## **SENATE BILL No. 1035**

September 9, 2014, Introduced by Senator JONES and referred to the Committee on Natural Resources, Environment and Great Lakes.

A bill to amend 1994 PA 451, entitled
"Natural resources and environmental protection act,"
by amending section 11514 (MCL 324.11514), as amended by 2008 PA
394 and by adding sections 11105a and 61506d.

## THE PEOPLE OF THE STATE OF MICHIGAN ENACT:

- 1 SEC. 11105A. (1) THE OWNER OR OPERATOR OF A LANDFILL SHALL NOT
- 2 ACCEPT FOR TRANSFER OR DISPOSAL TECHNOLOGICALLY ENHANCED NATURALLY
- 3 OCCURRING RADIOACTIVE MATERIAL IF THAT MATERIAL CONTAINS OR IS
- CONTAMINATED WITH RADIUM-226, RADIUM-228, OR ANY COMBINATION OF
  - RADIUM-226 AND RADIUM-228 AT CONCENTRATIONS EQUAL TO OR GREATER
- THAN 5 PICOCURIES PER GRAM ABOVE NATURAL BACKGROUND.
- 7 (2) THE OWNER OR OPERATOR OF A LANDFILL MAY RECEIVE AND
- 8 PROCESS FOR PURPOSES OTHER THAN TRANSFER OR DISPOSAL
- 9 TECHNOLOGICALLY ENHANCED NATURALLY OCCURRING RADIOACTIVE MATERIAL

- 1 THAT CONTAINS OR IS CONTAMINATED WITH RADIUM-226, RADIUM-228, OR
- 2 ANY COMBINATION OF RADIUM-226 AND RADIUM-228 AT CONCENTRATIONS
- 3 EQUAL TO OR GREATER THAN 5 PICOCURIES PER GRAM ABOVE NATURAL
- 4 BACKGROUND, IF THE OWNER OR OPERATOR HAS OBTAINED AND MAINTAINS ALL
- 5 OTHER NECESSARY AUTHORIZATIONS.
- 6 (3) THE DIRECTOR MAY PROMULGATE RULES GOVERNING THE RECEIPT,
- 7 ACCEPTANCE, PROCESSING, HANDLING, MANAGEMENT, AND DISPOSAL BY
- 8 LANDFILLS OF MATERIAL THAT CONTAINS OR IS CONTAMINATED WITH
- 9 RADIOACTIVE MATERIAL, INCLUDING, WITHOUT LIMITATION,
- 10 TECHNOLOGICALLY ENHANCED NATURALLY OCCURRING RADIOACTIVE MATERIAL
- 11 THAT CONTAINS OR IS CONTAMINATED WITH RADIUM-226, RADIUM-228, OR
- 12 ANY COMBINATION OF RADIUM-226 AND RADIUM-228 AT CONCENTRATIONS LESS
- 13 THAN 5 PICOCURIES PER GRAM ABOVE NATURAL BACKGROUND. RULES ADOPTED
- 14 BY THE DIRECTOR MAY INCLUDE, BUT NEED NOT BE LIMITED TO, ANY OF THE
- 15 FOLLOWING:
- 16 (A) REQUIREMENTS THAT THE OWNER OR OPERATOR OF A LANDFILL
- 17 MONITOR LEACHATE AND GROUNDWATER FOR RADIUM-226, RADIUM-228, AND
- 18 OTHER RADIONUCLIDES.
- 19 (B) REQUIREMENTS THAT THE OWNER OR OPERATOR OF A LANDFILL
- 20 DEVELOP PROCEDURES TO ENSURE THAT TECHNOLOGICALLY ENHANCED
- 21 NATURALLY OCCURRING RADIOACTIVE MATERIAL ACCEPTED AT THE LANDFILL
- 22 NEITHER CONTAINS NOR IS CONTAMINATED WITH RADIUM-226, RADIUM-228,
- 23 OR ANY COMBINATION OF RADIUM-226 AND RADIUM-228 AT CONCENTRATIONS
- 24 EQUAL TO OR GREATER THAN 5 PICOCURIES PER GRAM ABOVE NATURAL
- 25 BACKGROUND.
- 26 (4) NOTWITHSTANDING ANY OTHER PROVISION OF THIS SECTION, THE
- 27 OWNER OR OPERATOR OF A LANDFILL SHALL NOT RECEIVE, ACCEPT, PROCESS,

- 1 HANDLE, MANAGE, OR DISPOSE OF TECHNOLOGICALLY ENHANCED NATURALLY
- 2 OCCURRING RADIOACTIVE MATERIAL ASSOCIATED WITH DRILLING OPERATIONS
- 3 WITHOUT FIRST OBTAINING REPRESENTATIVE ANALYTICAL RESULTS TO
- 4 DETERMINE COMPLIANCE WITH SUBSECTIONS (1) AND (2).
- 5 (5) AS USED IN THIS SECTION:
- 6 (A) "DRILLING OPERATIONS" MEANS ALL OF THE PHYSICAL AND
- 7 MECHANICAL ASPECTS OF CONSTRUCTING A WELL FOR OIL OR GAS
- 8 EXPLORATION OR PRODUCTION, INJECTION OF FLUIDS ASSOCIATED WITH OIL
- 9 OR GAS PRODUCTION, OR STORAGE OF NATURAL HYDROCARBONS OR LIQUEFIED
- 10 PETROLEUM GAS DERIVED FROM OIL OR GAS.
- 11 (B) "NATURAL BACKGROUND" MEANS 2 PICOCURIES PER GRAM OR THE
- 12 ACTUAL NUMBER OF PICOCURIES PER GRAM AS MEASURED AT AN INDIVIDUAL
- 13 LANDFILL, SUBJECT TO VERIFICATION BY THE DIRECTOR.
- 14 (C) "TECHNOLOGICALLY ENHANCED NATURALLY OCCURRING RADIOACTIVE
- 15 MATERIAL" MEANS NATURALLY OCCURRING RADIOACTIVE MATERIAL WITH
- 16 RADIONUCLIDE CONCENTRATIONS THAT ARE INCREASED BY OR AS A RESULT OF
- 17 PAST OR PRESENT HUMAN ACTIVITIES. TECHNOLOGICALLY ENHANCED
- 18 NATURALLY OCCURRING RADIOACTIVE MATERIAL DOES NOT INCLUDE DRILL
- 19 CUTTINGS, NATURAL BACKGROUND RADIATION, BY-PRODUCT MATERIAL, OR
- 20 SOURCE MATERIAL.
- 21 Sec. 11514. (1) Optimizing recycling opportunities, including
- 22 electronics recycling opportunities, and the reuse of materials
- 23 shall be a principal objective of the state's solid waste
- 24 management plan. Recycling and reuse of materials, including the
- 25 reuse of materials from electronic devices, are in the best
- 26 interest of promoting the public health and welfare. The state
- 27 shall develop policies and practices that promote recycling and

- 1 reuse of materials and, to the extent practical, minimize the use
- 2 of landfilling as a method for disposal of its waste. Policies and
- 3 practices that promote recycling and reuse of materials, including
- 4 materials from electronic devices, will conserve raw materials,
- 5 conserve landfill space, and avoid the contamination of soil and
- 6 groundwater from heavy metals and other pollutants.
- 7 (2) A person shall not knowingly deliver to a landfill for
- 8 disposal, or, if the person is an owner or operator of a landfill,
- 9 knowingly permit disposal in the landfill of, any of the following:
- 10 (a) Medical waste, unless that medical waste has been
- 11 decontaminated or is not required to be decontaminated but is
- 12 packaged in the manner required under part 138 of the public health
- 13 code, 1978 PA 368, MCL 333.13801 to 333.13831.333.13832.
- 14 (b) More than a de minimis amount of open, empty, or otherwise
- 15 used beverage containers.
- 16 (c) More than a de minimis number of whole motor vehicle
- 17 tires.
- (d) More than a de minimis amount of yard clippings, unless
- 19 they are diseased, infested, or composed of invasive species as
- 20 authorized by section 11521(1)(i).
- 21 (3) A person shall not deliver to a landfill for disposal, or,
- 22 if the person is an owner or operator of a landfill, permit
- 23 disposal in the landfill of, any of the following:
- 24 (a) Used oil as defined in section 16701.
- 25 (b) A lead acid battery as defined in section 17101.
- 26 (c) Low-level radioactive waste as defined in section 2 of the
- 27 low-level radioactive waste authority act, 1987 PA 204, MCL

- **1** 333.26202.
- 2 (d) Regulated hazardous waste as defined in R 299.4104 of the
- 3 Michigan administrative code.
- 4 (e) Bulk or noncontainerized liquid waste or waste that
- 5 contains free liquids, unless the waste is 1 of the following:
- 6 (i) Household waste other than septage waste.
- 7 (ii) Leachate or gas condensate that is approved for
- 8 recirculation.
- 9 (iii) Septage waste or other liquids approved for beneficial
- 10 addition under section 11511b.
- 11 (f) Sewage.
- 12 (q) PCBs as defined in 40 CFR 761.3.
- 13 (h) Asbestos waste, unless the landfill complies with 40 CFR
- **14** 61.154.
- 15 (4) A person shall not knowingly deliver to a municipal solid
- 16 waste incinerator for disposal, or, if the person is an owner or
- 17 operator of a municipal solid waste incinerator, knowingly permit
- 18 disposal in the incinerator of, more than a de minimis amount of
- 19 yard clippings, unless they are diseased, infested, or composed of
- 20 invasive species as authorized by section 11521(1)(i). The
- 21 department shall post, and a solid waste hauler that disposes of
- 22 solid waste in a municipal solid waste incinerator shall provide
- 23 its customers with, notice of the prohibitions of this subsection
- 24 in the same manner as provided in section 11527a.
- 25 (5) SECTION 11105A APPLIES TO LANDFILLS UNDER THIS PART AND
- 26 PART 111.
- 27 (6) (5)—If the department determines that a safe, sanitary,

- 1 and feasible alternative does not exist for the disposal in a
- 2 landfill or municipal solid waste incinerator of any items
- 3 described in subsection (2) or (4), respectively, the department
- 4 shall submit a report setting forth that determination and the
- 5 basis for the determination to the standing committees of the
- 6 senate and house of representatives with primary responsibility for
- 7 solid waste issues.
- 8 SEC. 61506D. (1) ALL OF THE FOLLOWING APPLY TO TECHNOLOGICALLY
- 9 ENHANCED NATURALLY OCCURRING RADIOACTIVE MATERIAL THAT RESULTS FROM
- 10 THE CONSTRUCTION, OPERATION, OR PLUGGING OF A HORIZONTAL WELL:
- 11 (A) EXCEPT AS PROVIDED IN SUBDIVISION (B), THE OWNER SHALL
- 12 DETERMINE THE CONCENTRATION OF RADIUM-226 AND RADIUM-228 IN
- 13 REPRESENTATIVE SAMPLES OF THE MATERIAL. THE OWNER SHALL PROVIDE FOR
- 14 THE COLLECTION AND ANALYSIS OF THE REPRESENTATIVE SAMPLES OF THE
- 15 MATERIAL. THE COLLECTION AND ANALYSIS OF THE REPRESENTATIVE SAMPLES
- 16 SHALL BE PERFORMED IN ACCORDANCE WITH REQUIREMENTS APPROVED BY THE
- 17 DEPARTMENT. THE OWNER SHALL NOT REMOVE THE MATERIAL FROM THE
- 18 LOCATION ASSOCIATED WITH THE PRODUCTION OPERATION OF THE HORIZONTAL
- 19 WELL UNTIL THE ANALYSIS IS COMPLETE AND THE RESULTS ARE AVAILABLE.
- 20 HOWEVER, THE OWNER MAY DO ANY OF THE FOLLOWING:
- 21 (i) WHILE THE RESULTS FROM THE ANALYSIS OF THE REPRESENTATIVE
- 22 SAMPLES ARE PENDING, TEMPORARILY STORE THE MATERIAL IN COMPLIANCE
- 23 WITH CONDITIONS IMPOSED BY THE DEPARTMENT IN AN AREA ADJACENT TO
- 24 THE PRODUCTION OPERATION OF THE WELL AND DESIGNATED BY THE
- 25 DEPARTMENT.
- 26 (ii) BEFORE THE COLLECTION OF THE REPRESENTATIVE SAMPLES,
- 27 TRANSPORT THE MATERIAL TO A LOCATION AUTHORIZED FOR THE STORAGE,

- 1 RECYCLING, TREATMENT, PROCESSING, OR DISPOSAL OF THE MATERIAL. THE
- 2 OWNER SHALL PROVIDE FOR THE COLLECTION OF REPRESENTATIVE SAMPLES OF
- 3 THE MATERIAL AT THAT LOCATION AND TEMPORARILY STORE THE MATERIAL AT
- 4 THAT LOCATION WHILE THE RESULTS FROM THE ANALYSIS ARE PENDING.
- 5 (B) THE OWNER IS NOT REQUIRED TO DETERMINE THE CONCENTRATION
- 6 OF RADIUM-226 AND RADIUM-228 OF THE TECHNOLOGICALLY ENHANCED
- 7 NATURALLY OCCURRING RADIOACTIVE MATERIAL IF ANY OF THE FOLLOWING
- 8 APPLY:
- 9 (i) THE MATERIAL IS REUSED IN THE HORIZONTAL WELL FROM WHICH IT
- 10 ORIGINATED OR IS TRANSFERRED TO ANOTHER SITE FOR REUSE IN A
- 11 HORIZONTAL WELL. FOR PURPOSES OF THIS SUBPARAGRAPH, A MATERIAL IS
- 12 REUSED IF THE MATERIAL IS USED IN A MANNER THAT IS SUBSTANTIALLY
- 13 SIMILAR TO ITS ORIGINAL USE.
- 14 (ii) THE OWNER DISPOSES OF THE MATERIAL AT AN INJECTION WELL
- 15 FOR WHICH A PERMIT HAS BEEN ISSUED UNDER SECTION 61525.
- 16 (iii) THE OWNER USES THE MATERIAL IN ASSOCIATION WITH A METHOD
- 17 OF SECONDARY ENHANCED RECOVERY FOR WHICH A PERMIT HAS BEEN ISSUED
- 18 UNDER SECTION 61525.
- 19 (iv) THE MATERIAL IS TRANSPORTED OUT OF THIS STATE FOR LAWFUL
- 20 DISPOSAL. THE OWNER SHALL RETAIN RECORDS THAT SUBSTANTIATE THE
- 21 LAWFUL DISPOSAL AND PROVIDE THEM TO THE DEPARTMENT UPON REQUEST.
- 22 (C) THE OWNER SHALL TRANSPORT AND DISPOSE OF MATERIAL THAT IS
- 23 TECHNOLOGICALLY ENHANCED NATURALLY OCCURRING RADIOACTIVE MATERIAL
- 24 IN ACCORDANCE WITH ALL APPLICABLE LAWS.
- 25 (2) AN OWNER THAT HAS OBTAINED AN ANALYSIS UNDER SUBSECTION
- 26 (1)(A) SHALL KEEP AND MAINTAIN THE RESULTS FOR 3 YEARS. IN
- 27 ADDITION, THE OWNER SHALL PROVIDE A COPY OF THE RESULTS TO THE

- 1 DEPARTMENT UPON REQUEST.
- 2 (3) AS USED IN THIS SECTION:
- 3 (A) "HORIZONTAL WELL" MEANS A WELL THAT IS DRILLED FOR THE
- 4 PRODUCTION OF OIL OR GAS IN WHICH THE WELLBORE REACHES A HORIZONTAL
- 5 OR NEAR HORIZONTAL POSITION IN THE POINT PLEASANT, UTICA, OR
- 6 MARCELLUS FORMATION AND THAT IS STIMULATED.
- 7 (B) "OWNER" INCLUDES A PERSON THAT IS AN AUTHORIZED AGENT OF
- 8 AN OWNER.
- 9 (C) "TECHNOLOGICALLY ENHANCED NATURALLY OCCURRING RADIOACTIVE
- 10 MATERIAL" MEANS THAT TERM AS DEFINED IN SECTION 11105A.