6050 Greenwood Plaza Blvd. Suite 100 Greenwood Village, CO 80111

> 303-695-6500 Office 303-695-6239 Fax ken@ken-hansen.com



Kenneth D. Hansen, P.E., FASCE, FACI Roller-Compacted Concrete and Soil-Cement Consultant

EDUCATION

M.S. in Civil Engineering, University of Colorado, 1961 B.S. in Architectural Engineering, University of New Mexico, 1955

REGISTRATION

P.E. in Colorado (#3790) and New Mexico (#3372)

EXPERIENCE

Mr. Hansen is an individual consultant specializing in RCC, concrete, and soil-cement applications for dams. He is probably the most recognized author, lecturer, and consultant on RCC for new dams and the rehabilitation of existing dams in the United States. Prior to establishing his private practice in early 2009, Mr. Hansen worked as a consultant for Schnabel Engineering for nearly 12 years and prior to that with the Portland Cement Association (PCA) for nearly 37 years. His studies and experience on what works and what does not work on previously constructed projects is invaluable in the design of future projects. His consulting assignments on RCC, concrete and soil-cement for dams total over 70 in 11 countries.

HONORS AND AWARDS

- Selected as one of the 60 Most Influential People in the Global Hydro and Dams business over the last 60 years
 International Water Power and Dam Construction Magazine (2009);
- ♦ Conferred an Honorary Membership by the Association of State Dam Safety Officials (ASDSO) (2009);
- ♦ Honored as Distinguished Engineering Alumni by the University of New Mexico, School of Engineering (2001);
- ♦ Selected as Civil Engineer of the Year for 1988, by the Colorado Section of ASCE;
- ♦ Elected Fellow of American Concrete Institute (1988).

PUBLICATIONS

- ♦ "Roller-Compacted Concrete Dams," McGraw-Hill (1991) Primary Author;
- ♦ "Soil-Cement for Embankment Dams," ICOLD Bulletin 54 (1986) Author;
- ♦ "Design Manual for Small RCC Dams," PCA EB 255.01 (2003) Primary Author;
- "Erosion and Abrasion Resistance of Soil-Cement and Roller-Compacter Concrete," PCA R&D Bulletin 126 (2002) Author:
- ♦ "Roller-Compacted Concrete," (1985), "Roller-Compacted Concrete II," (1988) and "Roller Compacted Concrete III," (1992) ASCE Editor or Co-Editor;
- ♦ Author or Co-Author of more than 65 papers on RCC, concrete and soil-cement in dams.

PRESENTATIONS AND LECTURES

More than 400 presentations on RCC and nearly 250 talks on soil-cement throughout the United States, and also by invitation in Canada, Mexico, Brazil, Chile, Peru, Argentina, Australia, China, India, Spain and Turkey.

Keynote speaker or special invited lecturer at the 1992 RCC conference in San Diego, the 1995 International RCC Dams Symposium in Spain and again in 2003, the second National Seminar on RCC Dams in Brazil in 1996, the International RCC Conference in China in 1999, the RCC Seminar Dams and Pavements in Australia in 2008, and for the International Forum on Concrete in Mexico in 2009.

SPECIAL EDUCATIONAL CONTRIBUTION

In addition to Mr. Hansen's many presentations, publications and consulting on RCC and soil-cement applications in dams, he has been the leader in taking education to the dam construction site. While with PCA, Schnabel Engineering and as an individual consultant he has organized 22 short courses and seminars that have included viewing and learning from actual projects under construction. These educational programs have ranged from one-day to two-weeks in length in twelve states.