SHIH-YEW CHEN

Senior Environmental Systems Engineer Environmental Science Division Argonne National Laboratory

Education:

Ph.D.	University of Illinois, Nuclear Engineering, 1978
M.S.	University of Illinois, Nuclear Engineering, 1973
B.S.	Tsing Hua University, Nuclear Engineering, 1970

Professional Experience:

1987-Present	Argonne National Laboratory, Argonne, Illinois
1997-Present	Strategic Area Manager, Risk and Waste Management; Senior Environmental Systems Engineer since 2000 Environmental Science Division
1993-1997	Group Leader, Risk Assessment and Safety Evaluation Group Environmental Assessment Division
1989-1993	Section Manager, Radiological Sciences Environmental Assessment and Information Sciences Division
1987-1989	Environmental Systems Engineer Energy and Environmental Systems Division

Current Responsibilities:

Responsible for direction and oversight of the Environmental Assessment Division's risk and waste management programs and for the development of innovative initiatives in the area of risk and waste management. Develop and manage a sustainable risk assessment program that integrates the assessment of radiological health risk, chemical health risk, transportation risk, and ecological risk. Notable accomplishments of the risk and waste management program include the following: (1) providing leadership in establishing national policy guidance and providing technical support on clearance of materials containing residual radioactivity, (2) developing nationally accepted computer model (RESRAD) addressing a critical national cleanup issue, (3) leading development of DOE complex wide transportation risk assessment, (4) developing key information and methods for environmental assessment in national programs, (5) providing critical contributions to successful environmental cleanup programs for the DOE complex, and (6) developing approaches toward late phase recovery activities associated with radiological events. Recent responsibility also includes development of models for assessing potential human health risks associated with homeland security issues.

S.-Y. CHEN

Summary of Previous Experience:

1981-1987 Principal Engineer, Franklin Research Center, Philadelphia, PA

Work included licensing and technical evaluation in areas of environmental monitoring, instrumentation, radwaste management and treatment, and environmental assessment.

1979-1981 Nuclear Engineer, ETA Engineering, Inc., Westmont, IL

Work included radiological dose assessment and environmental impact analysis. Developed methodology for calculating transportation risks from removal of wastes associated with the Uranium Mill Tailings Remedial Action Project.

1977-1979 Staff Scientist, Science Applications, Inc., Schaumburg, IL

Evaluated and implemented methodology for calculating environmental and health consequences from postulated nuclear accident events.

Research Interests:

General research interests include radiation protection, risk assessment and modeling, nuclear safety analysis, and environmental pathway analysis, with special interests in radiological environmental risk assessment, decontamination and decommissioning, accident analysis, radiation dosimetry, and radioactive waste management and transportation.

Professional Activities:

American Nuclear Society

Health Physics Society

Council Member (since 1999), Board of Directors (since 2005), and Scientific Vice President for Environmental Radiation and Radioactive Waste Issues (since 2005), National Council on Radiation Protection and Measurements (NCRP)

Chair of the National Council on Radiation Protection and Measurements Scientific Committee 87-4 on management of radioactive scrap metals

Chair of the Contamination Limits Section (1992-1998), Health Physics Society Standards Committee (HPSSC); Chair of the ANSI N13.60 Working Group on the Late (Recovery) Phase Standard for Nuclear Incidents

Member of ISO/TC85/SC2 Subcommittee on Illicit Trafficking of Radioactive Materials) Certified Health Physicist by the American Board of Health Physics, 1990 (recertified 1994, 1998, 2002)

Publications

Author or co-author of 80+ journal, report, and conference publications and presentations.