

## **INVITED TALK: Issues associated with the Metrology of TENORM**

*Friday, 30 September 2016 14:00 (0:20)*

### **Content**

Though the understanding of the generation and impacts of Technologically-Enhanced NORM (TENORM) has increased over the last decade, the differing regulatory frameworks within the United States add complexities when assessing and managing TENORM on a national basis. There is no federal TENORM statute, and the United States Environmental Protection Agency (EPA) regulatory authority is limited to addressing only certain aspects of TENORM via several federal laws. In practice, the management and regulation of TENORM falls primarily to the individual states; numerous states have promulgated state specific TENORM regulations. These varying regulations and a lack of a consistent definition of NORM/TENORM complicate the assessment and measurement of TENORM. This presentation also addresses some noted issues associated with TENORM metrology, based on years of experience.

### **About the Presenter**

Kristen Schwab has been with Washington State's Department of Health, Office of Radiation Protection for 15 years and has worked in the field of health physics for 25 years. The Office of Radiation Protection oversees the use of radioactive materials and x-ray machines within the state, as well as radioactive air emissions, radioactive environmental monitoring, and radiation emergency response actions. Kristen has been working for the Waste Management Section of the Office of Radiation Protection for the last 9 years. She is the project manager for three mineral processing facilities in varying stages of TENORM decommissioning, the Low-Level Commercial Radioactive Waste Site, and a waste processing facility. She also provides technical support to a decommissioning uranium mill. Kristen has extensive experience in licensing and inspecting facilities that use radioactive materials, policy interpretation and compliance related issues, as well as developing, implementing, and overseeing site characterizations and decommissioning. Kristen received her Bachelor of Science degree in Radiological Health Physics from University of Lowell and Master of Science degrees in both Environmental Engineering and Radiological Health Physics from Oregon State University. Prior to working for the Washington State, Kristen performed research at Pacific Northwest National Laboratory, worked as nuclear power plant health physicist, and worked in an environmental laboratory testing for radioactive contaminants.

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