Clarifier Performance & Flow Measurement Workshop Objectives

Flow measurement:
At the end of this workshop and by using the Isco Flow Measurement Manual, you will be able to…

- Select the right flume or weir for your open channel flow application
- Properly size weirs and flumes
- Verify the calibration of your flow meters for open channel and closed pipe installations

Clarifier Performance:
At the end of the workshop you will be able to…

- Identify requirements based on recommended standards by referring to your regional "design standards"
- Evaluate your clarifier in terms of 'type' (i.e. 1, 2, 3)
- Describe the effects of the various unit processes on clarifier performance
- Describe the various means of distributing flow to clarifiers, including the advantages and disadvantages of each
- List and describe the function of the major components of circular, rectangular and square clarifiers
- Discuss the various options provided by different style clarifiers, including advantages, disadvantages, and methods of optimizing performance
- Explain the effect of clarifier configuration and clarifier depth on performance
- Describe the benefits of various techniques used to evaluate clarifier performance including:
  - Dye Studies
  - Visual Observations
  - Current Measurements
  - Vertical Solids Profile
  - Settleability and flocculation tests
- Discuss the various methods available for improving clarifier performance, including:
  - Biological Process Control
  - Chemical Addition
  - Physical Modifications such as Baffles & Inlets

Instructor:
John Esler (Founder of CPE Services, Inc. in 1989) conducts Clarifier Performance Evaluations to provide technical assistance and training to the wastewater and water industry. He has conducted clarifier evaluations at over 100 industrial and municipal sites across the United States, Canada, Europe and Asia.

Clarifier Performance and Flow Measurement Workshop

[ ] September 14, 2010, **Mason**
or
[ ] September 15, 2010, **Delaware**

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