

Christopher S. Tripp
Statement of Professional Qualifications

CURRENT POSITION

Senior Nuclear Process Engineer (Criticality)
Technical Support Branch
Division of Fuel Cycle Safety and Safeguards
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C.

EDUCATION

Ph.D., Physics, Rensselaer Polytechnic Institute
M.S., Physics, Rensselaer Polytechnic Institute
B.S., Physics, Rensselaer Polytechnic Institute

PROFESSIONAL

Nuclear Criticality Safety Technical Reviewer Qualification, NRC, 1999
Nuclear Criticality Safety Inspector Qualification, NRC, 1997

QUALIFICATIONS

Dr. Tripp is a nuclear criticality safety (NCS) specialist with almost 15 years of work experience as an inspector and license reviewer at the NRC. His experience has included nuclear fuel facility inspection, licensing, enforcement, and regulatory guidance development, both in technical and programmatic aspects of NCS and Integrated Safety Analysis (ISA).

His experience in inspection has included routine and reactive inspections at both low-enriched and high-enriched fuel fabrication facilities and enrichment facilities, including Babcock and Wilcox and AREVA in Lynchburg, VA; Global Nuclear Fuels in Wilmington, NC; Westinghouse Electric Company in Columbia, SC; Nuclear Fuel Services in Erwin, TN; AREVA in Richland, WA; and Portsmouth and Paducah Gaseous Diffusion Plants in Portsmouth, OH and Paducah, KY. Several of these have involved NRC follow-up to criticality safety-significant events and enforcement actions.

His experience in licensing has included new facility licensing, at the Mixed Oxide Fuel Fabrication Facility at the Savannah River Site, SC; USEC's American Centrifuge Plant in Portsmouth, OH; AREVA's Eagle Rock Enrichment Facility in Bonneville County, ID; and GNF-A's Global Laser Enrichment facility in Wilmington, NC. He also provided technical assistance on LES's National Enrichment Facility in Hobbes, NM. His experience also includes assisting in the license renewal for Westinghouse Electric Company in Columbia, SC. His experience also includes major amendments at Nuclear Fuel Services in Erwin, TN and the High-Assay Upgrade Project at the Paducah Gaseous Diffusion Plant in Paducah, KY.

His experience in regulatory issues and regulatory guidance development has included being part of the team that developed ISG-03, "Nuclear Criticality Safety Performance Requirements

and Double Contingency Principle” and the primary author of ISG-01, “Methods for Qualitative Evaluation of Likelihood,” and ISG-10, “Justification for Minimum Margin of Subcriticality for Safety.” He was also the primary author of Chapter 5 and Appendix A of NUREG-1718, the Standard Review Plan for a Mixed Oxide Fuel Fabrication Facility, and provided numerous comments on the revision of Chapter 5 of NUREG-1520, the Standard Review Plan for a Fuel Cycle Facility. Most recently, he has been part of an industry-wide panel that is recommending changes to NUREG-1537, the Standard Review Plan for Non-Power Reactors, to address the use of aqueous homogeneous reactors for medical isotope production. He has also participated in several Part 70 and ISA working groups, including Part 70 Appendix A event reporting, risk-informing the enforcement policy for fuel cycle facilities, and the design features working group. He has also authored or co-authored numerous papers at national and international meetings (e.g., ANS Topical Meetings, International Conference on Nuclear Criticality) on these topics, and has participated in ANS and ISO standards working groups (ANS-8.12 on mixed oxide criticality safety, ANS-8.24 on criticality code validation, and ISO standards on mixed oxide, burnup credit, emergency response, and estimating fission yields).

Prior to working for the NRC, he was a teaching and research assistant in graduate school at Rensselaer Polytechnic Institute, where his responsibilities included teaching undergraduate physics courses, grading, and participating in medium-energy nuclear physics experiments at Brookhaven National Laboratory, Saskatchewan Accelerator Laboratory, and his own thesis experiment at the Bates-MIT Linear Accelerator Center. He also participated in the design of experimental detectors for the Thomas Jefferson National Accelerator Facility (formerly named CEBAF). His thesis experiment culminated his doctoral dissertation, entitled “A Longitudinal-Transverse Separation of the $^3\text{He}(e,e'd)$ Reaction,” RPI, 2005.