



Monday January 30th, 2023

10:00 AM to 11:30 AM

CSWEA Operator Training Course: Fundamentals of Secondary Treatment

OVERVIEW

As the name would imply this course picks up the journey of wastewater as it travels through the plant right after Primary Treatment. Secondary clarification signifies the end of the biological treatment portion of wastewater treatment. Often referred to as 'polishing', it is the last component of the solids removal process and happens just before tertiary treatment or disinfection, depending on the process employed by the individual plant.

This course offers a thorough examination of the process and provides strategies and tools necessary to address the operation of this segment of treatment.

AGENDA

10:00 am Introduction

10:05 am Course Topics:

- Overview of Secondary Clarifiers
- Aeration
- Oxidation Ditches
- Wastewater Stabilization Ponds
- Sampling and Analysis
- Rotating Biological Contactors (RBCs)
- Trickling Filters
- Secondary Treatment Effluent
- Common Calculations and Practice Problems



OPERATOR TRAINING PROGRAM

11:30 am Adjourn

CONTINUING EDUCATION

1.5 CEUs for Operators in Illinois, Wisconsin & Minnesota.

Operator ID/Quiz required for webinar.

1.8 PDHs for all Professional Engineers



COST

\$20 – Members (Discount Code: CSWEA)

\$25 – Non-Members

\$5 – Student (Discount Code: Student)

\$5 – International (Discount Code: International)

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CENTRAL STATES WATER ENVIRONMENT ASSOCIATION

OPERATOR TRAINING PROGRAM



OPERATOR TRAINING PROGRAM

Instructor:



Luke Markko

Luke is the Superintendent of Public Works in Wauconda, IL. He holds an Associates Degree in Arts from the College of Lake County and Class 1, Industrial, and Collections wastewater certifications with the Illinois EPA. Luke entered the wastewater field in 1999 at the age of 16 working part time while in High School and College, before taking on wastewater full-time. Luke is a former president of the Fox Valley Operators association and has represented Central States WEA in Operations Challenge at WEFTEC on several occasions and continues to be active in CSWEA committees. When not working, Luke can be found enjoying the outdoors with his family.

