

RADIATION SAFETY & HEALTH PHYSICS SERVICES

ARCHITECT/ENGINEERING PROJECTS

Dr. Dade Moeller founded our Company in 1994 to provide health physics and radiation protection support to government and commercial nuclear facilities. Our personnel have outstanding reputations and are nationally and internationally recognized in their fields. We currently employ a staff of more than 30 full-time Certified Health Physicists, and more than 60 other professionals, including Certified Industrial Hygienists, Certified Safety Professionals, and Professional Engineers.



Dade Moeller & Associates professionals have provided radiation safety support to numerous government and commercial design projects. We are thoroughly familiar with the safety requirements for radiological facilities and how to apply them in real-world situations.

We maintain current licenses for state-of-the-art, computer-based shielding codes such as MCNP™ and MicroShield™, and our personnel have extensive experience in the use of these and other safety analysis models.

Our clients depend on our expertise to provide project design guidance that meets performance objectives in the most cost-effective manner.

Dade Moeller & Associates prides itself on providing its customers with cost-effective, top-of-the line A&E design support tailored to the project at hand.

Our experience covers a full range of facilities, including hospital diagnostic x-ray rooms, analytical laboratories, sealed-source calibration labs, mixed waste disposal facilities, nuclear power plants, and storage and treatment processes for megacurie-level radioactive wastes.

Our staff brings practical experience to every project and we use this knowledge to our customer's advantage.

Representative Personnel

- Stephen L. Bump, CHP, CIH** Mr. Bump has more than 30 years experience in radiological engineering and applied health physics. He has supported radiological design reviews for commercial nuclear power plants and government facilities, performed shielding and emissions calculations, and evaluated and developed facility ALARA programs.
- Tracy A. Ikenberry, CHP** Mr. Ikenberry has nearly 26 years of experience in environmental and operational health physics, and radiological engineering and design evaluations. He is a Fellow of the Health Physics Society and the Chair of ANSI Accredited Standards Committee N13 Radiation Protection.
- Daniel S. Mantooth, CHP** Mr. Mantooth has nearly 30 years experience in radiological engineering and applied health physics. He has supported radiological design projects for government and commercial facilities. Mr. Mantooth's name appears on the State of Washington's Qualified List of Experts for X-Ray.
- Ellen Messer Wright, CHP** Ms. Wright has 17 years of health physics-related experience. She has supported radiological design reviews for major facilities on the Hanford Site, including shielding calculations. She was a key member on a DOE team inspecting contractor radiological safety and ALARA programs.



Recent Dade Moeller & Associates Projects and Experience

- Supported the design of a stabilization and packaging process for radioactive sludge containing megacurie quantities of mixed fission products for the Department of Energy (DOE); assisted in the radiological safety aspects of hazardous operations analyses, shielding design, nuclear air cleaning design, and habitability and maintainability assessments.
- Performed the required as-low-as-reasonably achievable (ALARA) design review for a new DOE research facility. The review consisted of an evaluation of radiation shielding, nuclear air cleaning, placement of radiation detection equipment, and habitability and maintainability.
- Performed a shielding design review for a 7-MeV accelerator for use in commercial production of medical isotopes. The review included verification that the facility, as designed, would limit exposure to personnel and the public to required levels.
- Performed a shielding design review for a 6-MeV linear accelerator for use in nondestructive assays by the U.S. Navy. Because the facility was operational at the time of the review, the project required assessing the adequacy of existing shielding and making recommendations on types and amounts to bring exposure to control room personnel within client limits.
- Supported a team of DOE Office of River Protection employees and consultants in the review of control room habitability for a Category 2 nuclear facility, one Category 3 nuclear facility, and one radiological facility. Calculations for control room habitability examined the potential impact on control room habitability from radiological and chemical releases by quantifying radiation dose and chemical consequences to control room staff.
- Performed the final radiological design review and prepared the final ALARA design review for a facility to perform bulk vitrification of high-level radioactive liquid tank waste at DOE's Hanford site. The review included shielding and dose calculations for final design and changes to the dried waste transfer system. The ALARA analysis included a significant effort to provide additional resolution and accuracy to estimates of expected worker radiation dose, including a significant component from gamma skyshine. Company personnel served as the radiological control representative for process hazards operation evaluations for this facility.