COURSE TITLE
Water Industry Distribution System Materials and Equipment

COURSE DURATION
1 hour

OVERVIEW
Water distribution systems are a vital part of ensuring public health and safety. Their primary purpose is delivering sufficient amounts of potable water at adequate pressure while maintaining state and federal water quality standards.

While the delivery of drinking water is the most visible part of the distribution system, the system must be built to meet peak hour demand and maximum daily demand, as well as fire flow requirements. To meet these demands, systems are designed by engineers who work closely with water distribution operators. Their job is to meet residential and industrial needs while maintaining water quality. This course explores the various materials and equipment utilized in the installation and maintenance of a potable water distribution system.

This training course has 12 learning modules with a 10-question exam.

PREREQUISITES
No prior knowledge is required.

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

- apply general hydraulic considerations within water distribution systems
- evaluate pipe selection and identify pipe materials for the installation of piping
- distinguish the different types of fire hydrants and their uses
- describe the installation and use of valves
- illustrate the causes of water hammer and how to prevent it
- identify the different water storage tanks and their uses
- explain the different types of water meters and their uses
- apply AWWA standards to your daily tasks and responsibilities

COURSE OUTLINE

- Introduction
- Piping
- Pipe Materials
- Valves
- Water Hammer
- Fire Hydrants
- Water Meters
- Water Storage Tanks
- Tank Maintenance
- Summary

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 and case studies reinforce the content, and students are evaluated with a multiple-choice exam. Upon completion, students are prompted to submit a course evaluation.

Resources

American Water Works Association, “Manual G200 Distribution Systems Operation and Management.” Published Denver, Colorado: By American Water Works Association, on January 24, 2015, page 9.

American Water Works Association, “Manual M31 Distribution System Requirements for Fire Protection, Third Edition.” Published Denver, Colorado: By American Water Works Association, 1998, page 20.

American Water Works Association, Manual M44, Distribution Valves: Selection, Installation, Field Testing and Maintenance.” Published Denver, Colorado: By American Water Works Association, 1996 page 46.

American Water Works Association, “Manual M17 Fire Hydrants Installation, Field testing and Maintenance, Fifth Edition.” Published Denver, Colorado: By American Water Works Association, 2016 page 36.