

Reading Guide

CEEG 340–Introduction to Environmental Engineering

Instructor: Deborah Sills

Reading assigned for Wednesday 9/18: Textbook, pp.121–129

After completing the reading, you should be able to:

1. Define the terms *conservative compound*, *zero-order decay*, *first-order decay*
2. Apply the principle of mass balance to calculate concentrations in a completely mixed flow reactor under the following conditions:
 - (a) steady state with a conservative chemical,
 - (b) steady state with a reactive chemical that degrades according to a first-order rate equation,
 - (c) nonsteady state with a reactive chemical that degrades according to a first-order rate equation,
 - (d) nonsteady state with a conservative chemical