

ELISABETH A. STETAR

Education

1992—Master of Science, Health Physics
Department of Energy Operational Health Physics Fellowship
Colorado State University

1983—Bachelor of Science in Biology
Magna cum laude
Middle Tennessee State University

Professional Experience

1990 to Present

Certified health physics consultant specializing in environmental monitoring, regulatory compliance, and radiological dose assessment. Specific consulting projects include the following:

Risk Assessment Corporation (February 2003 to Present). Serve as a technical team member on the CSU Project to Assess Human and Ecological Risks from the Los Alamos National Laboratory. Current efforts include development of an overall conceptual approach and a site conceptual model for risk analysis, and determining regional background concentrations for contaminants of interest.

AAR Manufacturing Inc., Livonia, Michigan (August 2002 to Present). Perform radiological dose assessments to evaluate potential doses from residual thorium contamination and interface with the Nuclear Regulatory Commission regarding free and/or restricted release of the AAR site which was formerly used by Brooks and Perkins, Inc. for the manufacture of products containing thorium alloys.

Department of Energy, Oak Ridge Reservation (April 2001 to Present). Provide technical assistance on issues related to the presence of residual radioactive materials in solid wastes including the development of screening criteria for volumetric contamination in wastes disposed of in the Y-12 Nuclear Weapons Plant industrial landfill.

Association of Metropolitan Sewerage Agencies (March 1999 to Present). Participate in the development of a dose assessment methodology and calculate dose estimates for workers and members of the public from naturally occurring and man-made radionuclides present in wastewater treatment plant systems and biosolids.

City of Oak Ridge, Tennessee (1992 to Present). Provide technical and regulatory compliance consulting on issues involving radioactive materials. Work to date has included development of dose-based, radionuclide limits for land application of municipal wastewater treatment plant sludge and development of discharge criteria for releases of radioactive materials to the Oak Ridge sewer system. Participate in pretreatment permitting and inspection of radioactive materials dischargers.

Tennessee Department of Environment and Conservation (March 1998 to 2000). Provided technical review of Department of Energy proposals related to activities on the Oak Ridge Reservation including decontamination and decommissioning, free release of contaminated materials, and re-industrialization of the K-25 Site. Participated in the NRC/State Pilot Program for External Regulation of the Department of Energy. Reviewed radioactive material license applications for major radioactive and mixed-waste processing facilities.

City of Santa Fe, New Mexico (1999 to 2000). Served as a technical consultant and expert witness on a case related to the City's efforts to control discharges of radioactive materials to the public wastewater treatment system

Risk Assessment Corporation, formerly Radiological Assessments Corporation, (1992 to 1997). Served as a member of the RAC team on projects involving the reconstruction of historical, radiation and chemical doses to the public from environmental releases from Department of Energy Nuclear Weapons Sites. Specific projects included the Savannah River Site Dose Reconstruction Phase I and II and the Rocky Flats Plant Dose Reconstruction Phase II

M4 Environmental Management, Inc., Oak Ridge, Tennessee (1994 to 1996). Developed procedures for monitoring of effluents from M4 Technology Center which utilized Quantum Catalytic Processing (Q-CEP™) for treatment of mixed wastes. Also provided technical and regulatory compliance input on M4's radioactive materials license application

Battelle Pacific Northwest Laboratories (1994). Provided technical assistance and peer review on a study, contracted by the Nuclear Regulatory Commission, to determine the extent to which radioactive materials are reconcentrated by municipal wastewater treatment plants (NUREG/CR-6289, 1994)

Environmental Technology, Inc., Kearsarge Metallurgical Facility Superfund Cleanup (1992). Designed and implemented a radiation protection program and provided radiation protection training for workers involved in the Kearsarge Superfund Site Cleanup. The site was contaminated with naturally occurring radioactive materials (NORM). Also, provided technical and regulatory compliance assistance on issues related to the handling and disposal of the Kearsarge NORM wastes.

Additional Experience

Health Physics Fellowship Practicum, Research at the Oak Ridge National Laboratory (January 1990 to August 1990). Designed and conducted a radiotracer study to determine removal efficiencies for several radionuclides that are routinely present in the Oak Ridge, Tennessee municipal wastewater treatment system as the result of discharges by medical, research, and industrial facilities. These data were needed to evaluate the current regulations for sewer discharges of radioactive materials.

Tennessee Division of Radiological Health, Licensing Section (February 1988 to December 1989). Reviewed and evaluated license applications, and performed compliance inspections, for complex radioactive materials facilities, including two of the nation's largest processors of low-level radioactive waste. The activities at these facilities included sorting, compaction, decontamination, volume reduction through smelting, and incineration of radioactively contaminated materials.

Tennessee Division of Radiological Health, Environmental Monitoring Section Supervisor (February 1984 to February 1988). Managed a statewide environmental monitoring program for radionuclides, developed environmental monitoring procedures and quality assurance plans, and evaluated effluent releases from state-licensed facilities to ensure compliance with state regulations through site-specific monitoring and inspections.

Memberships

National Health Physics Society
Water Environment Federation

Publications

- I.L. Larsen, E.A. Stetar, B.G. Giles, and B. Garrison. "Concentrations of Iodine-131 Released from a Hospital into a Municipal Sewer." *Radiation Protection Management*. May/June 2000.
- I.L. Larsen, E.A. Stetar, and K.D. Glass. "In-House Screening for Radioactive Sludge at a Municipal Wastewater Treatment Plant." *Radiation Protection Mgt.*, 12, 29–38 (1995).
- C.C. Ainsworth, R.L. Hill, K.J. Cantrell, D.I. Kaplan, M.V. Norton, R.L. Aaberg, E.A. Stetar. Reconcentration of Radioactive Material Released to Sanitary Sewers in Accordance with 10 CFR Part 20. NUREG/CR-6289. Prepared by the Pacific Northwest Laboratory for the U.S. Nuclear Regulatory Commission. 1994.
- E.A. Stetar, H. L. Boston, I.L. Larsen, and M. H. Mobley. "The Removal of Radioactive Cobalt, Cesium, and Iodine in a Conventional Municipal Wastewater Treatment Plant." *Water Environ. Res.*, 65, 630–639 (1993).
- I.L. Larsen, S.Y. Lee, H.L. Boston, and E.A. Stetar. "Discovery of a Cesium-137 Radioactive Particle in Municipal Wastewater Treatment Sludge," *Health Physics*, March 1992.