

Water Industry Coagulation, Flocculation, and Sedimentation (3004)

Course Description

The primary goal of the water industry is the delivery of potable water reliably and at affordable prices. Coagulation, flocculation, and sedimentation are processes which can be part of the water treatment process. Some plants use all three steps, some plants use fewer, and some higher technology plants use none. An understanding of these processes is necessary for anyone working in the water industry.

Course Objectives

After successfully completing this course, you will be able to:

- assess why the processes of coagulation, flocculation, sedimentation, and filtration are necessary in the treatment of wastewater
- explain the terms: coagulation, flocculation, sedimentation, and filtration
- describe the chemicals used in the process of coagulation
- identify the purpose of conducting jar tests
- illustrate how to conduct jar tests
- review the common types of clarifiers used in the water treatment process

Agenda

- Introduction – 5 minutes
- Coagulation as Chemistry – 5 minutes
- Coagulation Chemicals – 5 minutes
- Jar Test – 5 minutes
- Chemical Feed Machines – 5 minutes
- Flocculation – 10 minutes
- Settling Particles – 5 minutes
- Filtration – 5 minutes
- Tertiary Treatment – 5 minutes
- Short Circuit – 5 minutes
- Summary: References and Credits – 5 minutes