

## REQUIREMENTS FOR THE CHARACTERIZATION OF TENORM WASTE

### *FORMERLY TITLED "REQUIREMENTS FOR THE MANAGEMENT OF SPECIAL WASTES ASSOCIATED WITH THE DEVELOPMENT OF OIL AND GAS RESOURCES"*

#### MONTANA DEQ – SOLID WASTE PROGRAM

**REVISED August, 2019**

This document identifies the specific requirements for characterization and management of TENORM waste.\* TENORM is not regulated by Environmental Protection Agency or the Nuclear Regulatory Commission. As a result, TENORM is regulated by individual states.

#### **Waste Characterization - Sample Collection and Analytical Requirements**

(1) The owner or operator of a TENORM waste management system shall document the initial characterization of TENORM waste prior to acceptance and management on site. The initial characterization criteria must include:

- (a) Generator information;
- (b) Identification of the waste source location, volume, physical state, and type;
- (c) Identification of the process producing the waste;
- (d) Method of receipt; and,
- (e) Contaminant concentrations or exposure rate.

(2) Except as provided in (3) and (4), TENORM waste must be characterized by collecting and analyzing at least one composite sample that consists of 5 representative sub-samples per 200 tons or less of TENORM waste material generated from the same source.

(3) Filter media must be characterized by collecting and analyzing at least one random composite sample that consists of five representative sub-samples per 20 tons or less for filter media generated from the same source. Filter media is also subject to the following:

- (a) Filter media that is not aggregated must be sampled from each source separately. The entire filter media should be sampled;
- (b) If filter media is aggregated, it must be wetted down, shredded, thoroughly mixed, and then sampled; and
- (c) Shredded filter media must be containerized before delivery to the TENORM waste management system.

(4) TENORM surface-contaminated objects are not subject to the waste characterization requirement in (2), but must not exceed a gate screening level of 100 microrentgen per hour ( $\mu\text{R/hr}$ ), excluding background radiation. At least 10 readings must be taken for each load and averaged to determine whether the load exceeds the limit of 100  $\mu\text{R/hr}$ .

(5) A TENORM waste generator, aggregator, or TENORM waste management system may apply in writing and obtain the department's written approval that the proposed waste

characterization methods are at least as protective of human health and the environment as the methods permitted under these requirements.

(6) The owner or operator of a TENORM waste management systems shall follow ARM 17.50.1103 "PROCEDURES FOR EXCLUDING THE RECEIPT OF HAZARDOUS WASTE" to ensure the exclusion of hazardous waste.

(7) The department may require additional or other applicable testing based upon the TENORM waste stream to protect human health and the environment.

\*Drill cuttings and mud are not considered TENORM; however, they are not prohibited at a TENORM waste management system.