

[Grade 3] Water Distribution: Water Sources

Learning Objectives

This course is designed for Water Operators with Grade 3 or higher.

Understanding the various sources of water supply is important for understanding the treatment processes that water must undergo before being distributed as drinking water. As we will learn, water is rarely ever just H₂O. There are different chemical and physical properties of various water sources that play a significant role in how water must be treated.

In this course you will learn about:

1. The Hydrologic Cycle
2. Groundwater Sources
3. Surface Water Sources

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- [D3] Water Distribution: Water Sources
- [D3] Water Distribution: Water Sources - Final Exam

Course Outline

- | | |
|------------------------------------------------|-------------|
| 1. [Grade 3] Water Distribution: Water Sources | 1 hrs |
| Self- Paced | Total 1 hrs |

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

AWIA: America's Water Infrastructure Act

Learning Objectives

Objective

Welcome to CRWA's AWIA course. This course covers Risk and Resilience Assessments as well as Emergency response plans.

Scope

By the end of this webinar, you will understand the requirements of America's Water Infrastructure Act Section 2013. However, understanding the requirements of Section 2013 is just the beginning of our compliance path. Since the law requires the development of a Risk and Resilience Assessment and an emergency response plan, we are going to use our time here to go over the development of a Risk and Resilience Assessment for a small water system. We won't develop the entire assessment, but we will go over the criteria that's required in the plan. We will also provide examples along the way to get you thinking about the types of natural and manmade hazards you may want to include in your assessment.

Finally, we will go over the development of an emergency response plan. Like the risk and resilience assessment, we won't develop an entire emergency response plan, but we will go over the criteria required in the plan. We will also provide examples along the way to get you thinking about the kind of mitigation strategies your utility can implement. By the end of this webinar, you should feel comfortable with the requirements of Section 2013 and you should have the tools you need to develop a risk and resilience assessment and an emergency response plan for your system.

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Course Introduction and Objectives
- History and Background of AWIA
- Certification
- Elements of a Risk and Resilience Assessment
- Small System RRA
- Examples of RRA

- Break for Exam #1
- Exam #1
- Elements of an ERP
- Templates of ERP's
- Resources for ERP's and RRA's
- Break for Exam #2
- Exam #2
- General Course Survey

Course Outline

1. *AWIA: America's Water Infrastructure Act*

3 hrs

Self- Paced

Total 3 hrs

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

Beginning Water Math – Part 1

Learning Objectives

Step-by-step instruction made simple with diagrams, photos, and written explanations. Students will learn the tricks to taking on any kind of math problem with high confidence. The instructor will show easy tricks in deciphering simple and not-so-simple math problems related to plant operations, certification exams, as well as, day to day operations.

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Solve for Area, Volume, Pressure & Head Calculations
- Final Exam
- General Course Survey

Course Outline

1. <i>Beginning Water Math – Part 1</i>	2 hrs
<i>Self- Paced</i>	<i>Total 2 hrs</i>

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

Beginning Water Math – Part 2

Learning Objectives

Mastery of the math basics are an essential part of the foundation of water and wastewater operators. In this module, you will learn how to calculate:

Chemical Dosage Calculations
Velocity & Flow Calculations
Centrifugal Pump Horsepower Calculations

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Solving for Chemical Dosage, Velocity/Flow and Horsepower Calculations
- Beginning Water Math - Part 2 - Final Exam
- General Course Survey

Course Outline

1. <i>Beginning Water Math – Part 2</i>	2 hrs
<i>Self- Paced</i>	<i>Total 2 hrs</i>

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

Elements of a Distribution System – Part 1

Learning Objectives

At the completion of this course attendees will be able to:

Cover the components that make up a typical Distribution System for the singular purpose of delivering an adequate amount of safe drinking water at sufficient pressures at all times. Throughout the duration of this course, you will learn about:

- Distribution System Hydraulics
- Distribution System Components
- Pipes and Materials
- Pumps and Motors
- Valves and Hydrants

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Elements of Distribution System: Part 1
- Elements of a Distribution System: Part 1 - Final Exam
- General Course Survey

Course Outline

1. *Elements of a Distribution System- Part 1* *2 hrs*

Self- Paced *Total 2 hrs*

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

Elements of a Distribution System – Part 2

Learning Objectives

We will cover the components that make up a typical Distribution System for the singular purpose of delivering an adequate amount of safe drinking water at sufficient pressures at all times. Throughout the duration of this course, you will learn about:

1. Distribution System Components
2. Meters
3. Storage Facilities
4. Electrical/Mechanical Equipment

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Elements of Distribution System: Part 2
- Elements of a Distribution System: Part 2 - Final Exam
- General Course Survey

Course Outline

- | | |
|-----------------------------------------------------|--------------------|
| 1. <i>Elements of a Distribution System- Part 2</i> | 2 hrs |
| <i>Self- Paced</i> | <i>Total 2 hrs</i> |

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

Water Distribution Disinfection – Part 1

Learning Objectives

Objective

This course is divided into three separate lessons. The first lesson focuses on how disinfection relates to other water treatment plant processes. The second lesson provides information on the various methods of achieving disinfection of drinking water. The third and final lesson in this two-part series is designed to examine how disinfection regulations are related to several other Rules within the Safe Drinking Water Act.

Scope

In this course you will learn:

1. Understand how disinfection relates to water treatment processes
2. Examine the various methods of achieving disinfection of drinking water
3. Investigate how the regulations regarding disinfection are structures in the Safe Drinking Act (SDWA)

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Water Disinfection - Part 1
- Water Disinfection Part One - Final Exam
- General Course Survey

Course Outline

- | | |
|----------------------------------------------------|--------------------|
| 1. <i>Water Distribution Disinfection – Part 1</i> | <i>2 hrs</i> |
| <i>Self- Paced</i> | <i>Total 2 hrs</i> |

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

Water Distribution Disinfection – Part 2

Learning Objectives

Scope

Disinfection Part Two is broken into four lessons.

In the first lesson, students are introduced to the regulatory programs related to disinfection including the Total Coliform Rule (TCR), the Groundwater Rule (GWR), and the Disinfectant Byproducts Rule (DBPR).

In the second lesson, students learn about the factors that influence disinfection processes including pH, temperature turbidity, organic matter, inorganic matter, and contact time.

The third lesson covers disinfection chemistry with an emphasis on chlorine disinfection and chloramines. In this section, students learn about the relationship between dosage, demand, and chlorine, the difference between free and total chlorine, and the concept of breakpoint chlorination. In the last lesson, students learn about disinfection mechanics for chlorine gas, calcium, and sodium hypochlorite.

The final lesson ends with a segment on chemical feed systems and distribution system disinfection practices.

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Water Disinfection - Part 2
- Water Disinfection Part 2 - Final Exam
- General Course Survey

Course Outline

1. *Water Distribution Disinfection – Part 2* 2 hrs

Self- Paced Total 2 hrs

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

Water Quality

Learning Objectives

Water is an invaluable natural resource. It is used for drinking, irrigating, producing electricity, and producing food. This online course will help you understand what constitutes clean and safe drinking water, characteristics of water quality analysis, regulations that ensure clean and safe drinking water, and types of contamination along with the ways to neutralize contaminants. Additionally, the course will dive into sampling, storage of clean water, and operating procedures needed to protect drinking water.

This course engages students in an evaluation of cross-connection and backflow, including why cross-connection threats are important to identify in water systems and how to prevent backflow in water distribution systems. Students learn to differentiate between various backflow prevention devices. In the second lesson, students are introduced to the concept of unidirectional flushing, including its advantages and importance for water distribution systems. The lesson concludes with a segment on the planning and execution of a unidirectional flushing event.

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Water Quality
- Water Quality - Final Exam
- General Course Survey

Course Outline

1. Water Quality	2 hrs
Self- Paced	Total 2 hrs

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

Water Sources

Learning Objectives

Scope

This course is presented in three separate lessons.

The first lesson dives into the wonders of the hydrological cycle.

The second lesson provides essential information and concepts regarding the use of groundwater as a source of water supply.

The third lesson focuses on surface water sources and the challenges of storing, treating, and delivering a safe and adequate supply for this important resource.

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Water Sources
- Water Sources Final Exam
- General Course Survey

Course Outline

1. *Water Sources* *2 hrs*

Self- Paced *Total 2 hrs*

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

Water Treatment: Conventional Treatment Processes

Learning Objectives

In this course, we will follow a drop of water through a conventional surface water treatment plant. We will start at the intake structure, then move on to coagulation, flocculation, and sedimentation. We will finish the water treatment processes in the next three sections where we will discuss filtration, additional water treatment processes, and disinfection.

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Conventional Water Treatment
- Conventional Treatment Process: Final Exam
- General Course Survey

Course Outline

1. <i>Water Treatment: Conventional Treatment Processes</i>	<i>1 hrs</i>
<i>Self- Paced</i>	<i>Total 1 hrs</i>

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

Water Treatment: Disinfection- Part 1

Learning Objectives

In this lesson, we'll go over the factors that influence disinfection processes and some of the mechanics and chemistry that are involved in the disinfection process.

Scope

In this course you will learn about:

1. Understand how disinfection relates to water treatment processes
2. Examine the various methods of achieving disinfection of drinking water
3. Investigate how the regulations regarding disinfection are structures in the Safe Drinking Act (SDWA)

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Water Treatment: Disinfection
- Water Treatment: Disinfection Final Exam
- General Course Survey

Course Outline

- | | |
|-------------------------------------------------|--------------------|
| 1. <i>Water Treatment: Disinfection- Part 1</i> | <i>1 hrs</i> |
| <i>Self- Paced</i> | <i>Total 1 hrs</i> |

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

Water Treatment: Disinfection- Part 2

Learning Objectives

In this lesson, we'll go over the factors that influence disinfection processes and some of the mechanics and chemistry that are involved in the disinfection process.

Scope

In this course you will learn about:

The factors that influence disinfection

- pH
- Temperature
- Turbidity
- Organic matter
- Inorganic matter
- Contact time

Disinfection Chemistry

- Chlorine Disinfection
- Chloramines
- Dosage, Demand & Residual
- Total Chlorine vs. Free Chlorine
- Breakpoint Chlorination

Disinfection Mechanics

- Chlorine Gas
- Calcium Hypochlorite
- Sodium Hypochlorite
- Chemical Feed Systems
- Distribution System Disinfection Practices

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Water Treatment: Disinfection
- Water Treatment: Disinfection Final Exam
- General Course Survey

Course Outline

1. *Water Treatment: Disinfection*

1 hrs

Self- Paced

Total 1 hrs

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

Water Treatment: Filtration and Additional Treatment Processes

Learning Objectives

So far, we've covered the first couple of steps in the conventional treatment process (intake structures, coagulation, flocculation, and sedimentation). In this course, you will learn about filtration, the water treatment process after coagulation, flocculation, and sedimentation. Specifically, you will learn about:

The types of filtrations (Conventional and Direct)

- Filtration units and media
- Filter design and pre-treatment
- Filter operation, efficiency, and performance
- Filter backwashing
- Membrane Filtration

Then we will explore some additional water treatment processes. Depending on the physical characteristics of your source water, additional treatment beyond conventional treatment may be required or highly recommended. Specifically, you will learn about:

- Corrosion Control
- Taste & Odor
- Iron and Manganese

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Filtration and Additional Water Treatment Processes SCORM
- Filtration and Additional Treatment: Final Exam Test
- General Course Survey

Course Outline

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|--------------------------------------------------------------------------|--------------------|
| 1. <i>Water Treatment: Filtration and Additional Treatment Processes</i> | <i>1 hrs</i> |
| <i>Self- Paced</i> | <i>Total 1 hrs</i> |

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

Water Treatment: Laboratory Procedures

Learning Objectives

In this section, you will learn about basic laboratory procedures that are common to drinking water treatment and some of the administrative tasks related to sampling that is required of drinking water treatment operators.

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Laboratory Procedures
- Laboratory Procedures: Final Exam
- General Course Survey

Course Outline

1. <i>Water Treatment: Laboratory Procedures</i>	<i>1 hrs</i>
<i>Self- Paced</i>	<i>Total 1 hrs</i>

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

Water Treatment: Operations and Maintenance

Learning Objectives

Welcome to Operations & Maintenance. In this course, students will learn about chemical feeders, pressure gauges, water meters, pumps, and motors. Specifically, students learn about:

1. Chemical feeders

- Types of chemical feeders (liquid, dry, and gaseous feed systems)
- Chemical feeder maintenance

2. Pressure gauges

- Bourdon tubes
- How to read & install pressure gauges

3. Pumps

- Horizontal Centrifugal Pump
- Vertical Centrifugal Pump
- Submersible Pump
- Positive Displacement Pump

4. Water Meters

- Turbine Meters
- Compound Meters
- Magnetic Meters
- Ultrasonic Meters

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Operations and Maintenance
- Water Treatment O&M Final Exam
- General Course Survey

Course Outline

1. *Water Treatment: Operations and Maintenance* 1 hrs

Self- Paced Total 1 hrs

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

Water Treatment: Regulations and Administration

Learning Objectives

In this section, you will learn about the major regulations that govern drinking water quality and some of the administrative tasks that are required of drinking water operators.

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Regulations & Administration
- Regulations and Admin: Final Exam
- General Course Survey

Course Outline

1. <i>Water Treatment: Regulations & Administration</i>	<i>1 hrs</i>
<i>Self- Paced</i>	<i>Total 1 hrs</i>

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

Water Treatment: Safety

Learning Objectives

Safety is the condition of being safe; freedom from exposure to danger; exemption from injury or loss and having the knowledge of or skill set to avoid accidents or disease.

In this section, we will cover the importance of safety as a Water Treatment Operator in all aspects of operations

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- T1&2 Safety
- Water Treatment: Safety Final Exam
- General Course Survey

Course Outline

1. *Water Treatment: Safety* 1 hrs

Self- Paced Total 1 hrs

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

Water Treatment: Source Water

Learning Objectives

Understanding the various sources of water supply is important for understanding the treatment processes that water must undergo before being distributed as drinking water. As we will learn, water is rarely ever just H₂O. There are different chemical and physical properties of various water sources that play a significant role in how water must be treated. In this course you will learn about:

1. The Hydrologic Cycle
2. Groundwater Sources
3. Surface Water Sources

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Source Water
- Source Water: Final Exam
- General Course Survey

Course Outline

1. *Water Treatment: Source Water* 1 hrs

Self- Paced Total 1 hrs

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

Why Disinfection? – Fundamentals, MCLS, and Investigating Water Borne Pathogens

Learning Objectives

Disinfection is fundamental to protecting the public health and has been in common practice in the United States for over 100 years. Once very common, waterborne disease outbreaks in the US are now rare. Does this mean that we have eliminated the threat from all the pathogenic organisms out there in the environment?

In this course, we will discuss:

- The differences between acute & chronic exposure
- How MCLs are established for the National Primary Drinking Water Standards
- Investigate waterborne pathogens and how people are exposed to them

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Why Disinfection? – Fundamentals, MCLS, and Investigating Water Borne Pathogens
- General Course Survey

Course Outline

1. *Why Disinfection? – Fundamentals, MCLS, and Investigating Water Borne Pathogens* 1 hrs

Self- Paced

Total 1 hrs

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

Why Disinfection? – Technologies, Water Borne Cases, and Top 10 Contaminants

Learning Objectives

This is the second course in the Why Disinfection? series. Disinfection is a major contributor to keeping our drinking water safe and clean for the community. In this course, we will focus on real world scenarios of water disinfection.

We will learn about:

- The Top 10 contaminants that may cause acute disease
- Modern era case studies of waterborne disease outbreaks in the USA
- Approved technologies & practices to prevent acute disease

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Why Disinfection? – Technologies, Water Borne Cases, and Top 10 Contaminants
- General Course Survey

Course Outline

1. *Why Disinfection? – Technologies, Water Borne Cases, and Top 10 Contaminants 1 hrs*

Self- Paced

Total 1 hrs

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

[ACR] Abnormal Operating Conditions

Learning Objectives

This course focuses on problems that might arise from using pumps

- Outline the process of analyzing a problem situation associated with a centrifugal pump
- Utilize a process to identify and troubleshoot problems caused by vibration
- Utilize troubleshooting steps to inspect and analyze bearings running hot

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Abnormal Operating Conditions

Course Outline

1. Abnormal Operating Conditions	1 hrs
Self- Paced	Total 1 hrs

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

[ACR] Special Pumping Units

Learning Objectives

This lesson will deal with special pumps that are used in the water and wastewater industry. The discussion will cover regenerative turbines, vortex, jet, air lift, screw pumps, and pneumatic ejectors.

- Identify regenerative turbine pumping units by type
- Classify the conditions for use of each pump
- List components and operation of regenerative turbine pumps
- Recognize advantages and disadvantages of each type of pump
- Perform calculations related to regenerative turbine pumps

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Special Pumping Units

Course Outline

1. Special Pumping Units	1 hrs
Self- Paced	Total 1 hrs

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

[ACR] Pumps- Lineshaft Turbine Operating Conditions

Learning Objectives

This lesson addresses items unique to lineshaft turbines. It outlines the causes of and solutions to poor pump performance.

- Identify the causes of poor pump performance
- Outline steps used to prevent poor pump performance
- Define submergence parameters to ensure maximum pump performance
- List the steps of impeller adjustment and shaft alignment

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Lineshaft Turbine Operating Conditions

Course Outline

1. Lineshaft Turbine Operating Conditions	1 hrs
Self- Paced	Total 1 hrs

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

[ACR] Pumps- Normal Operating Conditions

Learning Objectives

This lesson focuses on those conditions that impact normal operations of end suction, split case centrifugal pumps.

- Define cavitation
- Recognize the causes of cavitation in a pumping system
- Identify the methods used to prime a pump
- Outline the functions of lubricants
- List the visual, sound, smell, and touch tests that are used to inspect a pump

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Normal Operating Conditions

Course Outline

1. Normal Operating Conditions 1 hrs

Self- Paced Total 1 hrs

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

[ACR] Pump Hydraulics

Learning Objectives

This course reviews hydraulic basics as well as pump conditions, horsepower, pressure, and system curves.

- Describe the use of pump curves to assess operational conditions
- Calculate capacity, total dynamic head, horsepower, efficiency and required net positive suction head using pump curves
- Calculate water, brake, and wire horsepower
- Define NSPH (Net Positive Suction Head)
- Utilize affinity laws to calculate the effects of pump speed and impeller diameter changes on capacity, head, and horsepower requirements.

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Pump Hydraulics

Course Outline

- | | |
|--------------------|-------------|
| 1. Pump Hydraulics | 2 hrs |
| Self- Paced | Total 2 hrs |

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

[ACR] Pump Piping System

Learning Objectives

This course will focus on pump piping system components and configuration

- Describe the function of key equipment used in pump piping systems
- Identify equipment and processes used to reduce the negative impact of suction piping on pump performance
- Outline the sources, requirements, and conditions of seal water in pump piping systems
- List the types and components of control systems used for piping and valving
- Summarize piping considerations for linshaft turbines

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Pump Piping System

Course Outline

1. Pump Piping System 2 hrs

Self- Paced Total 2 hrs

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

[ACR] Selection & Replacement of Mechanical Seals

Learning Objectives

This course outlines the advantages, classification, major components, and proper installation procedures of mechanical seals. Causes of failure during initial installation and replacement will also be discussed.

- Define key terms related to mechanical seals
- Identify the primary and secondary elements of the mechanical seal
- Explain what type of seal you would use in a given condition
- List major causes of original and replaced seal failure

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Selection & Replacement of Mechanical Seals

Course Outline

1. *Selection & Replacement of Mechanical Seals* 2 hrs

Self- Paced Total 2 hrs

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

[ACR] Selection & Replacement of Pump Packing

Learning Objectives

This course outlines the types, selection, replacement, and installation of pump packing.

- Describe the purpose of packing
- Outline the common materials used in packing
- Describe the process of replacing packing
- List the causes of packing failure

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Selection & Replacement of Pump Packing
- General Course Survey

Course Outline

1. Selection & Replacement of Pump Packing 1 hrs

Self- Paced Total 1 hrs

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

[ACR] Centrifugal Pump Repair

Learning Objectives

This lesson examines the causes of centrifugal pump damage and outlines removal and installation methods of new components.

- Identify safety procedures used in isolating pump repair
- Identify causes of damage to pump components
- Describe methods for removal and installation of pump components
- Define methods and measurements used in pump alignment

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Centrifugal Pump Repair

Course Outline

1. Centrifugal Pump Repair	2 hrs
Self- Paced	Total 2 hrs

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

[ACR] Centrifugal Pump Components

Learning Objectives

Centrifugal pumps convert external rotational mechanical energy into kinetic energy within a liquid. In a centrifugal pump, this is done by accelerating the liquid from the center to the outer rim of a spinning impeller within a pump casing. This course covers the terminology and function of the mechanical components that make up a typical centrifugal pump.

- Identify centrifugal pump components
- Distinguish between types of bearings
- Differentiate between radial and thrust loads
- Identify coupling types and purposes
- Recognize causes of bearing failure

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Centrifugal Pump Components

Course Outline

1. Centrifugal Pump Components 3 hrs

Self- Paced Total 3 hrs

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

[ACR] Centrifugal Pump Types

Learning Objectives

The goal of this course is to give operators clues that will allow them to identify common pump types and pump installations by their typical name.

- Identify the three types of centrifugal pumps used in water and wastewater based on their configuration
- Describe the functions of end-suction, split-case, and vertical turbine centrifugal pumps
- Describe the impact of additional pump stages on head, flow, and horsepower requirements
- Differentiate between single suction and double suction split case pumps
- Identify centrifugal pumps by flow pattern

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Centrifugal Pump Types

Course Outline

1. Centrifugal Pump Types	1 hrs
Self- Paced	Total 1 hrs

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

[ACR] Centrifugal Pump Classification & Theory

Learning Objectives

This course provides an overview of pump classifications, their features and functions, and the transfer of energy required to move water for treatment, distribution, and collection.

- Define key terms related to pumps and pumping
- Identify major components and functions of pumps
- Classify pumps according to their features and functions
- Explain the transfer of energy in the pumping process

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Centrifugal Pump Classification & Theory

Course Outline

1. Centrifugal Pump Classification & Theory 1 hrs

Self- Paced Total 1 hrs

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

WW: Introduction to Wastewater

Learning Objectives

Welcome to this course on the characteristics of Wastewater. In this course, and in fact this entire text, reference will be made to wastewater and sewage. These terms are interchangeable. However, the term wastewater is a broad, descriptive term. Generally, it includes liquids and water containing solids from homes, businesses, and industry and is a more “modern” term.

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Introduction and Characteristics of Wastewater
- Final Exam

Course Outline

1. WW: Introduction to Wastewater	1 hrs
Self- Paced	Total 1 hrs

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

Hazardous Waste Management for Drinking Water Utilities – Hazardous Waste Transportation

Learning Objectives

This is the third module of a five-part series. In this module, students learn about the pre-transportation requirements associated with hazardous waste, including how to apply for an EPA or State ID number, and which ID number to apply for. Then, students are introduced to hazardous waste manifesting requirements. NOTE: This training does not satisfy the Department of Transportation (DOT) training requirement for manifest signees. Students will also learn about transportation placarding requirements. Finally, students become familiar with the responsibilities of the "Responsible Person".

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Course Introduction and Objectives
- Generator Status Determines How Quickly You Must Get Rid of Waste
- What are EPA and State IDs?
- How To Fill Out a Uniform Hazardous Waste Manifest (UHWM) - Part One
- How To Fill Out a Uniform Hazardous Waste Manifest (UHWM) - Part Two
- Revisiting the Hazardous Waste Sticker & Placards
- General Course Survey

Course Outline

- | | |
|----------------------------------------------------------------------------------------------------|--------------------|
| <i>1. Hazardous Waste Management for Drinking Water Utilities – Hazardous Waste Transportation</i> | <i>2 hrs</i> |
| <i>Self- Paced</i> | <i>Total 2 hrs</i> |

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

Hazardous Waste Management for Drinking Water Utilities – Waste Determinations, Handling, Storage, and Accumulation Times

Learning Objectives

This is the second module of a five-part series. By the end of this module, students will be able to make a waste determination using a Safety Data Sheet (SDS) or waste characterization analysis method. Then, students learn how to properly handle, store, and accumulate hazardous waste. Finally, students learn about the different hazardous waste generator statuses and what the generator status means for drinking water utilities.

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Course Introduction & Instructor Information
- What Are the Course Objectives?
- What is SDS?
- What Waste Characterization Should I Use?
- Break for Exam #1
- Exam #1
- What is a Hazardous Waste sticker?
- Exam #2
- General Course Survey

Course Outline

1. *Hazardous Waste Management for Drinking Water Utilities – Waste Determinations, Handling, Storage, and Accumulation Times* 2 hrs

Self- Paced

Total 2 hrs

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

Hazardous Waste Management for Drinking Water Utilities – What is Hazardous Waste?

Learning Objectives

This is the first module of a five-part series. First, we tackle the question, “What is a hazardous waste?”. Students learn about the structure of governance that regulates hazardous waste both in California and federally. Students then explore the different kinds of hazardous waste and how to identify them. Finally, students interpret waste characterization laboratory results. By the end of this module, students (1) learn to identify hazardous waste streams commonly present at drinking water utilities, (2) understand the difference between federally hazardous wastes and California hazardous wastes, (3) learn how to conduct a waste characterization.

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Introduction & Instructor Information
- Hazardous Waste Course Objective
- Why It's Important to Comply
- What Is Hazardous Waste?
- State vs Federal Regulations Explained
- RCRA Hazardous Waste Criteria - Ignitability and Reactivity
- RCRA Hazardous Waste Criteria - Corrosivity
- RCRA Waste Criteria - Toxicity
- RCRA Listed Hazardous Waste Information
- Let's Take The First Exam
- Exam 01 - What is Hazardous Waste?
- Non-RCRA Hazardous Waste
- Non-RCRA Waste Criteria - Corrosivity
- Extremely Hazardous Waste
- Let's Take the Second Exam
- Exam #2 - RCRA and Non-RCRA

- Thank you for taking this module!
- General Course Survey

Course Outline

1. *Hazardous Waste Management for Drinking Water Utilities – What is Hazardous Waste?*
2 hrs

Self- Paced

Total 2 hrs

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

Hazardous Waste Management for Drinking Water Utilities – Recordkeeping and Special Circumstances

Learning Objectives

This is the fourth module of a five-part series. In this module, students understand the record-keeping requirements for hazardous waste generators. Then, students learn about the types of training required for hazardous waste generators. Finally, students investigate the special circumstances that are common for a lot of drinking water utilities such as contamination containers, retrograde chemicals, used oil, and AC pipe.

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Course Objectives
- General Record Keeping Practices & Manifest
- Biennial Reporting and Training Requirements
- Break for Course Exam #1
- Course Exam #1
- Contaminated Container Exemptions & Best Practices
- Retrograde Chemicals & Management of Used Oils or AC Pipes
- Break for Course Exam #2
- Course Exam #2
- General Course Survey

Course Outline

1. *Hazardous Waste Management for Drinking Water Utilities – Recordkeeping and Special Circumstances*

2 hrs

Self- Paced

Total 2 hrs

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

Hazardous Waste Management for Drinking Water Utilities – Universal Waste & Hazardous Materials Business Plan

Learning Objectives

This is the last module of a five-part series. In this module, students learn how to identify universal wastes and the requirements for universal waste generators including handling, storage, accumulation time, transportation, and record-keeping. Then, students are introduced to hazardous materials business plan requirements including what it is, what it contains, and if students need one at their facility.

Training Methods

Our training methods that will be applied, are interactive learning through the videos displayed on our website, WaterLMS. Attendees will have to take quizzes and tests, as well as being interactive throughout the whole duration of the course. They can not skip forward, and is required to be active for the duration of the course, being able to get the full experience out of our courses and prepare them for the real duties they will encounter.

Courses can be taken in a learning plan, all together or be taken individually.

Course Content

- Instructor Introduction and Expectations
- Course Outline: What is Universal Waste?
- Generator Status, Handling/Storage, Transportation, & Record Keeping
- Let's Get Ready for Exam #1
- Exam #1
- What is a Hazardous Materials Business Plan (HMBP)?
- Let's Get Ready for Exam #2
- Exam #2
- General Course Survey

Course Outline

1. *Hazardous Waste Management for Drinking Water Utilities – Universal Waste & Hazardous Materials Business Plan*

2 hrs

Self- Paced

Total 2 hrs

Student Assessment

Upon class completion, students will be tested using an open question & answer session, to ensure there is a general understanding of the materials presented during the course.

Instructor Bio:

Is strictly online, so no instructor is needed.

Please reach out if you have any questions, or is wanting to take the course yourself, to provide a better understanding of the ones we provide.

CERTIFICATE

OF COMPLETION



CRWA PROUDLY PRESENTS TO

Candice Colson

This certificate, issued on **5/5/21**, certifies that **Candice Colson** has completed

16.00 SWRCB Water Contact Hours and/or 16.00 REHS/CEUS

For **Utility Management Certification**, Instructed by **Channing Vang**, CRWA Trainer, ONLINE. CERTIFICATE NO: **C86**

Executive Director, Dan DeMoss

Board President, Bill Massey