

TENORM Survey Introduction

Rule Engineering, LLC (Rule) has been contracted by the Colorado Department of Health and Environment (CDPHE) to author a report on technologically enhanced naturally occurring radioactive material (TENORM)¹. This is NORM, whose radionuclide concentrations are increased by or as a result of past or present human practices.

The report is required by Senate Bill 18-245. Your contact information was obtained from CDPHE's TENORM stakeholder mailing list, or with the cooperation of a trade organization to which your company belongs.

Obtaining information from TENORM stakeholders is vital to the accuracy and value of the TENORM report. We appreciate you taking the time to complete the attached survey, which was developed to provide stakeholders the opportunity to participate in the TENORM Report. Your participation in this survey is voluntary and will be kept confidential (e.g., information linking you or your company, including specific facility site location data, to your survey response will not be included in our report). Further, while administering this survey, Rule will act as an independent manager of information. This means CDPHE will not be given information linking you or your company to your survey response.

If you have any questions or concerns regarding this survey, please contact Mike Brown at mbrown@ruleengineering.com. Also, we welcome any additional information or suggestions you choose to provide. Thank you again for taking the time to respond to the TENORM survey.

Sincerely,

Michael A. Brown

- 1) TENORM does not include:
 - Background radiation or natural radioactivity of rocks or soils;
 - Byproduct material or source material, as defined by Colorado statute or rule; or
 - Enriched or depleted uranium as defined by Colorado or federal statute or rule.

TENORM Rules are focused on Radium and its progeny.

TENORM General Questionnaire

Company/Operator Names: _____

Contact Person: _____

Phone: _____

Email: _____

Please answer the following questions regarding your Colorado operations.

1. Does your company currently dispose of technologically enhanced naturally occurring radioactive material (TENORM) waste? If you do have TENORM waste stream(s), which facilities do you use for TENORM disposal?
2. What are your company's current costs associated with managing the radiological aspects of your business? How do you see these changing as Colorado develops TENORM standards and guidance?
3. Does your company have a radiation protection program of any type? If so, what are its components (e.g.: is there a designated Radiation Safety Officer, are there written procedures, what radiation detection instruments are in use, what laboratory do you use for sample analysis, what is your sampling protocol (number/type of samples per unit amount of waste), what are your monthly costs associated with each element of this program?
4. Are there other TENORM waste generators (other than those listed below) that are not being considered during the TENORM regulation development process?
 - the oil and gas industry
 - mining industry
 - operators of exploration and production waste disposal facilities
 - public water providers
 - public wastewater treatment providers
 - solid waste landfill operators
5. Has your company collected any radiological data? If so, may we contact you regarding access to the dataset? Rule Engineering would like to access your company's data on radionuclide analysis results and methods, nuclides and activity concentrations measured, gamma dose rates recorded at your sites, and volumes of waste generated, for use in the TENORM report. As noted in the cover letter, we are able to act as an independent manager of confidential information. This means the data will be presented in our report anonymously and there will be no mention of your company or specifics regarding your facility and/or specific site location.
6. Do you have suggestions as to efficiencies to be employed as part of the new regulations/guidance?