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Dr. Reynolds is a Criticality Safety practitioner with over 30 years of experience in the DOE/NNSA complex. Dr. Reynolds received his Bachelor's degree in Nuclear Engineering from Mississippi State University in December 1988. He then moved to Knoxville to pursue his Master's degree in Nuclear Engineering at the University of Tennessee. It was here that he began his career in criticality safety by focusing his research on the criticality safety aspects of designing a proposed fuel fabrication facility for the Hanford N Reactor. Although the facility was never built he received his degree in June 1990 and his interest in criticality safety was born.

After a brief tour of duty with the United States Navy Dr. Reynolds worked at the Rocky Flats Plant. There he was responsible for producing several of the initial CSEs to use Human Factors Engineering as part of the process for decommissioning the plant in the mid to late 90's. Dr. Reynolds learned that the NCS community is very small as many of his colleagues from these early days at Rocky Flats are current colleagues in his current job.

In 1995 Dr. Reynolds started working for the Portsmouth Gaseous Diffusion Plant as part of the SAR upgrade project. In this role he was part of the team producing upgraded CSEs for the Portsmouth GDP for NRC licensing purposes. He did this work while residing in the Oak Ridge area and so also supported the Y-12 Plant by performing various criticality safety related evaluations and calculations. In late 1995 Dr. Reynolds became a full time Y-12 NCS engineer and was the NCS lead for the 9204-4 Facility. This was the main Quality Evaluation mission area and required a substantial floor presence as they were attempting to restart operations after the 1994 Y-12 shutdown. He continued his work as an NCS Engineer supporting the Y-12 mission in uranium solution processing operations, storage operations, machining operations and assembly/disassembly operations.

Dr. Reynolds served briefly as the NCS Program Manager for British Nuclear Fuels in 1999 at the K-25 Gaseous Diffusion Plant during the early days of their cleanup efforts for the K-31, K-33 and K-29 Process buildings. In this role he was responsible for documenting the early outlines of the NCS Program needed to successfully D&D the process buildings. In 2002, Dr. Reynolds returned to the K-25 site but this time as the DOE NCS Program Manager for the Office of Environmental Management. In this role he oversaw the successful completion of DOE NCS Program audits of all contractor NCS Programs at the K-25 site.

In 2004 Dr. Reynolds returned to Y-12, where he has remained until today, and continued to support various NCS Projects and special programs all over the Y-12 site. Also during this period he embarked on his journey to earn his Doctorate degree in Nuclear Engineering. This process taught him that night school, a full time job and a family are NOT conducive to quickly earning a degree. Dr. Reynolds eventually completed his PhD in Nuclear Engineering at the University of Tennessee in the spring of 2013.

Finally Dr. Reynolds arrived at the Uranium Processing Facility Project where he started out as the Chief NCS Engineer. In this role he was responsible for the technical products produced by the NCS staff on the project. The UPF Project has allowed Dr. Reynolds to take his years of experience and apply them to designing and building the replacement facility for Y-12's original Manhattan Era facility for enriched uranium operations. The UPF includes casting, oxide production, uranium recovery and salvage, storage and NDA amongst other processes. Dr. Reynolds has overseen the successful completion of all Criticality Safety Process Studies necessary for UPF to complete final design, achieve CD-2/3 approval and to support publication of the PDSA. Dr. Reynolds is currently the Nuclear Safety Manager for the UPF Project. In this role he is responsible for Facility Safety, Criticality Safety, and Fire Protection for UPF. The production of all CSEs, the FHA and the DSA and TSR for UPF are his primary responsibility.

Dr. Reynolds is a proud father of three amazing kids and two grandkids. His amazing wife allows him time to pursue his professional interests along with the most important role in his life – being a good father and husband. Dr. Reynolds has been a member of the American Nuclear Society for his entire professional career. As a member of the NCS Division of ANS he has been a member of the Education Committee, the Program Committee and Past Chair of the Division. He is a member of ANS8 and is the Writing Group Chair for ANSI/ANS-8.26.