

**Qualifications Summaries for Members of the Independent Expert Review Team
Convened by NYSERDA to Assist in the Review of the 2008
West Valley Draft Decommissioning EIS**

Dr. B. John Garrick - Chairperson of the Independent Expert Review Team - Dr. B. John Garrick is an executive consultant on the application of the risk sciences to complex technological systems in the space, defense, chemical, marine, transportation, and nuclear fields. He was appointed as Chairman of the U.S. Nuclear Waste Technical Review Board on September 10, 2004 by President George W. Bush. He served for 10 years (1994-2004), 4 years as chair, on the U.S. Nuclear Regulatory Commission's Advisory Committee on Nuclear Waste. His areas of expertise include risk assessment and nuclear science and engineering. A founder of the firm PLG, Inc., Dr. Garrick retired as President, Chairman, and Chief Executive Officer in 1997. Before PLG's acquisition and integration into a new firm, it was an international engineering, applied science, and management consulting firm.

Dr. Garrick was elected to the National Academy of Engineering in 1993, President of the Society for Risk Analysis 1989-90, and recipient of that Society's most prestigious award, the Distinguished Achievement Award, in 1994. He has been a member and chair of several National Research Council committees, having served as vice chair of the Academies' Board on Radioactive Waste Management and as a member of the Commission on Geosciences, Environment, and Resources. He recently chaired the National Academy of Engineers Committee on Combating Terrorism. Among other National Academy committees he has chaired are the Committee on the Waste Isolation Pilot Plant, the Committee on Technologies for Cleanup of High-Level Waste in Tanks in the DOE Weapons Complex, and the Panel on Risk Assessment Methodologies for Marine Systems. Other Academy committee memberships included space applications, automotive safety, and chemical weapons disposal. He is a member of the first class of lifetime national associates of the National Academies.

Dr. Garrick has published more than 250 papers and reports on risk, reliability, engineering, and technology, has written several book chapters, and was editor of the text, *The Analysis, Communication, and Perception of Risk*.

Dr. Jimmy T. Bell - Dr. Jimmy T. Bell is the Chief Executive Officer and Chief Consultant for Bell Consultants. He holds a B.S. in Chemistry, and a Ph.D. in Physical Chemistry. He provides consulting services in areas related to actinide chemistry, nuclear waste management, and nuclear fuel reprocessing technologies. He recently served as Deputy Chair of the National Technical Advisory Group to the Tanks Focus Area, organized by DOE to study and provide recommendations for remediating the tank wastes at DOE sites.

Dr. Bell was employed at the Oak Ridge National Laboratory from 1963 until his retirement in 1995 as Head of the Chemical Development Section of the Chemical Technology Division. His work there included participation in and supervision of programmatic activities in actinide spectroscopy and separations; plutonium chemistry; molten salt oxidation treatment of mixed wastes; atomic vapor laser isotope separation (AVLIS) feed and product processing; a U.S. Nuclear Regulatory Commission-supported study of fission product release and behavior in severe light-water reactor

accidents; nuclear wastes separations technologies; thermodynamics and stabilities of superconducting materials; nuclear fuel reprocessing technologies; and purification of uranium alloys. Dr. Bell holds four patents and has published more than 45 technical papers.

In addition, Dr. Bell served as a DOE reviewer for nuclear proliferation and sensitive nuclear technologies and has worked as a special investigator for the U. S. International Technology Program. He is a member of the American Chemical Society, the American Nuclear Society, and the American Institute of Chemical Engineers. For many years, he served as Co-Chairman of the International Symposium on Separation Science and Technology.

Dr. Sean J. Bennett - Dr. Sean J. Bennett is an Associate Professor in the Geography Department at the State University of New York at Buffalo. He holds a Ph.D., M.A., and B.S. in Geology. Dr. Bennett has extensive experience in physical and numerical modeling of gully erosion and river processes. His current research interests seek to quantify flow and sediment transport processes in watersheds and to determine the impact of these processes on soil losses, river form and function, water quality and ecology, landscape evolution, and watershed infrastructure and integrity. Prior to joining the State University of New York, he served as a Research Geologist with the U.S. Department of Agriculture, Agricultural Research Service, National Sedimentation Laboratory in Oxford, MS, and was a Research Fellow in the School of Earth Sciences at the University of Leeds.

Dr. Bennett has served as Guest Editor for the International Journal of Sediment Research (WASER), Assistant Editor for The Professional Geographer (AAG), Associate Editor for Water Resources Research (AGU), Associate Editor for the Journal of Hydraulic Engineering (ASCE), and Co-editor for Sedimentology (IAS). Dr. Bennett has published two edited books and authored over 100 journal publications, conference proceeding papers, and technical reports.

Dr. Robert H. Fakundiny - Dr. Robert H. Fakundiny is the New York State Geologist Emeritus. He holds a Ph.D., M.A., and B.A. in Geology. He served as the New York State Geologist and Chief of the New York State Geological Survey for 26 years before his retirement in 2004. Among other honors, he is a Fellow of the Geological Society of America, the American Association for the Advancement of Science, the New York Academy of Sciences, the Geological Society of Canada, and the Geological Society (London). He is a Past President of the American Institute of Professional Geologists, Past President of the Association of American State Geologists and Past Chair of the North American Commission on Stratigraphic Nomenclature. He authored numerous scientific papers on the structure and tectonics of New York State, and is the author of highly recognized work on the Clarendon-Linden fault system.

Dr. Fakundiny was one of the principal investigators and conducted or managed extensive research on the geology, hydrology and geomorphology of the Western New York Nuclear Service Center during the 1970s and 1980s. He was a member of NYSERDA's independent Radioactive Waste Technical Review Group during the 1990s, and he served as a member of the 2005-2006 West Valley EIS Performance Assessment Peer Review Group.

Dr. Shlomo P. Neuman - Dr. Shlomo P. Neuman is Regents Professor in the Department of

Hydrology and Water Resources at the University of Arizona in Tucson. He holds a Ph.D. and a M.S. in Engineering Science, and a B.S. in Geology. Dr. Neuman's fields of specialization are subsurface hydrology and contaminant transport. He has made seminal contributions to the areas of pumping test design and analysis, flow in multilayered geologic media, finite element simulation of subsurface flow and transport, estimation of aquifer parameters, fractured rock hydrology, peat hydrology, geostatistics, and stochastic analysis of heterogeneous geologic media. He is a Member of the National Academy of Engineering, a Fellow of the American Geophysical Union, and a Fellow of the Geological Society of America. He holds honorary professorships at the University of Nanjing and the Hydraulic Research Institute in China.

Dr. Neuman has received numerous awards and citations during his career, including the 2003 Robert E. Horton Medal of the American Geophysical Union, and is a former Birdsall Distinguished Lecturer of the GSA. Dr. Neuman has served on various national and international advisory panels including the Scientific Review Group for high-level nuclear waste disposal in Canada. Dr. Neuman is Associate Editor of *Water Resources Research* and a member of the Editorial Board of *Stochastic Hydrology and Hydraulics*. He is the author of over 300 publications, and he served on the 2005-2006 West Valley EIS Performance Assessment Peer Review Group.

Dr. Frank L. Parker - Dr. Frank L. Parker, Distinguished Professor of Environmental and Water Resources Engineering at Vanderbilt University and member of the National Academy of Engineering, is a pioneer in nuclear waste management and environmental protection. Over the past five decades, he has served as head of the Radioactive Waste Disposal Research Section of Oak Ridge National Laboratory, head of the Radioactive Waste Disposal Research Program at the International Atomic Energy Agency, senior research fellow of the Beijer Institute of the Royal Swedish Academy of Sciences, and senior research fellow of the International Institute for Applied Systems Analysis (IIASA) in Laxenburg, Austria. At IIASA, he was head of the Radiation Safety of the Biosphere Program that investigated radioactive contamination in the former Soviet Union and in the People's Republic of China. Professor Parker has chaired or been a member of many national and international advisory committees, including the U.S. Department of Energy's Environmental Management Advisory Board, Scientific Advisory Board (DOD, DOE, EPA) of the Strategic Environmental Research and Development Program, the Arctic Military Environmental Cooperation program (DOD), and the National Research Council's Board on Radioactive Waste Management.

Dr. Parker also served as a consultant to international bodies and countries, including IAEA, WHO, UNSCEAR, World Bank, Belgium, France, Israel, Italy, Pakistan, Sweden and Switzerland. He joined Vanderbilt as a part-time faculty member in 1963 and began teaching full time in 1967.

Dr. Michael T. Ryan - Michael T. Ryan, Ph. D., C.H.P. is an independent consultant in radiological sciences and health physics. He is certified in comprehensive practice by the American Board of Health Physics. He is an adjunct faculty member at Texas A & M University and Vanderbilt University. Dr. Ryan received the Ph.D. in 1982 from the Georgia Institute of Technology, where he was inducted into the Academy of Distinguished Alumni. He graduated from Lowell Tech with a Bachelor's in Radiological Health Physics and a Master's in Radiological Sciences and Protection from the University of Lowell. Dr. Ryan is the Editor-in-Chief of the Journal *Health Physics* and has

served in this position since 2000. He is Chairman of the External Advisory Board for Radiation Protection at Sandia National Laboratories and has served in this capacity since 1999.

Dr Ryan has been a member of the National Council on Radiation Protection and Measurements since 1992. He was elected to the Board of Directors and served from April 1998 to May of 1992. He was appointed as Chairman of Scientific Committee 87 and Scientific Vice President for the Program Area of Radioactive and Mixed Waste from April 1998 to May 2002.

He had previously served on the Faculty of the College of Health Professions at the Medical University of South Carolina. Dr. Ryan, appointed in 2002 and reappointed in 2006, serves on the Advisory Committee on Nuclear Waste for the Nuclear Regulatory Commission and currently serves as Chairman. He also served nine years, four as Chair, on the Scientific Review Group appointed by the Assistant Secretary of Energy to review the ongoing research in health effects at the former weapons complex sites in the Southern Urals. He has also served on several Committees of the National Academy of Sciences.

Dr. Ryan previously worked for Chem-Nuclear Systems, Inc., as Vice President and General Manager for the operations and compliance of the low-level radioactive waste disposal and service facilities in Barnwell, South Carolina. Previously, Dr. Ryan spent seven years in operational and environmental health physics at Oak Ridge National Laboratory.

Dr. Peter N. Swift - Dr. Peter N. Swift is the Chief Scientist for the Yucca Mountain Lead Laboratory and a Distinguished Member of the Technical Staff at Sandia National Laboratories. Dr. Swift has over 18 years of experience in transuranic and high-level radioactive waste disposal, including geologic disposal concepts, performance assessment, integration of technical and regulatory activities, and licensing and certification. He has extensive experience with the planning and production of performance assessment analyses for complex nuclear facilities, having served as Manager for the Yucca Mountain Total System Performance Assessment Department and, previously, as the lead for the performance assessment component of the of the Waste Isolation Pilot Plant (WIPP) Compliance Application.

Dr. Swift holds a Ph.D. in Geosciences from the University of Arizona, and is a member of the American Geophysical Union, Geological Society of America, and American Association for the Advancement of Science. He has more than 50 publications, including refereed technical papers, technical reports, and conference papers.

Dr. Chris G. Whipple - Dr. Chris G. Whipple is a Principal with ENVIRON International Corporation in Emeryville, CA. He holds a Ph.D., M.S., and B.S. in Engineering Science. He is a Member of the National Academy of Engineering and is a Designated National Associate of the National Academies. He chaired and served on the National Academy of Sciences Board On Radioactive Waste Management, and he chaired the Peer Review of the Yucca Mountain Total System Performance Assessment. He has been a consultant to the U.S. Nuclear Regulatory Commission's Advisory Committee on Nuclear Waste, to the U.S. Nuclear Waste Technical Review Board, and to the Swedish Radiation Protection Institute. He is a Member of the National Council

on Radiation Protection, and a Charter Member, Fellow, and Former President of the Society for Risk Analysis.

Dr. Whipple has served on a number of national and international review boards and oversight committees, and he is the author of numerous publications on risk assessment, risk management, and risk communication. Dr. Whipple chaired the 2005-2006 West Valley EIS Performance Assessment Peer Review Group.

Dr. Michael P. Wilson - Dr. Michael P. Wilson is a Professor of Geology at the State University of New York at Fredonia. Dr. Wilson holds an A.B. in Earth Science Education, M.S. in Geology, and a Ph.D in Geology with a minor in Geotechnical Engineering. His research interests include chemical and sediment loading in the watersheds of southwestern New York State. Dr. Wilson has prepared environmental management plans for lakes and drinking water supplies, and he manages the Chautauqua County Water Network in cooperation with the Chautauqua County Health Department. Because of the frequent problems with water turbidity in the upland reservoirs of the Southern Tier of New York, he has done significant work on erosion processes and rates, and he has investigated the effectiveness of implementing erosion controls at many locations across the Southern Tier. Previously, Dr. Wilson studied erosion, erosion controls, and landform development in Texas and North Carolina.

Dr. Wilson is the author of more than 70 technical reports and publications. He served on the Editorial Board of the Association of Engineering Geologists Bulletin, held eight offices in professional societies, and presented stream erosion research to the North Carolina Sediment Control Commission. He was appointed by the New York State Department of Health to the New York State Source Water Assessment Program and featured in a thousand-attendee teleconference, was appointed to the Chautauqua Lake Management Commission, and was North Carolina's representative to the Southeast Conference on Groundwater Management. Dr. Wilson also wrote technical portions of the New York State Civil Service Exam in hydrology.