

**CHAPTER 291. LAND APPLICATION OF RESIDUAL WASTE**

Subchap.	Sec.
<b>A. GENERAL</b> .....	<b>291.1</b>
<b>B. GENERAL APPLICATION REQUIREMENTS FOR THE LAND APPLICATION OF RESIDUAL WASTE</b> .....	<b>291.101</b>
<b>C. GENERAL OPERATING REQUIREMENTS FOR THE LAND APPLICATION OF RESIDUAL WASTE</b> .....	<b>291.201</b>
<b>D. ADDITIONAL REQUIREMENTS FOR THE AGRICULTURAL UTILIZATION OF RESIDUAL WASTE</b> .....	<b>291.301</b>
<b>E. ADDITIONAL REQUIREMENTS FOR LAND RECLAMATION</b> .....	<b>291.401</b>
<b>F. [Reserved]</b> .....	<b>291.501</b>

**Authority**

The provisions of this Chapter 291 issued under the Solid Waste Management Act (35 P.S. §§ 6018.101—6018.1003); the Pennsylvania Used Oil Recycling Act (58 P.S. §§ 471—480); The Clean Streams Law (35 P.S. §§ 691.1—691.1001); sections 1905-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P.S. §§ 510-5, 510-17 and 510-20); and the Municipal Waste Planning, Recycling and Waste Reduction Act (53 P.S. §§ 4000.101—4000.1904); amended under sections 5(b) and 402 of The Clean Streams Law (35 P.S. §§ 691.5(b) and 691.402); section 302 of the Municipal Waste Planning, Recycling and Waste Reduction Act (53 P.S. § 4000.302); section 408(e) of the Pennsylvania Used Oil Recycling Act (58 P.S. 408(e)); sections 1905-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P.S. §§ 510-5, 510-17 and 510-20); section 105(4) of the Waste Tire Recycling Act (35 P.S. § 6029.105(4)); sections 301 and 302 of the Radiation Protection Act (35 P.S. §§ 7110.301 and 7110.302); and the Vehicle Code, 75 Pa.C.S. § 4909(e), unless otherwise noted.

**Source**

The provisions of this Chapter 291 adopted July 2, 1992, effective July 4, 1992, 22 Pa.B. 3389, unless otherwise noted.

**Cross References**

This chapter cited in 25 Pa. Code § 245.437 (relating to periodic testing); 25 Pa. Code § 252.3 (relating to scope); 25 Pa. Code § 261a.2 (relating to definition of “solid waste”); 25 Pa. Code § 287.101 (relating to general requirements for permit); 25 Pa. Code § 287.102 (relating to permit-by-rule); 25 Pa. Code § 287.121 (relating to application contents); 25 Pa. Code § 287.123 (relating to right of entry); 25 Pa. Code § 287.134 (relating to waste analysis plan); 25 Pa. Code § 287.372 (relating to conditions of insurance); 25 Pa. Code § 287.411 (relating to when a penalty will be assessed); 25 Pa. Code § 287.504 (relating to operating requirements); and 25 Pa. Code § 287.601 (relating to scope).

**Subchapter A. GENERAL**

Sec.  
291.1. Scope.

**§ 291.1. Scope.**

This chapter sets forth application and operating requirements for residual waste by land application. The requirements of this chapter are in addition to the applicable requirements of Chapter 287 (relating to residual waste management—general provisions).

**Subchapter B. GENERAL APPLICATION REQUIREMENTS FOR THE LAND APPLICATION OF RESIDUAL WASTE**

Sec.

- 291.101. General.
- 291.102. Operating plan.
- 291.103. Maps and related information.
- 291.104. Soils description.
- 291.105. Groundwater information.
- 291.106. Surface water information.
- 291.107. Nuisance control plan.

**Cross References**

This subchapter cited in 25 Pa. Code § 291.301 (relating to additional application requirements); and 25 Pa. Code § 291.401 (relating to additional application requirements).

**§ 291.101. General.**

- (a) An application for the land application of residual waste shall:
- (1) Comply with this subchapter.
  - (2) Comply with the additional application requirements that are specifically applicable to the particular type of operation that is proposed.
  - (3) Comply with the applicable requirements of Chapter 287 (relating to residual waste management—general provisions).
  - (4) Be considered an application for agricultural utilization or land reclamation.
- (b) An application shall demonstrate how the applicant plans to comply with Subchapter C (relating to general operating requirements for the land application of residual waste), as well as additional operating requirements in this chapter that are specifically applicable to the particular type of operation that is proposed.

**Source**

The provisions of this § 291.101 amended January 12, 2001, effective January 13, 2001, 31 Pa.B. 235. Immediately preceding text appears at serial page (226798).

**§ 291.102. Operating plan.**

An application shall contain a narrative description explaining the following:

- (1) Whether the proposed operation is for agricultural utilization or land reclamation of residual waste.

- (2) The general operating plan for the proposed operation, including the proposed life of the operation, and the origin and weight or volume of residual waste that is proposed to be applied during the operation.
- (3) The proposed application rate per acre, which shall be consistent with the applicable Departmental guidelines for the proposed operation, and the dates when the applicant proposes to apply residual waste.
- (4) An analysis of the effect of the proposed operation and loading rates over the lifetime of the facility on air, water, vegetation and other natural resources.
- (5) The method by which residual waste will be applied and incorporated into soil.
- (6) The equipment to be used for site preparation, land application of residual waste, residual waste incorporation into the soil when incorporation is required, and seeding.
- (7) The use that will be made of the proposed permit area after residual waste application has permanently ceased.
- (8) The nuisance control plan to prevent health hazards or nuisances.

**Source**

The provisions of this § 291.102 amended January 12, 2001, effective January 13, 2001, 31 Pa.B. 235. Immediately preceding text appears at serial pages (226798) to (226799).

**§ 291.103. Maps and related information.**

- (a) An application shall contain a topographic map on a scale in which 1 inch equals no more than 400 feet, including necessary narrative descriptions, which show the following:
  - (1) The boundaries and the names of the present owners of record of the land, including easements, rights-of-way and other property interests, for the proposed permit area and adjacent areas; and a description of all title, deed or usage restrictions affecting the proposed permit area.
  - (2) The boundaries and the names of the present owners for the proposed permit area and adjacent area.
  - (3) The boundaries of the land where residual waste will be applied over the estimated total life of the proposed operation, including the boundaries of land that will be affected in each sequence of land application activity.
  - (4) The boundaries of land where residual waste will be stored at various times over the estimated total life of the proposed operation.
  - (5) The location and name of public and private water sources and wells within the isolation distances in § 291.202 (relating to areas where the land application of residual waste is prohibited).
  - (6) Municipalities in which the permit area is proposed to be located.
  - (7) The location and type of existing or proposed erosion control devices.

(8) Surface waters in the proposed permit area and adjacent area, as required by § 291.106 (relating to surface water information).

(b) An application shall contain a United States Department of Agriculture Soil Conservation Service soils map, or aerial photographs if current soils maps are unavailable, which shows the location and types of soils within the proposed permit area and adjacent area.

#### Source

The provisions of this § 291.103 amended January 12, 2001, effective January 13, 2001, 31 Pa.B. 235. Immediately preceding text appears at serial page (226799).

#### Cross References

This section cited in 25 Pa. Code § 291.222 (relating to annual operation report).

### § 291.104. Soils description.

(a) An application shall contain a description of the soils within the proposed permit area and adjacent area. The application shall include a description of the depth, matrix, color, texture, structure, pH, consistency, degree of mottling and, if present, mottled colors and coarse fragment content for each horizon of soil from the surface to bedrock. If required by the Department, the applicant shall base this description on a sufficient number of pits or excavations to allow an accurate characterization of the soils within the proposed permit area and adjacent area.

(b) In preparing the soils description, the applicant shall use the United States Department of Agriculture Soil Classification System. The United States Department of Agriculture's Soil Classification System is published in "Soil Taxonomy" Agriculture Handbook #436 of the United States Department of Agriculture, Soil Conservation Service, and is available from the Department or the National Technical Center of the Soil Conservation Service, 160 E. 7th Street, Chester, Pennsylvania 19013-6092.

(c) The application shall include a minimum of one background chemical analysis for soil in each field or soil series at the proposed facility for pH, phosphorus, cadmium, zinc, copper, nickel, lead, chromium, mercury and other constituents contained in the waste that may be leached into the environment, as determined under § 287.132 (relating to chemical analysis of waste), unless otherwise specified by the Department, in writing. The chemical analysis shall be based on a composite of samples from each field or soil series, unless otherwise required by the Department. The procedure for soil sampling and analysis shall be consistent with Department guidelines.

(d) If residual waste was previously applied to the proposed permit area, the application shall also describe background concentrations for pH, phosphorus, cadmium, zinc, copper, nickel, lead, chromium, mercury and other constituents contained in the waste that may leach into the environment, as determined under § 287.132 for similar soils adjacent to the facility where residual waste has not

been applied, unless otherwise required by the Department. Procedures for soil sampling and analysis shall be consistent with Department guidelines.

(e) The information required by this section shall be prepared by experts in soil science.

#### **§ 291.105. Groundwater information.**

The application shall contain a description of the groundwater hydrology of the proposed permit area and adjacent area, including, at a minimum, the following:

- (1) The depth to regional groundwater table over the proposed permit area and adjacent area.
- (2) The depth to seasonal high water table over the proposed permit area and adjacent area as indicated by the presence of soil mottling or as altered by drainage devices installed under an approved soil conservation plan.
- (3) The uses of the groundwater.
- (4) A description of known groundwater quality problems.

#### **§ 291.106. Surface water information.**

(a) An application shall contain a description of the surface waters in the proposed permit area and adjacent area, including the name of the watershed which will receive water discharges, the location of surface water bodies, such as streams, lakes, ponds and mine discharges and seeps, the location of water discharges into a surface body of water, and descriptions of surface drainage systems within the proposed permit area and adjacent area.

(b) An application shall also include a plan to manage surface water and control erosion during the life of operations at the facility. The plan shall be consistent with the requirements of Chapter 102 (relating to erosion and sediment control).

#### **Cross References**

This section cited in 25 Pa. Code § 291.103 (relating to maps and related information).

#### **§ 291.107. Nuisance control plan.**

The application shall contain a plan under § 291.210 (relating to nuisance control) to prevent and control hazards or nuisances from vectors, odors, noise, dust and other nuisances not otherwise provided for in the permit application. The plan shall provide for the routine assessment of vector infestation and shall also provide for countermeasures. The plan may include a control program involving a contractual arrangement for services with an exterminator.

**Subchapter C. GENERAL OPERATING REQUIREMENTS FOR  
THE LAND APPLICATION OF RESIDUAL WASTE**

**GENERAL**

Sec.

- 291.201. General provisions.
- 291.202. Areas where the land application of residual waste is prohibited.
- 291.203. Limitations on land application of residual waste.
- 291.204. Storage of residual waste.
- 291.205. Erosion control.
- 291.206. Water quality protection.
- 291.207. Water supply replacement.
- 291.208. Waste analysis.
- 291.209. [Reserved].
- 291.210. Nuisance minimization and control.

**RECORDKEEPING AND REPORTING**

- 291.221. Daily operational records.
- 291.222. Annual operation report.

**Cross References**

This subchapter cited in 25 Pa. Code § 291.101 (relating to general); 25 Pa. Code § 291.311 (relating to general requirements); and 25 Pa. Code § 291.411 (relating to general requirements).

**GENERAL**

**§ 291.201. General provisions.**

(a) A person or municipality may not own or operate a land application facility for residual waste unless the Department has issued a permit to that person or municipality under this chapter.

(b) A person or municipality that owns or operates a land application facility for residual waste shall comply with the following:

- (1) The act, this subchapter and the additional operating requirements for the specific type of operation that are in Subchapter D or E (relating to additional requirements for the agricultural utilization of residual waste; and additional requirements for land reclamation).
- (2) The plans and specifications in the permit, the terms and conditions of the permit, the environmental protection acts, this title and orders issued by the Department.
- (3) The Department guidelines for land application.

- (4) If a component of the residual waste contains human waste, the pathogen and vector attraction reduction requirements in Chapter 271, Subchapter J (relating to beneficial use) shall be met in addition to the operating requirements of this chapter.
- (c) Municipal waste and hazardous waste may not be stored, processed or disposed at the facility.
- (d) Residual waste may not be applied to the land if it is likely to adversely affect a Federal or Pennsylvania threatened or endangered species, or its designated critical habitat, identified pursuant to the Endangered Species Act (16 U.S.C.A. §§ 1531—1544), 30 Pa.C.S. § 2305 (relating to threatened and endangered species) or 34 Pa.C.S. § 2167 (relating to endangered or threatened species).
- (e) Residual waste may not be applied to a site that is flooded, frozen, or snow-covered, except as expressly provided in the permit.

#### Source

The provisions of this § 291.201 amended January 12, 2001, effective January 13, 2001, 31 Pa.B. 235. Immediately preceding text appears at serial page (266338).

#### Cross References

This section cited in 25 Pa. Code § 291.208 (relating to waste analysis).

### **§ 291.202. Areas where the land application of residual waste is prohibited.**

- (a) Except for areas permitted by the Department prior to the effective date of these regulations, the land application of residual waste may not be conducted as follows:
- (1) Within 100 feet of an intermittent or perennial stream.
  - (2) Within 300 feet of a water source unless the current owner of this water source has provided a written waiver consenting to the activities closer than 300 feet. This paragraph does not apply to features that may come into existence after the dates upon which adjacent landowner notification is given under § 287.151(b) (relating to public notice by applicant).
  - (3) Within 100 feet of a sinkhole.
  - (4) In or within 100 feet of an exceptional value wetland.
  - (5) Within 300 feet measured horizontally from an occupied dwelling, unless the owner thereof has provided a written waiver consenting to the activities closer than 300 feet. The waiver shall be knowingly made and separate from a lease or deed unless the lease or deed contains an explicit waiver from the owner.
- (b) The Department may waive the isolation distances in this section for areas that were included in the permit area of a permit application that was determined by the Department to be administratively complete before July 4, 1992.

**Source**

The provisions of this § 291.202 amended January 12, 2001, effective January 13, 2001, 31 Pa.B. 235. Immediately preceding text appears at serial pages (266338) to (266339).

**Cross References**

This section cited in 25 Pa. Code § 287.111 (relating to notice by impoundments and unpermitted processing or disposal facilities); and 25 Pa. Code § 291.103 (relating to maps and related information).

**§ 291.203. Limitations on land application of residual waste.**

- (a) Residual waste may not be applied to land where the regional groundwater table is less than 3.3 feet from the surface.
- (b) Residual waste may not be disposed or applied so as to adversely affect the soil or food chain, cause odors or allow vectors.
- (c) Prior to land application, residual waste shall be treated or stabilized if it has potential to cause odors or other adverse environmental effects.
- (d) Unless otherwise approved by the Department in writing, residual waste may not be applied to land where root vegetables or vegetables which are eaten raw are grown or will be grown.
- (e) Residual waste shall be applied to the soil surface or incorporated in a manner that prevents ponding or standing accumulations of liquid or residual waste.
- (f) A person or municipality may not use spray irrigation equipment to apply residual waste unless the person has demonstrated to the Department in the permit application that the equipment will not cause aerosol transport offsite, and the Department has approved the equipment as part of the permit.
- (g) Livestock may not be allowed to graze on areas where the residual waste is visible on the vegetation or the surface of the ground, unless otherwise approved by the Department in writing.

**Source**

The provisions of this § 291.203 amended January 12, 2001, effective January 13, 2001, 31 Pa.B. 235. Immediately preceding text appears at serial pages (266339) to (266340).

**§ 291.204. Storage of residual waste.**

A person or municipality may not store residual waste on the site unless the residual waste is:

- (1) Stabilized or treated, if stabilization or treatment is required by the Department.
- (2) Stored as part of the operator's permit.
- (3) Stored in a manner that is consistent with Chapter 299, Subchapter A (relating to standards for storage of residual waste).



**Cross References**

This section cited in 25 Pa. Code § 291.221 (relating to daily operational records).

**§ 291.205. Erosion control.**

(a) The operator shall manage surface water and control erosion and sedimentation to meet the applicable requirements of Chapter 102 (relating to erosion and sediment control).

(b) For land reclamation, rills and gullies shall be filled, graded or otherwise stabilized and the area reseeded or replanted when rills or gullies deeper than 9 inches form in areas where residual waste has been applied or stored.

(c) For agricultural utilization, rills and gullies shall be filled, graded or otherwise stabilized and, when necessary, the area reseeded or replanted, when rills or gullies deeper than 3 inches form in areas where residual waste has been applied or stored.

(d) Rills or gullies of lesser size shall be stabilized and the area reseeded or replanted if the rills or gullies may result in additional erosion, sedimentation or pollution.

**Source**

The provisions of this § 291.205 amended January 12, 2001, effective January 13, 2001, 31 Pa.B. 235. Immediately preceding text appears at serial page (266340).

**§ 291.206. Water quality protection.**

(a) The operator may not cause or allow a point or nonpoint source discharge in violation of The Clean Stream Law from or on the facility to surface waters of this Commonwealth.

(b) The facility shall be operated to prevent and control water pollution. An operator shall operate and maintain necessary water treatment facilities until water pollution from or on the facility has been permanently abated.

(c) The operator may not cause or allow water pollution within or outside of the site.

(d) If required by the Department, the operator shall conduct surface water monitoring.

**§ 291.207. Water supply replacement.**

(a) An operator which adversely affects a water supply by degradation, pollution or other means shall restore the affected supply at no additional cost to the owner or replace the affected water supply with an alternate source that is of like quantity and quality to the original supply at no additional cost to the owner.

(b) A temporary water supply shall be provided as soon as practicable but not later than 48 hours after one of the following:

(1) Receipt of information showing that the operator is responsible for adversely affecting the water supply.

- (2) Receipt of notice from the Department that the operator is responsible for adversely affecting the water supply.
- (c) A permanent water supply shall be provided as soon as practicable but not later than 90 days after one of the following:
- (1) Receipt of information showing that the operator is responsible for adversely affecting the water supply.
- (2) Receipt of notice from the Department that the operator is responsible for adversely affecting the water supply.
- (d) Permanent water supplies include development of a new well with a distribution system, interconnection with a public water supply or extension of a private water supply, but do not include provision of bottled water or a water tank supplied by a bulk water hauling system, which are temporary water supplies.

**Source**

The provisions of this § 291.207 amended January 12, 2001, effective January 13, 2001, 31 Pa.B. 235. Immediately preceding text appears at serial page (239031).

**§ 291.208. Waste analysis.**

- (a) The operator shall inspect each load in accordance with its approved plan under § 287.134 (relating to waste analysis plan) to ensure compliance with that section and § 291.201 (relating to general provisions).
- (b) The operator shall maintain analyses of the waste under § 287.134 onsite for a minimum of 5 years after the analyses are performed. These records shall be made available to any representative of the Department upon request.
- (c) A person or municipality shall immediately notify the Department if analyses under § 287.134 indicate that there is a significant change in the quality of the waste.

**§ 291.209. [Reserved].**

**Source**

The provisions of this § 291.209 reserved January 12, 2001, effective January 13, 2001, 31 Pa.B. 235. Immediately preceding text appears at serial page (239031).

**§ 291.210. Nuisance minimization and control.**

- (a) The operator shall control and minimize the attraction, harborage or breeding of vectors.
- (b) The operator shall also control and minimize conditions not otherwise prohibited by this subchapter that are harmful to the environment or public health, or which create safety hazards, odors, dust, noise, unsightliness and other public nuisances.

**Source**

The provisions of this § 291.210 amended January 12, 2001, effective January 13, 2001, 31 Pa.B. 235. Immediately preceding text appears at serial page (239032).

**Cross References**

This section cited in 25 Pa. Code § 291.107 (relating to nuisance control plan).

**RECORDKEEPING AND REPORTING****§ 291.221. Daily operational records.**

(a) A person or municipality that disposes of residual waste by land application shall make and maintain an operational record for each day that the residual waste is applied.

(b) The daily operational record shall include the following:

(1) The type, percent solids and weight or volume of the residual waste that was applied.

(2) The name, mailing address, county and state of each generator of residual waste.

(3) The transporters of the residual waste.

(4) The particular map location of the area being used for land application of residual waste, and the weight or volume of residual waste this area received in the previous calendar year.

(5) A record of deviations from the permit.

(6) General weather conditions during disposal.

(7) The application rate for residual waste.

(8) A record of actions taken to correct violations of the act, the environmental protection acts and this title.

(9) A description of waste handling problems or emergency disposal facilities.

(c) If residual waste is being stored at the site, the operator shall maintain, on forms provided by the Department, accurate operational records sufficient to determine whether the waste is being stored in accordance with § 291.204 (relating to storage of residual waste).

(d) Daily operational records shall be retained for the life of the facility bond, or longer if determined by the Department to be necessary to meet the standards of the environmental protection acts. These records shall be made available to the Department upon request.

**Authority**

The provisions of this § 291.221 issued under the Solid Waste Management Act (35 P. S. §§ 6018.101—6018.1003); the Pennsylvania Used Oil Recycling Act (58 P. S. §§ 471—480); The Clean Streams Law (35 P. S. §§ 691.1—691.1001); sections 1905-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 510-5, 510-17 and 510-20); and the Municipal Waste Planning, Recycling and Waste Reduction Act (53 P. S. §§ 4000.101—4000.1904); amended under sections 5(b) and 402 of The Clean Streams Law (35 P. S. §§ 691.5(b) and 691.402); section 302 of the Municipal Waste Planning, Recycling and Waste Reduction Act (53 P. S. § 4000.302); section 408(e) of the Pennsylvania Used Oil Recycling Act (58 P. S. § 408(e)); sections 1905-A, 1917-A and 1920-A of The Administrative Code of 1929 (71 P. S. §§ 510-5, 510-17 and 510-20); section 105(4) of the Waste Tire Recycling Act (35 P. S. § 6029.105(4)); sections 301 and 302 of the Radiation Protection

Act (35 P. S. §§ 7110.301 and 7110.302); the Infectious and Chemotherapeutic Waste Law (35 P. S. §§ 6019.1—6019.6); and the Vehicle Code, 75 Pa.C.S. § 4909(e).

#### Source

The provisions of this § 291.221 amended November 28, 1997, effective November 29, 1997, 27 Pa.B. 6190; amended January 12, 2001, effective January 13, 2001, 31 Pa.B. 235. Immediately preceding text appears at serial pages (239032) to (239033).

### § 291.222. Annual operation report.

(a) A person or municipality that applies residual waste to land under this chapter shall submit to the Department an annual operation report for each permitted facility on or before March 1 of each year.

(b) The annual operation report, which shall be submitted on a form supplied by the Department, shall include the following:

(1) The weight or volume of each type of residual waste received, and the weight or volume applied to each field or other application area.

(2) The type, percent solids and weight or volume of residual waste received from each generator, including the name, mailing address, county and state of each generator.

(3) A current certificate of insurance, as specified in § 287.373(a) (relating to proof of insurance coverage), evidencing continuous coverage for comprehensive general liability insurance as required by § 287.371 (relating to insurance requirement).

(4) Changes in ownership of the land where the operation is conducted or a change in a lease agreement for the use of the land that may affect or alter the operator's rights upon the lands.

(5) The annual groundwater monitoring evaluation if groundwater monitoring is required by the Department.

(6) For agricultural utilization facilities which have received residual waste in the calendar year, a chemical analysis of soil for each field or soil series at the facility for pH, phosphorus, cadmium, zinc, copper, nickel, lead, chromium, mercury and any other constituents contained in the waste that may be leached into the environment, as determined under § 287.132 (relating to chemical analysis of waste), unless otherwise specified by the Department in the permit. The procedure for soil sampling and analysis shall be consistent with the Department guidelines.

(7) Certification that the operator has received the analysis or certification required by § 287.54 (relating to chemical analysis of waste) for each type of residual waste or special handling waste received at the facility, and that the residual waste that is received at the facility meets the conditions in the facility's permit.

(c) The annual operation report shall also contain a topographic map of the same scale and contour interval as the map required under § 291.103 (relating to maps and related information), showing the field boundaries where residual waste has been applied, and the volume applied to each field or other designated application area.

(d) The annual operation report shall be accompanied by a nonrefundable annual permit administration fee in the form of a check payable to the “Commonwealth of Pennsylvania” for the following amounts:

- (1) Six hundred dollars for the agricultural utilization of residual waste.
- (2) Nineteen hundred dollars for land reclamation of residual waste.

(e) The Department may waive any of the requirements of this section if no residual waste was disposed of by land application in the previous year.

#### Source

The provisions of this § 291.222 amended January 12, 2001, effective January 13, 2001, 31 Pa.B. 235. Immediately preceding text appears at serial pages (239033) and (226807) to (226808).

#### Cross References

This section cited in 25 Pa. Code § 287.411 (relating to when a penalty will be assessed); and 25 Pa. Code § 291.418 (relating to soil and analysis).

### **Subchapter D. ADDITIONAL REQUIREMENTS FOR THE AGRICULTURAL UTILIZATION OF RESIDUAL WASTE**

#### **ADDITIONAL APPLICATION REQUIREMENTS**

Sec.  
291.301. Additional application requirements.

#### **ADDITIONAL OPERATING REQUIREMENTS**

- 291.311. General requirements.
- 291.312. Site characteristics.
- 291.313. Application to soil.
- 291.314. [Reserved].
- 291.315. Water quality monitoring.
- 291.316. Soil-pore water monitoring.

#### Cross References

This subchapter cited in 25 Pa. Code § 291.201 (relating to general provisions).

#### **ADDITIONAL APPLICATION REQUIREMENTS**

### **§ 291.301. Additional application requirements.**

In addition to the requirements of Subchapter B (relating to general application requirements for the land application of residual waste), an application for a permit for agricultural utilization of residual waste shall include the following:

- (1) A projected 3-year crop rotation plan, including the type of farming operation, type of crop, planting sequence, crop management and use of the crops.
- (2) An operations map showing the location of groundwater monitoring devices that exist or are proposed for the facility.
- (3) A nutrient management plan for the site, including:
  - (i) A description of the kind and amount of fertilizers or soil conditioners that will be placed on the site in addition to residual waste.
  - (ii) The number and kind of animals on the farm or property, as well as the total nutrient value of manure produced by those animals, and the location where the manure is placed.
  - (iii) An explanation and analysis of the effect on the soil from the additional nutrients that would be supplied by the residual waste.
  - (iv) The benefit to the soil or farming operation that the waste would provide.

**Source**

The provisions of this § 291.301 adopted January 12, 2001, effective January 13, 2001, 31 Pa.B. 235.

### ADDITIONAL OPERATING REQUIREMENTS

#### § 291.311. General requirements.

(a) In addition to the requirements of Subchapter C (relating to general operating requirements for the land application of residual waste), a person or municipality that applies residual waste for agricultural utilization shall comply with this section and §§ 291.312, 291.313, 291.315 and 291.316, unless the person or municipality has obtained a permit from the Department for land reclamation. In that case, the person or municipality shall comply with the applicable provisions of Subchapter E (relating to additional requirements for land reclamation).

(b) A person or municipality may not apply residual waste for agricultural utilization that contains a constituent in such high concentrations that it requires a loading rate which would give the residual waste little or no nutrient or soil conditioning value in the soil.

**Source**

The provisions of this § 291.311 amended January 12, 2001, effective January 13, 2001, 31 Pa.B. 235. Immediately preceding text appears at serial page (226809).

#### § 291.312. Site characteristics.

A person or municipality may not apply residual waste to a site unless the site complies with the following:

(1) The site shall have soils that fall within the United States Department of Agriculture textural classes of sandy loam, loam, sandy clay loam, silty clay loam or silt loam, unless otherwise approved by the Department in the permit.

(2) The site shall have a minimum depth from surface to seasonal high water table of 11 inches.

(3) Slopes to be utilized for agricultural utilization may not exceed 25%, unless otherwise approved in writing by the Department.

(4) Soil pH shall be 6.5 or greater prior to land application, unless the Department allows the operator to increase pH by application of residual waste or other material.

(5) Except as provided in paragraph (6), soil pH shall be maintained at 6.5 or greater for the life of land application operations.

(6) If the site is planted with nursery crops that require a pH of less than 6.5, the Department may approve a soil pH of 5.8 or greater in the permit.

#### Source

The provisions of this § 291.312 amended January 12, 2001, effective January 13, 2001, 31 Pa.B. 235. Immediately preceding text appears at serial pages (226809) to (226810).

#### Cross References

This section cited in 25 Pa. Code § 291.311 (relating to general requirements).

### § 291.313. Application to soil.

(a) Except as provided in subsection (b), residual waste that is applied to the surface of soil shall be incorporated into the soil within 24 hours of application.

(b) If the approved operation plan provides for the surface application of residual waste for top or side dressing on hayfields, for pastures, for cover crops or for no-till crops when the previous no-till crop was harvested for grain in a manner that left adequate crop residue, the Department may do one of the following:

(1) Approve another time period for incorporating residual waste into the soil as part of the permit.

(2) Not require incorporation as part of the permit.

#### Cross References

This section cited in 25 Pa. Code § 291.311 (relating to general requirements).

### § 291.314. [Reserved].

#### Source

The provisions of this § 291.314 reserved January 12, 2001, effective January 13, 2001, 31 Pa.B. 235. Immediately preceding text appears at serial page (226811).

**§ 291.315. Water quality monitoring.**

(a) If required by the Department as part of the permit, the operator shall conduct groundwater monitoring. The groundwater monitoring shall be in accordance with §§ 288.252—288.258, as required by the Department, and the terms and conditions of the permit, and shall continue for the period specified in § 293.262 (relating to cessation of operations).

(b) For purposes of interfacing with §§ 288.252—288.258, the following terms apply:

- (1) The term “disposal area” is substituted with “area where land application occurs.”
- (2) The term “residual waste landfill” is substituted with “land application facility.”
- (3) The term “disposed” is substituted with “land applied.”

**Source**

The provisions of this § 291.315 amended January 12, 2001, effective January 13, 2001, 31 Pa.B. 235. Immediately preceding text appears at serial page (226811).

**Cross References**

This section cited in 25 Pa. Code § 291.311 (relating to general requirements).

**§ 291.316. Soil-pore water monitoring.**

If required by the Department, based upon the waste and site characteristics, the operator shall conduct soil-pore water monitoring and accurately characterize soil-pore water at the facility.

**Source**

The provisions of this § 291.316 amended January 12, 2001, effective January 13, 2001, 31 Pa.B. 235. Immediately preceding text appears at serial page (226811).

**Cross References**

This section cited in 25 Pa. Code § 291.311 (relating to general requirements).

**Subchapter E. ADDITIONAL REQUIREMENTS FOR LAND RECLAMATION****ADDITIONAL APPLICATION REQUIREMENTS**

Sec.  
291.401. Additional application requirements.



**ADDITIONAL OPERATING REQUIREMENTS**

- 291.411. General requirements.
- 291.412. Site characteristics.
- 291.413. Application to soil.
- 291.414. Weather.
- 291.415. Revegetation.
- 291.416. Water quality monitoring.
- 291.417. Soil-pore water monitoring.
- 291.418. Soil analysis.

**Cross References**

This subchapter cited in 25 Pa. Code § 291.201 (relating to general provisions); and 25 Pa. Code § 291.311 (relating to general requirements).

**ADDITIONAL APPLICATION REQUIREMENTS****§ 291.401. Additional application requirements.**

In addition to the requirements of Subchapter B (relating to general application requirements for the land application of residual waste), an application for a permit for land reclamation by residual waste shall include the following:

- (1) An operations map showing the location of groundwater monitoring devices that exist or are proposed for the facility.
- (2) A complete revegetation plan for the site, including methods of site preparation, seeding mixtures and seeding rates, that shows how the proposed facility will comply with § 291.415 (relating to revegetation).

**ADDITIONAL OPERATING REQUIREMENTS****§ 291.411. General requirements.**

In addition to the requirements of Subchapter C (relating to general operating requirements for the land application of residual waste), a person or municipality that has obtained a land reclamation permit for the surface land application of residual waste shall comply with this section and §§ 291.412—291.418.

**§ 291.412. Site characteristics.**

A person or municipality may not apply residual waste under a land reclamation permit unless the site complies with the following:

- (1) Slopes to be utilized for residual waste application may not exceed 35%, unless otherwise approved in writing by the Department.
- (2) Soil pH shall be 6.5 or greater prior to residual waste application unless the Department in the permit allows the operator to increase pH by application of residual waste or other material. In that case, soil pH shall be 6.0 or greater

at the end of the first year following the initial application of residual waste and 6.5 or greater at the end of the second year following the initial application of residual waste.

(3) Except as provided in paragraph (2), soil pH shall be maintained at 6.5 or greater during the life of application operations.

**Source**

The provisions of this § 291.412 amended January 12, 2001, effective January 13, 2001, 31 Pa.B. 235. Immediately preceding text appears at serial pages (226812) to (226813).

**Cross References**

This section cited in 25 Pa. Code § 291.411 (relating to general requirements).

**§ 291.413. Application to soil.**

The operator shall incorporate the residual waste into the soil within 24 hours following surface application.

**Cross References**

This section cited in 25 Pa. Code § 291.411 (relating to general requirements).

**§ 291.414. Weather.**

(a) The operator may not apply residual waste between October 15 and April 15.

(b) The Department may approve the storage of residual waste between October 15 and May 30 in the permit if the operator makes a satisfactory demonstration under Chapter 299, Subchapter A (relating to standards for storage of residual waste). The storage may not exceed in amount the residual waste necessary to reclaim the permitted area that was prepared for residual waste application prior to October 15.

**Source**

The provisions of this § 291.414 amended January 12, 2001, effective January 13, 2001, 31 Pa.B. 235. Immediately preceding text appears at serial page (226813).

**Cross References**

This section cited in 25 Pa. Code § 291.411 (relating to general requirements).

**§ 291.415. Revegetation.**

(a) Vegetation shall be established on land affected by land reclamation.

(b) Revegetation shall provide for an effective and permanent vegetative cover of the same seasonal variety native to the area of land to be affected and capable of self-regeneration and plant succession. Introduced species may be used in the revegetation process if approved by the Department in the revegetation plan. Vegetative cover shall be considered of the same seasonal variety when it

consists of a mixture of species that is of equal or superior utility to native vegetation during each season of the year.

(c) Revegetation shall provide a quick germinating, fast-growing vegetative cover capable of stabilizing the soil surface from erosion.

(d) Disturbed areas shall be seeded and planted when weather and planting conditions permit, but the seeding and planting of disturbed areas shall be performed no later than the first normal period for favorable planting after final grading and residual waste application.

(e) Fertilizer and lime shall be applied to disturbed areas as necessary to maintain plant growth. Mulch shall be applied to regraded areas at rates adequate to control erosion, promote germination of seeds and increase the moisture retention of the soil.

(f) The standard for successful revegetation shall be the percent ground cover of the vegetation which exists on undisturbed lands that are nearby or adjacent to the area where land reclamation is proposed. The Department will not approve less than 70% ground cover of permanent plant species. No more than 1.0% of the area may have less than 30% ground cover. Single or contiguous area exceeding 3,000 square feet may not have less than 30% ground cover.

(g) The Department may require a chemical analysis of the vegetation.

(h) Vegetation may not be harvested for 2 years following the application of residual waste, unless otherwise approved by the Department.

#### Cross References

This section cited in 25 Pa. Code § 291.401 (relating to additional application requirements); and 25 Pa. Code § 291.411 (relating to general requirements).

### § 291.416. Water quality monitoring.

(a) If required by the Department as part of the permit, the operator shall conduct groundwater monitoring. The groundwater monitoring shall be in accordance with §§ 288.252—288.258, as required by the Department, and the terms and conditions of the permit, and shall continue for the period specified in § 293.262 (relating to cessation of operations).

(b) For purposes of interfacing with §§ 288.252—288.258, the following terms apply:

(1) The term “disposal area” is substituted with “area where land application occurs.”

(2) The term “residual waste landfill” is substituted with “land application facility.”

(3) The term “disposed” is substituted with “land applied.”

#### Source

The provisions of this § 291.416 amended January 12, 2001, effective January 13, 2001, 31 Pa.B. 235. Immediately preceding text appears at serial page (226814).

**Cross References**

This section cited in 25 Pa. Code § 288.252 (relating to number, location and depth of monitoring points); 25 Pa. Code § 288.253 (relating to standards for wells and casing of wells); 25 Pa. Code § 288.254 (relating to sampling and analysis); 25 Pa. Code § 288.255 (relating to reporting of analysis and data evaluation); 25 Pa. Code § 288.256 (relating to groundwater assessment plan); 25 Pa. Code § 288.257 (relating to abatement plan); 25 Pa. Code § 288.258 (relating to recordkeeping); 25 Pa. Code § 288.262 (relating to gas control and monitoring); and 25 Pa. Code § 291.411 (relating to general requirements).

**§ 291.417. Soil-pore water monitoring.**

If required by the Department, based upon waste and site characteristics, the operator shall conduct soil-pore water monitoring and accurately characterize soil-pore water at the facility.

**Source**

The provisions of this § 291.417 amended January 12, 2001, effective January 13, 2001, 31 Pa.B. 235. Immediately preceding text appears at serial page (226814).

**Cross References**

This section cited in 25 Pa. Code § 291.411 (relating to general requirements).

**§ 291.418. Soil analysis.**

If the land to which residual waste is applied will be used for agriculture, the operator shall conduct a soil analysis 2 years after the application of residual waste to the land. The soil analysis shall be consistent with § 291.222(b)(6) (relating to annual operation report).

**Cross References**

This section cited in 25 Pa. Code § 291.411 (relating to general requirements).

**Subchapter F. [Reserved]** **§§ 291.501—291.503. [Reserved].****Source**

The provisions of these §§ 291.501—291.503 reserved January 12, 2001, effective January 13, 2001, 31 Pa.B. 235. Immediately preceding text appears at serial pages (226816) to (226818).

 **§§ 291.511—291.517. [Reserved].****Source**

The provisions of these §§ 291.511—291.517 reserved January 12, 2001, effective January 13, 2001, 31 Pa.B. 345. Immediately preceding text appears at serial pages (226818) to (226820).

**§§ 291.521—291.528. [Reserved].**

**Source**

The provisions of this § 291.521—291.528 reserved January 12, 2001, effective January 13, 2001, 31 Pa.B. 345. Immediately preceding text appears at serial pages (226820) to (226828).

[Next page is 293-1.]

291-22

(273766) No. 316 Mar. 01

*Copyright © 2001 Commonwealth of Pennsylvania*