

DONALD E. DUNNING, JR.

Environmental Health Risk Section
Environmental Science Division
Argonne National Laboratory

Education:

M.S. University of Tennessee, Environmental Engineering, 1977
B.A. University of Tennessee, Biology, 1974

Professional Experience:

1992-Present Environmental Systems Engineer
Environmental Science Division
Argonne National Laboratory

Technical direction and program management services to government and industry in environmental engineering, risk assessment, health physics, and radioactive and hazardous waste management. Development of methodologies and regulatory guidance for estimation of radiation doses and health risks resulting from exposures to radioactive materials for the U.S. Environmental Protection Agency (EPA). Technical support to the U.S. Department of Energy (DOE) and U.S. Army Corps of Engineers (USACE) Formerly Utilized Sites Remedial Action Program (FUSRAP), including assessment of potential risks to human health and the environment from contaminated sites, formulation and evaluation of site cleanup strategies, development of CERCLA and NEPA documentation, environmental compliance reviews, interaction with regulators and other stakeholders, and development and evaluation of innovative waste management alternatives. Development of training programs for DOE and EPA personnel in radiation risk assessment. Development and evaluation of alternatives for remediation of chemically and radiologically contaminated sites at the DOE Oak Ridge Reservation and associated waste management alternatives. Development and review of performance assessments for low-level radioactive waste disposal facilities. Assessment of the environmental transport and fate of radioactive and chemical pollutants, and resulting impacts on the environment and human health. Development and review of remedial investigations/feasibility studies (RI/FS), engineering evaluation/cost analysis (EE/CA) documents, site characterization programs, and RCRA permits and facility investigations (RFI/CMS). Analysis of environmental regulations and policies relating to radioactive, hazardous, and mixed waste management, and development of compliance programs and management plans.

Summary of Previous Experience:

1988-1992 Roy F. Weston, Inc., Oak Ridge, Tennessee

Technical Director for corporate programs in radiological risk assessment, radiation dosimetry, and radioactive waste management, including baseline risk assessments, development

of risk-based remediation goals, remedial alternative evaluations, NEPA evaluations, development of radioactive waste management programs, and performance assessments for low-level radioactive waste disposal facilities. Branch Office Manager for regional office offering comprehensive environmental engineering and consulting services, including site investigations, RI/FS, UST investigations, radioactive and hazardous waste management, regulatory compliance evaluations, and environmental assessment.

1983-1988 MAXIMA Corporation, Oak Ridge, Tennessee

Provided technical direction and project management for programs in radioactive and hazardous waste management, radiation dosimetry, risk analysis, environmental impact assessment, including review and analysis of environmental regulations, site characterization studies, and development and review of radiation dosimetry models for radiological assessment and transportation guidelines for radioactive materials.

1981-1983 Evaluation Research Corporation, Oak Ridge, Tennessee

Developed state-of-the-art computer codes for age-specific dose and risk calculations. Assessed potential health impacts of radioactive pollutants in drinking water and in the atmosphere for EPA for incorporation into Safe Drinking Water Act and Clean Air Act standards for radioactive pollutants. Developed guidance documents for radioactive waste management.

1976-1981 Oak Ridge National Laboratory, Oak Ridge, Tennessee

Technical leadership of major research projects for EPA and NRC in radiation dosimetry, risk assessment, environmental transport, and computer model development, including development of computer codes for internal dose estimation (INREM II) and risk assessment (RADRISK) used extensively by these agencies in their regulatory activities. Developed extensive tabulations of radiation dose estimates and predicted health risks from radionuclide exposures.

Research Interests:

Risk Analysis, Radiation Dosimetry
Environmental Restoration, Radioactive/Hazardous Waste Management

Professional Activities:

Health Physics Society
Society for Risk Analysis

Publications:

More than 50 publications in the areas of radiological risk assessment, dosimetry, environmental assessment, and radioactive and hazardous waste management.