



Developer and Owner – WWOTC

Online Course – Instructor Led

Primary Basics

August 3-4, 2021 (8:30 – 12:30 AST)

Course Objective / Description

This course is for wastewater treatment plant operators responsible for their plant's process operations, in particular addressing primary clarification. The material addresses the major Basis of Design parameters for assessing a primary clarifier's performance including surface overflow rate, weir overflow rate and hydraulic retention time. It also includes estimated costing for acquiring a clarifier, sludge collection and withdrawal from the clarifier and the fluent/effluent efficiency of a clarifier along with loading to an aeration system following primary treatment based on primary effluent flow and organic loading. Often the impact primary treatment can have on the secondary biological portion of the wastewater system is greatly underestimated. Understanding primary treatment basics can have huge benefit to the removal of BOD and solids and lessen any impact that may occur in the secondary biological portion of treatment.

What will be covered:

- Emphasis on the use of the Basis of Design (BOD) parameters for a primary clarifier
- Appreciation of as built drawings for obtaining and utilizing a clarifier's operating characteristics
- Calculate, summarize and present the basic operating parameters for a clarifier
- The clarifier as the source of organic loading to both aeration and stabilization processes
- Costs associated with obtaining and installing a clarifier

Lesson	Description	Contact Hours
Day 1		
Lesson 1	Introduction and Overview	0.5
Lesson 2	Review Clarifier Drawings	0.5
Lesson 3	Clarifier Calculations	1.0
	Break	0.5
Lesson 4	Clarifier Calculations	0.5
Lesson 5	Scrapper Arm Torque and Travelling Rates	1.0
Day 2		
Lesson 6	Scrapper Arm Torque and Travelling Rates	0.5
Lesson 7	Sludge Blankets and Accumulation	1.5
	Break	0.5
Lesson 8	Clarifier Efficiencies	1.0
	Exam	0.5
	Total Instruction/Contact Time:	7.0

CEU: 0.7



**ATLANTIC CANADA
WATER & WASTEWATER ASSOCIATION**
American Water Works Association
Atlantic Canada Section



Primary Basics

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Name: _____

Company: _____

Company Mailing Address _____

City, Province: _____ Postal Code: _____

Phone: _____ Email: _____

ACWWA Membership #: _____ WEF Membership #: _____

If no membership number is listed, you will be invoiced as a non-member. See pricing below.

Fee for ACWWA or WEF Members & Employees of UTILITY Members

Course: $\$345.00 + \$51.75 \text{ HST (15\%)} = \396.75

Fee for Non – Members

Course: $\$370.00 + \$55.50 \text{ HST (15\%)} = \425.50

Invoices will be sent to the address listed above.

PO number to be included on the invoice _____

Payment can be made by Visa, Master Card or cheque.

Card Holder's Name _____

Credit Card Number _____ Expiry _____

Signature _____

Email address for credit card receipt _____

Cheques should be made payable to:

ACWWA

PO Box 28141 · Dartmouth, NS · B2W 6E2

Phone 902-434-6002 Fax 902-435-7796