

# Activated Sludge Process and Control



## 1.1 CECs, Wastewater Technical

*You must attend the entire class to earn the CECs*

Class qualifies for 1.1 SHE Engineering. Must take and pass an additional written exam administered at the end of the class to earn SHE credits.

Instructor: John Holland, MRWA

<b>AGENDA Day 1 – Activated Sludge Process and Control</b>	
8:30 - 8:40	Introduction
8:40 - 9:30	Introduction to the Activated Sludge Process <ul style="list-style-type: none"> <li>• The Basic Process</li> <li>• Modifications of the Activated Sludge Process</li> <li>• Keywords and Definitions</li> <li>• Process Description</li> </ul>
9:30 - 10:30	Operation <ul style="list-style-type: none"> <li>• Normal Operation Process Equipment; Operation Strategy; Microorganisms</li> <li>• Abnormal Operation Trouble shooting; Making Corrections</li> </ul>
10:30 - 10:45	Break
10:45 - 12:00	Activated Sludge Math <ul style="list-style-type: none"> <li style="width: 50%;">• Tank Volumes</li> <li style="width: 50%;">• BOD Loading</li> <li style="width: 50%;">• MLSS &amp; MLVSS</li> <li style="width: 50%;">• F/M Ratio</li> <li style="width: 50%;">• MCRT &amp; Sludge Age</li> <li style="width: 50%;">• Return Rate Estimated</li> <li style="width: 50%;">• Wasting Rates</li> </ul>
12:00 - 12:45	Lunch (provided)
12:45 - 2:00	Plant Tour and Process Familiarization
2:00 - 3:00	Math Continued
<b>AGENDA Day 2</b>	
8:30 - 10:30	Math Continued
10:30 - 10:45	Break
10:45 - 12:00	Math Continued
12:00 - 12:45	Lunch (provided)
12:45 - 2:30	Laboratory <ul style="list-style-type: none"> <li>• Microorganisms</li> <li>• SVI / SDI</li> </ul>
2:30 - 3:00	Review & Questions