



Technologically Enhanced Naturally Occurring Radioactive Material (TENORM) Fact Sheet

What is NORM/TENORM?

- NORM stands for “naturally occurring radioactive material”—in other words, a substance that naturally contains one or more radioactive isotopes, also called *radionuclides*.
- NORM occurs at low levels in soils and rocks.
- NORM is present in common household items, including bananas at 4 picocuries per gram (pCi/gm), Brazil nuts at 6 pCi/gm, cat litter at 5 pCi/gm, coffee at 27 pCi/gm, granite countertops at 27 pCi/gm, and phosphate fertilizer at 123 pCi/gm.
- TENORM is NORM that has been concentrated or exposed to the environment as a result of human activities, such as: manufacturing, mineral extraction or water processing.

Should I be concerned about potential exposure to TENORM?

- TENORM is not nuclear waste.
- The vast majority of radiation emitted from TENORM is in the form of alpha particles.
- Alpha particles created by radioactive decay can only travel a few feet through the air, and can be stopped by a sheet of paper.
- Skin stops alpha particles from entering the body, but poses a human health risk if inhaled or ingested.

How Is TENORM Regulated?

- There are no federal regulations or guidance specific for managing TENORM waste.
- A number of states have or are developing specific rules for managing TENORM waste.

How is TENORM Regulated in Montana?

- TENORM waste disposal facilities are regulated under Montana Code Annotated (MCA) Title 75 Environmental Protection, Chapter 10. Waste and Litter Control, Part 2, and Administrative Rules of Montana (ARM), 17.50 Solid Waste Management Subchapters (to see specific ARMs and MCAs go to: <http://deq.mt.gov/Land/solidwaste/lawsrules>).
- TENORM disposal facilities are thoroughly evaluated by DEQ before being licensed to receive waste.
- Public participation in the DEQ evaluation and licensure of a TENORM disposal facility is mandated by the Montana Environmental Policy Act (MEPA).
- Liners and soil surrounding TENORM in landfills act as protective barriers between waste and the environment.
- TENORM disposal facilities must protect human health and the environment through measures such as but not limited to: dust mitigation, ground water and air quality monitoring.
- Inspections of these facilities occur on a regular basis.

For more information contact DEQ's Solid Waste Program at (406) 444-5300.