

Review of DoD's Proposed Occupational Exposure Limits for Lead

Committee

Justin G. Teeguarden

Chair

Justin G. Teeguarden is Director the Chemical Biology and Exposure Science Team and Chief Exposure Scientist for the Pacific Northwest National Laboratory. He holds a joint faculty position with the Oregon State University (OSU) Department of Environmental and Molecular Toxicology, where he served as the director of the OSU-PNNL-Superfund Center Research Translation Core. Dr. Teeguarden also leads the Decoding the Molecular Universe Directorate Objective for the Earth and Biological Sciences Directorate of PNNL in addition to leading Defense Health Programs. Recently, he helped build PNNL's growing computational metabolomics program which has developed methods for identifying small organic molecules with computational derived libraries instead of libraries derived from authentic chemical standards. . Dr. Teeguarden mas more than 20 years of experience in computational and experimental exposure assessment in humans, animals, and cell culture systems. His particular focus has been the utilization of emerging technologies, novel experimental data, and computational methods for addressing public health challenges related to human exposure to chemicals. His experience includes developing pharmacokinetics models for volatile and non-volatile organics, trace metals, nanomaterials (particles) and receptor binding endocrine active compounds. These models were developed as tools for understanding the relationship between external exposure and internal exposures for purposes of comparing human exposure to those in toxicity test systems (such as, rodents and cell culture systems). Dr. Teeguarden served on the National Academies Committee on incorporating 21st Century Science in Risk-Based Evaluations; Committee on Human and Environmental Exposure Science in the 21st Century; and Committee for Review of the Federal Strategy to Address Environmental, Health, and Safety Research Needs for Engineered Nanoscale Materials. He currently serves on the U.S. EPA's Board of Scientific Counselors Homeland Security Subcommittee. He has worked extensively with the Society of Toxicology and the Society for Risk Analysis to translate findings of fundamental science—particularly exposure and dosimetry information—into the risk and public health domains. Dr. Teeguarden received a PhD in toxicology from the University of Wisconsin, Madison and is board certified in Toxicology. He is an Eagle Scout.

Jeffrey W. Fisher

Member

Jeffrey W. Fisher is a research toxicologist in the Division of Biochemical Toxicology of the U.S. Food and Drug Administration's National Center for Toxicological Research. Formerly, he was a professor in the Department of Environmental Health Science, College of Public Health, at the University of Georgia. He also worked at the Toxicology Laboratory of Wright Patterson AFB, where he was principal investigator and senior scientist in the Toxics Hazards Division and technical advisor for the Operational Toxicology Branch. Dr. Fisher has 30 years of experience in physiological modeling. His career research interests are in the development and application of pharmacokinetic and biologically based mathematical models to ascertain health risks from environmental, occupational, and foodborne chemicals. His research activities included the development of a biokinetic model for nickel released from cardiovascular implanted devices. Dr. Fisher has served on several national panels and advisory boards for DOD, the Agency for Toxic Substances and Disease Registry, and EPA. He was a member of the National Academies Subcommittee on Acute Exposure Guideline Levels. Dr. Fisher received a PhD in zoology/toxicology from Miami University.

Gary L. Ginsberg

Member

Gary L. Ginsberg is director of the Center for Environmental Health within the New York State Department of Health and has a clinical professor appointment at the Yale School of Public Health. His DoH duties include overseeing the administration and delivery of environmental health services across NYS including public drinking water supplies, regulation of food establishments, prevention of childhood lead exposure, and protecting the public from waste site contamination and emerging contaminants. Previously, he was the state toxicologist at the Connecticut Department of Public Health. Dr. Ginsberg has published in the areas of toxicology and risk-assessment including the development and evaluation of physiologically based pharmacokinetic models for assessing risks from exposure to environmental agents, risks to children and other vulnerable populations and risk/benefit analysis. He served on several National Academies committees, including the Committee on Use of Emerging Science for Environmental Health Decisions, Committee on Inorganic Arsenic, Committee on Improving Risk Analysis Approaches Used by the U.S. EPA, and Committee on Human Biomonitoring for Environmental Toxicants. Dr. Ginsberg received a PhD in toxicology from the University of Connecticut.

Philip E. Goodrum

Member

Philip E. Goodrum is a principal toxicologist at GSI Environmental Inc. Previously, he was a senior science advisor at Integral Consulting Inc. Dr. Goodrum has more than 25 years of experience in quantitative human health risk assessment, which includes statistical sampling methods, probabilistic risk assessment, and lead exposure modeling. He also is a board-certified toxicologist. Dr. Goodrum represents clients in negotiations with state and federal regulators, trustees, and stakeholder groups on issues related to data interpretation, statistical analysis, modeling, and risk characterization. He served on a number of national advisory committees that evaluated the scientific basis for changes in exposure factors and risk metrics for use in deriving risk-based action levels for lead in soil and water for residential, occupational, and recreational fishing exposure scenarios. For EPA, he served on the Peer Review Panel for Lead in Drinking Water, Clean Air Scientific Advisory Committee review panel for the National Ambient Air Quality Standards (NAAQS) for lead, and Science Advisory Board's Ad Hoc All-Ages Lead Model Review Panel. Dr. Goodrum received a PhD in environmental engineering from SUNY College of Environmental Science and Forestry in Syracuse.

Sheryl A. Milz

Member

Sheryl A. Milz is a professor in the School of Population Health of the University of Toledo and is a certified industrial hygienist. Her research interests are in human exposure assessments, risk assessment, and environmental and occupational epidemiology. Before joining the University of Toledo, she was an industrial hygienist and safety and occupational manager at the Great Lakes Naval Hospital, where she evaluated firing ranges for lead exposure and ventilation requirements. Dr. Milz has been active in the American Industrial Hygiene Association and the American Conference of Governmental Industrial Hygienists. Dr. Milz served on the National Academies Committee on Potential Health Risks from Recurrent Lead Exposure to DOD Firing Range Personnel and she currently serves on the Committee on Toxicology. She received a PhD in public health sciences (industrial hygiene) from the University of Illinois at Chicago.

Roberta B. Ness

Member

Roberta B. Ness (NAM) is professor in the Division of Epidemiology and Disease Control, and was Vice President for Innovation at The University of Texas Health Science Center at Houston. She holds the James W. Rockwell Professorship in Public Health. Dr. Ness was formerly dean of the University of Texas Health Science Center at Houston, School of Public Health. And formerly chair of the Department of Epidemiology at the University of Pittsburgh Graduate School of Public Health, where she was a professor of epidemiology, medicine, and obstetrics & gynecology. Her research areas include innovation in science and women's health. One of her specific research topics includes lead exposure, attention deficit disorder, and delinquency. She is a member of the National Academy of Medicine. Her service on National Academies committees includes chair of the Committee on Blue Water Navy Vietnam and Agent Orange Exposure. She received an MD from Weil Medical College of Cornell University and an MPH in epidemiology from Columbia University.

Gurumurthy Ramachandran

Member

Gurumurthy Ramachandran is a professor in the Department of Environmental Health and Engineering in the Bloomberg School of Public Health of The Johns Hopkins University. He also is the director of the university's Education and Research Center for Occupational Safety and Health. His research focus areas include occupational exposure and health risk, as well as Bayesian applications in exposure assessment. Dr. Ramachandran developed occupational exposure assessment strategies for a variety of airborne contaminants; novel Bayesian statistical methods that synthesize exposure models, monitoring data, and probabilistic expert judgment; and mathematical methods for exposure modeling and analyzing occupational measurements. He served on the National Academies Committee on Making Best Use of the Agent Orange Exposure Reconstruction Model. Dr. Ramachandran received a PhD in environmental sciences and engineering from the University of North Carolina at Chapel Hill.

Brad Reisfeld

Member

Brad Reisfeld is a Professor in the Department of Chemical and Biological Engineering and in the School of Biomedical Engineering at Colorado State University (CSU). In addition, he leads CSU's Quantitative Systems Pharmacology and Toxicology Research Group. Dr. Reisfeld's primary research interests are in quantitative and computational pharmacology and toxicology, computational systems biology, pharmacokinetics, and pharmacodynamics. His work includes the use of pharmacokinetic modeling, pharmacodynamic modeling, and Bayesian and Monte Carlo analyses to aid in the assessment of risk associated with environmental pollutant exposure and in the optimization of drug regimens for infectious disease treatment. He is a Diplomate of the American Board of Toxicology, vice president of the Biological Modeling Specialty Section of the Society of Toxicology, and chair of the Systems Pharmacology Focus Group of the American Association of Pharmaceutical Sciences. Dr. Reisfeld received a PhD in chemical engineering from Northwestern University and was a postdoctoral fellow at The Johns Hopkins School of Medicine.