

# **Alan L. Fellman, PhD, CHP, RSO**

**Division Manager, Radiation Safety Academy Division,  
Dade Moeller & Associates**

## **EDUCATION**

Ph.D. Radiation Sciences/Environmental Sciences, 1989, New York University

M.P.H. Environmental Health, 1983, University of Michigan

B.A. English, 1980, Emory University

## **CERTIFICATIONS and TRAINING**

Certified Health Physicist, American Board of Health Physics, 1995  
re-certified: 1999, 2003

Licensed Maryland Radiation Machine (high-energy, x-ray) Inspector (2004)

Radon Measurement Specialist, New Jersey Department of Environmental Protection

Nuclear Gauge Safety Training, Troxler Electronics, (included gauge transportation) June 2005

Training for Radiation Safety Trainers (3-day), Radiation Safety Academy, February 2000

Radiation Safety for Authorized Users (3-day), National Institutes of Health, October 1999

Radiation Safety in the Laboratory (4-hr), National Institutes of Health, August 1999

## **PROFESSIONAL EXPERIENCE**

### **2007 – Present Division Manager, Radiation Safety Academy Division, Dade Moeller & Associates**

In charge of day-to-day operations for Academy Division training, consulting, and analytical laboratory services. Continues to provide health physics consulting services to numerous government and commercial radioactive materials licensees and contributes to Academy training as a senior faculty member.

### **1999 – 2007 Senior Health Physicist, Radiation Safety Academy**

Health physics consulting and auditing of radiation safety programs for government and industry. Provided instruction in radiation safety officer, basic and advanced radiation safety, and decommissioning training programs. Provided consulting and auditing services to a variety of commercial, state, and federal clients at several large project sites.

Performed radiation safety program evaluations for several types of licensees, including biopharmaceutical, biomedical, fixed gauge, portable gauge, and well logging. Prepared license applications and device registration applications for submittal to NRC and Agreement State agencies.

Served as the RSO on sealed source gauge distribution license for an international manufacturer of industrial gauges. A member of a highly qualified team of health physicist evaluating radiation dose to Federal nuclear weapons program workers.

Provided written expert testimony presented to the U.S. Senate Committee on the Environment on behalf of a client regarding potential dose implications related to disposal of low-level radioactive wastes at unlicensed facilities.

Served as the project certified health physicist at two CERCLA sites. Continues to represent Federal agencies at public meetings to discuss radiation health risk and related issues at these sites.

Served as a consultant to a National Academy of Sciences committee charged with determining if the technical basis exists to support the U.S. NRC establishing release standards for solid materials containing low quantities of licensed material. Contributed to National Research Council, National Academy of Sciences publication *The Disposition Dilemma; Controlling the Release of Solid Materials from Nuclear Regulatory Commission-Licensed Facilities*, National Academy Press, 2002.

#### **1999 – 2001 Supervisor, Radiation Safety Academy contractor to the National Institutes of Health**

Supervised a staff of 4 health physicists and 2 administrative assistants to conduct daily on-site radiation safety inspections of research laboratories and patient care facilities (conducting over 9,000 audits annually), calibrate over 2,500 radiation survey instruments annually, inspect and leak test over 100 sealed sources and irradiators, inspect the cyclotrons quarterly, operate the hot lab, conduct environmental monitoring program, conduct weekly security inspections, provide incidence response services, prepare samples for analysis in the NIH radioanalytical laboratory, and prepare monthly performance and quality assurance reports to NIH. Manage subcontract with RSO, Inc to perform daily laboratory analyses of swipe samples, provide equipment and supplies, and provide backup staff for the Academy contract.

#### **1990 – 1999 Senior Health Physicist for Malcolm Pirnie, Inc.**

Responsible for supervising firm-wide radiation safety at several large project sites. Duties included worker supervision, training, site-specific health and safety plan development and implementation, and associated radiation monitoring activities.

CERCLA sites: Dr. Fellman was responsible for the development and implementation of all radiation-related components of the Remedial Investigation/Feasibility Study at the U.S. Radium site in Orange, N.J., Li Tungsten site in Glen Cove, N.Y., and Welsbach/General Gas Mantle site in Gloucester and Camden, N.J. He supervised the staff that performed radiation surveys at more than 300 residential and commercial properties located near the sites, and had extensive interaction with property owners and municipal officials concerning the impact of radiological materials on their properties. He utilized U.S. Environmental Protection Agency's risk assessment guidance (RAGS) methodology and RESRAD to perform radiological health risk assessments based on current and future multi-media exposure to radionuclides of concern. Other activities included multi-media sampling for radiological and mixed wastes, planning MARSSIM surveys of building surfaces contaminated with thorium series radionuclides, interim storage of radioactive waste, and worker radiological health and safety.

FUSRAP: Dr. Fellman prepared documents describing the radiological data collection activities to support the remedial design at 24 commercial properties which constitute Phase II of the Maywood, N.J. FUSRAP site. This project involved utilizing in situ gamma spectroscopy to delineate extent of waste residues and to generate final status survey data to release unaffected areas for unrestricted use.

All Hazards Survey of the Nuclear Barge Sturgis: Dr. Fellman supervised the radiological portion of surveys intended to quantify all hazardous materials on-board the Sturgis for the U.S. Army Corps of Engineers, Baltimore District. His responsibilities included the evaluation of existing data,

radiological health and safety, field measurements, data interpretation, and a comprehensive review of disposal alternatives.

Litigation Support/NORM contamination at oil and natural gas production sites: Dr. Fellman supervised comprehensive radiological site surveys at several oil and natural gas sites. He used the data from these surveys to perform health risk assessments and to develop site remediation plans. He provided litigation support regarding radiological risk and remediation of radioactive materials. His clients included several law firms in Jackson, MS and Coho Resources, Dallas, TX.

Health Effects Criteria Documents Revisions To Support Radionuclide Drinking Water MCLs: Dr. Fellman managed the revisions of the 1995 draft Drinking Water Criteria Documents On Alpha-Emitting Radionuclides, Beta- and Gamma-Emitting Radionuclides, and Radium for EPA's Office of Water. Revisions included a review of the DCAL code which was used to generate the carcinogenic slope factors published in Federal Guidance Report No. 13.

Litigation Support – Hazardous Waste Disposal Facility: Dr. Fellman performed a comprehensive analysis of historical gross alpha, gross beta, and total radium concentration data in groundwater samples collected from over 100 perimeter monitoring wells surrounding a hazardous waste landfill facility. He was responsible for analytical data evaluation. His audit of the radiochemical laboratory and personnel interviews indicated that the data reflected suspended solids rather than true quantities of dissolved radioactivity. He designed a special field study to support his hypothesis. He prepared an expert report effectively refuting the plaintiff's contentions regarding potential migration of radioactive materials from the regulated units resulting in plaintiff's withdrawal of alleged groundwater contamination.

Ash Lagoon Cleanup: Dr. Fellman incorporated health physics procedures into engineering specifications for excavation of ash contaminated with Co-60 from a lagoon adjacent to a wastewater treatment facility.

### **1989 – 1990 Health Physicist/Environmental Scientist for the US Environmental Protection Agency, Region II Radiation Branch.**

Responsible for health physics/worker safety at CERCLA (Superfund) emergency/remedial sites. Dr. Fellman implemented the regional radionuclide NESHAPs program. He also developed and taught EPA's radioactive mixed waste training course and was involved in Radon programs and Emergency Response planning.

### **1984 – 1989 Research Assistant at New York University Medical Center.**

Developed whole body retention models for humans exposed occupationally to Po-210 based on urinary excretion data. He determined polonium excretion, organ retention and whole body retention functions in two species of non-human primates to establish model parameters.

Beginning in April 1986, he took on the RSO responsibilities for health physics activities at the New York University Institute of Environmental Sciences. Multi-disciplinary research at this facility included various studies utilizing radioisotopes including H-3, C-14, P-32, S-35, Cr-51, Po-210, and Am-241. His duties included supervision and performance of radioisotope inventory, worker training, laboratory surveys for removable surface contamination via swipe sample collection/counting, maintenance and calibration of survey instruments, calibration and daily QA/QC on gamma and alpha spectrometry systems, and oversight of radioactive waste disposal activities. He was also responsible for preparation of the NYSDOH radioactive materials license application and the implementation of that license.

### **1983 – 1984 Research Associate at the American Council on Science and Health.**

Authored several articles for newsletters, reports (published as pamphlets), and radio scripts on various environmental science and health issues.

### **PUBLICATIONS and PRESENTATIONS**

- Fellman, A., 1984. Dioxin in the environment: Its effect on human health. A report by the American Council on Science and Health.
- Fellman, A., 1987. Statistical methods for analyzing urinary excretion data. *Health Phys.* 52, Supplement 1: 55-56, Abstract MPM-A12.
- Fellman, A., Hickman, D., Cohen, N., Spitz, H., Robinson, B., 1987. Urinary excretion of polonium and its associated dosimetry. *Health Phys.* 52, Supplement 1:S61, Abstract WPM-C8.
- Fellman, A., Ralston, L., Ayers, L., Hickman, D., Cohen, N., Spitz, H., Robinson, B., 1988. The importance of completely digesting urine samples prior to spontaneous deposition of polonium *Health Phys.* 54, Supplement 1: S6, Abstract TPM-All.
- Fellman, A., 1989. Primate polonium metabolic models and their use in estimation of systemic radiation doses from bioassay data. New York University; Dissertation.
- Fellman, A., Ralston, L., Hickman, D., Ayers, L., Cohen, N., Spitz, H., Robinson, B., 1989. The importance of acid digestion of urine prior to spontaneous deposition of  $^{210}\text{Po}$ . *Health Phys.* 57:615-621.
- Fellman, A., Kerbel, R. 1991. Superfund activities at the U.S. Radium site in Orange, N.J. *Health Phys.* 60, Supplement 2:S77, Abstract THPM-B9.
- Hickman, D.P., Spitz, H.B., Cohen, N., Fellman, A., 1991. A new model for evaluating internal dose from the intake of polonium-210. UCRL-CR-108132.
- Fellman, A., Ralston, L., Hickman, D., Ayres, L., Cohen, N., 1994. Polonium metabolism in adult female baboons. *Rad. Res.* 137:238-250.
- Fellman, A., 1997. A Long Journey: Preparing A Superfund Site For Remediation. *Health Phys.* 72: No. 6, Abstract THAM-A.1.
- Fellman, A., 1999. Radioactivity In The Groundwater! Or Not. *Health Phys.* 76: No. 6, Abstract WPM-C.6.
- Fellman, A., McNulty, S., 2000. Radiological Measurements at Superfund Sites. Proceedings of the 33<sup>rd</sup> Midyear Topical Meeting, Health Physics Society; 73-77.
- Fellman, A., Mercer, T. 2001. Avoidable Radiation Exposure in Biomedical Research Laboratories. Proceedings of the 34th Midyear Topical Meeting, Health Physics Society; 195-198.
- Fellman, A., 2001. Training The Decommissioning Health Physicist. *Health Phys.* 80: No. 6, Abstract WAM-A.1.
- Johnson, R. and Fellman, A., 2002. Risk Perceptions and Decommissioning. Proceedings of the 35<sup>th</sup> Midyear Topical Meeting, Health Physics Society; 120-127.
- Fellman, A., 2002. Decommissioning Challenges in Residential Neighborhoods. Proceedings of the 35<sup>th</sup> Midyear Topical Meeting, Health Physics Society; 133-136.
- Fellman, A., 2003. How Individuals Can Contribute To Homeland Security. Proceedings of the 36<sup>th</sup> Midyear Topical Meeting, Health Physics Society; 13-16.

- Fellman, A., 2004 MARSSIM Decommissioning for Non-Conforming Buildings. Health Phys. 86: No. 6, Abstract TAM-C.7.
- Fellman, A. 2005. Responding to a Radiological Incident in a Major City – A Field Guide for Health and Safety Officers. Presented at the 38<sup>th</sup> Midyear Topical Meeting, Health Physics Society.
- Fellman, A. 2006. A Dysfunctional Radiation Safety Program. Proceedings of the 39<sup>th</sup> Midyear Topical Meeting, Health Physics Society; 68-72.
- Fellman, A. 2006. Struggling With Radiation When The Subject Is Your Child. Health Phys. 90: No. 6, Abstract WAM-B.3.

### **PROFESSIONAL ASSOCIATIONS and ACHIEVEMENTS**

Member, Health Physics Society

Member, American Academy of Health Physics

National Institute of Environmental Health Science Fellowship, 1984-1988

Honorable Mention, Department of Energy Health Physics Fellowship program, 1986

Student Award, Health Physics Society, 1987