

Surface Water Treatment Plant Operations

Instructor: Tony Goff

At Your Pace Online

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Oregon water treatment and distribution Operators can satisfy 3 hours toward license renewal with this course.

This course will provide an overview of surface water treatment plant operations. Students will learn about:

- Regulations - Discover the history of the laws that regulate surface water treatment and the impact on your profession.
- Treatment Processes - Explore various types of treatment to deal with high algae counts, suspended solids, zooplankton, or other issues.
- Coagulation and Flocculation - Learn about the basics of aluminum and iron coagulants and chemicals to aid coagulation. You'll also learn how flocculation assists in the coagulation process by transporting coagulants so that they contact suspended fine particles to promote clumping.
- Filtration - Pore over our section on filtration to better understand the methods of filtration used in surface water treatment.
- Disinfection - Investigate the process of disinfection where you'll learn about the process of destroying or inactivating pathogens found in water.
- Corrosion Control - Learn about how pipe corrosion can lead to serious health issues and discover ways to prevent corrosion throughout a surface water treatment system.

Syllabus:

Surface Water Treatment Plant Operations:	3h 5m
1. Introduction to Surface Water Treatment Plant Operations (Video)	3m
a. This video introduces the instructor and goals for water operators.	
2. Regulations	52m

- a. This section covers the history and requirements of the SDWA, IE(SWTR), and LT2(SWTR).
- 3. Source Water Considerations for a Surface Water Treatment Plant (Video) 3m
 - a. This video cautions about the susceptibility to contaminants in surface water.
- 4. Treatment Processes 22m
 - a. This section discusses monitoring water sources, how certain contaminants behave, and types of pre-treatment.
- 5. Coagulation (Video) 1m
 - a. This video defines coagulation and flocculation in water treatment.
- 6. Coagulation and Flocculation 27m
 - a. This section explains effects on coagulation and flocculation at a molecular level.
- 7. Sedimentation (Video) 3m
 - a. This video examines sedimentation, plants, tanks, and components.
- 8. Filtration 30m
 - a. This section outlines the filtration process and types of filtration.
- 9. Disinfection (Video) 2m
 - a. This video analyzes the multi-barrier requirement of the SWTR and pathogenic microorganisms.
- 10. Disinfection 16m
 - a. This section discusses disinfectants.
- 11. Corrosion Control (Video) 2m
 - a. This video explains how to control corrosion in distribution systems.
- 12. Corrosion Control 19m
 - a. This section goes further into the health risks of corrosion in water and treatment processes.
- 13. Conclusion of Surface Water Treatment Plant Operations (Video) 5m
 - a. This video details chemical treatments for corrosion and how to determine the corrosiveness of water.

Course Details:

Requirements:

Our system is offered online and so there are a few requirements in order to complete the course. Our course can be taken with a minimal system that meets all of the requirements below, but the learning experience will be best if the student's system meets the following recommendations as well.

Required: Internet capable device. Our course is compatible with smartphones, tablets, and traditional computers. It is not necessary that students own this device, merely that they have access to such a device.

Required: Internet connection.

Recommended: High speed internet connection. Our course uses a number of videos and therefore the experience will be better with a high speed connection.

Required: Up to date browser.

Recommended: Up to date version of Google Chrome.

Course Setup:

Course completion is tracked through questions between the sections. The questions within slides do not, however, track progress. In order to mark the course as complete, students will need to answer all of the questions attached to the course.

Upon enrolling in our course, students will have access for 365 days. After this 365 day period, they may contact us to have their enrollment renewed.

Any questions, concerns, or issues that arise while taking the class can be addressed by calling the contact number, writing to the contact email, or sending a message through the “Suggestion Box” included in the course. Any message will receive a response within one business day, though chats are usually answered within one hour.

After finishing all course content, the student will need to fill out the “Completion Questionnaire” so that their completion can be reported to the state.

Course Completion:

Upon successful completion of the course, the student will be able to complete the “Mandatory Questionnaire” which gives us the necessary information to report completion to the state. The student will then have access to the certificate of completion. If applicable, AYPO will report completion to the state.

Refunds:

All tuition and fees paid by the applicant shall be refunded if the applicant is rejected by the school before enrollment. All tuition and fees paid by the applicant shall be refunded if requested within three business days after the terms and conditions have been accepted (on the enrollment page). Refunds are returned within thirty business days.

After the initial three business days have elapsed, AYPO will happily refund 100% of the purchase price for any course which the student has not yet begun.

Refunds of all or some portion of the purchase price may be available in situations where the student has already started taking the course, but not yet completed it. In general, for individuals who have already completed an entire course, refunds will not be available. Our office staff may be reached at (877) 724-6150 for more information about refund

requests.

Attendance and Dismissal:

Students who enroll in this class are required to complete 100% of the course to receive credit. Since this class is presented online, enrolled students are not dismissed.

Course Content:

At Your Pace Online is responsible for the content of this course.