

Essentials of Surface Water Treatment

CEU Instructions

To receive your CEU certificate, you will need to:

- 1) Answer the questions below;
- 2) Complete the course evaluation; and
- 3) Email your completed questions and evaluation to: DWS.SurfaceWater@dhsoha.state.or.us

The questions cover content in both Part 1 and Part 2 of the course, so If you have only taken one of the two parts, just do the best you can. If you have any questions about this process, please e-mail us at DWS.SurfaceWater@dhsoha.state.or.us and provide your name and contact phone number so that we can get back to you.

Thank you for taking the course! 1. Which part of the course have you taken? Part 1 Part 2 both Part 1 and Part 2 2. Which of the following is not a filter? Slow sand Membrane Conventional UV Cartridge 3. Which filtration type is credited with 2.0-log giardia removal? Slow sand Membrane UV 4. What percent removal is equivalent to 3-log removal? 90% 99% 99.9% 99.99% 5. Which form of disinfectant leaves a residual that can be carried through the distribution system? a) UV b) Ozone c) Chloramine d) Sodium Hypochlorite Both c) and d)

6.	If a surface water filtration plant met disinfection requirements, which of the following statements would have to be true?
	a) Entry point chlorine residual is < 0.2 mg/l b) Actual CT > Required CT c) Clearwell volume is at its maximum level d) Entry point chlorine residual is > 0.2 mg/l Both b) and d)
7.	Where would you locate a flow meter to be able to record peak hour demand for reporting to DWS?
	a) At the inlet to the treatment plant b) At the individual filter effluent c) At the combined filter effluent d) At the effluent of the CT segment e) At or prior to the first user Both d) and e) may be acceptable
8.	What equation would you use to calculate Actual CT?
	Peak hour demand x chlorine residual Contact time x baffling factor x chlorine residual Chlorine residual x contact time None of the above
9.	How is contact time required to be determined for surface water systems?
	 a) Contact volume x estimated baffling factor b) Pipe volume divided by flow rate if CT segment is all in a pipe c) By conducting a tracer study if CT segment includes a reservoir or tank d) By calculating CT Both b) and c) are acceptable
10.	What should you do if you exceed a regulatory turbidity limit?
	Issue public notice Increase chlorine residual Increase contact time Call your regulator None of the above
11. What website would you go to download forms for monthly reporting of turbidity and CT?	
	www.healthoregon.org/swt www.healthoregon.org/training www.healthoregon.org/info None of the above

Evaluation Form

Class Objective: The objective of this class is to provide operators with useful information about surface water treatment. This course is designed to be helpful for both new and experienced operators. Please provide comments so that we may better meet this objective. Check the box next to the class title for which this review is intended (please only check one): "Essentials of Surface Water Treatment" "Slow Sand Filtration" "Conventional and Direct Filtration" 1) Date & Location of Training: Provide the date you attended the training (mm/dd/yyyy): _____ Attended on-line Only Attended an in-person classroom location (indicate City): _____ 2) Was the objective met? Yes No Somewhat Comments 3) Overall Rating: Good Fair Poor Comments _____ 4) Would you recommend this session to other operators? Yes No If not, why? | | Yes | | No 5) If taken in-person, did you like the training location? 6) If taken on-line, did you like the format of the training? Yes No 7) What time of year would you like to see this training offered? Spring Summer Fall Winter Additional Comments: _____

(If we may contact you for more information, please provide your name and number under "Additional Comments")

May we contact you for more details regarding your comments? Yes