Jennifer Alwin is a Scientist at Los Alamos National Laboratory (LANL) in the Radiation Transport Applications Group. She has 25 years of work experience at a national laboratory, the majority of which is at LANL, in a wide variety of areas including criticality safety and experiments, plutonium recovery and purification, MCNP6 calculations, and Sensitivity/Uncertainty tools to support validation for nuclear criticality safety. She also has experience at the Pacific Northwest National Laboratory (PNNL) in criticality safety and plutonium processing.

Jennifer has an educational background in Chemical Engineering, having received B.S. (1996) and M.S. (1999) degrees in Chemical Engineering from New Mexico State University. She began working at LANL in 1997 while conducting research into the behavior, crystal habit, and filterability of plutonium hydroxide precipitates. This led to 10 years of experience in plutonium processing within PF-4 in aqueous, pyrochemical, and dry operations processing as well as successful decommissioning and decontamination of a highly contaminated glovebox line. She served as a team lead for the preparation of plutonium oxide used to make Mixed Oxide (MOX) fuel lead test assemblies.

Jennifer has 16 years of experience as a criticality safety analyst, having served as the primary analyst or independent peer review for several hundred criticality safety evaluations. She became a criticality safety analyst at LANL while completing nuclear engineering coursework at the University of New Mexico. She has experience in various facilities conducting walkdowns and operational reviews, as well as responding to issues and infractions, primarily in the Plutonium Facility (PF-4) as well as facilities at the Nevada National Security Site (NNSS) in the Device Assembly Facility (DAF), National Criticality Experiments Research Facility (NCERC), U1A and other facilities at the site.

In addition to teaching and mentoring NCS analysts to become qualified, she has also taught numerous courses utilizing neutron transport methods as well as sensitivity/uncertainty methods to support validation. The courses include 1-week training in MCNP6 at LANL and site-tailored courses taught around the world including PNNL, SRNS, Y-12, SNL, and the Organization for Economic Cooperation and Development- Nuclear Energy Agency (OECD-NEA) in Paris. She is particularly excited to be able to teach others and increase her knowledge in the area of validation of transport codes using ANSI/ANS-8.24.

Jennifer is the chair of the LANL Criticality Experiments Safety Committee which reviews work procedures, experiment plans, and makes recommendations focused on compliance with safety considerations and ANSI/ANS standards. She is an active member in the Nuclear Criticality Safety Division of the American Nuclear Society, having served on the Executive Committee. She is excited to have the opportunity to make contributions to the important work of the CSSG.