

Review of DoD's Occupational Exposure Limit for TCE

Committee

Edward C. Bishop

Chair

Edward C. Bishop has diverse experience in industrial hygiene, environmental compliance, emergency response, and risk assessment. He had a 20-year career in the US Air Force, in which he held a number of positions, including senior bioenvironmental engineering program manager in the Office of the Air Force Surgeon General. In that position, he developed and managed occupational-health, industrial-hygiene, and environmental-protection programs worldwide. After his military career, Dr. Bishop spent 14 years with Parsons Corporation where he held positions as vice president of project management and vice president of safety, health, quality, and risk. He also spent 11 years in project and risk management at HDR Engineering, Inc. He has served on several National Academies committees, including chair of the Committee on Acute Exposure Guideline Levels and as a member of the Committee on Potential Health Risks from Recurrent Lead Exposure of DoD Firing Range Personnel and the Committee on Toxicological Risks to Deployed Military Personnel. Dr. Bishop received his MS in engineering from the University of California, Los Angeles, and his PhD in environmental health sciences from the University California, Berkeley.

Richard A. Corley

Member

Richard A. Corley (retired) was a laboratory fellow at the Pacific Northwest National Laboratory operated by Battelle for the US Department of Energy. He specializes in the development of physiologically based pharmacokinetic models, real-time breath analysis, dermal and inhalation bioavailability, and the development of three-dimensional computational fluid-dynamic models of the respiratory system. He has published numerous peer-reviewed papers on oral, dermal, and inhalation toxicology; on modes of action of a variety of industrial and consumer chemicals; and on pharmacokinetic modeling and its applications in human health risk assessment. Dr. Corley has served on several National Academies committees, including the Committee to Assess the Health Implications of Perchlorate Ingestion, the Standing Committee on Risk Analysis Issues and Reviews, the Committee to Review EPA's Draft IRIS Assessment of Formaldehyde, the Committee to Review EPA's Draft State of the Science Paper on Nonmonotonic Dose Response, and the Committee to Review Advances Made to the IRIS Process. He received his PhD in environmental toxicology from the University of Illinois at Urbana-Champaign.

Anneclaire J. De Roos

Member

Anneclaire J. De Roos is an associate professor in the Department of Environmental and Occupational Health at the Drexel University Dornsife School of Public Health. She received her MPH in biostatistics and epidemiology from the University of California at Berkeley, and her PhD in epidemiology from the University of North Carolina at Chapel Hill. Dr. De Roos' research has primarily focused on chemicals as risk factors for cancer and other chronic diseases. Exposures of interest include workplace hazards (pesticides, solvents), persistent organic pollutants (PCBs, dioxins), and point sources of pollution (industrial facilities, traffic). More recent projects address health in cities, including risks from extreme climatic events and triggers of asthma in the urban environment. Dr. De Roos is an associate editor for the journal *Environmental Health Perspectives* and has served as an expert/peer reviewer for several risk evaluations in recent years, including those reviewing pesticides for the International Agency for Research on Cancer (IARC) monograph series, formaldehyde for the NIEHS Report on Carcinogens, and methylene chloride in paint stripping use for an EPA risk assessment. At Drexel University, she teaches courses in principles and practice of environmental and occupational health, health impact assessment, quantitative risk analysis, and weight-of-evidence evaluation for hazard identification.

David C. Dorman

Member

David C. Dorman is a professor of toxicology in the Department of Molecular Biosciences of North Carolina State University. Dr. Dorman's research interests include neurotoxicology, nasal toxicology, pharmacokinetics, and cognition and olfactory in military working dogs. He has served as a member or chair of several National Academies committees, including two Committees on Emergency and Continuous Exposure Guidance Levels for Selected Submarine Contaminants, the Committee to Evaluate Potential Health Risks from Recurrent Lead Exposure to DOD Firing Range Personnel, the Committee to Review EPA's Draft IRIS Assessment of Formaldehyde, the Committee to Review the IRIS Process, and the Committee on Endocrine-Related Low-Dose Toxicity. He received his DVM from Colorado State University. He completed a combined PhD and residency program in toxicology at the University of Illinois at Urbana-Champaign and is a diplomate of the American Board of Veterinary Toxicology and the American Board of Toxicology. He is a National Associate of the NRC and Fellow of the American Association for the Advancement of Science.

Theodore J. Hogan

Member

Theodore J. Hogan is an associate professor in the Department of Technology at the Northern Illinois University College of Engineering and Engineering Technology. His research interests are in environmental and occupational exposure to nanoparticles, chemical skin exposures and controls, chemical exposure guidelines, and environmental risk communication. He is a member of the Threshold Limit Values Chemical Substances Committee of the American Conference of Governmental Industrial Hygienists and a member of the Argonne National Laboratories Institutional Biosafety Committee. Dr. Hogan received his MS and PhD in industrial hygiene from the University of Illinois at Chicago, and is certified industrial hygienist.

Juleen Lam

Member

Juleen Lam is an assistant professor in the Department of Health Sciences at the California State University, East Bay. She is also an affiliate researcher in the Department of Obstetrics, Gynecology and Reproductive Sciences at the University of California at San Francisco, School of Medicine. Her research interests are in environmental epidemiology, evaluation of population exposures to environmental contaminants, assessment and communication of environmental risks, and reproductive and developmental health. She specializes in analysis of environmental health data and development and application of risk assessment methods. Of particular note, Dr. Lam has been involved in the development of systematic review methods for environmental health data and has been a pivotal part in implementing, publishing, and disseminating these approaches in both academic and government settings. She is a member of the US Environmental Protection Agency Board of Scientific Counselors Chemical Safety for Sustainability Subcommittee. She received her MS in environmental engineering management from George Washington University, and her MHS in biostatistics and PhD in environmental health policy from the Johns Hopkins University Bloomberg School of Public Health.

Karen A. Robinson

Member

Karen A. Robinson is a professor at the Johns Hopkins University School of Medicine. She is also director of the Johns Hopkins University Evidence-based Practice Center and is a member of the core faculty in the Center for Clinical Trials and Evidence Synthesis at the university's Bloomberg School of Public Health. Dr. Robinson's research focuses on evidence-based health care and evidence-based research. She conducts systematic reviews that are used to develop clinical practice guidelines and to inform other health decisions. She served on the National Academies Committee on Endocrine-Related Low-Dose Toxicity and the Committee to Review Advances Made to the IRIS Process. Dr. Robinson received an MSc in health sciences from the University of Waterloo, Ontario, and a PhD in epidemiology from the Johns Hopkins Bloomberg School of Public Health.

Elizabeth P. Ryan

Member

Elizabeth P. Ryan is an associate professor in the Division of Toxicology of the Department of Environmental and Radiological Health Sciences at Colorado State University. Her research explores the complex interactions of food consumption with gut microbiota and the immune system. Her interests span enteric diseases from pathogen-induced diarrhea and colon cancer control and prevention, with translational application to the broader fields of microbiology, immunology, oncology, pediatrics, and nutrition. Dr. Ryan has served on several scientific review panels for the National Institutes of Health, including the Endocrinology, Metabolism, Nutrition and Reproductive Sciences Integrated Review Group and the Special Emphasis Panel on Molecular Profiles and Biomarkers of Food and Nutrient Intake. She received her MS and PhD in molecular toxicology and environmental medicine at the University of Rochester School of Medicine.

Kary E. Thompson

Member

Kary E. Thompson is director of developmental and reproductive toxicology in drug safety evaluation, research, and development at Bristol-Myers Squibb Company. She is responsible for overseeing DART study design and reviewing all protocols and reports, is a toxicology representative to drug development teams for small molecules and biologics, and is a subject matter expert for developmental, reproductive, and juvenile toxicity strategy, interpretation, integration, and risk assessment. She also holds an adjunct faculty position at Rutgers University's Environmental and Occupational Health Sciences Institute. Dr. Thompson is a past president of the Reproductive and Developmental Toxicology Specialty Section of the Society of Toxicology, is treasurer of the Middle Atlantic Reproduction and Teratology Association, and is co-chair of the Health and Environmental Sciences Institute's Developmental and Reproductive Toxicology Technical Committee. She received her MS and PhD in physiological sciences from the University of Arizona.

Carol S. Wood

Member

Carol S. Wood is a distinguished staff scientist in the Environmental Science Division of Oak Ridge National Laboratory. She has over 20 years of experience as a toxicologist, with extensive work performing risk assessments of inhalation/pulmonary and oral toxicity from exposure to a variety of chemicals. Her past work has included developing acute exposure guideline levels and provisional advisory levels, in which health-based exposure levels are developed for priority toxic chemicals. These projects often used toxicokinetic data and physiologically based pharmacokinetic models for extrapolating animal toxicology data to humans. Dr. Wood is a past-president of the American Board of Toxicology. She is certified in general toxicology by the American Board of Toxicology. She served on the National Academies Committee on the Review of Clinical Guidance for the Care of Health Conditions Identified by the Camp Lejeune Legislation, the Committee on Spacecraft Exposure Guidelines, and the Committee on Gulf War and Health, Volume 11 (Generational Health Effects of Serving in the Gulf War). Dr. Wood received her MS in toxicology from Mississippi State University and her PhD in toxicology from Oregon State University.