

Course Description Sheet

COURSE TITLE

Distribution Service to Customers

COURSE DURATION

1 Hour

OVERVIEW

Every day, hundreds of water main breaks occur throughout North America. Many of these are caused by corrosion. Corrosion can lead to tubercules and scale buildup in pipelines, which can impede the flow of water and damage equipment. Rust and pitting can cause leaks in the system. The cost of repairs and maintenance can strain budgets. Additionally, lead and copper corrosion can also have adverse health effects and both are regulated by the federal and state governments.

PREREQUISITES

No prior knowledge is required.

BEHAVIORAL OBJECTIVES

After successfully completing this course, you will be able to:

- Understand the basics of the Safe Drinking Water Act (SDWA) and know the types of public water systems defined by EPA (Environment Protection Agency) and know how states implement the SDWA.
- Describe the basic configurations of water distribution systems.
Explain why operator certification exists.
- Explain the standard methods for making water service connections.
- Describe common problems with water service connections.
- Describe distribution water quality and the multi-barrier approach.
- Explain the basics of responding to water main breaks.

COURSE OUTLINE

Chapter	Minutes
Introduction	1
Water Regulations and Water Systems	10
Water Distribution Systems	6
Water System Connections	8
Water Service Taps	5
Water Meter Types	4
Maintenance of Distribution Elements and Services	7
Recordkeeping and Standards	4
Water Quality	12

Conclusion	2
Summary	1
Course Total	60

AVAILABILITY

This course is offered online and is available 24 hours a day, 7 days a week, 365 days a year.

TRAINING METHODOLOGY & EVALUATION

This course is self-paced online training. Review exercises reinforce the content, and students are evaluated with a multiple-choice exam. Upon completion, students are prompted to submit a course evaluation.

REFERENCES

AWWA, 2008. Distribution System Requirements for Fire Protection, 4th Edition. AWWA Manual M31. American Water Works Association.

AWWA, 2014. M22 Manual – Sizing Water Service Lines and Meters- Selection, Installation, Testing and Maintenance, 3rd Edition, American Water Works Association.

AWWA, 2012. M6 Manual – Water Meters- Selection, Installation, Testing and Maintenance, 5th Edition, American Water Works Association.

AWWA, 2014. C651 - AWWA Standard for Disinfecting Water Mains. American Water Works Association.

AWWA, 2019. C652 - AWWA Standard for Disinfecting of Water Storage Facilities. American Water Works Association.

AWWA. 2015. Recommended Practice for Backflow Prevention and Cross-Connection Control, 4th Edition: AWWA Manual M14. American Water Works Association.

AWWA, 2017, Water Quality in Distribution Systems, Manual of Water Supply Practices, M68. American Water Works Association.

AWWA and ABC, 2016. Water Distribution, Grades 1 and 2, 2016 Edition. American Water Works Association and the Association of Boards and Certification.

AWWA and ABC, 2016. Water Distribution, Grades 3 and 4, 2016 Edition. American Water Works Association and the Association of Boards and Certification.

AWWA, July 2015, Manual G200 Distribution Systems Operation and Management. American Water Works Association.

Great Lakes – Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers. 2022 Edition. Ten State Standards - Recommended Standards for Water Works.

WSDOH, 2020, Water System Design Manual, Washington State Department of Health, DOH Publication 331-123, Revised June 2020.

WSDOH, 2020, Water Systems Planning Guidebook, Washington State Department of Health, DOH Publication 331-068, Revised August 2020.

EPA and CSU, 2005, Water Distribution System Operation and Maintenance, Fifth Edition, Office of Water Programs California State University and USEPA.

WSDOH, Jan 2015, Sanitary Surveys of Public Water Systems, DOH 331-197, Washington State Department of Health, Office of Drinking Water.

WSDOH, Drinking Water in Washington, A Legal Primer on Drinking Water Regulations, DOH 331-619, Washington State Department of Health, Office of Drinking Water. distribution service to customers - working copy 082823 22 8/31/2023

WSDOH, February 22, 2023, Water Main Break Response Protocol for Chlorinated Systems, DOH 331-583, Washington State Department of Health, Office of Drinking Water.

WSDOH, June 2018, Water Service Meter Requirements, DOH 331-595, Washington State Department of Health, Office of Drinking Water.