

 <p style="text-align: center;">Water Distribution Operator Certification Examination Content Outline Classes 1-4</p>	Class 1	Class 2	Class 3	Class 4
	1. Distribution System Components			
A. Aid in the design of water distribution projects.				
B. Assess water production (e.g., water restrictions and demand).				
C. Adjust the water production to meet the demand (e.g., start pumps, adjust flow valves).				
D. Understand backflow prevention and control devices.				
E. Implement a cross-connection control program.				
F. Monitor water distribution system pressure.				
G. Determine water volume (e.g., tank, main).				
H. Determine water flow rate (e.g., mains, pumps, services).				
I. Identify flow characteristics (e.g., size, C-factor, head loss).				
J. Maintain an up-to-date map of the distribution system (e.g., GIS, repairs, replacements).				
K. Maintain distribution system components:				
1. pumps and related equipment (e.g., packing pumps, starters and controls).				
2. mains and related equipment (e.g., hydrants and valves).				
3. metering and related equipment (e.g., remote readers, meter replacements).				
4. finished water storage and related equipment (e.g., tanks, overflow pipe, vents, access hatches).				
L. Understand schematic diagrams.				
2. Equipment Installation, Operation, and Maintenance				
A. Install water lines:				
1. service lines (e.g., tapping, curb stops, corporation stops).				
2. water mains (e.g., valves, hydrants).				
B. Inspect new construction.				
C. Maintain pump stations and related equipment (e.g., check valves, control systems).				
D. Monitor pump stations and related equipment (e.g., records, online monitoring equipment).				
E. Clean the finished water storage facilities.				
F. Inspect finished water storage facilities (e.g., drains, screens, corrosion control).				
G. Conduct distribution system flushing.				
H. Repair water line (e.g., install repair clamps and sleeves).				
I. Repair distribution components (e.g., mains, services, meters, valves, hydrants, pumps).				
J. Disinfect components used during install/repairs.				
K. Conduct a leak detection program (e.g., survey, testing meters, water loss audit).				

The blue shading indicates that a given task statement is not applicable for the class or classes shown.



**Water Distribution Operator
Certification Examination Content Outline
Classes 1-4**

	Class 1	Class 2	Class 3	Class 4
L. Operate well and related equipment.				
M. Maintain well and related equipment.				
N. Maintain the sanitary condition of the well.				
O. Measure static water levels and pumping water levels.				
P. Locate water lines (e.g., valves, hydrants).				
Q. Perform underground locating, marking and notification.				
3. Disinfection Monitoring, Evaluation, Adjustment, and Laboratory Analysis/Interpretation				
A. Adjust the disinfection dosage.				
B. Perform routine maintenance on the disinfection equipment.				
C. Handle disinfection chemicals.				
D. Secure the disinfection chemicals (e.g., chain cylinders, lock the disinfection facility).				
E. Maintain an adequate supply of the disinfection chemicals.				
F. Monitor the disinfection equipment.				
G. Collect samples to determine:				
1. chlorine residual.				
2. microbiological.				
3. lead/copper.				
4. pH.				
5. radionuclides.				
6. organic chemicals.				
7. inorganic chemicals.				
8. temperature.				
9. disinfectant byproducts.				
H. Perform analyses to determine:				
1. chlorine residual				
2. pH				
3. temperature				
I. Interpret laboratory analysis for:				
1. chlorine residual.				
2. chlorine demand.				
3. microbiological.				
4. lead/copper.				
5. pH.				
6. radionuclides.				
7. organic chemicals.				
8. inorganic chemicals.				
9. temperature.				
10. disinfectant byproducts.				
11. compliance with established water quality standards.				
12. meeting standard operating practices.				



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Classes 1-4**

Class 1	Class 2	Class 3	Class 4
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4. Security, Safety, Administrative Procedures, and Public Interactions				
A. Participate in safety/compliance program.				
B. Perform traffic control during maintenance, repairs, and construction.				
C. Implement a confined space program.				
D. Communicate observed unsafe workplace conditions.				
E. Identify opportunities to mitigate risks.				
F. Work in or around excavation sites:				
1. implement cave-in protection program.				
2. secure the excavation site.				
3. excavate the site.				
4. restore the excavation site.				
G. Work in and around confined spaces:				
1. implement a confined space program.				
2. enter confined spaces.				
3. monitor activities in and around confined spaces				
H. Secure all water system facilities in a manner that protects the supply from contamination and prevents unauthorized entry and vandalism.				
I. Investigate system tampering.				
J. Maintain an emergency plan of operations.				
K. Maintain system records (e.g., laboratory, consumption, maintenance).				
L. Interpret plans, maps, and system standard specifications.				
M. Participate in the budget process.				
N. Address water quality communications (e.g., taste, odor, color).				
O. Conduct meter reading.				
P. Address customer inquiry (e.g., pressure, employee performance, billing).				
Q. Answer questions from the public.				
R. Participate in consumer confidence reports.				
S. Inform customers of planned repairs or changes in the water line.				