

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT (EXCERPT)
Act 451 of 1994

324.11132 Disposal of certain technologically enhanced naturally occurring radioactive material (TENORM) in landfill prohibited; request for renewal or modification of operating license for disposal of TENORM; requirements; monitoring program; report; maintenance of records.

Sec. 11132. (1) Except as otherwise provided in this section, a person shall not deliver to a landfill in this state for disposal and the owner or operator of a landfill shall not permit disposal in the landfill of TENORM with any of the following:

- (a) A concentration of radium-226 more than 50 picocuries per gram.
- (b) A concentration of radium-228 more than 50 picocuries per gram.
- (c) A concentration of lead-210 more than 260 picocuries per gram.

(2) Except as otherwise specified in the landfill operating license, the owner or operator of a landfill shall not permit a delivery of TENORM for disposal at the landfill unless the generator has provided the following information in writing to the owner or operator of the landfill:

(a) The concentrations of radium-226, radium-228, lead-210, and any other radionuclide identified using gamma spectroscopy, or an equivalent analytical method, in the TENORM based on techniques for representative sampling and waste characterization approved by the department.

(b) An estimate of the total mass of the TENORM.

(c) An estimate of the total radium-226 activity, the total radium-228 activity, and the total lead-210 activity of the TENORM.

(d) The proposed date of delivery.

(3) The department may test TENORM proposed to be delivered to a landfill.

(4) If requested by the owner or operator of a landfill in an application for the renewal of or a major modification to an operating license, the department may authorize with conditions and limits in the operating license the disposal of TENORM with concentrations of radium-226 more than 50 picocuries per gram, radium-228 more than 50 picocuries per gram, or lead-210 more than 260 picocuries per gram, or any combination thereof, but not more than 500 picocuries per gram for each radionuclide. An operating license under this part with such an authorization constitutes a license from the state's radiation control authority under part 135 of the public health code, 1978 PA 368, MCL 333.13501 to 333.13537, if the conditions and procedures for issuance of the operating license under this part are sufficient to satisfy the licensing requirements of part 135 of the public health code, 1978 PA 368, MCL 333.13501 to 333.13537.

(5) A request under subsection (4) shall include all of the following:

(a) A radiation safety program that addresses all of the following:

- (i) Personnel radiation protection.
- (ii) Worker training.
- (iii) Radiation surveys.
- (iv) Radiation instrument calibration.
- (v) Receipt and disposal of radioactive material.
- (vi) Emergency procedures.
- (vii) Record keeping.

(b) A report evaluating the risks of exposure to residual radioactivity through all relevant pathways using a generally accepted industry model such as the Argonne National Laboratory RESRAD family of codes or, if approved by the department, another model. The report shall evaluate potential radiation doses to site workers and members of the public during site operation and after site closure. The report shall use reasonable scenarios to evaluate the dose to members of the public.

(c) A description of any steps necessary to ensure the annual dose to members of the public during landfill operation and after site closure will be less than 25 millirem.

(d) A description of an environmental monitoring program under subsection (6).

(6) If TENORM is disposed at a landfill, the operator of the landfill shall conduct a monitoring program that complies with all of the following:

(a) Radiological monitoring of site workers and at the landfill property boundary are conducted as specified in the license.

(b) Radium-226, radium-228, and lead-210 are included among the parameters analyzed in leachate and groundwater at the frequency specified in the license.

(c) Penetrating radiation, radioactivity in air, and radon in air are measured as specified in the operating license if the landfill is used to dispose of TENORM with a concentration of radium-226 more than 50

picocuries per gram, radium-228 more than 50 picocuries per gram, or lead-210 more than 260 picocuries per gram.

(d) Results of all monitoring required under this subsection are included in the environmental monitoring reports required under rules promulgated under this part and the facility operating license.

(7) The owner or operator of a landfill shall submit to the department by March 15 each year a report that summarizes the information obtained under subsection (2) for all TENORM disposed at the landfill during the previous calendar year.

(8) The owner or operator of a landfill shall do both of the following:

(a) Ensure that all TENORM is deposited at least 10 feet below the bottom of the future landfill cap.

(b) Maintain records of the location and elevation of TENORM disposed of at the landfill.

History: Add. 2018, Act 688, Eff. Mar. 28, 2019.

Compiler's note: Former MCL 324.11132, which pertained to requirements for hazardous waste transporter business license, was repealed by Act 139 of 1998, Eff. Sept. 1, 1998.

Popular name: Act 451

Popular name: Hazardous Waste Act

Popular name: NREPA