



## Coagulation & Flocculation Webinar Description

Coagulation and flocculation are essential parts of water treatment. Coagulation clears up cloudy water and helps dewater solids. Flocculation helps settle fine solids in a clarifier. Coagulants and flocculants are two of the most essential chemicals used in water treatment.

Coagulation is charge elimination. Turbidity is caused by small, negatively charged particles. Positively charged coagulants (cationic coagulants) are used to neutralize the particles that cause turbidity allowing them to flocculate and settle out. This course covers aluminum and iron based coagulants along with organic coagulants. We will go through advantages of each, how to calculate dosing, how to properly mix them and how to troubleshoot high turbidities and solids dewatering issues.

Flocculation is the process of making small floc particles into larger floc particles that are able to settle out in a clarifier. Unlike coagulation, flocculation may occur naturally without chemicals being added. However, if there are fine suspended solids (not turbidity) in the clarifier effluent, then adding a flocculant aid (polymer) before clarification can help settle out the fine particles. This course covers choosing the best polymer for your treatment, mixing, jar testing and dosing, proper activation, and how to reduce polymer costs.