

3745-515-01

General applicability and exclusions.

(A) Applicability. Unless otherwise specified by paragraph (B) of this rule, this chapter is applicable to an owner or operator of a sanitary landfill facility or solid waste transfer facility.

(B) Exclusions. This chapter shall not apply to the following:

(1) Residual waste landfill facility as defined in Chapter 3745-30 of the Administrative Code.

(2) Industrial solid waste landfill facility as defined in Chapter 3745-29 of the Administrative Code that does not accept drilling operation material.

(3) Production operation as defined in section 1509.01 of the Revised Code.

(4) The temporary storage of material in an area adjacent to the location associated with the production operation of the well pursuant to section 1509.074 of the Revised Code.

(5) Material reused in the horizontal well from where it originated or is transferred to another site for reuse in a horizontal well pursuant to section 1509.074 of the Revised Code.

(6) Material disposed of at an injection well pursuant to section 1509.074 of the Revised Code.

(7) Material used in association with a method of enhanced recovery pursuant to section 1509.074 of the Revised Code.

(8) Material transported out of the state for lawful disposal pursuant to section 1509.074 of the Revised Code.

(9) Material that is not TENORM and that has not come in contact with a refined oil-based substance, unless the material is comingled or mixed with any of the following:

(a) Drilling operation material that is TENORM.

(b) Drilling operation material that has come in contact with a refined oil-based substance.

(c) Any wastes regulated under Chapter 3734. of the Revised Code.

(C) Nothing in the rule shall be construed to limit any obligations of the owner or operator under Chapters 3734., 3748., and 1509. of the Revised Code and rules adopted thereunder.

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Definitions.

As used in this chapter:

(A) [Reserved.]

(B) [Reserved.]

(C) [Reserved.]

(D)

(1) "Drill cuttings" has the same meaning as in section 3748.01 of the Revised Code.

(2) "Drilling operation" includes a production operation as defined in section 1509.01 of the Revised Code.

(3) "Drilling operation material" means material that results from a drilling operation and includes but is not limited to the following:

(a) Waste substances associated with the exploration, development, well stimulation, production operations, or plugging of oil and gas resources.

(b) TENORM associated with an injection well for which a permit has been issued under section 1509.22 of the Revised Code.

(E) [Reserved.]

(F) [Reserved.]

(G) [Reserved.]

(H) "Horizontal well" has the same meaning as in section 1509.01 of the Revised Code.

(I) [Reserved.]

(J) [Reserved.]

(K) [Reserved.]

(L) [Reserved.]

(M) [Reserved.]

(N) "Naturally occurring radioactive material" or "NORM" has the same meaning as in section 3748.01 of the Revised Code.

(O) [Reserved.]

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(P) [Reserved.]

(Q) [Reserved.]

(R) [Reserved.]

(S)

(1) "Sanitary landfill facility" means an engineered facility where the final deposition of solid waste on or into the ground is practiced in accordance with Chapters 3745-27, 3745-29, or 3745-30 of the Administrative Code.

(2) "Solid waste" has the same meaning as in section 3734.01 of the Revised Code. For the purposes of this chapter, drilling operation material is considered a solid waste, as that term is defined in section 3734.01 of the Revised Code, excluding source-separated drill cuttings generated during the phase of drilling performed through underground sources of drinking water prior to the cementation of surface casing.

[Comment: For the purposes of this chapter, drill cuttings are considered earthen material when generated during the phase of well construction performed through underground sources of drinking water, except when using additives not suitable for drilling through potable water supplies or subsequently mixing with non-earthen material.]

(3) "Solid waste transfer facility" or "transfer facility" means any site, location, tract of land, installation, or building that is used or intended to be used primarily for the purpose of transferring solid wastes that are generated off the premises of the facility from vehicles or containers into other vehicles or containers for transportation to a solid waste disposal facility. The term does not include any facility that consists solely of portable containers that have an aggregate volume of fifty cubic yards or less nor any facility where legitimate recycling activities are conducted. The term does not include any facility that accepts scrap tires other than scrap tires which are accepted incidental to a mixed solid waste shipment.

(T) "Technologically enhanced naturally occurring radioactive material" or "TENORM" has the same meaning as in section 3748.01 of the Revised Code. For the purpose of this chapter, TENORM includes but is not limited to drilling operation material that contains more than a de minimus amount of drilling fluids and TENORM that has been mixed with other materials in order to contain only a de minimus amount of drilling fluids [NOTE: The method for determining whether a drilling operation material contains more than a de minimus amount of drilling fluids is still being discussed.]

3745-515-03

Incorporation by reference.

Incorporation by reference. The text of the incorporated materials is not included in the rules contained in this chapter. The materials listed in paragraph (B) of this rule are hereby made a part of the rules in this chapter. For materials subject to change, only the specific version specified in this rule is incorporated. Any amendment or revision to a referenced document is not incorporated until this rule has been amended to specify the new version.

(A) Availability.

Specifications of the "Solid Waste Disposal Facility Radioactive Material Detection Program." Information and copies may be obtained by writing to: "Ohio Department of Health, Bureau of Radiation Protection, 246 North High Street Columbus, Ohio 43215."

(B) Incorporated materials.

"Solid Waste Disposal Facility Radioactive Material Detection Program," as amended on [Note: ODH has released this draft document for stakeholder review during this ESO].

3745-515-05

Prohibitions.

[Comment: For dates of non regulatory government publications, publications of recognized organizations and associations, test methods, federal rules, and federal statutory provisions referenced in this rule, see rule 3745-515-03 of the Administrative Code titled "Incorporation by reference."]

- (A) The owner or operator of a solid waste facility shall not accept for transfer or disposal TENORM 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 five picocuries per gram above natural background. For the purpose of this rule, "natural background" means a concentration of radium-226, radium-228, or combination of radium-226 and radium-228 of two picocuries per gram or the actual number of picocuries per gram as measured at an individual solid waste facility, subject to verification by the director of health.
- (B) The owner or operator of a solid waste facility shall not receive or process for purposes other than transfer or disposal TENORM that contains or is contaminated with radium-226, radium-228 at concentrations equal to or greater than five picocuries per gram above natural background, unless the owner or operator maintains all other necessary authorizations, including any authorization required by rules adopted by the director of health under section 3748.04 of the Revised Code.
- (C) Unless otherwise specified by paragraph (B) of rule 3745-515-01 of the Administrative Code or authorized in accordance with this chapter, no person shall dispose of drilling operation material.
- (D) The owner or operator of a solid waste facility shall not accept for transfer or disposal drilling operation material that has been stabilized with materials other than Portland cement or quicklime in order to contain only a de minimus amount of drilling fluids. [NOTE: The method for determining whether a drilling operation material contains more than a de minimus amount of drilling fluids is still being discussed.] The owner or operator a solid waste facility may submit a written request to the director for approval of an alternative stabilization material. At a minimum, the request shall include a detailed description of the stabilization material and how the material will prevent the release of leachate from the waste matrix.
- (E) The owner or operator of a solid waste facility shall not accept drilling operation material that is containerized bulk liquids or non-containerized liquids or semi-solid material containing free liquids, [NOTE: The method for determining whether a drilling operation material contains free liquids is still being discussed.] unless the owner or operator first obtains authorization pursuant to Chapter 1509. of the Revised Code and authorization pursuant to rule 3745-27-19 of the Administrative Code. If such authorization is obtained for the treatment of drilling operation material, the owner or operator of a solid waste facility shall not commingle solid

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[waste or any other material not authorized in paragraph \(D\) of this rule.](#)

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Resolution of conflicts among authorities.

- (A) When a direct conflict occurs between rules adopted under this chapter and an authorizing document approved prior to the effective date of the rule adopted under this chapter, the owner or operator of a sanitary landfill facility or solid waste transfer facility subject to this chapter shall comply with the rules adopted under this chapter.
- (B) When a direct conflict occurs between rules adopted under this chapter and an order issued by the director, approved board of health, or court having competent jurisdiction prior to the effective date of the rule adopted under this chapter, the owner or operator shall comply with the order until the order is terminated or until the obligation in the order ceases. After the obligation in the order has ceased, the owner or operator shall comply with the rules adopted under this chapter.
- (C) Nothing in this chapter is intended nor shall be construed to limit or infringe upon any authority granted by statute to the director or a board of health, including but not limited to issuing orders, conducting inspections, and enforcing the standards and requirements of statutes and rules adopted thereunder.

3745-515-10

Permit to install.

(A) Prior to acceptance of TENORM that 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 five picocuries per gram above natural background, the owner or operator of a sanitary landfill facility or solid waste transfer facility that holds any authorization for the facility required by rules adopted under section 3748.04 of the Revised Code shall obtain a permit in accordance with this chapter and Chapter 3745-27 or 3745-29 of the Administrative Code, as applicable.

(B) Notwithstanding the requirements contained in paragraph (A) of this rule, the owner or operator of a sanitary landfill facility or solid waste transfer facility shall obtain a permit to install prior to any modification of the facility as that term is defined in rule 3745-27-02 of the Administrative Code, and shall demonstrate that the criteria in rule 3745-27-07 or 3745-29-07 of the Administrative Code are met, as applicable, including complying with any relevant paragraphs of rule 3745-27-08 or 3745-29-08 of the Administrative Code, as applicable.

3745-515-15

Notification of acceptance for disposal or transfer of drilling operation material.

Except as prohibited by rule 3745-515-05 of the Administrative Code, the owner or operator of a sanitary landfill facility or solid waste transfer facility may accept for transfer or disposal drilling operation material in accordance with this chapter and upon obtaining any necessary authorizations required by rules adopted under section 3748.04 of the Revised Code and as follows:

- (A) If the owner or operator of a sanitary landfill facility or solid waste transfer facility licensed pursuant to section 3734.05 of the Revised Code is not accepting for transfer or disposal drilling operation material prior to the effective date of this rule, the owner or operator shall notify Ohio EPA on forms prescribed by the director, prior to receipt or acceptance, of the intent to accept for disposal or transfer drilling operation material.
- (B) If the owner or operator of a sanitary landfill facility or solid waste transfer facility licensed pursuant to section 3734.05 of the Revised Code is accepting for transfer or disposal drilling operation material prior to the effective date of this rule, the owner or operator shall notify Ohio EPA on forms prescribed by the director not later than one month after the effective date of this rule of the intent to continue to accept for transfer or disposal drilling operation material.
- (C) Notwithstanding the notification requirement contained in paragraphs (A) and (B) of this rule, the owner or operator of a sanitary landfill facility or solid waste transfer facility shall not accept TENORM that 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 five picocuries per gram above natural background until the director approves any required modification to the facility permit to install as required by rule 3745-515-10 of the Administrative Code.

3745-515-20

Additional operational criteria for a sanitary landfill facility.

- (A) In addition to the applicable operational criteria required for a sanitary landfill facility under Chapters 3745-27 or 3745-29 of the Administrative Code, the owner or operator of a sanitary landfill facility shall comply with the requirements and operational criteria specified in this rule until all required closure certifications are submitted and the post-closure care period begins, except as provided in paragraph (G) of this rule.
- (B) The owner or operator of a sanitary landfill facility shall implement a radiation detection program as required by rule 3745-515-25 of the Administrative Code. A copy of the written detection program shall be available for inspection by the approved board of health or Ohio EPA during normal operating hours. Upon request, the owner or operator shall provide a copy of the detection program to the approved board of health or Ohio EPA.
- (C) The owner or operator of a sanitary landfill facility shall not receive, accept, process, handle, manage, or dispose of TENORM associated with drilling operations without first obtaining representative analytical results that report the concentrations of radium-226 and radium-228.
- (D) The owner or operator of a sanitary landfill facility subject to this chapter shall notify the appropriate Ohio EPA district office and approved board of health not later than twenty-four hours after determining that the unauthorized acceptance of TENORM drilling operation material has occurred. The notification shall at a minimum include the following:
- (1) A list of all generators, transporters, and brokers of the TENORM drilling operation material.
 - (2) A detailed description of the waste types, volumes, and disposition of the TENORM drilling operation material.
- (E) Recordkeeping. The owner or operator of a sanitary landfill facility shall document the waste type and amount received for disposal. Such documentation shall be included in the daily log of operations required by rule 3745-27-19 or 3745-29-19 of the Administrative Code, as applicable, and maintained in the operating record until completion of post-closure care and be available for inspection by the approved board of health or Ohio EPA during normal operating hours. Upon request, the owner or operator shall provide copies of such documents to the approved board of health or Ohio EPA.
- (F) Leachate sampling and analysis. The owner or operator of a sanitary landfill facility shall provide representative samples of leachate for collection and analysis. Leachate sampling and analysis shall be conducted throughout the post-closure care period. Representative samples of leachate shall conform to the following:
- (1) Be obtained from the leachate collection system at a minimum annually through

a grab sample for analysis of radium-226 and radium-228. The grab sample shall be collected using procedures and methods recognized by the United States environmental protection agency.

(2) Analytical results shall be submitted as part of the facility annual report as required by this rule and in accordance with rule 3745-27-19 or 3745-29-19 of the Administrative Code, as applicable.

(G) Ground water monitoring. The owner or operator of a sanitary landfill facility shall add radium-226 and radium-228 to the list of ground water monitoring parameters.

(1) The owner or operator shall monitor ground water for the additional parameters required by this rule in accordance with rules 3745-27-10 or 3745-29-10 of the Administrative Code, as applicable.

(2) The owner or operator shall conduct ground water monitoring until the end of the post-closure care period or as otherwise specified by rules 3745-27-10 or 3745-29-10 of the Administrative Code, as applicable, whichever is longer.

(H) Fees. State disposal and environmental protection fees shall be levied on the transfer and disposal of solid waste as defined in this chapter in accordance with section 3734.57 of the Revised Code and Chapter 3745-502 of the Administrative Code.

3745-515-21

Additional operational criteria for a solid waste transfer facility.

- (A) In addition to the applicable operational criteria required for a solid waste transfer facility under Chapter 3745-27 of the Administrative Code, the owner or operator of a solid waste transfer facility shall comply with the requirements and operational criteria specified in this rule until all required closure certifications are submitted.
- (B) The owner or operator of a solid waste transfer facility shall implement a radiation detection program as required by rule 3745-515-25 of the Administrative Code. A copy of the written detection program shall be available for inspection by the approved board of health or Ohio EPA during normal operating hours. Upon request, the owner or operator shall provide a copy of the detection program to the approved board of health or Ohio EPA.
- (C) The owner or operator of a solid waste transfer facility shall not receive, accept, process, handle, or manage TENORM associated with drilling operations without first obtaining representative analytical results that report the concentrations of radium-226 and radium-228.
- (D) The owner or operator of a solid waste transfer facility shall not send or transfer TENORM associated with drilling operation material without a copy of the representative analytical results required by paragraph (C) of this rule.
- (E) Recordkeeping. The owner or operator of a solid waste transfer facility shall document the waste type and amount received in the daily log of operations as required by rule 3745-27-23 of the Administrative Code. Such documentation shall be available for inspection by the approved board of health or Ohio EPA during normal operating hours. Upon request, the owner or operator shall provide copies of such documentation to the approved board of health or Ohio EPA.
- (F) The owner or operator of a solid waste transfer facility subject to this chapter shall notify the appropriate Ohio EPA district office and approved board of health not later than twenty-four hours after determining that the unauthorized acceptance of TENORM drilling operation material has occurred. The notification shall at a minimum include the following:
- (1) A list of all generators, transporters, and brokers of the TENORM drilling operation material and Class II underground injection control wells.
 - (2) A detailed description of the waste types, volumes, and disposition of the TENORM drilling operation material.
- (G) Fees. State disposal and environmental protection fees shall be levied on the transfer and disposal of solid waste as defined in this chapter in accordance with section 3734.57 of the Revised Code and Chapter 3745-502 of the Administrative Code.

3745-515-25

Prohibited materials - radiation detection program.

[Comment: For dates of non regulatory government publications, publications of recognized organizations and associations, test methods, federal rules, and federal statutory provisions referenced in this rule, see rule 3745-515-03 of the Administrative Code titled "Incorporation by reference."]

(A) Prior to submittal of a notification required by rule 3745-515-15 of the Administrative Code, the owner or operator of a sanitary landfill facility or solid waste transfer facility that proposes to accept drilling operation material for transfer or disposal shall implement a written radiation detection program in accordance with paragraph (C) of this rule.

(B) The owner or operator of a sanitary landfill facility or solid waste transfer facility shall provide written notice to Ohio EPA and the approved board of health of the date of implementation of the radiation detection program or any written revisions to the program not later than seven days after adoption of the program or revisions. The notification shall include the following:

(1) Identification of any authorization issued to the owner or operator of the facility by the director, as required by rule 3745-515-10 of the Administrative Code.

[Comment: Paragraph (D) of rule 3745-515-05 of the Administrative Code prohibits acceptance of drilling operation material that contains free liquids.]
[NOTE: The method for determining whether a drilling operation material contains more than a de minimus amount of drilling fluids is still being discussed.]

(2) Identification of any authorizations issued for the facility under section 3748.04 of the Revised Code and rules adopted thereunder.

(C) The radiation detection program shall at a minimum include the following:

(1) Detection monitoring of incoming waste prior to acceptance. The radiation detection program shall provide for detection monitoring of incoming waste utilizing fixed radiation detectors in accordance with section 3748.06 of the Revised Code and the Ohio department of health document entitled, "Solid Waste Disposal Facility Radioactive Material Detection Program."

(2) Procedures for pre-acceptance screening of all incoming waste associated with drilling operation material to ensure the acceptance of such material meets representative analytical requirements contained in division (Q) of section 3734.02 of the Revised Code and to determine compliance with divisions (P)(2) and (P)(3) of section 3734.02 of the Revised Code. The pre-acceptance screening procedures shall be specific to waste associated with drilling operation materials and shall include but is not limited to the following:

(a) Procedures to identify sources of incoming waste associated with drilling

operation material.

(b) Procedures to obtain a completed pre-acceptance waste profile from the generator that includes at a minimum the following:

(i) Generator name.

(ii) Well pad name, number, and physical location, if applicable.

(iii) Facility name, number, and physical location.

(iv) A description of the waste type, including a designation of the waste as either naturally occurring radioactive material or TENORM.

(v) Processes used to remove drilling fluids and stabilization agents used to ensure a de minimus amount of drilling fluids. [NOTE: The method for determining whether a drilling operation material contains a de minimus amount of drilling fluid is still being discussed.]

(c) Procedures to obtain representative analytical results to determine compliance with divisions (P)(2) and (P)(3) of section 3734.02 of the Revised Code prior to acceptance of drilling operation materials at the facility. Unless otherwise authorized in writing by the Ohio department of natural resources or by Ohio EPA in accordance with applicable law, representative analytical results means each container received at the solid waste disposal facility subject to this rule is individually sampled and analyzed.

(d) Procedures for determining pre-acceptance screening and documenting a decision on facility acceptance including identification of personnel, including professional qualifications, responsible for pre-acceptance screening and decisions on facility acceptance.

(e) Procedures for creating and maintaining records, including representative analytical results, pre-acceptance screening documentation, and notifications in accordance with the requirements of rule 3745-27-09 or 3745-29-19 of the Administrative Code.

(3) If the radiation detection program clearly states that the owner or operator will refuse acceptance of TENORM associated with drilling operation material and includes procedures on providing general notice that such material will be refused acceptance at the facility, the radiation detection program shall not include the pre-acceptance screening required under paragraph (C)(2) of this rule.

- (D) The owner or operator of a sanitary landfill facility may accept for disposal incoming waste that triggered an exceedance when the source of radiation is a radionuclide, as determined by the radiation detection program required by this rule, commonly used in medical procedures, when the half-life is less than sixty-five days.
- (E) The owner or operator of a sanitary landfill facility shall notify the Ohio department of health as soon as practicable of any confirmed exceedance when the source of radiation is determined to be a radionuclide not commonly used in medical procedures or the half-life of the radionuclide is greater than sixty-five days.
- (F) Prior to disposal of incoming waste that has both triggered an exceedance and has a source of radiation that is TENORM as determined by the radiation detection program required by this rule, the owner or operator of a sanitary landfill facility must obtain representative analytical results that confirm the combined concentration of radium-226 and radium-228 is below five picocuries per gram above natural background.
- (G) A copy of the written radiation detection program shall be available for inspection by the approved board of health or Ohio EPA during normal operating hours. Upon request, the owner or operator shall provide a copy of the detection program to the approved board of health or Ohio EPA.
- (H) Nothing in the rule shall be construed to limit any obligations of the owner or operator under Chapters 3734., 3748., and 1509. of the Revised Code and rules adopted thereunder.