

TENORM UPDATE

ISCORS Semi-Annual Meeting

November 9, 2015



TENORM Update

- Various bodies and committees working on TENORM issues
 - International Commission on Radiological Protection (ICRP)
 - International Atomic Energy Agency
 - U.S. Regulatory Agencies/States
 - National Council on Radiation Protection and Measurements (NCRP)
 - Conference of Radiation Control Program Directors
 - Other NGOs
 - STRONGER, ASTSWMO

ICRP TG-76

- Task group working on report that will discuss how to incorporate the 3 basic principles of radiation protection to the NORM/TENORM industry
 - Justification
 - Optimization
 - Limitation
- Unlike radiation industries that have the resources, training and desire to possess and properly manage radioactive material, most TENORM is an unintended consequence of industrial processing
 - Can lead to environmental contamination or exposure of the public/workers
 - Most NORM considered an existing situation, but can also be managed as a planned situation

IAEA NORM VIII SYMPOSIUM

- To be held in Rio de Janeiro, Brazil in October 2016
- International perspective and experience
- Exchange of scientific information and approaches to management of materials and exposures

U.S. Regulatory

- EPA proposed effluent limit guidelines for unconventional drilling at publicly owned treatment works
 - Includes radioactivity
- EPA's Office of Research and Development published draft report on impacts to drinking water from fracking
 - Mentions radioactivity
 - SAB meeting this week on draft report

States

- Numerous states looking at updating regulations
 - Mostly related to disposal of residuals from fracking
 - North Dakota
 - Michigan (affirmed current level of 50 pCi/g Ra-226)
 - CA - Underground injection control program issues
 - Some Class II disposal wells grandfathered and may be in contact with drinking water aquifers

NCRP SC-5

- *Recommendations for a Uniform Approach for Naturally Occurring Radioactive Material (NORM) and Technologically Enhanced NORM (TENORM) Waste Management and Disposal for the Oil & Gas Industry*
 - 2 Phases
 - Commentary
 - Full Report
 - Waste Management
 - Environmental Challenges

Conference of Radiation Control Program Directors

- E-42 Report on issues related to TENORM in oil and gas
 - E-45 committee standing up to address technical issues raised by E-42
- Update to Part N suggested state regulation for TENORM
 - Process just getting underway



Other NGOs

- State Review of Oil and Natural Gas Environmental Regulations (STRONGER)
 - 2015 Guidelines
 - New section on reused and recycled fluids
- Association of State and Tribal Solid Waste Management Officials (ASTSWMO)
 - December 2014 -State Regulations and Policies for Control of Naturally-Occurring and Accelerator Produced Radioactive Materials (NARM) and Technologically Enhanced Naturally-Occurring Radioactive Materials (TENORM)
- National Resources Defense Council, et al (NRDC)
 - August 2015 - Announced intent to sue EPA over fracking issues including radioactivity

ISCORS TENORM Subcommittee

- EPA - Phil Egidi, Chair
- NRC - Richard Chang
- DOE – Kathy McLellan
- DOD – Ram Bhat
- DOL – Stephan Schayer
 - Surender Ahir

