow rates, chemical usage, temperature, liquid level readings, electric power consumption, fuel usage, daily diary; and performs/records mathematical calculations related to plant operational activities under supervision.
105. Assists with the preventive maintenance of plant facilities including equipment observation, lubrication, adjustment and record keeping.
106. Assists in mixing and feeding chemicals and in ensuring chemical application is prepared according to regulations, guidelines and procedures.
107. Assists in sampling of water, wastewater, sludge and skimmings including obtaining samples from tanks, basins, spigots and pipelines.
108. Assists with the performance of basic physical, chemical and biological analyses of water, wastewater, sludge and skimming including ph, BOD, COD, solids (settleable, suspended, volatile and total), dissolved oxygen, chlorine residual, and moisture content.
109. Cleans glassware, sample jugs and other laboratory apparatus.

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ESSENTIAL DUTIES

Industrial Waste Treatment Plant Operations Grade II

200. Essential duties identified on the Test Content Specifications for Industrial Waste Treatment Plant Operations Grade I.
201. Performs assigned treatment plant rounds, inspections, monitoring and documenting plant operations by reading plant equipment gauges, dials, graphs, digital readouts, recorders, indicator lights and other instrumentation.
202. Inspects and monitors the treatment plant equipment to ensure its proper functioning and to minimize interruption in the treatment process and alleviate costly repairs; makes adjustments and minor repairs to operating equipment; reports the need for major or specialized repairs to equipment, machinery and electrical and electronic systems; assists specialized trade personnel in making technical repairs to equipment, machinery and systems; and ensure the timely completion of preventive maintenance activities on plant equipment and machinery.
203. As directed, operates waste water treatment equipment, machinery and facilities by using manual, electrical and computer aided control systems to regulate control processes.
204. As directed or by procedure, starts, stops and regulates the operation of equipment including pumps, valves, electric motors, compressors mixers, internal combustion engines, automatic samplers, flow monitoring devices, hydraulic equipment, pneumatic equipment and heating and ventilating equipment.
205. Operates and maintains equipment including hydro-cleaning devices, tractor (with loader and disc), equipment truck, yard vacuum and spraying equipment.
206. Compiles, updates and maintains accurate records including; operating log, dissolved oxygen levels, pH levels, flow rates, chemical usage, temperature, liquid level readings, electric power consumption, fuel usage, daily diary; and performs/records mathematical calculations related to plant operational activities under supervision.
207. Performs preventive maintenance of plant facilities including equipment observation, lubrication, adjustment and record keeping.
208. Mixes and sees to the proper application of chemicals and ensures adequate chemical applications according to regulations, guidelines and procedures.
209. Performs sampling of water, wastewater, sludge and skimmings including obtaining samples from tanks, basins, spigots and pipelines.
210. Performs basic physical, chemical and biological analyses of water, wastewater, sludge and skimming including ph, BOD, COD, solids (settleable, suspended, volatile and total), dissolved oxygen, chlorine residual, and moisture content.

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ESSENTIAL DUTIES

Industrial Waste Treatment Plant Operations Grade III

300. Essential duties identified on the Test Content Specifications for Industrial Waste Treatment Plant Operations Grades I and II.
301. Assists in the implementation of assigned goals and objectives.
302. Schedules, assigns, directs, and reviews the work of personnel engaged in operating, testing, cleaning and maintaining wastewater treatment equipment and facilities.
303. Supervises plant operations; inspects and monitors various plant processes to ensure adherence to standard operating, maintenance, and safety procedures.
304. Supervises the routine plant preventive maintenance program; confers with management on necessary maintenance and repair work and works to ensure the minimal disruption of plant processes.
305. Reviews and evaluates operational data, including daily logs, meter, gauges, and tests, and makes necessary plant adjustments to keep operations within prescribed parameters.
306. Operates pumps, valves, and other process equipment by hand mechanical or computer means to regulate the flow of wastewater through various continuous or batch treatment processes.
307. Supervises record keeping related to operations, preventive maintenance, and administrative activities, including preparation of graphs, charts, and logs of plant operations; preventive maintenance schedules and routine and emergency equipment repair records; work schedules, personnel records, inventory records of chemicals, supplies, and materials; records related to the safety and training programs; and prepares periodic and special reports of work performed.
308. Performs or directs routine sampling program to ensure that plant operations are maintained within standard operating parameters; and directs periodic sampling for special studies.
309. Administers safety program; works with management to ensure the individual programs are consistent with overall operations.
310. Confers with management to carry out technical training.
311. Trains or directs the training of new operators in wastewater treatment principles and practices; identifies employee training needs; identifies employee problems and takes or recommends corrective actions.
312. Initiates purchase requests and work orders for chemicals, materials, supplies, equipment and materials.
313. Assists in locating and troubleshooting plant malfunctions; reports major problems and suggests corrective measures; and adjusts operating schedules within prescribed limits to meet changing conditions and emergencies.

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ESSENTIAL DUTIES

Industrial Waste Treatment Plant Operations Grade IV

400. Essential duties identified on the Test Content Specifications for Industrial Waste Treatment Plant Operations Grades I, II and III.
401. Plans and directs the overall operations and routine maintenance activities of the wastewater treatment, plant and related facilities, optimizing the use of staff, utilities, chemicals and materials to ensure compliance with all standards and regulations mandated by federal, state, and local agencies.
402. Ensures proper implementation of established goals and objectives and implements organizational controls to measure performance against approved objectives.
403. Develops and maintains standard operating procedures and parameters for all plant processes; analyzes a variety of plant operational data; develops and recommends plant alterations and changes in operating procedures and interprets information to alter or adjust treatment processes or equipment.
404. Confers with staff to develop and implement procedures related to the coordination of plant operations with required servicing or repairing of equipment.
405. Establishes and maintains work standards and procedures; regularly inspects plant facilities; reviews operating procedures to ensure adherence to operations, maintenance and safety standards.
406. Maintains adequate staffing to ensure the effective, economical and safe operation of wastewater treatment facility.
407. Interprets management policies for staff; ensures compliance with management and administrative policies and procedures. Provides for the maintenance of safe working conditions.
408. Directs record keeping related to operations, maintenance, and administrative activities and prepares or directs the preparation of periodic and operating reports.
409. Directs and participates in the selection, training, review and evaluation of staff; encourages professional growth and appropriate certification for staff; investigates employee relations problems and implements or recommends corrective actions.
410. Provides appropriate direction related to special studies of treatment processes, wastewater disposal and other technical evaluations.
411. Develops and administers the annual budget and monitors monthly expenditures to ensure expenses are maintained within budget.
412. Represents business unit in meetings with governmental and regulatory agencies, private firms, professional and community groups and the public.
413. Oversees the ordering of required amounts of chemicals, supplies, and materials to ensure

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operational efficiency at all times; authorizes purchases and materials requests; prepares cost estimates; and reviews approval or recommends leave requests and payroll reports.

414. Monitors developments in the field of wastewater treatment and recommends and initiates improved work methods and procedures.