

NORTEC JOB SPECIFIC SKILLS COMPETENCY

WATER TREATMENT PLANT OPERATOR

DOT CODE: 954.382.014 SVP 5

Job Description: Work with equipment and processes used to disinfect, purify, and clarify surface or aquifer water for human consumption. Physical Demand - Medium lifting, carrying, or moving (up to 50 lbs); General Education Development R3 M3 L3; Aptitudes - Above Average Spatial, Form Perception, Manual Dexterity.

CORE SKILL COMPETENCIES/INDICATORS:

1. Can meet specifications and requirements, and pass written exam, for State Water Resources Board certification. (S) Note: This item is a mandatory indicator for California State trainees and requires achievement documentation, not just rating (Pre-test deficiency = No; Post-test proficiency = Yes)
2. Can demonstrate working knowledge of major equipment/machinery components of water treatment plants, including electric motors, pumps, valves, chemical-feeding devices and mixers. (R, S, T)
3. Can demonstrate proper technique used to add chemicals, such as chlorine, ammonia, and lime, to water. (S, T)
4. Can demonstrate proper technique used to start agitators to mix chemicals. (S, T)
5. Can demonstrate proper technique used to turn valves to regulate water through filter beds. (S, T)
6. Can demonstrate proper technique used to pump purified water into water mains. (S, T)
7. Can demonstrate ability to appropriately monitor panelboard and adjust controls, as required. (IN, S, T)
8. Can demonstrate ability to accurately test water samples using colorimeter, turbidimeter, and conductivity meter. (IN, S, T)
9. Can demonstrate proper technique used to add chemicals such as alum into tanks to coagulate impurities and to reduce acidity. (IN, S, T)
10. Can demonstrate proper techniques used to clean water tanks, filter beds, water lines, pumps, and valves. (S, T)
11. Can demonstrate proper technique used to replace filters. (S, T)
12. Can demonstrate ability to schedule and perform general inspection of machines and equipment for maintenance purposes. (R, IN, S, T)
13. Can demonstrate ability to repair and lubricate machines and equipment using handtools and power tools. (R, IN, S, T)
14. Can demonstrate proper techniques used to adjust automatic devices. (S, T)
15. Can demonstrate ability to accurately read and understand charts and graphs. (IN, S)
16. Can demonstrate ability to accurately read and interpret meters and gauges. (IN, S)
17. Can demonstrate ability to appropriately and accurately record data. (IN, S)
18. Can demonstrate ability to appropriately and accurately log work activities. (IN, S)
19. Can demonstrate knowledge of federal and state water quality standards/guidelines. (IN, S)
20. Can demonstrate knowledge of industry-specific safety standards and emergency management response procedures. (R, IN, S)
21. Can demonstrate basic computer skills. (IN, T)
22. Can demonstrate ability to work under stress in emergency situations, or to meet scheduled deadlines. (R, I)