

# Agenda for FERC Surveillance and Monitoring Workshop

May 17 – 18, 2006 – Chicago, Illinois

## Day One

**Wednesday -  
May 17, 2006**

	<u>Agenda</u>	<u>Presenter</u>
7:30 a.m.	Registration	
8:00 a.m.	Introduction	Gus Tjoumas
8:15 a.m.	WHY INSTRUMENTATION? Cross Section of Embankment and Failure Cross Section of Concrete Dam and Failure	John Zygaj - FERC-ARO
8:30 a.m.	Overview of Current FERC Instrumentation Program <ul style="list-style-type: none"><li>• Chapter 9 - of the FERC Engineering Guidelines - Instrumentation and Monitoring</li><li>• Chapter 14 - of the FERC Engineering Guidelines - Dam Safety Performance Monitoring</li><li>• Annual Instrumentation Submittal</li><li>• Chapter 3 of the FERC Operating Manual - the Operation Inspection</li><li>• Chapter 3 of the FERC Operating Manual - the Special Instrumentation Inspection</li></ul>	John Zygaj - FERC-ARO
9:15 a.m.	What do you need to measure? Common instrumentation for dams <ul style="list-style-type: none"><li>• Types of instruments</li><li>• Application</li><li>• Limitation</li><li>• Importance of Details of Installation</li></ul>	Bradley Davis – FERC-ARO
10:15 a.m.	Break	
10:30 a.m.	General Discussion of designing an instrumentation system <ul style="list-style-type: none"><li>• Recognize the need for instrumentation</li><li>• Define project conditions</li><li>• Parameters to be monitored</li><li>• Selection of instrument type to suit the need</li><li>• Construction, Field Inspection and quality control</li></ul>	Justin Nettle – FERC-PRO

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## Day One Continued

### Agenda

### Presenter

General Discussion of Designing an Instrumentation system (Continued)

- Documentation monitoring and upkeep/calibration

Justin Nettle-FERC-PRO

11:00 a.m. Case Study – A well instrumented project – Swinging Bridge

FERC Staff

11:45 a.m. Instrumentation and the PFMA

- PFMA process/background
- Identification of failure modes/risk reduction monitoring suggestions
- Results of the first years of the FERC DSPMP
- Focusing an instrumentation program to identified failure modes

Jeff Esterle-FERC-PRO

12:30 p.m. Lunch

1:30 p.m. Case Study – Swift No. 2 Instrumentation Prior to Failure

- Could trouble (this amount of trouble) have been foreseen?

Overview of Reconstruction Effort Instrumentation System Design for the Reconstruction

- (Instrument Selection, Layout, Installation, Surveillance & Monitoring Plan)

Performance of Instrumentation during and after construction

Future Expectations (Long-term Reliability, Upkeep, Instrument Life)

Justin Nettle-FERC-PRO

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## **Day One** **Continued**

### **Agenda**

### **Presenter**

2:00 p.m.	Threshold Values and Action Levels · Don't put 'blinders' on! How to incorporate threshold and action levels into your normal evaluation (don't rely only on set levels) · How to determine what they should be · When are they appropriate? When are they not needed? · Who is responsible for setting Threshold and Action Levels? (Consultant or knowledgeable engineer) · Accounting for seasonal influences · Case studies or specific instrument scenarios	John Zygaj-FERC-ARO
2:30 p.m.	Case Study – Determination of Threshold Values and Action Levels	Emeruwa Anyanwu, FERC-NYRO
3:00 p.m.	Discussion of Threshold Values and Action Levels	All
3:30 p.m.	Break	
3:45 p.m.	Data processing and presentation · Presentation of data · Data interpretation · Analysis of data and engineering evaluation	Bradley Davis-FERC-ARO
4:45 p.m.	Discussion and Questions	
5:00 p.m.	Adjourn	

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### Day 2

Thursday,  
May 18, 2006

	<u>Agenda</u>	<u>Presenter</u>
8:00 a.m.	What does FERC expect in an instrumentation Submittal (Review of the instrumentation letter)	John Zygaj - FERC-ARO
8:45 a.m.	Instrumentation inspection (brief) <ul style="list-style-type: none"><li>• How to perform the inspection</li><li>• What to look for</li></ul>	John Zygaj – FERC-ARO
9:15 a.m.	Installation of instruments	Tony Simmonds – GeoKon
9:45 a.m.	Break	
10:00 a.m.	Reading and troubleshooting instruments	Tony Simmonds – GeoKon
10:30 a.m.	Case Study – Instrumentation at Boundary Arch Dam	Walt Davis - Seattle City Light
11:30	Lunch	
12:30 p.m.	Annual instrumentation Review <ul style="list-style-type: none"><li>• Brief overview of what the reviewer should be looking for.</li><li>• How do you know that the instrument is working?</li></ul>	John Zygaj - FERC-ARO
1:00 p.m.	Slope Indicator - Inclinometers Installation Reading Processing Troubleshooting	David Stein - Slope Indicator Company

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## **Day Two** **Continued**

	<b><u>Agenda</u></b>	<b><u>Presenter</u></b>
2:00 p.m.	Automation	Tony Simmonds – GeoKon
2:30 p.m.	Break	
2:45 p.m.	When and How Should Instruments Be Retired	Ed Lutrell
3:30 p.m.	Open Panel Discussion (have topics prepared)	Everyone
5:00 p.m.	Adjourn	