

JAMES KENNETH MITCHELL  
University Distinguished Professor, Emeritus  
Virginia Polytechnic Institute and State University, Blacksburg, Virginia  
Consulting Geotechnical Engineer

Dr. James K. Mitchell received his Bachelor of Civil Engineering Degree from Rensselaer Polytechnic Institute in 1951, Master of Science Degree from the Massachusetts Institute of Technology in 1953, and the Doctor of Science Degree, also from M.I.T., in 1956.

He joined the faculty of the University of California, Berkeley in 1958 and held the Edward G. Cahill and John R. Cahill Chair in the Department of Civil Engineering at the time of his retirement from Berkeley in 1993. Concurrently he was Research Engineer in the Institute of Transportation Studies and in the Earthquake Engineering Research Center. He developed and taught graduate courses in soil behavior, soil and site improvement, and foundation engineering as part of the Geotechnical Engineering Program within the Civil Engineering Department. He served as Chairman of the Department of Civil Engineering from 1979 through 1984. He was appointed the first Charles E. Via, Jr. Professor in the Via Department of Civil Engineering at Virginia Tech in 1994, University Distinguished Professor in 1996, and University Distinguished Professor, Emeritus, in 1999.

His primary research activities have focused on experimental and analytical studies of soil behavior related to geotechnical problems, admixture stabilization of soils, soil improvement and ground reinforcement, physico-chemical phenomena in soils, the stress-strain time behavior of soils, in-situ measurement of soil properties, and mitigation of ground failure risk during earthquakes. He supervised the dissertation research of 72 Ph.D. students. He has authored more than 350 publications, including two editions of the graduate level text and reference, "Fundamentals of Soil Behavior," and several state-of-the-art papers and guidance documents on soil stabilization, ground improvement, and earth reinforcement. During the 1960's and early 1970's he served as the NASA Principal Investigator for the Soil Mechanics Experiment, which was a part of Apollo Missions 14-17 to the Moon.

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CLEAR REGULATORY COMMISSION

Docket No. 72-22 Official Exh. No. 105  
in the matter of PFS  
Staff \_\_\_\_\_ IDENTIFIED   
Applicant \_\_\_\_\_ RECEIVED   
Intervenor  REJECTED \_\_\_\_\_  
Other \_\_\_\_\_ WITHDRAWN \_\_\_\_\_  
DATE 6-17-02 Witness \_\_\_\_\_  
Clerk pmj

Dr. Mitchell serves as a consultant on geotechnical problems and earthwork projects of many types, especially soil stabilization, ground improvement for seismic risk mitigation, earthwork construction, and environmental geotechnology, to numerous governmental and private organizations, both nationally and internationally. Recent and currently active projects include the evaluation of seismic stabilities and design of liquefaction mitigation options for Success Dam in California (U.S. Army Corps of Engineers) and Pineview and Deer Creek Dams in Utah (U.S. Bureau of Reclamation), peer reviewer for geotechnical design and construction issues in the proposed depressed Reno Rail Corridor (Kleinfelder), ground improvement aspects of the Port of Oakland Wharf and Embankment Strengthening Program (Harding Lawson Associates), ground improvement and fill stabilization for the proposed San Francisco Airport Expansion (Fugro West), design review – ground improvement for the I-95/Rt.1 Interchange section of the Woodrow Wilson Bridge replacement project (Haley & Aldrich, Virginia Geotechnical Services, URS, HNTB), and the Embankment Technical Review Board for the Third Runway at Seattle-Tacoma International Airport.

He is licensed as a Civil Engineer and as a Geotechnical Engineer in California, and as a Professional Engineer in Virginia. He is a Fellow and Honorary Member of the American Society of Civil Engineers. He served as Secretary (1966-69), Vice-Chairman (1970), and Chairman (1971) of the Geotechnical Engineering Division of ASCE and as Chairman of the United States National Committee for the International Society for Soil Mechanics and Foundation Engineering. He was Chairman of the ASCE Committee on Soil Properties and Chairman of the Committee on Placement and Improvement of Soils, as well as a member of the Environmental Geotechnics Committee. He served as President of the San Francisco Section of ASCE and Chairman of the California State Council of ASCE during 1986-87. He was Chairman of the Transportation Research Board Committee on Physico-Chemical Phenomena in Soils from 1966-1973, and was a member of the TRB Executive Committee from 1983-1987. He was Chairman of the Geotechnical Board of the U.S. National Research Council from 1990 through 1994. He recently completed service as Vice Chair of a NRC study committee for development of science needs for remediation of contaminated Department of Energy weapons

sites. He now is a member of a NRC study committee to advise the Department of Energy on Remediation Science and Technology for the Hanford Site. He was Vice President of the International Society for Soil Mechanics and Foundation Engineering from 1989-1994.

Dr. Mitchell was awarded the Norman Medal in 1972 and 1995, the Thomas A. Middlebrooks Award (three times), the Walter L. Huber Research Prize and the Karl Terzaghi Award, all from the American Society of Civil Engineers; the Distinguished Teaching Award and the Berkeley Citation from the University of California; the Western Electric Fund Award of the American Society for Engineering Education; the Medal for Exceptional Scientific Achievement from the National Aeronautics and Space Administration, and has been selected as the recipient of the 2001 Kevin Nash Gold Medal of the International Society for Soil Mechanics and Geotechnical Engineering. He was elected to the United States National Academy of Engineering in 1976 and to the U. S. National Academy of Sciences in 1998.

Lists of projects and publications are available on request.

April 2001