Evaluation Principles for the Monitoring of Dams and Their Foundations

April 23, 2020
Half Day Workshop
USSD Committee Monitoring of Dams and Their Foundations

Teaching Moment
Attendees will learn about methods and considerations for evaluating dam safety instrumentation data.

Workshop Description
The timely evaluation of dam performance monitoring data is a critical component of any dam safety program. Far too often, simple data reporting of performance monitoring data is presented as data evaluation but is ultimately lacking the “so what” that is vital to the comprehensive interpretation of dam performance monitoring data. The successful evaluation of performance monitoring data couples thorough site characterization with project instrumentation data to distill a comprehensive analysis of project performance. Topics presented as part of this workshop will include:

- Basics of site characterization
- Data reporting/presentation
- Evaluation principles
- Case histories and best practice examples

Workshop Agenda
A. Introduction (0.5 hr)
   a. Welcome and Introductions
   b. Brief Case Study – Where evaluation worked.

B. Overview of Data Evaluation (1 hr)
   a. Site Characterization and Other Considerations
   b. Common Responses/Instrument Behaviors
      i. Piezometers v Reservoir
         1) Lag
         2) Operator
      ii. Inclinometers – Shear v gradual movement
      iii. Other Correlations
         1) Visual
         2) Instrument Grouping

C. Practical Application (2 hr)
   a. Group Exercise
      i. Step through an evaluation
ii. Limit to a couple of instrumentation types
iii. Incorporate PFM

b. Example Write-ups
   i. IES
   ii. Maintenance

D. Panel Discussion (.5 hr)