Review of Effectiveness and Efficiency of Defense Environmental Cleanup Activities of the Department of Energy's Office of Environmental Management

Committee

Katharine G. Frase

Co-Chair

KATHARINE FRASE retired from IBM after a 30-year career in 2016. Her career spanned positions in manufacturing, product and process development, strategy, research, and business development. Her most recent assignments were in support of IBM's clients and field teams in the government, cities, health care, and education industries, particularly the application of analytics and technologies such as Watson to provide actionable insights for some of the world's most important challenges. In 2006, she was elected a member of the National Academy of Engineering. Dr. Frase received an A.B. in chemistry from Bryn Mawr College and a Ph.D. in materials science and engineering from the University of Pennsylvania.

Joseph S. Hezir

Co-Chair

JOSEPH S. HEZIR is Principal with the Energy Futures Initiative, a non-profit dedicated to advancing a cleaner, safer, more affordable and more secure energy future. He is currently Professor of the Practice at the Wilton E. Scott Institute for Energy Innovation of Carnegie Mellon University. From December 2014 to January 2017 he was Chief Financial Officer of the U.S. Department of Energy with responsibility for $30 billion in spending authority. He was the co-founder and from 1992 to 2014 managing partner of the EOP Group, Inc., a consulting firm that specializes in federal government regulatory strategy development and budget policy. He previously served 18 years in the White House Office of Management and Budget in positions of increasing responsibility, serving for six years as deputy associate director for energy and science. He has also served on a number of advisory bodies, including the NASA Advisory Council and the Metropolitan Area Board of Directors for the Red Cross. From Carnegie Mellon University, Mr. Hezir earned a B.S. in chemical engineering and an M.S. from the Heinz School of Public Policy. He has previously served on numerous NRC committees, including the Committee on EPP2010: Elementary Particle Physics in the 21st Century, the Committee on Burning Plasma Assessment, the Committee on Cost of and Payment for Animal Research, and he is a past member on the Board on Physics and Astronomy.

Burcu Akinci

Member

BURCU AKINCI is the Paul Christiano Professor of Civil & Environmental Engineering, Associate Dean for Research for the College of Engineering, Director of the Engineering Research Accelerator and co-director of Pennsylvania Smarter Infrastructure Incubator at Carnegie Mellon University. She earned her BS in civil engineering (1991) from Middle East Technical University and her M.B.A. (1993) from Bilkent University at Ankara, Turkey. After that, she earned her M.S. (1995) and her Ph.D. (2000) in Civil and environmental engineering with a specialization in construction engineering and management from Stanford University. Her research interests include the development of approaches to model and reason about information-rich histories of facilities, to streamline construction and facility management processes. She specifically focuses on investigating utilization and integration of building information models with data capture and tracking technologies, such as 3D imaging, embedded sensors and radio-frequency identification systems to capture semantically-rich as-built histories of construction projects and facility operations. Dr. Akinci has one patent, two patent applications, over 60 refereed journal publications, and 80 refereed conference publications. She co-edited a book on CAD/GIS Integration and another book on Embedded Commissioning.

Jesus M. de la Garza

Member

JESUS M. DE LA GARZA became professor and chair of Civil Engineering at Clemson University in early 2019. Previously he was the Vecellio Professor of Construction Engineering and Management in the Charles E. Via Jr. Department of Civil and Environmental Engineering at Virginia Tech. Dr. de la Garza came to the staff of Virginia Tech in 1988. His areas of interest and courses taught include civil infrastructure systems, highway infrastructure management, interdependences of infrastructure systems, resilient infrastructure systems, information technology, construction engineering and management, design-construction integration, construction performance improvement, cost engineering, and professional and legal issues in engineering. From January 2004 to August 2006, Dr. de la Garza served as the director of Information Technology and Infrastructure Systems program within the Civil and Mechanical Systems Division at the National Science Foundation. He has co-authored more than 60 papers in refereed publications and has received awards for several of his papers. Dr. de la Garza has been inducted into the National Academy of Construction. Dr. de la Garza helped spearhead a course that brings industry professionals from such companies as Bechtel, Fluor, duPont, Procter & Gamble, and KBR to Virginia Tech’s Blacksburg campus to educate students on the best practices being incorporated into the construction field. Dr. de la Garza is a member of the Virginia Tech’s Myers-Lawson School of Construction. As director of CHAMPS (Center for Highway Asset Management ProgramS) he has led efforts to identify innovative ways to measure the efficiency and effectiveness of the performance-based road maintenance contracts that the Virginia Department of Transportation awards. Dr. de la Garza is the Chief Editor of ASCE’s Journal of Construction Engineering and Management and the past chairman of the academic committee of the Construction Industry Institute. He earned his bachelor’s of science in civil engineering from Tecnologico de Monterrey in 1978, and his master’s and Ph.D. degrees in civil engineering from the University of Illinois in 1984 and 1988, respectively.

Clifford Eby

Member

CLIFFORD C. EBY is an independent consultant who is former president of the U.S. Transportation sector for WSP | Parsons Brinckerhoff, a global engineering and professional services organization. In that leadership role, he led 4,000-plus planners, engineers, and managers. Previously, as senior vice president for Parsons Brinckerhoff's Technical Excellence Centers, Eby supported the firm's strategic efforts in rail and infrastructure markets, particularly high-speed rail. He has worked more than 40 years in the transportation industry, with expertise in rail safety, regulatory practices, transportation policy, and rail infrastructure design. Eby has also served as acting administrator of the Federal Railroad Administration. He holds a B.S. in civil engineering from Lehigh University and an MBA from George Washington University.

G. E. Gibson, Jr.

Member

G. EDWARD (EDD) GIBSON, JR., is Professor and Sunstate Chair of Construction Management and Engineering in the School of Sustainable Engineering and the Built Environment (SSEBE) at Arizona State University (ASU). Dr. Gibson served as the school director from 2011 to 2018 and before that as programs chair of the Del E. Webb School of Construction from 2009-2011. In addition to ASU, he has served on the faculty of North Carolina State University, University of Texas, Austin, and University of Alabama, Tuscaloosa. Dr. Gibson's educational background includes a B.S. and a Ph.D. in civil engineering from Auburn University and an M.B.A. from the University of Dallas. He has been principal investigator (PI) or co-PI on over $9.5 million worth of funded research in his career. Dr. Gibson's research and teaching interests include front end planning, organizational change, asset management, alternative dispute resolution, and risk management, and he has received several awards for research excellence including the Construction Industry Institute's (CII's) Outstanding Researcher twice. Dr. Gibson has authored or coauthored over 230 publications, taught over 210 short courses to industry, and given more than 250 presentations in his career. He has been active on many national committees, among them a National Research Council (NRC) committee investigating project management practices at the U.S. Department of Energy, the Architectural Engineering Institute, and he also served as a Fulbright senior specialist in Norway in fall 2004. Dr. Gibson was awarded the 2016 ASCE R. L. Peurifoy Award for outstanding research. He has several years of industry experience and is a licensed professional engineer in Texas. Dr. Gibson is an elected member of the National Academy of Construction and a fellow in the American Society of Civil Engineers and through January 2019 was a member of the NRC Board on Infrastructure and the Constructed Environment.

Geraldine Knatz

Member

GERALDINE KNATZ (NAE) is professor of the practice of policy and engineering, a joint appointment between the University of Southern California (USC) Price School of Public Policy and USC Viterbi School of Engineering. Knatz served as the executive director of the Port of Los Angeles from 2006 to January 2014. Prior to directing the Port of Los Angeles, Knatz served as the managing director of the Port of Long Beach. Knatz is a past president of the American Association of Port Authorities and past president of the International Association of Ports and Harbors, and currently serves as the founding chairman of the World Port Climate Initiative. Knatz has received numerous awards, including Outstanding Women in Transportation from the Journal of Commerce, 2007; Woman Executive of the Year from the Los Angeles Business Journal, 2007; Compass Award from the Women's Leadership Exchange, 2008; an honorary Ph.D. from the Maine Maritime Academy, 2009; the Peter Benchley Ocean Award from the Blue Frontier Campaign in 2012; and a lifetime achievement award from Containerization Intermodal Institute in 2014. In 2014, she was named a member of the National Academy of Engineering in recognition of her international leadership in the engineering and development of environmentally clean urban seaports. Knatz serves on the board of directors for Dewberry, a privately held professional services firm headquartered in Fairfax, Virginia. Knatz earned a Ph. D. in biological sciences from the University of Southern California, a Master of Science in environmental engineering from the University of Southern California, and a Bachelor of Arts in zoology from Rutgers, the State University of New Jersey-New Brunswick.

Robert Prieto

Member

ROBERT PRIETO is chairman & CEO of Strategic Program Management LLC. Previously he was senior vice president of the Fluor Corporation's Industrial and Infrastructure Group. Fluor Corporation provides services on a global basis in the fields of engineering, procurement, construction, operations, maintenance, and project management. Mr. Prieto has extensive experience in developing world-class projects for the global infrastructure industry and has participated internationally on task forces and forums focused on delivering critical infrastructure to meet the growing needs of cities and of homeland security. He is the author of Strategic Program Management, which addresses some of the major strategic issues that affect all large construction programs and projects, including changes in program governance structures. Previously Mr. Prieto served as one of three presidential appointees to the Asia Pacific Economic Cooperation Business Advisory Council, as well as serving on the boards of several international, industrial, and educational organizations. He co-chaired the New York City Partnership's Infrastructure Task Force, established following September 11, 2001, and chaired the historic meeting of the World Economic Forum's Engineering and Construction Governors held in New York City in February 2002. Under his leadership, the Disaster Response Network of the World Economic Forum was initiated. Mr. Prieto holds a bachelor's degree from New York University and a master's degree from the Polytechnic Institute of New York, where he currently serves as a trustee.

Geoffrey S. Rothwell

Member

GEOFFREY ROTHWELL is a Senior Consulting Economist for Longenecker & Associates, contracting with the DOE-National Nuclear Security Administration, focused on the role of markets in non-proliferation. Between 2018 and 2021, he was the chief consulting economist for Turner|Harris, Manchester, United Kingdom. Between 2013 and 2018, he was the principal economist at the Nuclear Energy Agency of the Organisation for Economic Co-operation and Development (OECD) in Paris, France, where he worked on the economics of radioactive waste management, among other topics. From 1986 to 2012 at Stanford University, he was the Director of Honors Programs in the Department of Economics and the Public Policy Program, Associate Director in the Public Policy Program, and a senior lecturer in the Department of Economics and Public Policy Program. He has served on National Academies committees to review DOE's Environmental Management Program (2020-2021); to review DOE's Nuclear Energy R&D Program (2006-2007); and to review the Decontamination and Decommissioning of Uranium Enrichment Facilities (1993-1996). Dr. Rothwell received his M.A. in Jurisprudence from Berkeley Law School, University of California, Berkeley, in 1984, his Ph.D. in economics from the University of California, Berkeley, in 1985, and finished a post-doctoral fellowship at the California Institute of Technology in 1986.

Hans A. Van Winkle

Member

MAJOR GENERAL HANS A. VAN WINKLE (Retired) is president of Van Winkle Consulting. He has been an engineer leader for over 40 years. Serving in the United States Army's Corps of Engineers, he culminated his career of over 30 years as the Director of Civil Works and then as the Deputy Director of the United States Army Corps of Engineers. As Director of Civil Works, he oversaw the corps' work building the nations navigation, flood control and environmental restoration projects and as the deputy director of the corps, planned, coordinated, and controlled the Corps' $17 Billion annual budget. After retirement, he initially worked as the director of the Construction Industry Institute (CII) at the University of Texas. There he oversaw CII's research program, creating best practices for the leading owner and industry companies working around the world. Following this, he became the president of Hill International, a private company employing project management practices for companies throughout the nation. Later, he moved to Parsons Brinkerhoff and employed these best practices in work situations such as the Medupi Power Plant in South Africa, at the time, world's largest air cooled power plant and then as the project manager of the California High Speed Rail project, a $70 Billion program designed to link San Francisco and Los Angeles with a high speed train system. After retirement from PB, he works as a private consultant for a variety of companies.