

Act No. 688  
Public Acts of 2018  
Approved by the Governor  
December 28, 2018  
Filed with the Secretary of State  
December 28, 2018  
EFFECTIVE DATE: March 28, 2019

**STATE OF MICHIGAN  
99TH LEGISLATURE  
REGULAR SESSION OF 2018**

Introduced by Senator Casperson

# **ENROLLED SENATE BILL No. 1196**

AN ACT to amend 1994 PA 451, entitled “An act to protect the environment and natural resources of the state; to codify, revise, consolidate, and classify laws relating to the environment and natural resources of the state; to regulate the discharge of certain substances into the environment; to regulate the use of certain lands, waters, and other natural resources of the state; to protect the people’s right to hunt and fish; to prescribe the powers and duties of certain state and local agencies and officials; to provide for certain charges, fees, assessments, and donations; to provide certain appropriations; to prescribe penalties and provide remedies; and to repeal acts and parts of acts,” by amending section 11104 (MCL 324.11104), as amended by 2001 PA 165, and by adding sections 11132 and 11514b.

*The People of the State of Michigan enact:*

Sec. 11104. (1) “Operator” means the person responsible for the overall operation of a disposal, treatment, or storage facility with approval of the department either by contract or license.

(2) “Site identification number” means a number that is assigned by the United States Environmental Protection Agency or the United States Environmental Protection Agency’s designee to each generator, each transporter, and each treatment, storage, or disposal facility. If the generator or transporter or the treatment, storage, or disposal facility manages wastes that are hazardous under this part and the rules promulgated under this part but are not hazardous under the solid waste disposal act, site identification number means an equivalent number that is assigned by the department.

(3) “Solid waste” means that term as it is defined in part 115.

(4) “Storage” means the holding of hazardous waste for a temporary period at the end of which the hazardous waste is treated, disposed of, or stored elsewhere.

(5) “Storage facility” means a facility or part of a facility where managed hazardous waste, as defined by rule, is subject to storage. A generator who accumulates managed hazardous waste, as defined by rule, on site in containers or tanks for less than 91 days or a period of time prescribed by rule is not a storage facility.

(6) “Surface impoundment” or “impoundment” means a treatment, storage, or disposal facility or part of a treatment, storage, or disposal facility that is a natural topographic depression, human-made excavation, or diked area formed primarily of earthen materials, although it may be lined with human-made materials, that is designed to hold an accumulation of liquid wastes or wastes containing free liquids, and that is not an injection well. Surface impoundments include, but are not limited to, holding, storage, settling, and aeration pits, ponds, and lagoons.

(7) “Technologically enhanced naturally occurring radioactive material” or “TENORM” means naturally occurring radioactive material whose radionuclide concentrations have been increased as a result of human practices. TENORM does not include any of the following:

(a) Source material, as defined in section 11 of the atomic energy act of 1954, 42 USC 2014, and its progeny in equilibrium.

(b) Material with concentrations of radium-226, radium-228, and lead-210 each less than 5 picocuries per gram.

(8) “The solid waste disposal act” means title II of Public Law 89-272.

(9) “Transporter” means a person engaged in the off-site transportation of hazardous waste by air, rail, highway, or water.

(10) “Treatment” means any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste, to neutralize the waste, to recover energy or material resources from the waste, or to render the waste nonhazardous or less hazardous, safer to transport, store, or dispose of, amenable to recovery, amenable to storage, or reduced in volume. Treatment includes any activity or processing designed to change the physical form or chemical composition of hazardous waste so as to render it nonhazardous.

(11) “Treatment facility” means a facility or part of a facility where managed hazardous waste, as defined by rule, is subject to treatment.

(12) “Updated plan” means the updated state hazardous waste management plan prepared under section 11110.

(13) “Vehicle” means a transport vehicle as defined in 49 CFR 171.8.

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.

Sec. 11514b. (1) A person shall not deliver to a type II landfill in this state for disposal and the owner or operator of a type II landfill shall not permit disposal in the landfill of technologically enhanced naturally occurring radioactive material 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) The owner or operator of a type II 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) The owner or operator of a type II landfill shall submit to the department an annual report that summarizes the information obtained under subsection (2) for all TENORM disposed at the landfill during the previous state fiscal year.

(5) The owner or operator of a type II landfill that disposes of TENORM with a concentration of radium-226 more than 25 picocuries per gram, a concentration of radium-228 more than 25 picocuries per gram, or a concentration of lead-210 more than 25 picocuries per gram shall do all 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.

(c) Conduct a monitoring program that complies with all of the following:

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

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

(iii) 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.

(6) As used in this section, “technologically enhanced naturally occurring radioactive material” or “TENORM” means naturally occurring radioactive material whose radionuclide concentrations have been increased as a result of human practices. TENORM does not include any of the following:

(a) Source material, as defined in section 11 of the atomic energy act of 1954, 42 USC 2014, and its progeny in equilibrium.

(b) Material with concentrations of radium-226, radium-228, and lead-210 each less than 5 picocuries per gram.

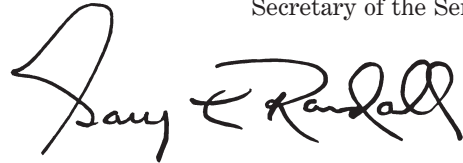
Enacting section 1. This amendatory act takes effect 90 days after the date it is enacted into law.

Enacting section 2. This amendatory act does not take effect unless Senate Bill No. 1195 of the 99th Legislature is enacted into law.

This act is ordered to take immediate effect.



Secretary of the Senate



Clerk of the House of Representatives

Approved .....

.....  
Governor