

USSD COMMITTEE ON FOUNDATIONS CHARTER

Approved by the Board of Directors on 7/22/15

COMMITTEE DESCRIPTION

The purpose of this technical committee of USSD is to educate, train, and communicate the investigation, evaluation, analysis, design, and construction of foundation systems for dams. The vision of the committee is to be:

- Relevant
- Collaborative
- A store-house and transfer agent of knowledge
- Actively engaged in outreach
- Developing younger members of the profession
- Value-driven

TERMS OF REFERENCE

The Foundations Committee has been established by the Board of Directors of USSD.

The Committee provides leadership in the state of the practice regarding the foundations of dams. This committee has a broad scope and provides assistance with several other USSD committees because foundations are integral to other items such as monitoring, embankments, levees, construction, concrete, and others. A goal of this committee is to collaborate with these other USSD committees and other outside organizations to bring together practice leaders in dam and levee foundations. Additionally, the Committee works to involve younger members and provide products to aid in the development of younger practitioners.

The Committee accomplishes these goals through meetings, workshops/symposiums, white papers, webinars, etc.

BACKGROUND AND HISTORY

The Foundations Committee was formed early in the history of technical committees within USSD (then US Committee on Large Dams (USCOLD)).

Until late last year, Mr. Rich Millet was the Chair of the Committee for nearly 20 years.

In addition to assisting on many USCOLD/USSD Annual Meeting organizing committees, significant past accomplishments of the Committee include:

In 2012, participated with the Dams Committee of the Association of Environmental and Engineering Geologists (AEG) to assist with the 2012 AEG Shlemon Specialty Conference on

Dam Foundation Failures and Incidents, held in Denver, CO.

In 2011, met with the Dams Committee of AEG at the 2011 AEG Annual Meeting in Anchorage, AK to discuss potential collaborative projects.

In 2008, published the white paper “Rock Scour of Dam Foundations,” lead by George Annandale.

In 2008, assisted with the organization of a specialty workshop at the Annual Meeting in Portland, OR on Dam Failures and Incidents.

In 2004, organized and held a specialty workshop at the Annual Meeting in St. Louis, MO on Foundation Remediation Alternatives.

In 2001, published the white paper, “Aging of Dam Foundations”.

In 1990, had a significant role in organizing the technical papers and presentations for the USCOLD Annual Meeting in New Orleans, LA on Dam Foundations.

RESPONSIBILITIES

There are no specific responsibilities identified by USSD for this Committee other than the typical responsibilities of all technical USSD committees.

CHAIR, AND VICE CHAIRS AND RELATED RESPONSIBILITIES

Chair: Douglas Boyer, FERC

Vice Chair: Ed Friend, RJH Consultants

Vice Chair (Young Professional): TBD

GOALS AND OBJECTIVES

In accordance with the USSD strategic plan, the Committee’s goals and objectives are to:

Advocate:

1. Provide technical information to support Advocacy Goals
2. Communicate with committee members relevant outreach information/activities

Educate:

1. Publish technical papers and presentation
2. Develop and implement conferences and workshops

3. Provide on-line resources

Collaborate:

1. Collaboration within USSD
2. Strategically collaborate with targeted US organizations
3. Strategically collaborate with targeted international organizations

Cultivate:

1. Improve committee operations

To meet these goals and objectives, the Committee has identified the following short-term and long-term tasks.

SHORT-TERM (2014-2015) COMMITTEE TASKS

Tasks include:

- Publish a white paper on Best Practices for Surface Treatment of Foundations for Dams. This white paper was initially drafted by Norm Tilford.
- Develop a web-based technical resource of pertinent reference documents.
- Assist with the development and organization of an Internal Erosion workshop in collaboration with the Embankment Committee and other USSD technical committees.
- Collaborate with the Association of Environmental and Engineering Geologists (AEG) for a future workshop on dam failures/incidents related to foundation failure modes.
- Recruit additional committee members. A focus of this effort will be to attract a diversity of members from various backgrounds (academia, regulatory, owners, construction, suppliers, practitioners, etc.) and on younger members and university students.

LONG-TERM (2015 AND BEYOND) COMMITTEE TASKS

The Committee is identifying and prioritizing longer term tasks. Some potential future topics include:

- Case studies on behavior of foundation treatment

- Long term serviceability and performance of barrier walls, anchors and grout curtains
- Performance of foundation improvement with respect to seismic loading
- Repair of existing "piped" foundations
- Static strengthening of foundation soil in limited space
- Seismic improvements of dam and levee foundations
- Exploration of foundations using non-intrusive methods
- Monitoring effectiveness of barrier walls
- Geologic mapping of potential active faults
- Mapping of dam foundation defects and items of interest
- Behavior from severe seismic loading
- Foundation exploration planning
- Probability of risk related to foundation conditions and their treatment
- Seismic strengthening of dam and levee foundations
- Design considerations of penetrations of foundations
- Karstic foundations
- Glacial foundations (moraines, kames, eskers, outwash, etc.)
- PFMA considerations for foundations and development of actions plans to address potential risk during foundation exposure and preparation

The Committee will be prioritizing and identifying additional potential topics and developing work plans to accomplish the selected tasks.

MEMBERSHIP

The current membership of the USSD Technical Committee on Foundations is provided below.

Douglas D. Boyer, Chair
 Edwin R. Friend, Vice Chair
 John Ballegeer
 Stephen Brown
 Donald A. Bruce
 Michael P. Bruen
 Kerry D. Cato
 Richard R. Davidson
 Richard W. Humphries

Mark Landis
Ray E. Martin
Richard A. Millet
Brad Piede
Paul C. Rizzo
Peter Shaffner
Gilbert R. Tallard
Victor M. Vasquez
Doug Yadon

As mentioned above, the Committee is currently in the process of recruiting additional members with a focus to increase the diversity of representation on the committee and to attract younger members and students.