

3745-400-01 Definitions.

As used in Chapters 3745-400 and 3745-37 of the Administrative Code:

- (A) "Applicant" means any person who has applied for a construction and demolition debris facility license in accordance with Chapters 3745-400 and 3745-37 of the Administrative Code.
- (B) "Assets" means all existing and all probable future economic benefits obtained or controlled by a particular entity.
- (C) "Aquifer system" means one or more geologic unit(s) or formation(s) that is/are wholly or partly saturated with water and is/are able to store, transmit, and yield significant amounts of water to wells or springs. For the purpose of this definition, "significant amounts of water" means the saturated geologic unit(s) or formation(s) is capable of yielding ground water at a time-weighted-average rate greater than one-tenth of a gallon per minute over a twenty-four hour period, except if that saturated geologic unit(s) or formation(s) meets all of the following:
 - (1) Yields less than three gallons per minute but greater than one-tenth of a gallon per minute.
 - (2) The ground water yield is less than fifty per cent of the yield of another saturated zone present under the facility.
 - (3) Which is the likely source of water used for any purpose within one mile of the facility.
- (D) "Board of health" means the board of health of a city or general health district, or the authority having the duties of a board of health in any city as authorized by section 3709.05 of the Revised Code.
- (E) "Clean hard fill" means construction and demolition debris which consists only of reinforced or nonreinforced concrete, asphalt concrete, brick, block, tile, and/or stone which can be reutilized as construction material. Brick in clean hard fill includes but is not limited to refractory brick and mortar. Clean hard fill does not include materials contaminated with hazardous wastes, solid wastes, or infectious wastes.
- (F) "Construction and demolition debris" or "debris" means those materials resulting from the alteration, construction, destruction, rehabilitation, or repair of any manmade physical structure, including, without limitation, houses, buildings, industrial or commercial facilities, or roadways. "Construction and demolition debris" does not include materials identified or listed as solid wastes, infectious wastes, or hazardous wastes pursuant to Chapter 3734. of the Revised Code and rules adopted under it; or materials from mining operations, nontoxic fly ash, spent nontoxic

foundry sand, and slag; or reinforced or nonreinforced concrete, asphalt, building or paving brick, or building or paving stone that is stored for a period of less than two years for recycling into a usable construction material.

For the purpose of this definition, "materials resulting from the alteration, construction, destruction, rehabilitation, or repair of any manmade physical structure," are those structural and functional materials comprising the structure and surrounding site improvements, such as brick, concrete and other masonry materials, stone, glass, wall coverings, plaster, drywall, framing and finishing lumber, roofing materials, plumbing fixtures, heating equipment, electrical wiring and components containing no hazardous fluids or refrigerants, insulation, wall-to-wall carpeting, asphaltic substances, metals incidental to any of the above, and weathered railroad ties and utility poles.

"Materials resulting from the alteration, construction, destruction, rehabilitation, or repair" do not include materials whose removal has been required prior to demolition, and materials which are otherwise contained within or exist outside the structure such as solid wastes, yard wastes, furniture, and appliances. Also excluded in all cases are liquids including containerized or bulk liquids, fuel tanks, drums and other closed or filled containers, tires, and batteries.

- (G) "Construction and demolition debris facility" or "facility" means any site, location, tract of land, installation, or building used for the disposal of construction and demolition debris.

[Comment: For the purposes of siting a new construction and demolition debris facility, rule 3745-400-06 of the Administrative Code requires that the entire facility, not merely the limits of construction and demolition debris placement, be located in areas not prohibited by statute.]

- (H) "Construction and demolition debris facility license" or "license" means a license issued by the licensing authority in accordance with Chapter 3714. of the Revised Code and rules adopted thereunder.

- (I) "Construction and demolition debris facility operator" or "operator" means the person responsible for the on-site supervision of technical operations and maintenance of a construction and demolition facility, or any parts thereof, which may affect the performance of the facility and its potential environmental impact and/or any person who has authority to make discretionary decisions concerning the daily operations of the construction and demolition debris disposal facility.

- (J) "Current assets" means cash or other assets or resources commonly identified as those which are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business.
- (K) "Current liabilities" means obligations whose liquidation is reasonably expected to require either the use of existing resources properly classifiable as current assets or the creation of other current liabilities.
- (L) "Developed spring" means any spring which has been permanently modified by the addition of pipes or a collection basin to facilitate the collection and use of the spring water.
- (M) "Director" means the director of environmental protection.
- (N) "Disposal" means the discharge, deposit, injection, dumping, spilling, leaking, emitting, or placing of any construction and demolition debris into or on any land or ground or surface water or into the air, except if the disposition or placement constitutes storage, reuse, or recycling in a beneficial manner.
- [Comment: any debris material reused, or processed for recycling or for production or incorporation into a product, is not regulated until it is disposed, at which time its disposal may be regulated under either Chapter 3714. or 3734. Of the Revised Code, as appropriate.]
- (O) "Existing facility" means a construction and demolition debris facility that was in operation or under construction on September 30, 1996.
- (P) "Ground water" means any water below the surface of the earth in a zone of saturation.
- (Q) "Hazardous wastes" means waste that is listed specifically as hazardous waste and/or exhibits one or more characteristics of hazardous waste as defined in Chapter 3745-51 of the Administrative Code.
- (R) "Health commissioner" means the individual occupying the office created by sections 3709.11 and 3709.14 of the Revised Code, or his authorized representative.
- (S) "Illegal disposal" means the disposal of construction and demolition debris at any place other than a construction and demolition debris disposal facility operated in accordance with Chapter 3714. of the Revised Code, and Chapters 3745-400 and 3745-37 of the Administrative Code a solid waste disposal facility operated in accordance with Chapter 3745-27 of the Administrative Code, and licensed in accordance with Chapter 3745-37 of the Administrative Code, or as otherwise authorized by this Chapter.

- (T) "Independently audited" refers to an audit performed by an independent certified public accountant in accordance with generally accepted accounting standards.
- (U) "Initial license" means the first license issued by the licensing authority for a facility under Chapter 3714. of the Revised Code.
- (V) "Leachate" means liquid that has come in contact with or been released from construction and demolition debris.
- (W) "Liabilities" means probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.
- (X) "Limits of construction and demolition debris placement" means the areal and vertical limits of debris placement within the construction and demolition debris facility and includes the volume of debris placement. The limits of construction and demolition debris placement include the following:
- (1) "Construction and demolition debris facility active areas" or "active licensed disposal areas" means all areas within the limits of construction and demolition debris placement designated by the owner or operator in a license application for debris placement during the licensure period.

All areas within the limits of construction and demolition debris placement in which debris has been placed since September 30, 1996, and which have not been capped and dense vegetative cover established.
 - (2) "Construction and demolition debris facility inactive areas" or "inactive licensed disposal areas" means all remaining areas within the limits of construction and demolition debris placement which are not designated for debris placement during the licensure period, and include but are not limited to the following:
 - (a) Areas in which no construction and demolition debris has yet been placed.
 - (b) Areas within the limits of construction and demolition debris placement in which debris has been placed since September 30, 1996, and which have been capped, dense vegetative cover established, and certification of the completion of these activities submitted to the licensing authority in accordance with rule 3745-400-12 of the Administrative Code.
 - (c) Areas within the limits of construction and demolition debris placement in which

debris has been placed prior to September 30, 1996, and where no debris placement has occurred after that date.

- (Y) "Licensing authority" means a city or general health district as created by or under authority of Chapter 3709. of the Revised Code, which is on the approved list in accordance with section 3714.09 of the Revised Code; or the director where the health district is not on the approved list.
- (Z) "Net working capital" means current assets minus current liabilities.
- (AA) "Net worth" means total assets minus total liabilities and is equivalent to owner's equity.
- (BB) "Nuisance" means anything which is injurious to human health or offensive to the senses; interferes with the comfortable enjoyment of life or property; and affects a community, neighborhood, or any considerable number of persons (although the extent of annoyance or damage inflicted upon individual persons may be unequal).
- (CC) "Parent corporation" means a corporation, or the ultimate corporation, which directly owns at least fifty per cent of the voting stock of the corporation which holds a construction and demolition debris facility license issued in accordance with Chapters 3745-37 and 3745-400 of the Administrative Code; the latter corporation is deemed a "subsidiary" of the parent corporation.
- (DD) "Person" includes the state, any political subdivision of the state or other state or local body, the United States and any agency or instrumentality thereof, and any legal entity or organization defined as a person under section 1.59 of the Revised Code.
- (EE) "Property owner" or "owner" means the person who holds title to the property on which the construction and demolition debris disposal facility is located.
- (FF) "Public water supply well" means any well connected to a public water system as defined by rule 3745-81-01 of the Administrative Code.
- (GG) "Public well field" means any system of wells which is connected to a public water system as defined by rule 3745-81-01 of the Administrative Code.
- (HH) "Qualified ground water scientist" means a scientist or engineer who has received a baccalaureate or post-graduate degree in the natural sciences or engineering and has at least five years relevant experience, in ground water hydrogeology and related fields, to enable that individual to make sound professional judgements regarding ground water monitoring, contaminant fate and transport, and corrective measures.

- (II) "Recycling" means processing a material using such methods, including but not limited to, screening, sorting, or shredding, for use in a beneficial manner that does not constitute disposal.
- (JJ) "Regional aquifer system" means the aquifer used as a primary source of water to wells within one mile of the construction and demolition debris disposal facility.
- (KK) "Regulatory flood plain" means a watercourse and the areas adjoining a watercourse which have been, or may be, covered by a one-hundred-year flood as depicted on a federal insurance administration flood map.
- (LL) "Reuse" means reincorporating a material as part of a structure and does not include reincorporating a material as fill.
- (MM) "Significant zone of saturation" means a part of the earth's crust, excluding the capillary zone, in which all voids are filled with water and which may act as a preferential pathway of migration away from the limits of construction and demolition placement.
- (NN) "Solid wastes" means such unwanted residual solid or semisolid material as results from industrial, commercial, agricultural, and community operations as defined in rule 3745-27-01 of the Administrative Code.
- (OO) "Storage" means the holding of debris for a temporary period in such a manner that it remains retrievable and substantially unchanged and, at the end of the period, is disposed, reused, or recycled in a beneficial manner.
- (PP) "Surface water" means any water on the surface of the earth.
- (QQ) "Tangible net worth" means the tangible assets that remain after deducting liabilities; such assets would not include such intangibles as goodwill and rights to patents or royalties.
- (RR) "Water pollution" means the unpermitted release of sediment from disturbed areas, construction and demolition debris, or leachate to the waters of the state.
- (SS) "Waters of the state" means all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems and all other bodies or accumulations of water, surface and underground, natural or artificial, regardless of the depth of the strata in which underground water is located, which are situated wholly or partly within, or border upon, this state, or are within its jurisdiction, except those private waters which do not combine or effect a junction with natural surface or underground waters as defined in Chapter 6111. (Water pollution control) of the Revised Code.

(TT) "Working face" means that portion of a construction and demolition debris disposal facility where construction and demolition debris is placed for final deposition.

Effective: August 31, 2002

R.C. 119.032 review dates: May 9, 2001 ; August 31, 2007

Certification: _____

June 24, 2002
(Date)

Promulgated Under: R.C. Chapter 119
Statutory Authority: R.C. Section 3714.02
Rule Amplifies: R.C. Section 3714.02
Prior Effective Dates: September 30, 1996

3745-400-03 Facility exclusions.

Pursuant to Chapter 3714. of the Revised Code, Chapters 3745-400 and 3745-37 of the Administrative Code shall not apply to any of the following:

- (A) Any construction site where construction debris and trees and brush removed in clearing the construction site are used as fill material on the site where the materials are generated or removed.
- (B) Any site where clean hard fill is used, either alone or in conjunction with clean soil, sand, gravel, or other clean aggregates, in legitimate fill operations.

[Comment: When clean hard fill is placed off the site of generation, the person placing the clean hard fill shall provide a Notice of Intent to Fill in accordance with paragraph (C) of rule 3745-400-05 of the Administrative Code.]

- (C) Any site where debris is not disposed, such as where debris is reused or recycled in a beneficial manner, or stored for a temporary period remaining unchanged and retrievable.

Effective: August 31, 2002

R.C. 119.032 review dates: May 9, 2001 ; August 31, 2007

Certification: _____

June 24, 2002
(Date)

Promulgated Under: R.C. Chapter 119
Statutory Authority: R.C. Section 3714.02
Rule Amplifies: R.C. Section 3714.02
Prior Effective Dates: September 30, 1996

3745-400-04 Authorized, limited, and prohibited construction and demolition debris disposal methods.

(A) Construction and demolition debris shall be disposed of only by the following methods or combination thereof:

- (1) Disposal in a licensed construction and demolition debris facility.
- (2) Disposal in a solid waste disposal facility, as defined in rule 3745-27-01 of the Administrative Code and licensed in accordance with Chapter 3745-37 of the Administrative Code.
- (3) Disposal by means of open burning, as defined in Chapter 3745-19 of the Administrative Code, if permitted as provided therein.
- (4) Other methods not prohibited by Chapter 3745-400 of the Administrative Code, provided that such methods are demonstrated to the satisfaction of the licensing authority to be capable of disposing of construction and demolition debris without creating a nuisance or a health hazard, without causing water pollution, and without violating these regulations and any regulation adopted by the director pursuant to Chapters 3704. (air pollution control) and 3734. (solid and hazardous wastes) of the Revised Code.

(B) No person shall conduct or allow illegal disposal of construction and demolition debris, as defined in rule 3745-400-01 of the Administrative Code.

[Comment: Violations under the nuisance provisions of Chapters 3709. and 3767. of the Revised Code can also occur as a result of illegal disposal.]

(C) No exemption issued under Chapter 3714. Of the Revised Code or rules adopted thereunder allows the exemption of any person from compliance with any section of the Revised Code other than a specified in section 3714.04 of the Revised Code or any regulation adopted thereunder, or any regulation of any federal agency, or of any department of the state government, including the Ohio department of health, the Ohio department of natural resources and the Ohio environmental protection agency.

Effective: August 31, 2002

R.C. 119.032 review dates: May 9, 2001 ; August 31, 2007

Certification: _____

June 24, 2002
(Date)

Promulgated Under: R.C. Chapter 119
Statutory Authority: R.C. Section 3714.02
Rule Amplifies: R.C. Section 3714.02
Prior Effective Dates: September 30, 1996

3745-400-05 Clean hard fill.

- (A) Clean hard fill consisting of reinforced or nonreinforced concrete, asphalt concrete, brick, block, tile, or stone shall be managed in one or more of the following ways:
- (1) Recycled into a usable construction material.
 - (2) Disposed in licensed construction and demolition debris or other waste facilities.
 - (3) Used in legitimate fill operations for construction purposes or to bring the site up to a consistent grade, on the site of generation.
 - (4) Used in legitimate fill operations for construction purposes or to bring the site up to a consistent grade, on a site other than the site of generation, pursuant to paragraph (C) of this rule.

[Comment: Use of clean hard fill may create a nuisance or a safety hazard. The application of cover over the clean hard fill may be one way to address the nuisance or safety hazard.]

- (B) Clean hard fill may be stored for a period of less than two years. For the purpose of this rule, "stored" means debris which is held in a manner remaining retrievable and substantially unchanged. Clean hard fill stored more than two years shall be considered illegal disposal of construction and demolition debris. However clean hard fill piled adjacent to a construction materials processing facility shall not be considered stored for more than two years if the pile is active, that is, if clean hard fill material is added to and removed from the pile within a two year period.
- (C) The person responsible for causing clean hard fill to be used in legitimate fill operations for construction purposes or to bring the site up to a consistent grade, on a site other than the site of generation, shall provide a written "Notice of Intent to Fill" to each licensing authority where the clean hard fill is to be placed. The Notice of Intent to Fill shall state the nature of the fill material, the site(s) to be filled, when filling will begin and end, and the telephone number of the notifier. The notification shall be received by each local licensing authority with sites to be filled, at least seven days prior to filling as required by division (F) of section 3714.13 of the Revised Code. The notifier shall provide a new Notice of Intent to Fill if there are any changes in the information required by this rule for notification.

Effective: August 31, 2002

R.C. 119.032 review dates: May 9, 2001 ; August 31, 2007

Certification: _____

June 24, 2002
(Date)

Promulgated Under: R.C. Chapter 119
Statutory Authority: R.C. Section 3714.02
Rule Amplifies: R.C. Section 3714.02
Prior Effective Dates: September 30, 1996

3745-400-06 Prohibited locations for construction and demolition debris facilities.

(A) Paragraph (B) of this rule does not apply to a facility operating or under construction on July 24, 1990, the effective date of section 3714.06 of the Revised Code, or to the expansion of such facility onto contiguous land owned by the facility owner or operator on the date the initial license application for the facility was submitted to the licensing authority.

(B) No portion of a construction and demolition debris facility shall be located in either of the following locations:

(1) Within the boundaries of the one-hundred-year flood plain of a watercourse, as those boundaries are shown on the applicable maps prepared under the "National Flood Insurance Act of 1968," 82 Stat. 572, 42 U.S.C.A. 4001, as amended, unless the owner or operator has obtained an exemption from the licensing authority in accordance with paragraph (C)(2) of rule 3745-400-15 of the Administrative Code. With respect to watercourses or portions thereof for which no such maps have been prepared, the boundaries of the one-hundred-year flood plain shall be determined by the applicant for a license based upon a design storm of seven inches of precipitation in twenty-four hours and upon standard methodologies set forth in "Urban Hydrology for Small Watersheds" (Soil Conservation Service Technical Release Number 55) and Section 4 of the "National Engineering Hydrology Handbook" of the Soil Conservation Service of the United States department of agriculture.

[Comment: Note that the above-mentioned maps also include flood plains not associated with a watercourse. Location in such flood plains is not prohibited by this rule. However there may be other authorities, such as local zoning boards or the Federal Emergency Management Agency that may otherwise restrict a facility from locating in a flood plain.]

(2) Within the boundaries of a sole source aquifer designated by the Administrator of the United States environmental protection agency under the "Safe Drinking Water Act," 88 Stat. 1660 , 42 U.S.C.A. 300F, as amended.

[Comment: For facilities established after September 30, 1996, an exemption to the provisions of paragraph (B)(1) of this rule may be granted through paragraph (D)(2) of rule 3745-400-15 of the Administrative Code. No exemptions can be granted from the provisions of paragraph (B)(2) of this rule in accordance with section 3714.04 of the Revised Code.]

Effective: August 31, 2002

R.C. 119.032 review dates: May 9, 2001 ; August 31, 2007

Certification: _____

June 24, 2002
(Date)

Promulgated Under: R.C. Chapter 119
Statutory Authority: R.C. Section 3714.02
Rule Amplifies: R.C. Section 3714.02
Prior Effective Dates: September 30, 1996

(A) The owner or operator shall submit the facility design plan required by this rule as part of the license application. The facility design plan shall contain information in accordance with paragraphs (C) to (E) of this rule and shall be comprised of all the following:

(1) The site characterization report as outlined in paragraph (C) of rule 3745-400-09 of the Administrative Code.

[Comment: The presentation of narrative in the site characterization report is not specified, narrative may be presented on plan sheets or on letter or legal sized paper.]

(2) The facility construction design plan, including the soil liner and leachate collection system plans, as outlined in paragraph (F) of this rule.

(3) The final cap system design plan as outlined in paragraph (G) of this rule.

(4) The ground water monitoring well system plan as outlined in rule 3745-400-10 of the Administrative Code if required by paragraph (B) of rule 3745-400-09 of the Administrative Code.

[Comment: This rule first specifies the design plan contents followed by applicable construction or performance specifications. Those items specified by the plan as for "informational purposes only" are not required to be certified.]

(B) The owner or operator shall comply with all applicable construction specifications and performance standards required in this rule.

[Comment: The owner or operator need not reiterate all the construction specifications and performance standards that are in this rule in the facility design plan. The owner or operator, in accordance with rule 3745-400-11 of the Administrative Code, is required to follow the applicable specifications as part of facility operations. If the owner or operator does not follow the specifications, a violation of rule 3745-400-11 of the Administrative Code will result.]

(C) The owner or operator of any facility shall meet all the construction and performance specifications of this rule with the following exceptions:

(1) A recompacted soil liner is required except for the following:

(a) When the conditions in paragraph (A) of rule 3745-400-09 of the

Administrative Code are met.

- (b) Where the limits of debris placement were filled with debris as of September 30, 1996.
 - (c) Where the limits of debris placement are filled with debris prior to the effective date of an approved modification to laterally extend the limits of debris placement.
- (2) A leachate collection system as specified in paragraph (F)(5)(c) of this rule is required for all facilities except in either of the following areas:
- (a) Areas containing debris as of September 30, 1996.
 - (b) Areas containing debris placed without a recompacted soil liner prior to January 1, 1999.
- [Comment: All areas for debris placement remaining unfilled as of January 1, 1999, shall have a leachate collection system.]
- (D) The owner or operator of a facility shall construct a standard cap system as specified by paragraph (G)(2)(a) of this rule over any area of a facility that receives debris after September 30, 1996.
- (E) The requirement and design for a vegetative cap system shall be determined as follows:
- (1) The owner or operator of a facility shall be required to construct a vegetative cap system as specified by paragraph (G)(2)(b) of this rule where an area of an existing facility is filled with debris to final grade as of September 30, 1996, and where no dense vegetation has been established in the area and the area remains an inactive licensed disposal area for the remaining life of the facility.
 - (2) The owner or operator of a facility shall not be required to construct any cap system where an area of an existing facility is filled with debris to final grade but where dense vegetation has been established in the area as of September 30, 1996, and the area remains an inactive licensed disposal area for the remaining life of the facility.
- (F) The facility construction design plan. The facility construction design plan, which

shall include the liner and leachate collection system designs, shall be signed and sealed by a professional engineer registered in Ohio. Drawings, calculations and narrative shall appear on plan sheets with minimum dimensions of twenty-four inches by thirty-six inches. If narrative is necessary to explain the drawings or calculations, the narrative shall appear with the drawing or calculation on the plan sheet. The facility construction design plan shall consist of the following:

- (1) Cover sheet. A detail engineering plan cover sheet, to be numbered sheet 1, containing the following information:
 - (a) The name of the facility.
 - (b) The precise geographic location and boundaries of the facility to be shown on a 7-1/2 minute USGS topographic map.
 - (c) The name and address of the facility operator.
 - (d) The name and address of the owner(s) of the land to be used for the facility.
 - (e) The name and address of the professional engineer who prepared the plans.
- (2) Facility environs. Plan drawings shall show the following items located within two hundred feet of the limits of debris placement. The items shall be illustrated on a series of plan drawings numbered consecutively: 2A, 2B, 2C, etc. All items specified in an individual subheading shall be shown on the same plan drawing (unless specified otherwise). An individual plan drawing may contain information specified in more than one individual subheading. A scale of one inch equals no greater than two hundred feet shall be used.
 - (a) All plan drawings required by paragraph (F)(2) of this rule shall include those items specified in paragraph (F)(2)(a) of this rule, as follows:
 - (i) The facility boundary line of all land owned or leased for the facility as certified by a professional surveyor.
 - (ii) The limits of debris placement, both proposed and emplaced, if applicable. Emplaced limits of debris placement can be determined by surveys. If a facility does not have survey results, the owner or operator shall provide justification of the limits

shown in the facility construction design plan.

- (iii) All public roads, railroads, and man-made structures, for informational purposes only.
 - (iv) Existing topography showing vegetation, streams, swamps, lakes, springs, and other surface waters, with a contour interval no greater than five feet, for informational purposes only.
 - (v) The north arrow, for informational purposes only.
- (b) The location of all existing or proposed maintenance buildings, weighing facilities, storage buildings, and other structures associated with the facility.
- (c) All oil wells and gas wells. If any oil wells or gas wells are identified in accordance with this paragraph, a letter from the Ohio department of natural resources or other appropriate agency verifying type, location, depth, and status shall be included. Any oil wells and gas wells within the proposed limits of debris placement shall be properly plugged and abandoned in accordance with Chapter 1509. of the Revised Code.
- (3) The facility. Plan drawings for the entire facility showing the grades of the following items shall be on plan drawings numbered consecutively 3a, 3b, 3c, etc. The scale on these drawings shall be one inch equals no greater than two hundred feet and contour intervals shall be no greater than five feet.
- (a) The horizontal and vertical limits of excavation.
 - (b) The horizontal limits and top and bottom elevations of the recompacted soil liner.
 - (c) The top elevation of the drainage layer, and if a pipe network is proposed, the pipe inverts and layout of the leachate collection system.
 - (d) The location of any leachate collection system appurtenances outside the limits of debris placement.
 - (e) The horizontal limits and bottom elevations of debris placement, both emplaced, if applicable, and proposed.

- (f) The location of all existing or proposed fencing, gates, and natural or other screening on the site (may be shown on an aerial photograph).
- (g) The location of ground water control structures, if any.
- (h) The location of borings used for the site hydrogeology investigation required in paragraph (C)(5) of rule 3745-400-09 of the Administrative Code.
- (i) The location of all permanent survey marks. Construction specifications for survey marks are as follows:
 - (i) The facility shall have at least three permanent survey marks installed on separate sides of the facility within easy access to the limits of debris placement.
 - (ii) Survey marks shall be referenced horizontally to the 1927 "North American Datum," 1983 "North American Datum," or "State Plane Coordinate System" and vertically to the 1929 or 1988 "North American Vertical Sea Level Datum" as identified on the 7-1/2 minute series quadrangle sheets published by the United States geological survey.
 - (iii) Survey marks shall be at least as stable as a poured concrete monument ten inches in diameter installed to a depth of forty-two inches below the ground surface. Each constructed survey mark shall include a corrosion resistant metallic disk which indicates horizontal and vertical coordinates of the survey mark and shall contain a magnet or ferromagnetic rod to allow identification through magnetic detection methods.
 - (iv) Survey control standards for the survey marks shall be in accordance with the following:
 - (a) For the first facility survey mark established from the known control point, minimum horizontal distance accuracy shall be one foot horizontal to two thousand five hundred feet horizontal.
 - (b) For each facility survey mark established from the first facility survey mark, minimum horizontal distance accuracy shall

be one foot horizontal to five thousand feet horizontal.

(c) For the first facility survey mark established from the known control point and for each facility survey mark established from the first facility survey mark, minimum vertical accuracy shall be one inch vertical to five thousand feet horizontal.

(4) Cross sections. Cross sections of the facility at an interval no greater than every three hundred feet of length and width, and clearly showing the horizontal and vertical scale(s) used, shall show the following items on plan drawings numbered consecutively 4a, 4b, 4c, etc.:

(a) Existing topography, for informational purposes only.

(b) The top of the uppermost aquifer system, if the owner or operator meets the criteria of paragraph (C)(1)(a) of this rule or is pursuing compliance with the provisions of paragraph (F)(5)(a) of this rule. The demonstration of the thickness and hydraulic conductivity of the in situ geologic material shall be based on the borings used for the site hydrogeology investigation required by paragraph (C)(5) of rule 3745-400-09 of the Administrative Code, shall be shown on the cross sections, and shall include the following:

(i) Logs of the applicable borings showing the stratigraphic units from the ground surface to ten feet below the bottom of the facility.

(ii) The thickness and hydraulic conductivity measurements made of the stratigraphic units.

(iii) The thickness of any geologic material added to establish the isolation distances cited in rule 3745-400-09 of the Administrative Code

(c) The horizontal and vertical limits of excavation, for informational purposes only.

(d) The bottom limits of the liner system, if required.

(e) The bottom limits of the leachate collection system.

- (f) The horizontal limits and top and bottom elevations of debris placement.
 - (g) Final grade including cap system.
- (5) Detail drawings. The following detail drawings shall be on plan drawings numbered consecutively 5a, 5b, 5c, etc.:
- (a) The recompacted soil liner, if required. The recompacted soil liner shall, at a minimum include the following:
 - (i) Be constructed and compacted to a thickness of twenty-four inches using loose lifts eight inches thick or less.
 - (ii) Achieve a maximum permeability of 1×10^{-6} cm/sec for each lift of the recompacted soil liner.
 - (iii) Not be comprised of solid waste or construction and demolition debris.
 - (iv) Be placed on the bottom and the exterior excavated sides of the limits of debris placement.
 - (v) Be constructed on a prepared smooth surface that shall do the following:
 - (a) Be able to bear the weight of the facility and its construction and operations without causing or allowing a failure of the liner to occur through settling.
 - (b) Be free of debris, foreign material, and deleterious material.
 - (b) Added geologic material, if utilized. The added geologic material used to establish isolation distances cited in rule 3745-400-09 of the Administrative Code shall at a minimum include the following:
 - (i) Be constructed and compacted using loose lifts eight inches thick or less.
 - (ii) Achieve a maximum permeability of 1×10^{-6} cm/sec for each lift of geologic material.

- (iii) Be able to bear the weight of the facility and its construction and operations without causing or allowing a failure to occur through settling.
 - (iv) Be free of solid waste, debris, foreign material, and deleterious material.
- (c) All leachate collection system elements. The leachate collection system shall at a minimum do the following:
- (i) Be designed to collect leachate within the limits of debris placement.
 - (ii) Be designed to be capable of maintaining less than a one foot depth of leachate over the in situ and/or added geologic material or constructed liner, excluding the leachate sump collection point(s).
 - (iii) Be constructed on a prepared smooth surface that shall include the following:
 - (a) Have a minimum slope of two per cent.
 - (b) Be able to bear the weight of the facility and its construction and operations without causing or allowing a failure of the leachate collection system to occur through settling.

[Comment: A recompacted soil liner or compacted isolation material meets this requirement.]
 - (c) Be free of debris, foreign material, deleterious material; and
 - (iv) Be constructed of a drainage medium that shall provide a permeability no less than 1×10^{-3} cm/sec. The medium may consist of suitable select debris or other suitable waste materials and shall be at least one foot thick.

[Comment: "Other suitable waste materials" refers to drainage materials such as nontoxic spent foundry sand, nontoxic bottom ash, nontoxic slag, and shredded tires.]
 - (v) Be designed to prevent crushing of, or damage to, any of its components.

- (vi) Be designed to function without clogging.
- (vii) If a pipe network is proposed, designed with access for cleaning and inspection devices and with pipe lengths not exceeding the capabilities of the cleaning and inspection devices.

[Comment: For safety reasons, manholes or pipes large enough for human entry are not recommended.]
- (viii) Be designed to provide access for obtaining leachate samples for testing of leachate quality and for determining the leachate head.
- (ix) Be designed to be capable of conveying leachate outside the limits of debris placement for treatment and discharge in accordance with Chapter 6111. (water pollution control) of the Revised Code.
- (x) If storage of leachate outside of the limits of debris placement is proposed, include a storage containment designed to be no less protective of the environment than the facility.
- (xi) Be constructed and certified in phases, if necessary, so as to stay immediately ahead of the working face.

[Comment: Leachate recirculation may be an acceptable practice, but specific details for operation of the system must be approved by the licensing authority.]

(d) For existing facilities, any barrier layer. A soil barrier layer shall be utilized to impede the infiltration of leachate into placed debris and meet the requirements of paragraph (A)(1)(c) of rule 3745-400-09 of the Administrative Code when the geologic material between the uppermost aquifer and the placed debris is insufficient to meet the requirements of paragraph (A)(1)(b) of rule 3745-400-09 of the Administrative Code. The soil barrier layer shall at a minimum include the following:

- (i) Be constructed on the interior slopes of already placed debris.

[Comments: A cap system is utilized to cover the exterior slopes of placed debris. "Placed debris" includes debris placed during the liner phase-in period for existing facilities.]

- (ii) Be constructed and compacted to a minimum thickness of twenty-four inches using loose lifts eight inches thick or less.
- (iii) Achieve a maximum permeability of 1×10^{-6} cm/sec for each lift of geologic material.
- (iv) Be free of solid waste, debris, foreign material, and deleterious material.
- (v) Be constructed on a subbase that shall include the following:
 - (a) Be comprised of a cohesive soil.
 - (b) Be one foot thick if placed on a filter capable of retaining the subbase soil or be two feet thick if not placed on such a filter.
 - (c) Have a smooth surface and be free of debris and deleterious material.
 - (d) Be placed on a prepared surface or debris that has been smoothed such that irregularities do not exceed six inches.
- (vi) Be sloped such that ponding of leachate on the barrier layer shall not occur.

[Comment: The detail drawings for a barrier layer are part of the facility design plan. However, plan drawings or design drawings for a barrier layer are part of the debris placement plan required by rule 3745-37-02 of the Administrative Code because of the uncertainty of placed debris elevations and barrier layer location until the time of construction. Construction certification is required for the barrier layer in accordance with paragraph (A)(2) of rule 3745-400-08 of the Administrative Code.]

- (e) Permanent ground water control structures, if any. Any permanent ground water control structures shall adequately control ground water infiltration through the use of non-mechanical means such as impermeable barriers or permeable drainage structures. However, no permanent ground-water control structures may be used to dewater an aquifer system.

- (6) Calculations. A section of the facility construction design plan, on plan drawings numbered consecutively 6a, 6b, 6c, etc., shall include the following design calculations with references to equations used, showing site specific input and assumptions:
- (a) The volume of the facility in cubic yards and anticipated life in years, for informational purposes only.
 - (b) Leachate collection system calculations.
 - (c) Any other relevant calculations.
- (G) The final cap system design plan. The final cap system design plan shall be signed and sealed by a professional engineer registered in Ohio. Drawings, calculations and narrative shall appear on plan sheets with minimum dimensions of twenty-four inches by thirty-six inches. If narrative is necessary to explain the drawings or calculations, the narrative shall appear with the drawing or calculation on the plan sheet. The final cap system design plan shall consist of the following:
- (1) The facility. Plan drawings for the entire facility showing the grades of the following items shall be on plan drawings numbered consecutively 7a, 7b, 7c, etc. The scale on these drawings shall be one inch equals no greater than two hundred feet and contour intervals shall be no greater than five feet. Facility plan drawings shall contain the following information:
 - (a) Final grade of the limits of debris placement.
 - (b) Final grade including cap system and surface drainage structures.
 - (c) Designation of the required cap system types within the limits of debris placement. This designation shall state "standard cap system", in accordance with paragraph (D) of this rule; "vegetative cap system", in accordance with paragraph (E)(1) of this rule; and "no cap system required", in accordance with paragraph (E)(2) of this rule.
 - (d) Planned end use, for informational purposes only.
 - (2) Detail drawings. The following detail drawings shall be on plan drawings numbered consecutively 8a, 8b, 8c, etc.:

- (a) Standard cap system. The construction and performance specifications of a standard cap system are as follows:
- (i) First, a soil layer of well compacted, cohesive soil with a minimum recompacted thickness of eighteen inches. The soil shall meet the following criteria:
- (a) The maximum soil particle size shall be six inches.
- (b) At least ninety five per cent of the soil particles, by volume, shall pass the three inch sieve.
- (c) At least seventy five per cent of the soil particles, by volume, shall pass the number four sieve.
- (d) At least fifty per cent of the soil particles, by weight, shall pass the number two hundred sieve.
- (e) The soil shall meet either of the following specifications:
- (i) Possess plasticity properties lying above the A-line in the "Unified Soil Classification System" described in ASTM D 2487.
- (ii) Consist of 0.002 inch or finer clay particles as determined in ASTM D 422 such that these clay particles shall comprise at least fifteen percent of the total soil dry mass.
- (f) The soil may be an alternative soil type acceptable to the licensing authority.
- (g) The soil shall not be comprised of solid waste or construction and demolition debris.
- (h) The soil shall be compacted using loose lifts twelve inches thick or less and meet a compaction standard described in paragraph (C)(5) of rule 3745-400-08 of the Administrative Code.

- (ii) Second, a soil layer with minimum thickness of six inches and of sufficient fertility to support dense vegetation.
 - (iii) Third, a complete and dense perennial vegetative cover of healthy grasses or other vegetation shall be established and maintained on all exposed final cover.
 - (iv) The standard cap system shall have a minimum slope of three per cent and a maximum slope of twenty-five per cent and shall be graded to eliminate ponding, promote drainage, and minimize erosion.
 - (v) Comparable materials and/or thicknesses for the standard cap system may be utilized by the owner or operator if the final cap system specified in this rule is not compatible with the end use.
- (b) Vegetative cap system. Construction of a vegetative cap system shall at a minimum include the following:
- (i) Consist of a soil layer with a thickness of six inches and of sufficient fertility to support dense vegetation.
 - (ii) Consist of a complete and dense perennial vegetative cover of healthy grasses or other vegetation shall be established and maintained on all exposed final cap.
 - (iii) Be graded to eliminate ponding, promote drainage, and minimize erosion.
 - (iv) Utilize comparable materials and/or thicknesses for the vegetative cap system if the final cap system specified in this rule is not compatible with the end use
- (3) Calculations. A section of the final cap system design plan, on plan drawings numbered consecutively 9a, 9b, 9c, etc., shall include the soil erosion calculations for the cap system under closure conditions with references to equations used and showing site specific input and assumptions. The erosion rate is not to exceed five tons per acre per year.

Effective: August 31, 2002

R.C. 119.032 review dates: May 9, 2001 ; August 31, 2007

Certification: _____

June 24, 2002
(Date)

Promulgated Under: R.C. Chapter 119
Statutory Authority: R.C. Section 3714.02
Rule Amplifies: R.C. Section 3714.02
Prior Effective Dates: September 30, 1996

3745-400-08 Construction and final closure certification.

(A) Upon completion of construction of an engineered component required by rule 3745-400-07 of the Administrative Code, the owner or operator shall submit to the licensing authority, a construction certification report. The construction certification report shall certify that construction complies with the construction and performance specifications contained in rules 3745-400-07 and 3745-400-10 of the Administrative Code.

[Comment: Certification follows the facility design plan of rule 3745-400-07 of the Administrative Code, in that there are certification reports to certify the construction of engineered components of the soil liner, leachate collection system, and final cap system, and a certification report to certify the ground water monitoring well system. In addition, a final certification report is required to certify final closure in accordance with rule 3745-400-12 of the Administrative Code.]

(1) Certification of installation of ground water monitoring wells, as required by paragraph (A) of rule 3745-400-10 of the Administrative Code, shall be submitted to the licensing authority prior to or with the annual ground water report required by paragraph (B) of rule 3745-400-10 of the Administrative Code if the ground water monitoring report identifies new ground water monitoring wells.

[Comment: The licensing authority is not required to approve the certification report. However for new areas which are to be licensed for disposal, disposal cannot take place until the monitoring wells necessary to monitor the active licensed disposal area are installed and the first ground water sampling has occurred, as indicated in paragraph (D)(4) of rule 3745-400-11 of the Administrative Code.]

(2) Certification of construction of the engineered components shall be submitted to the licensing authority within sixty days of completion of construction. Engineered components requiring construction certification are those components contained in the facility construction design plan required by paragraph (F) of rule 3745-400-07 of the Administrative Code and any barrier layer designed and shown in the license application for an existing facility in accordance with rule 3745-37-02 of the Administrative Code.

[Comment: The licensing authority is not required to approve the certification report. However for areas which are to be licensed for disposal, disposal cannot take place until the report is received and the licensing authority inspects the area as indicated in paragraph (D)(3) of rule 3745-400-11 of the Administrative Code. The leachate collection system, when constructed in phases ahead of the working face, requires certification and inspection for each construction phase.]

(3) Certification that the engineered components of the final cap system, required by paragraph (G) of rule 3745-400-07 of the Administrative Code and contained in the final cap system design plan, have been constructed shall be submitted to the licensing authority within sixty days of completion of construction. The owner or operator may construct portions of the final cap system as active licensed disposal areas are brought to final grade. The licensing authority shall review the certification report and either approve or deny the construction.

[Comment: The release of final closure financial assurance by the licensing authority upon construction certification of engineered components of the final cap system is addressed in paragraph (A)(6) of rule 3745-400-13 of the Administrative Code.]

(B) Except for the construction certification report on the installation of ground water monitoring wells which shall be certified by a qualified ground water scientist, each construction certification report shall be signed and sealed by a professional engineer registered in Ohio and shall include the following:

- (1) Identification of the constructed engineered component for certification. Plan sheets showing the appropriate views and cross-sections from the facility design plan shall be used to prepare record drawings of what and how the engineered component was constructed and shall include the testing locations. Details of the engineered component shall be redrawn. Record drawings of a barrier layer shall consist of a plan drawing and cross sections and shall utilize the drawing formats described in paragraphs (F)(3) and (F)(4) of rule 3745-400-07 of the Administrative Code.
- (2) Sampling and testing procedures utilized to verify the construction of the engineered components.
- (3) Parameters and testing locations.
- (4) Results of all testing required by paragraph (C) of this rule.
- (5) Identification of any deviations from the specifications contained in rule 3745-400-07 of the Administrative Code. Any significant differences between the test results shall be justified by the owner or operator.

[Comment: A significant change to a specification of rule 3745-400-07 of the Administrative Code is a modification as described in paragraph (A) of rule 3745-400-15 of the Administrative Code.]

- (6) The management structure and the experience and training of the testing personnel.
- (7) The construction certification of the survey marks shall require a certified statement prepared by a professional surveyor that the requirements of paragraph (F)(3)(i) of rule 3745-400-07 of the Administrative Code have been met.

(C) The owner or operator shall verify the following at the frequencies specified below:

- (1) Prior to use in construction of the recompacted soil liner or any soil barrier layer or in the addition of geologic material to establish isolation distance, the soil materials shall be tested for recompacted permeability at construction specifications at a frequency of least once for every ten thousand cubic yards of soil to show that the materials are suitable for use.
- (2) The permeability of each lift of the recompacted soil liner, soil barrier layer, or added geologic material shall be verified on undisturbed samples at least once per every two acres. Any penetrations shall be repaired using methods acceptable to the licensing authority.
- (3) Prior to being used in the leachate collection system, the proposed drainage medium shall be tested for permeability at least once for every five thousand cubic yards of material.
- (4) Prior to use in the construction of the standard cap system, the soil materials to be recompacted shall be classified by texture according to paragraph (G)(2)(a)(i) of rule 3745-400-07 of the Administrative Code at least once for every five thousand cubic yards of soil to demonstrate the materials are suitable for use.
- (5) After construction, the compacted density of the recompacted soil of the standard cap system and the subbase of any soil barrier layer shall be demonstrated by at least one of the following:
 - (a) By proof rolling with a pneumatic tire or smooth steel drum roller providing at least sixty-five psi

contact pressure.

(b) To be at least ninety five per cent of the maximum standard Proctor density at a frequency of at least five times per acre per lift.

(c) To be at least ninety per cent of the maximum modified Proctor density at a frequency of at least five times per acre per lift.

(6) If the standard or modified Proctor density is to be used as the standard for recompaction as in paragraph (C)(5)(b) or (C)(5)(c) of this rule, the maximum dry density and optimum moisture content shall be also established by method ASTM D698 or ASTM D1557 at least once for every five thousand cubic yards of soil prior to use.

[The text of the incorporated materials is not included in this rule and are hereby made a part of this rule. 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. The materials incorporated by reference are available as follows:

Specifications of the "American Society for Testing and Materials" (ASTM). Information and copies may be obtained by writing to: "ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, Pennsylvania 19428-2959." These documents are available for purchase at <http://www.astm.org>. As used in this rule:

ASTM D698-07e1, "Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³(600 kN-m/m³));" approved in 2000; amended in 2007.

ASTM D1557-09, "Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³(2,700 kN-m/m³));" approved in 2000; amended in 2002, 2007, and 2009.]

(D) Final closure certification report. The final closure certification report shall verify that the following activities have been completed in accordance with paragraph (E) of rule 3745-400-12 of the Administrative Code:

(1) The facility has been blocked, by locked gates, fencing, or other sturdy obstacles.

(2) Signs are posted.

(3) All areas within the limits of debris placement which have been certified for final cap system construction in accordance with paragraphs (D) and (E) of rule 3745-400-07 of the Administrative Code as applicable shall be shown on a copy of a plan sheet specified in paragraph (G)(1) of rule 3745-400-07 of the Administrative Code. Each certified capped area shall identify the certified engineered components and include the date of the licensing authority approval required by paragraph (A)(3) of this rule.

(4) Areas within the limits of debris placement for which a construction certification report is included with the final closure certification report shall be shown on a copy of a plan sheet specified in paragraph (G)(1) of rule 3745-400-07 of the Administrative Code. Each area shall identify the engineered components for which a construction certification report is included with the final closure certification report.

Construction certification reports for engineered components of the final cap system included with the

final closure certification report shall be in accordance with paragraph (A)(3) of this rule with the exception of the attainment of complete and dense vegetative cover specified in paragraph (G)(2)(a)(iii) or (G)(2)(b)(ii) of rule 3745-400-07 of the Administrative Code. The construction certification reports for engineered components of the final cap system included with the final closure certification report shall verify that seeding to establish vegetative cover has been completed prior to submittal of the final closure certification report.

- (5) A copy of the plat filed with the appropriate county recorder.
- (6) A copy of the notation on the deed to the facility property.

Effective: 08/01/2012

R.C. 119.032 review dates: 11/30/2011 and 08/01/2017

CERTIFIED ELECTRONICALLY

Certification

06/08/2012

Date

Promulgated Under: 119.03
Statutory Authority: 3714.02
Rule Amplifies: 3714.02
Prior Effective Dates: 8/31/02, 9/30/96

3745-400-09 Site characterization.

(A) Site characterization for employment of the recompacted soil liner requirement.

(1) A recompacted soil liner, as described in paragraph (F)(5)(a) of rule 3745-400-07 of the Administrative Code, is required for all unfilled areas in a facility except when the *in situ* and/or added geologic material separating the uppermost aquifer system(s) from the bottom of the leachate collection system in unfilled areas meets the criteria in paragraphs (A)(2) and (A)(3) of this rule and one of the following:

- (a) When, in an existing facility, the *in situ* and/or added geologic material separating the uppermost aquifer system(s) from all placed debris meets the criteria in paragraphs (A)(2) and (A)(3) of this rule.
- (b) When the unfilled areas of an existing facility meet the requirements of paragraph (A)(1) of this rule and a barrier layer is constructed on existing placed debris in accordance with paragraph (F)(5)(d) of rule 3745-400-07 of the Administrative Code.
- (c) When the unfilled areas of an existing facility meet the requirements of paragraph (A)(1) of this rule and a minimum fifteen foot horizontal separation exists between existing placed debris and the limits of debris placement in unfilled areas.

(2) The *in situ* and/or added geologic material shall have the following:

- (a) A minimum thickness of five feet with a maximum permeability of 1×10^{-5} cm/sec.
- (b) A maximum permeability equivalent to two feet of soil with a permeability of 1×10^{-6} cm/sec.

(3) Added geologic material, if any, shall meet the requirements in paragraph (F)(5)(b) of rule 3745-400-07 of the Administrative Code.

(B) Site characterization for the ground water monitoring requirement. A ground water monitoring well system, as described in paragraph (A) of rule 3745-400-10 of the Administrative Code, is required for a facility accepting debris on or after September 30, 1996, unless all of the following conditions are met:

(1) The limits of debris placement are not within five feet of the uppermost aquifer system.

- (a) The five feet of isolation material between the uppermost aquifer system and the limits of debris placement shall have a permeability equivalent to at least five feet of soil with a maximum permeability of 1×10^{-6} cm/sec.
 - (b) None of the geological material to be included as the minimum five feet of isolation material shall have a permeability greater than 1×10^{-5} cm/sec.
- (2) The limits of debris placement are not within the boundaries of a sole source aquifer designated by the Administrator of the United States environmental protection agency under the "Safe Drinking Water Act", 88 Stat. 1660 (1974), 42 U.S.C.A. 300F, as amended.
 - (3) The limits of debris placement are not within the limits of any unconsolidated aquifer systems delineated on the Ohio department of natural resources ground water resource maps as yielding at least one hundred gallons per minute.
 - (4) The limits of debris placement are not within the limits of an Ohio EPA endorsed wellhead protection area or source water protection area for ground water.
 - (5) The limits of debris placement are not within one thousand feet of a public water supply well in a public water supply well field delivering less than seventy-five thousand gallons per day.
 - (6) The limits of debris placement are not within one thousand five hundred feet of a public water supply well in a public water supply well field delivering seventy-five thousand or more gallons per day.
 - (7) The limits of debris placement are not within one thousand feet of any water supply well or developed spring.

[Comment: New facilities required to have ground water monitoring must implement the system prior to accepting debris for disposal { see paragraph (R)(4) of rule 3745-400-11 of the Administrative Code}.]

(C) Site characterization report.

- (1) The purpose of the site characterization report is to have a qualified ground water scientist provide documentation that the standards established in rule 3745-400-06 of the Administrative Code (prohibited locations), paragraph (A) of this rule (liner), and paragraph (B) of this rule (ground water monitoring) are met and that the ground water monitoring system as outlined in rule 3745-400-10 of the Administrative Code is

capable of determining the quality of the ground water under the facility.

The site characterization report is a part of the facility design plan as outlined in paragraph (A) of rule 3745-400-07 of the Administrative Code. The owner or operator of a new facility shall submit the site characterization report with the first license application.

The site characteristics shall be documented in a narrative report using such maps and cross sections as to clearly convey the nature of the site and the hydrogeology beneath the facility. If the facility meets the standards in paragraph (A) of this rule, the hydrogeologic investigation can be conducted in phases, of which each phase shall be described in the site characterization report.

- (2) The site characterization report shall contain documentation that the ground water scientist meets the qualifications of a qualified ground water scientist as defined in paragraph (GG) of rule 3745-400-01 of the Administrative Code.
- (3) The qualified ground water scientist shall make a final summary as to whether the standards established in rule 3745-400-06 of the Administrative Code (prohibited locations), paragraph (A) of this rule (liner), and paragraph (B) of this rule (ground water monitoring) are met. The final summary shall state each standard and whether the standard has been met. The final summary shall be signed by the qualified ground water scientist.
- (4) The site characterization report shall contain the following publicly available information to support the final summary:
 - (a) An applicable map prepared under the "National Flood Insurance Act of 1968" 82 Stat. 572, 42 U.S.C.A. 4001, as amended, showing where the facility is located with respect to the one hundred year flood plain of a watercourse. If no such map has been prepared for the watercourse, the location of the facility and the delineation of the one hundred year flood plain shall be shown on a plan sheet. The boundaries of the one-hundred-year flood plain of a watercourse shall be determined by the applicant for a license based upon a design storm of seven inches of precipitation in twenty-four hours and upon standard methodologies set forth in "Urban Hydrology for Small Watersheds" (soil conservation service technical release number 55) and section 4 of the "National Engineering Hydrology Handbook" of the soil conservation service of the United States department of agriculture.

[Comment: Note that the above mentioned maps also include flood plains not

associated with a watercourse. Location in such flood plains is not prohibited by Section 3714.03 of the Revised Code. However, there may be other authorities, such as local zoning boards or the Federal Emergency Management Agency, that may otherwise restrict a facility from locating in a flood plain]

- (b) A map showing the location of the facility with respect to the sole source aquifer designated by the administrator of the United States environmental protection agency under the "Safe Drinking Water Act", 88 Stat. 1660, 42 U.S.C.A. 300F, as amended. If a sole source aquifer is not in the vicinity, a statement of that fact will be sufficient.
 - (c) The ground water resource map for the applicable county prepared by the Ohio department of natural resources showing where the facility is located.
 - (d) A map showing the location of the facility with respect to Ohio EPA endorsed wellhead protection area or source water protection area for ground water. If a wellhead protection area or source water protection area for ground water is not in the vicinity, a statement to that fact will be sufficient.
 - (e) A map showing the location of the facility and all public water supply wells within two thousand feet of the limits of debris placement. The yield of any public water supply well field shall also be stated.
 - (f) A map showing the location of the facility and all water supply wells within one thousand five hundred feet of the limits of debris placement.
- (5) The site characterization report shall contain the following site specific hydrogeologic information to support the final summary. The hydrogeologic information shall be collected from borings, test pits, and/or piezometers. The minimum number of locations utilized to collect data for the hydrogeologic investigation shall be equal to the first whole number above the number represented by the square root of the number of acres which comprise the limits of debris placement. The hydrogeologic investigation shall be documented in a narrative report using such maps and cross sections as to clearly convey the nature of the hydrogeology beneath the facility.

[Comment: Test pits need to be recompacted and borings need to be plugged to meet the standards in paragraph (A) or (B) of this rule.]

- (a) A description of the consolidated and unconsolidated stratigraphic units from the ground surface down to the uppermost aquifer system. This description shall include the following:

- (i) Sedimentary, including for unconsolidated formations, the textural classification using the "Unified Soil Classification System."
- (ii) Hydraulic conductivity.
- (iii) Thickness and lateral extent.

[Comment: Boreholes, when located near the perimeter of the facility, may be used to establish the wells for ground water monitoring.]

- (b) A description of the methodology, equipment, and procedures used to identify and characterize the hydrogeology beneath the facility as required by paragraphs (C)(5)(a) and (C)(5)(c) of this rule, including the following:
 - (i) Well and piezometer construction specifications.
 - (ii) Water level measurement procedures.
 - (iii) The drilling and soil sampling methods used in characterizing the soil and its hydrogeologic properties under the facility.
 - (iv) All boring logs, test pit logs, soil analytical data, and any other data generated while preparing this report. A map shall be submitted showing the location of all borings, test pits, and soil sampling sites.

[Comment: This information may be shown on the map required in paragraph (F)(3)(h) of rule 3745-400-07, of the Administrative Code, which may also show the ground water monitoring well system as required for paragraph (A) of rule 3745-400-10 of the Administrative Code and for rule 3745-37-02 of the Administrative Code.]

- (c) When ground water monitoring is required for a facility, a description and documentation of the first continuous significant zone of saturation underlying the facility. This description and documentation shall include the depth to and lateral and vertical extent of the first continuous significant zone of saturation underlying the facility. This description, using narrative, cross sections, and potentiometric maps, shall include the direction of flow within the first continuous significant zone of saturation underlying the facility.

Effective: August 31, 2002

R.C. 119.032 review dates: May 9, 2001 ; August 31, 2007

Certification: _____

June 24, 2002
(Date)

Promulgated Under: R.C. Chapter 119
Statutory Authority: R.C. Section 3714.02
Rule Amplifies: R.C. Section 3714.02
Prior Effective Dates: September 30, 1996

3745-400-10 Ground water monitoring.

- (A) Ground water monitoring well system. The owner or operator of any facility disposing of debris on or after September 30, 1996, shall have a ground water monitoring well system unless the limits of debris placement meet the criteria in paragraph (B) of rule 3745-400-09 of the Administrative Code. Ground water monitoring shall be implemented no later than required by paragraph (R) of rule 3745-400-11 of the Administrative Code. The number, spacing, and depth of ground water monitoring wells included in the monitoring well system shall be capable of determining the quality of the ground water under the facility and be based on site-specific hydrogeologic information contained in the site characterization report required in paragraph (C) of rule 3745-400-09 of the Administrative Code. The monitoring well system is not required to be capable of determining the impact of the facility on the quality of the ground water beneath the facility.

The owner or operator shall describe the ground water monitoring well system in a plan as part of the facility design plan required by rule 3745-400-07 of the Administrative Code. The ground water monitoring well system plan shall be certified by a qualified ground water scientist that the system meets the requirements of paragraph (A) of this rule. If the ground water monitoring well system is constructed in phases, each phase shall be described by a qualified ground water scientist in the license application submitted prior to the placement of debris in the fill area relevant to that phase. The configuration of the ground water monitoring well system at all stages of the facility development shall be described using maps and a narrative.

- (1) The ground water monitoring well system shall include a sufficient number of background and downgradient monitoring wells, installed at appropriate locations and depths, to yield ground water samples from the first continuous significant zone of saturation underlying the facility.
- (2) All monitoring wells shall be designed, installed, and developed in a manner that allows the collection of ground water samples that are representative of ground water quality in the geologic unit being monitored. The ground water monitoring well system plan shall contain a drawing with specifications of the typical construction of any wells not yet constructed. At a minimum include the following:
- (a) Monitoring wells shall be cased in a manner that maintains the integrity of the monitoring well boreholes.
- (b) The annular space, i.e., the space between the borehole and the well casing, above the sampling depth shall be sealed to prevent the contamination of the samples and the ground water.

- (c) The casing shall be screened or perforated and surrounded by sand or gravel in such a way that allows for the minimization of the passage of formation materials into the well.
 - (3) Upon the installation of ground water monitoring wells, a construction certification report shall be submitted in accordance with rule 3745-400-08 of the Administrative Code.
- (B) Reporting. Annually, at least by September thirtieth of each year, the owner or operator of a licensed facility shall determine the quality of ground water from wells that are part of the ground water monitoring well system required in paragraph (A) of this rule and certain constituents in the leachate from the leachate collection system required in paragraph (F) of rule 3745-400-07 of the Administrative Code. The leachate quality data shall be used to supplement ground water monitoring data to determine if the leachate could be causing any changes in the quality of the ground water. These determinations shall be submitted at least annually to the licensing authority in a report signed by a qualified ground water scientist. The ground water monitoring determinations and report do not have to determine the impact of the facility on the quality of the ground water beneath the facility. The report shall provide the following:
 - (1) The ground water quality data required by paragraph (C) of this rule displayed using tables, tri-linear diagrams, stiff diagrams, time vs. concentration plots or any other format deemed appropriate by the qualified ground water scientist. The report shall describe any significant ground water quality changes over time and differences between up-gradient and down-gradient wells.
 - (2) A narrative of the sampling and analysis procedures used. After the initial report submittal, only amendments to the already submitted sampling and analysis procedures need to be submitted with each subsequent report. The sampling and analysis procedures shall be protective of human health and the environment and shall be designed to ensure monitoring results that provide an accurate representation of ground water quality. The narrative of the sampling and analysis procedures shall include a detailed description of the equipment, procedures, and techniques used for the following:
 - (a) Measurement of ground water elevations.
 - (b) Collection of ground water samples, including the following:
 - (i) Well evacuation.

- (ii) Sample withdrawal.
 - (iii) Sample containers and handling.
 - (iv) Sample preservation.
 - (c) Performance of field analysis, including the following:
 - (i) Procedures and forms for recording raw data and the exact location, time, and facility-specific conditions associated with the data acquisition.
 - (ii) Calibration of field devices.
 - (d) Decontamination of equipment.
 - (e) Analysis of ground water samples.
 - (f) Chain of custody control, including the following:
 - (i) Standardized field tracking reporting forms to record sample custody in the field prior to and during shipment.
 - (ii) Sample labels containing all information necessary for effective sample tracking.
 - (g) Field and laboratory quality assurance and quality control, including the following:
 - (i) Collection of replicate samples.
 - (ii) Submission of field-bias blanks.
 - (iii) Potential interferences.
- (3) The ground water elevation for the first continuous significant zone of saturation underlying the facility documented on a potentiometric map(s).
- (4) Documentation that the ground water monitoring well system at the facility continues to meet the requirements of rule 3745-400-09 of the Administrative Code.

- (5) Documentation that the design, and methods of installation, and development, or abandonment of any monitoring wells, piezometers, and other measurement, sampling, and analytical devices that have been installed or abandoned since the last report.
 - (6) Documentation of the qualifications of the certifying qualified ground water scientist.
- (C) Ground water monitoring. The owner or operator shall determine the concentration or value of the parameters listed in the appendix of this rule in ground water and leachate in accordance with the following schedule:
- (1) The owner or operator shall, whenever ground water samples are drawn from a monitoring well, field analyze the samples for parameters 1, 2, and 3 listed in the appendix of this rule.
 - (2) During the initial year of ground water monitoring, the owner or operator shall do the following:
 - (a) At least quarterly, determine the initial background concentration or value in ground water samples from all monitoring wells for parameters 1 to 19 listed in the appendix of this rule.
 - (b) During the first quarterly analysis of ground water quality, also determine the concentration or value for parameters 20 to 64 listed in the appendix of this rule.
 - (c) At least once, determine the concentrations or values in the leachate for parameters 1 to 19 listed in the appendix of this rule.
 - (3) After the initial year, the owner or operator shall at least annually sample all monitoring wells and the leachate collection system and analyze the samples for the parameters 1 to 19 listed in the appendix of this rule.
- (D) Ground water assessment. The licensing authority or director may order the owner or operator to conduct a ground water assessment to determine the concentration of possible contaminants, and their extent and rate of migration within the ground water if the licensing authority or director determines that the facility may be affecting ground water quality. Such a determination shall be supported by leachate quality reports, if required by paragraph (B) of this rule and the following:
- (1) The ground water quality reports from a qualified ground water scientist.

- (2) Water quality data from documented leachate releases to seeps, springs, streams or other receptors.
- (E) Ground water assessment plan and implementation. The ground water assessment shall include the submittal and implementation of a ground water assessment plan prepared by a qualified ground water scientist to the licensing authority or as required by the orders issued by the licensing authority or director.
- (1) The ground water assessment plan shall include the following sampling and analysis:
 - (a) Sampling of the affected well(s) and background well(s) and analysis of those samples for all leachate or leachate-derived constituents including those constituents listed in the appendix of this rule.
 - (b) Within ninety days of sampling the affected well(s) and background well(s) as required by this paragraph, sampling of all other monitoring wells and analysis of those samples for those leachate or leachate-derived constituents found to be above background levels in the affected monitoring wells.
 - (c) Sampling at least annually all monitoring wells included in the ground water assessment and analysis of those samples for all the parameters listed in the appendix. A monitoring well shall be considered part of the ground water assessment if it is needed to determine the concentration of any contaminants, and their extent and rate of migration within the ground water.
 - (2) The ground water assessment plan also shall include the following information:
 - (a) A summary of the hydrogeologic conditions at the facility.
 - (b) A description of the detection monitoring program implemented by the facility, including the following:
 - (i) The number, location, depth, and construction of detection monitoring wells with documentation.
 - (ii) A summary of detection monitoring ground water analytical data.
 - (iii) A summary of statistical analyses previously applied to the data, if any.
 - (c) A detailed description of the investigatory approach to be followed during the assessment, including but not limited to the following:

- (i) The proposed number, location, depth, installation method, and construction of additional monitoring wells for assessment purposes.
 - (ii) The proposed method(s) for gathering additional hydrogeologic information.
 - (iii) The planned use of supporting methodology, e.g., soil, gas, or geophysical surveys.
 - (d) A detailed description of the techniques, procedures, and analytical equipment to be used for ground water sampling during the assessment, including, but not limited to the items listed in paragraph (B)(2) of this rule.
 - (e) A detailed description of the data evaluation procedures to be used, including but not limited to the following:
 - (i) Planned use of statistical data evaluation.
 - (ii) Planned use of computer programs and/or models.
 - (iii) Planned use of previously gathered information.
 - (iv) Criteria which will be utilized to determine if additional assessment activities are warranted.
 - (f) A schedule of implementation.
- (3) All ground water monitoring wells not included in the ground water assessment shall continue to be monitored in accordance with paragraph (C) of this rule.
- (4) The owner or operator shall make a determination of the concentration of any contaminants, and their extent and rate of migration within the ground water within the time frame specified in the submitted ground water assessment plan or within the orders issued by the licensing authority or director. The owner or operator shall submit to the licensing authority or as required by the orders issued by the licensing authority or director, not later than fifteen days after making this determination, a written ground water assessment report prepared by a qualified ground water scientist containing an assessment of the ground water quality including all data generated as part of the implementation of the ground water assessment plan. If the qualified ground water scientist certifies that the facility has not impacted the quality of ground water beneath the facility, then the owner or operator may resume monitoring in accordance with

paragraph (B) of this rule unless ordered by the licensing authority or director to continue ground water assessment.

Effective: August 31, 2002

R.C. 119.032 review dates: May 9, 2001 ; August 31, 2007

Certification: _____

June 24, 2002

(Date)

Promulgated Under: R.C. Chapter 119
Statutory Authority: R.C. Section 3714.02
Rule Amplifies: R.C. Section 3714.02
Prior Effective Dates: September 30, 1996

Amended
Appendix
List of Ground Water Monitoring Parameters

<u>Compound or parameter</u>	<u>CAS RN</u>
(1) Temperature	
(2) pH	
(3) Specific conductance	
(4) Chemical oxygen demand	
(5) Sodium	
(6) Chloride	
(7) Bicarbonate/carbonate	
(8) Turbidity	
(9) Ammonia	
(10) Calcium	
(11) Iron	
(12) Lead	
(13) Magnesium	
(14) Manganese	
(15) Nitrate-nitrite	
(16) Phosphorous	
(17) Potassium	
(18) Sulfate	
(19) Zinc	
(20) Acetone.....	67-64-1
(21) Acrylonitrile.....	107-13-1
(22) Benzene.....	71-43-2
(23) Bromochloromethane.....	74-97-5
(24) Bromodichloromethane.....	75-27-4
(25) Bromoform; tribromomethane.....	75-25-2
(26) Carbon disulfide.....	75-15-0
(27) Carbon tetrachloride.....	56-23-5
(28) Chlorobenzene.....	108-90-7
(29) Chloroethane; ethyl chloride.....	75-00-3
(30) Chloroform; trichloromethane.....	67-66-3
(31) Dibromochloromethane; chlorodibromomethane.....	124-48-1
(32) 1,2-Dibromo-3-chloropropane; DBCP.....	96-12-8
(33) 1,2-Dibromoethane; ethylene dibromide; EDB.....	106-93-4
(34) o-Dichlorobenzene; 1,2-dichlorobenzene.....	95-50-1
(35) p-Dichlorobenzene; 1,4-dichlorobenzene.....	106-46-7
(36) trans-1,4-Dichloro-2-butene.....	110-57-6

(37)	1,1-Dichloroethane; ethylene chloride.....	75-34-3
(38)	1,2-Dichloroethane; ethylene dichloride.....	107-06-2
(39)	1,1-Dichloroethylene; 1,1-dichloroethene; vinylidene chloride.....	75-35-4
(40)	trans-1,2-Dichloroethylene; trans-1,2-dichloroethene.....	56-60-5
(41)	1,2-Dichloropropane; propylene dichloride.....	78-87-5
(42)	cis-1,3-Dichloropropene.....	10061-01-5
(43)	trans-1,3-Dichloropropene.....	10061-02-6
(44)	Ethylbenzene.....	100-41-4
(45)	2-Hexanone; methyl butyl ketone.....	591-78-6
(46)	Methyl bromide; bromomethane.....	74-83-9
(47)	Methyl chloride; chloromethane.....	74-87-3
(48)	Methylene bromide; dibromomethane.....	74-95-3
(49)	Methylene chloride; dichloromethane.....	75-09-2
(50)	Methyl ethyl ketone; MEK; 2-butanone.....	78-93-3
(51)	Methyl iodide; iodomethane.....	74-88-4
(52)	4-Methyl-2-pentanone; methyl isobutyl ketone.....	108-10-1
(53)	Styrene.....	100-42-5
(54)	1,1,1,2-Tetrachloroethane.....	630-20-6
(55)	1,1,2,2-Tetrachloroethane.....	79-34-5
(56)	Tetrachloroethylene; tetrachloroethene; perchloroethylene.....	127-18-4
(57)	Toluene.....	108-88-3
(58)	1,1,1-Trichloroethane; methylchloroform.....	71-55-8
(59)	1,1,2-Trichloroethane.....	79-00-5
(60)	Trichloroethylene; trichloroethene.....	79-01-6
(61)	1,2,3-Trichloropropane.....	96-18-4
(62)	Vinyl acetate.....	108-05-4
(63)	Vinyl chloride.....	75-01-4
(64)	Xylenes	
(65)	Antimony	
(66)	Arsenic	
(67)	Barium	
(68)	Beryllium	
(69)	Cadmium	
(70)	Chromium	
(71)	Cobalt	
(72)	Copper	
(73)	Nickel	
(74)	Selenium	
(75)	Silver	
(76)	Thallium	

(77) Vanadium.

[Comment: Method 8260 of the USEPA SW 846 manual, "Testing Methods for Evaluating Solid Waste", is appropriate for monitoring leachate and the ground water to detect or assess the above VOCs.]

3745-400-11 Operation of facilities.

(A) Applicability. The owner or operator shall comply with the requirements and operational criteria specified in this rule until final closure has been completed in accordance with rule 3745-400-12 of the Administrative Code, and the closure certification as required by paragraph (D) of rule 3745-400-08 of the Administrative Code has been submitted to and written concurrence received from the licensing authority, as specified in this paragraph as follows:

- (1) For active licensed disposal areas, the owner or operator shall comply with all the requirements and operational criteria contained in this rule.
- (2) For inactive licensed disposal areas where no debris has been disposed, the owner or operator shall comply with the following paragraphs of this rule:
 - (a) Paragraph (B) on compliance.
 - (b) Paragraphs (C)(1) and (C)(2) on records management.
 - (c) Paragraph (Q)(1) on surface water management.
- (3) For inactive licensed disposal areas where debris has been disposed, the owner or operator shall comply with the following paragraphs of this rule:
 - (a) Paragraph (B) on compliance.
 - (b) Paragraphs (C)(1) and (C)(2) on records management.
 - (c) Paragraph (E) on construction.
 - (d) Paragraph (N) on the cap system.
 - (e) Paragraph (O) on leachate outbreaks.
 - (f) If applicable, paragraph (P) on leachate system management.
 - (g) Paragraph (Q) on surface water management.
 - (h) Paragraph (R) on ground water monitoring.
 - (i) Paragraph (S) on financial assurance.

- (4) For facilities in existence on the effective date of the rules and in operation prior to the issuance of the initial license, the owner or operator shall comply with the following paragraphs of this rule until the owner or operator receives the initial license for the facility:
 - (a) Paragraph (B)(1) on compliance/conduct of operations.
 - (b) Paragraph (B)(5) on compliance/closure.
 - (c) Paragraph (B)(9) on compliance/daily log.
 - (d) Paragraphs (B)(12) and (B)(14) to (B)(16) on compliance/operations.
 - (e) Paragraph (C)(2) on records management/permits.
 - (f) Paragraphs (D)(2) and (D)(5) on debris placement/equipment and permits.
 - (g) Paragraphs (E) to (Q).

(B) Compliance.

- (1) The owner or operator shall conduct all operations at the facility in strict compliance with the license, any orders, and other authorizing documents issued in accordance with Chapter 3714. of the Revised Code.
- (2) The owner or operator shall dispose of construction and demolition debris only within the active licensed disposal area.
- (3) The owner or operator shall comply with the applicable construction specifications and performance standards contained in rule 3745-400-07 of the Administrative Code.
- (4) The owner or operator shall comply with the ground water monitoring requirements contained in rule 3745-400-10 of the Administrative Code.
- (5) The owner or operator shall comply with the closure requirements of rule 3745-400-12 of the Administrative Code.
- (6) The owner or operator shall comply with the financial assurance requirements for closure contained in rules 3745-400-13 and 3745-400-14 of the Administrative Code.

- (7) The owner or operator shall comply with the construction certification requirements contained in rule 3745-400-07 of the Administrative Code.
- (8) The owner or operator of an existing facility shall not place debris in any unfilled areas without a liner, if required, and a leachate collection system after December 31, 1998.
- (9) The owner or operator shall keep a daily log of operations of the facility that contains all the information specified on forms prescribed by the director. All entries required by the log form shall be completed. A copy of the log shall be available for inspection by the licensing authority during normal operating hours. When required by the licensing authority, log forms or summaries of daily logs shall be submitted to the licensing authority. The owner or operator may use alternate forms, either in paper or electronic formats, for the daily log of operations, provided that all of the information requested on the prescribed forms is present.
- (10) The owner or operator shall keep records of all material prohibited for disposal that was accepted by the facility, including material removed from the working face in accordance with paragraph (F)(3) of this rule. For prohibited materials removed by the owner or operator, dated records of volumes and destinations for proper disposal shall be kept. For prohibited materials removed by others or for rejected loads, the owner or operator shall list the responsible entity, including companies maintaining transfer containers at the facility for the purpose of collecting prohibited materials.
- (11) The owner or operator shall conduct all operations at the facility with individuals thoroughly familiar with proper operating procedures, the terms and conditions of the facility license, and this rule.
- (12) The owner or operator shall conduct special monitoring and testing if the licensing authority determines that a substantial threat of pollution to surface water, ground water, and/or air exists. In such a case, the owner or operator shall prepare a monitoring plan, approved by the licensing authority.

[Comment: For facilities with ground water monitoring, the procedure for determining whether a substantial threat to ground water exists is outlined in paragraph (D) of rule 3745-400-10 of the Administrative Code.]

- (13) The owner or operator shall provide a topographic map of the existing inactive and active licensed disposal areas or of the facility if the licensing authority so requests. The topographic map shall represent existing contours and not be required more frequently than annually.

- (14) The owner or operator shall supply additional control measures if deemed necessary by the licensing authority.
 - (15) The owner or operator shall not cause or allow operations to create a nuisance or health hazard from noise, dust, odors, and the attraction and/or breeding of birds, insects, rodents, and other vectors.
 - (16) The owner or operator shall not cause water pollution.
- (C) Records management.
- (1) The owner or operator shall obtain an approved and valid license as required by Chapter 3745-37 of Administrative Code. The owner or operator shall retain at the facility during operational hours, the license application which contains the facility's construction and monitoring plans.
 - (2) The owner or operator shall maintain all applicable permits and authorizations required by Chapters 3704. (air pollution control) and 6111. (water pollution control) of the Revised Code.
- (D) Debris placement. The owner or operator shall place and maintain markers defining the limits of the active licensed disposal area. Placement of debris into a newly active licensed disposal area cannot occur prior to the following:
- (1) The owner or operator has submitted the construction certification report for the active licensed disposal area to the licensing authority in accordance with rule 3745-400-08 of the Administrative Code.
 - (2) The owner or operator is prepared for operation with all necessary equipment ready and operational.
 - (3) The licensing authority has inspected the active licensed disposal area. The licensing authority shall inspect the constructed disposal area within ten working days of receipt of the construction certification report.
- [Comment: In any case, the constructed disposal area must be inspected by the licensing authority before placement of debris.]
- (4) The owner or operator has implemented the ground water monitoring plan in accordance with paragraph (R) of this rule, and the information submitted in the license application required by rule 3745-37-02 and rule 3745-400-09 of the Administrative

Code. For the purpose of this rule, implement means to commence ground water sampling.

- (5) The owner or operator has applied for and received all applicable permits and authorizations required by Chapters 3704. and 6111. of the Revised Code.

[Comment: requirements contained at 40 CFR 122 and Chapter 6111. of the Revised Code prohibit point source discharges to waters of the state without first obtaining a "National Pollutant Discharge Elimination System" (NPDES) permit. Application for permits regarding Chapter 6111. of the Revised Code must be requested through the appropriate Ohio EPA district office, division of surface water (DSW), NPDES permit section. Specific issues such as best management practices (BMP) for stormwater runoff control or sedimentation ponds must be discussed with the district staff to determine all required permits.]

[Comment: The liner/leachate collection system certification report is not required to be reviewed or approved by the licensing authority prior to debris placement. The capping certification report is required to be reviewed and approved by the licensing authority before funds can be remitted to the owner or operator. The debris placement plan is submitted annually as a part of the license application and is therefore reviewed and approved annually. There is no certification report for the debris placement plan.]

- (E) Construction. The owner or operator shall operate the facility to accommodate the following:
- (1) The owner or operator shall maintain the integrity of the engineered components of the facility and repair any damage to or failure of the components. "Engineered components" includes the components described in rule 3745-400-07 of the Administrative Code and components of the ground water monitoring system(s) installed in accordance with rule 3745-400-10 of the Administrative Code.
 - (2) The owner or operator shall investigate all tests of constructed engineered components which fail to meet the specifications outlined in rule 3745-400-08 of the Administrative Code. An area within a verified failure must be reconstructed to meet specifications. Reconstructed areas shall be retested.
 - (3) The owner or operator of a facility with limits of debris placement located within five hundred feet of an occupied building which is not owned by the owner or operator shall establish a barrier to minimize visibility of the facility operations. The owner or operator shall place the barrier on sides with occupied buildings in existence at the time of the initial license application. For the purpose of this rule, an occupied building means any building regularly occupied in whole or in part as a habitation for human beings, or other

buildings where people are accustomed to assemble.

[Comment: Examples of buildings where people are accustomed to assemble include buildings used for any commercial, social, religious, educational, or charitable purpose, such as churches, schools, and stores. Examples of barriers include trees and shrubs, earthen berms with landscaping, and opaque fences.]

- (F) Waste acceptance and disposal. Prior to acceptance by the facility, debris shall be readily identifiable as construction and demolition debris and shall not have been shredded, pulverized, or otherwise rendered to the extent that the debris is unidentifiable. The owner or operator shall dispose of only construction and demolition debris as defined in rule 3745-400-01 of the Administrative Code, except as specified in this rule.
- (1) The owner or operator of a facility shall not accept any hazardous wastes, infectious wastes, or containerized or bulk liquids. Any such materials found at the facility shall be removed as soon as practical. If any such prohibited materials are detected in incoming debris, the entire load shall be refused. All incidents concerning these prohibited materials shall be noted in the daily log.
- [Comment: Radioactive waste is regulated by the Ohio department of health. Owners or operators are subject to their requirements pursuant to applicable state and federal law.]
- (2) The owner or operator of a facility shall not dispose of any solid wastes except as follows:
- (a) Packaging which results from the use of construction materials may be disposed if it is incidental to the load.
- [Comment: A load of packaging materials cannot be disposed of by a construction and demolition debris facility because the packaging is not incidental to the load.]
- (b) Tree stumps, trunks and clean branches exceeding 4 inches (25 cm) in diameter May be disposed. For the purpose of this rule, clean branches means those without leaves and smaller branches attached.

[Comment: Paragraph (A) of rule 3745-400-03 of the Administrative Code provides that all tree materials removed from clearing a construction site may be disposed by burial on the site of generation. When taken off the site of generation, tree parts smaller than 4 inches in diameter are considered yard

waste and shall be disposed in accordance with Chapter 3734. of the Revised Code.]

- (c) Asbestos materials subject to NESHAP, 40 CFR Part 61, Subpart M, may be disposed of only if the necessary air pollution control permits have been issued.

[Comment: An owner or operator licensed, permitted, or otherwise authorized in accordance with Chapter 3714. of the Revised Code may accept solid waste materials if the activity is licensed, permitted, or otherwise authorized separately from the construction and demolition debris disposal facility license issued under Chapter 3714. of the Revised Code. For example, the owner or operator may also conduct a yard waste composting operation or operate a solid waste transfer facility, if so authorized. These separate activities may occur within the facility bounds if the license acknowledges the additional separate activities. If the separate activities are conducted outside of the construction and demolition debris facility bounds, then the construction and demolition debris license for the facility is not affected.]

[Comment: Prohibited materials that are removed are regulated as solid waste or infectious waste by Chapter 3745-27 of the Administrative Code or as hazardous waste by Chapters 3745-50 to 69 of the Administrative Code. Storage of any prohibited materials where such storage causes a nuisance or health hazard in the judgment of the health commissioner or the director or their authorized representatives shall constitute violation of Chapter 3734. of the Revised Code.]

[Comment: Pursuant to section 3734.01 of the Revised Code, materials resulting from mining operations, non-toxic fly ash, non-toxic spent foundry sand, and slag are not solid wastes. A construction and demolition debris facility can accept these materials for disposal once the owner or operator receives the authorization required pursuant to Chapter 6111. (water pollution control) of the Revised Code. The licensing authority may request the materials analysis data required for such authorization.]

- (3) The owner or operator shall deposit incoming loads of debris at a designated unloading zone where the debris shall be inspected and all prohibited wastes shall be removed, unless the owner or operator has received approval of and has implemented a pre-acceptance debris screening program at the facility. If the owner or operator is implementing a pre-acceptance debris screening program that has been approved by the licensing authority through the license application, the owner or operator is not required to establish a designated unloading zone.

- (a) The owner or operator shall unload the debris in clearly designated and marked unloading zones separate from the working face. Unloading zones may be temporary and adjacent to the active working face. Upon inspection of the unloaded debris, the owner or operator shall remove prohibited materials prior to placing the debris on the working face. No prohibited materials are permitted to be disposed at the working face. The owner or operator shall remove any prohibited material found at the working face.
 - (b) The owner or operator shall clearly mark the limits of the unloading zone with at least two temporary markers.
 - (c) Once prohibited materials are removed, the owner or operator shall spread and compact the debris on the working face. When debris is deposited on the working face, it shall be spread evenly over the working face and compacted to the smallest practical volume.
 - (d) Clipping is prohibited. For the purpose of this rule, clipping is the formation of an edge or cliff by the placement of debris to the working face without compacting.
- (4) Debris that is burning or at a temperature likely to cause a fire or damage to any component of the facility shall be placed in a separate location at a sufficient distance from the working face and unloading zone to prevent fires from spreading to the working face. The owner or operator shall immediately cover the hot or burning debris with sufficient amount of earth or other material, or spray the debris with water or other fire suppressant to extinguish or prevent fire. When the debris has cooled and is no longer smoking, the owner or operator shall deposit the extinguished material on the working face.
- (G) Equipment. The owner or operator shall have available at all times adequate equipment for operations.
- (H) Fire prevention. The owner or operator shall operate the facility in a manner that prevents fires by doing one of the following:
- (1) Covering all disposed combustible debris on a weekly basis with soil, clean hard fill, or other material which is noncombustible. For the purpose of this rule, covering means to apply noncombustible material in a manner such that combustible debris is not visible.

- (2) Preparing and utilizing an alternate fire prevention plan acceptable to the licensing authority. The plan shall include the monthly application of noncombustible cover plus another method(s) to prevent fires.

[Comment: Application of noncombustible cover; prevention of open discarding of smoking materials, such as cigarettes and matches, at the facility; and keeping debris moist through leachate recirculation are known methods to prevent fires at facilities.]

[Comment: Application of cover means all disposed combustible debris shall be covered at least once during the weekly or monthly schedule.]

- (I) Access. The owner or operator shall limit access to the facility to prevent interference with proper operating procedures as follows:
 - (1) The owner or operator shall limit access to the facility to authorized personnel only, except when operating personnel are present during operating hours.
 - (2) The owner or operator shall exclude live domestic and live farm animals from the facility except those used for security or vector control.
 - (3) Access to the facility cannot be denied to the licensing authority and its authorized representatives, who upon proper identification, may enter the facility at reasonable times to determine compliance with Chapter 3714. of the Revised Code and rules adopted thereunder.
 - (4) The owner or operator shall maintain access roads to allow passage of loaded vehicles with minimum dust generation or erosion during inclement weather.

[Comment: Dust generation is also addressed in Ohio EPA air pollution control permit for fugitive dust.]
 - (5) The owner or operator shall employ measures necessary to minimize the incidence of mud, dirt, and dust on public roads before vehicles leave the facility.
 - (6) The owner or operator shall post clear instructions for using the facility at the entrance. Instructions shall include a listing of wastes the disposal of which is prohibited as outlined in paragraph (F) of this rule and of telephone numbers of emergency personnel including the local fire department, the board of health, and the appropriate district office of Ohio EPA. The instructions shall be readable from vehicles arriving to deposit debris.

- (J) Inclement weather. The owner or operator shall ensure that preparations have been made to receive, spread, and cover debris during inclement weather. Preparations shall include designated areas where debris will be deposited, spread, and covered during inclement weather, all-weather access roads leading to these designated areas, and stockpiles of cover material.
- (K) Scavenging. No person shall conduct or allow scavenging. For the purpose of this rule, scavenging is the extraction or removal of material from a construction and demolition debris facility by a person(s) unauthorized by the facility operator.
- (L) Litter. The owner or operator shall employ all reasonable measures to collect, properly contain, and dispose of scattered litter at the active licensed disposal area of a facility, including frequent policing of the area and the use of portable wind screens where necessary.
- (M) Fire control. The owner or operator shall have available at or near the facility, adequate fire control equipment, material, and services to control fire and explosion. The owner or operator shall act immediately to control or extinguish any fire.
- (N) Cap system. The owner or operator shall construct the cap system as specified in paragraph (G) of rule 3745-400-07 of the Administrative Code.
- (O) Leachate outbreaks. If there is an outbreak of leachate at the surface, the owner or operator shall do all of the following:
- (1) Contain the leachate.
 - (2) Manage and dispose the leachate in accordance with applicable regulations.
 - (3) Repair the outbreak.
- (P) Leachate system management. The owner or operator shall operate and maintain the leachate collection system as follows:
- (1) The owner or operator shall operate the leachate collection system to maintain no more than one foot of head anywhere on the *in situ* and/or added geologic material or constructed liner with the exception of the sump area(s).
 - (2) The owner or operator shall maintain the leachate collection system in such a manner as to prevent blockage or clogging that could impede the proper collection of leachate. If a collection pipe network is utilized in the leachate management system, the owner or operator shall inspect it to verify no crushing or clogging exists after placement of the

first lift of debris and annually thereafter.

- (3) The owner or operator shall manage and dispose of leachate in accordance with applicable regulations.

[Comment: Leachate recirculation is allowed if approved by the licensing authority.]

- (Q) Surface and ground water management. The owner or operator shall control surface and ground water to minimize the generation of leachate in the following manner:

- (1) The owner or operator shall divert surface and ground water from the active and inactive licensed disposal areas of the facility by nonmechanical means. The owner or operator shall not divert surface water under, over, or through disposal areas of a facility.

[Comment: Diversion of streams may require authorization from the army corps of engineers and/or the Ohio environmental protection agency pursuant to 33 USCS 1341 and 1344.]

- (2) The owner or operator shall grade the facility and provide drainage systems to insure minimal infiltration of water through the cover material and cap system as well as erosion of the cover material and cap system.
- (3) If ponding or erosion occurs in active or inactive licensed disposal areas, the owner or operator shall correct the conditions causing the ponding or erosion.
- (4) If silting or scouring occurs in surface water structures, the owner or operator shall correct the conditions causing the silting or scouring and shall repair the surface water drainage structures.
- (5) If a substantial threat of surface water pollution exists, the licensing authority may require monitoring of surface water.

- (R) Ground water monitoring. The owner or operator shall do the following:

- (1) Sample and test leachate annually, in accordance with paragraph (C) of rule 3745-400-10 of the Administrative Code, if the facility has a leachate collection system.
- (2) Maintain and operate the monitoring wells, piezometers and other measurement, sampling and analytical devices to perform to the design specifications in accordance with the ground water monitoring program of rule 3745-400-10 of the Administrative

Code throughout the life of the ground water monitoring program.

(3) For new facilities, implement the ground water monitoring program in accordance with rule 3745-400-10 of the Administrative Code prior to accepting debris for disposal. For the purpose of this rule, implement means to install the ground water monitoring system and begin sampling.

(S) Financial assurance. The owner or operator shall establish and maintain financial assurance for closure as required by rule 3745-400-13 of the Administrative Code.

Effective: August 31, 2002

R.C. 119.032 review dates: May 9, 2001 ; August 31, 2007

Certification: _____

June 24, 2002

(Date)

Promulgated Under: R.C. Chapter 119
Statutory Authority: R.C. Section 3714.02
Rule Amplifies: R.C. Section 3714.02
Prior Effective Dates: September 30, 1996

3745-400-12 Final closure of facilities.

- (A) An owner or operator shall complete closure of a construction and demolition debris facility in a manner that reasonably accomplishes the following:
- (1) Minimizes the need for maintenance at the facility.
 - (2) Prevents the failure of final slopes.
 - (3) Protects public health and safety and the environment.
 - (4) Does not create a nuisance or fire hazard.
 - (5) Does not cause or contribute to air or water pollution.
 - (6) Minimizes erosion; infiltration of surface water; production of leachate; production of hydrogen sulfide, other gases, and odors; and accumulation and runoff of contaminated surface water.
- (B) Mandatory closure. Final closure of a facility is mandatory when one or more of the following apply:
- (1) The owner or operator declares in writing to the licensing authority that debris will no longer be accepted for disposal at the facility.
 - (2) A license issued to a facility has expired and a renewal license has not been applied for in the manner prescribed in Chapter 3745-37 of the Administrative Code.
 - (3) All approved limits of debris placement and approved final elevations have been reached.
 - (4) The owner or operator of a facility in operation on September 30, 1996, failed to apply for a license prior to April 1, 1997.
 - (5) An existing facility has submitted an initial license application and the license application has been denied as a final action of the licensing authority.
 - (6) A facility license has expired and another license has been applied for and denied as a final action of the licensing authority.
 - (7) A facility license has been revoked as a final action of the licensing authority.
- (C) Notification of anticipated date to cease acceptance of debris.
- The owner or operator shall provide to the licensing authority written notice of the intent and anticipated date of ceasing acceptance of debris at a facility not later than ninety days prior to the anticipated date to cease acceptance of debris at a facility if final closure is or will be triggered by any of the following occurrences:
- (1) Paragraph (B)(1) of this rule.
 - (2) Paragraph (B)(2) of this rule.
 - (3) Paragraph (B)(3) of this rule.
- (D) Timing of final closure. Upon mandatory closure as described in paragraph (B) of this rule, the owner or operator shall cease acceptance of debris for disposal and shall perform final closure activities outlined in

paragraph (E) of this rule.

[Comment: The licensing authority may utilize authority under section 3714.04 of the Revised Code should a time extension for completion of final closure be determined appropriate.]

[Comment: An owner or operator must maintain a license for an inactive facility not intended to be closed.]

[Comment: Pursuant to rule 3745-400-13 of the Administrative Code, financial assurance funds will be released in accordance with rule 3745-400-13 of the Administrative Code when construction of an engineered component identified in the final closure cost estimate is certified in accordance with rule 3745-400-08 of the Administrative Code, and is approved by the licensing authority.]

(E) Final closure activities. The owner or operator shall complete the final closure activities for licensed facilities as follows:

- (1) The owner or operator shall comply with paragraphs (I), (K), and (M) to (S) of rule 3745-400-11 of the Administrative Code during final closure.
- (2) The owner or operator shall comply with the compliance disclosure requirements in section 3714.052 of the Revised Code when employing a new key employee.
- (3) Prior to or on the date that acceptance of material for disposal ceased, but not later than ninety days after final closure becomes mandatory, the owner or operator shall permanently cease leachate recirculation if leachate is being recirculated.
- (4) Within seven days of ceasing to accept debris for disposal, the owner or operator shall provide written notification to the licensing authority of the date the facility ceased to accept debris.
- (5) Within seven days of ceasing to accept debris for disposal, the owner or operator shall block, by locked gates, fencing, or other sturdy obstacles, all entrances and access roads to the facility to prevent unauthorized access during the final closure period, unless the facility is to be used for other purposes which are indicated in writing to the licensing authority.
- (6) Within thirty days of ceasing to accept debris for disposal, the owner or operator shall post signs, easily visible from all access roads leading onto the facility, stating in letters at least three inches high that the construction and demolition debris facility is closed and no longer accepts construction and demolition debris. The signs shall be maintained in legible condition until final closure of the facility is complete.
- (7) Within sixty days of ceasing to accept debris for disposal, the owner or operator shall cover all uncapped disposal areas with at least six inches of recompacted soil and grade this soil to prevent ponding of water. This soil layer may be considered a part of the cap system required by paragraphs (D) and (E) of rule 3745-400-07 of the Administrative Code.
- (8) Construction of cap system.
 - (a) Within one year of ceasing to accept debris for disposal, the owner or operator shall complete construction of a cap system consistent with the details of the approved final cap design plan and as required by paragraphs (D) and (E) of rule 3745-400-07 of the Administrative Code over all areas of debris placement not previously certified in accordance with rule 3745-400-08 of the Administrative Code with the exception of the attainment of complete and dense vegetative cover specified in

paragraph (G)(2)(a)(iii) or (G)(2)(b)(ii) of rule 3745-400-07 of the Administrative Code. Seeding to establish vegetative cover shall be completed prior to submittal of the final closure certification report.

- (b) If the owner or operator of a construction and demolition debris facility appeals the final denial or final revocation of a construction and demolition debris facility license to the environmental review appeals commission in accordance with section 3745.04 of the Revised Code, and the commission grants a de novo hearing with respect to the appeal in accordance with section 3745.05 of the Revised Code, the owner or operator may elect to postpone the construction of a cap system required by paragraphs (D) and (E) of rule 3745-400-07 of the Administrative Code. In order to postpone construction under this rule, all of the following must be the case:
- (i) The owner or operator maintains and will continue to maintain compliance with all applicable financial assurance requirements.
 - (ii) The owner or operator is in compliance with and will continue to comply with all other applicable final closure requirements set forth in this rule.
 - (iii) The construction and demolition debris facility is not the subject of an emergency order mandating the capping or placement of cover over the facility issued pursuant to division (B) of section 3714.12 of the Revised Code.
 - (iv) A court of competent jurisdiction has not ordered the construction and demolition debris facility to cease acceptance of waste or to commence final closure activities.
 - (v) Postponement of construction of the cap system will not create a nuisance, fire hazard, or cause or contribute to air or water pollution.
 - (vi) The owner or operator has undertaken a continuing program of cap construction or has entered into a binding contractual obligation to complete construction of a cap system within one hundred eighty days after the entry of the commission's decision affirming the final action.

Not later than ten days after the commission grants a de novo hearing the owner or operator shall provide written notice to the licensing authority and the director stating that the construction of the cap system will be postponed in accordance with this rule. The written notice must be accompanied by an affidavit certifying that all of the conditions required for postponement are satisfied.

Postponement under this rule shall automatically terminate upon the failure of the owner or operator to comply with any part of this rule; or the dismissal of the appeal by the commission; or the issuance of an order by the commission affirming the denial or revocation. The owner or operator shall complete construction of a cap system as required by rule 3745-400-07 of the Administrative Code within one hundred eighty days of the termination of the postponement.

- (9) The owner or operator shall file with the appropriate county recorder a plat of the facility and information describing the acreage, exact location, depth, volume, and nature of the placed debris.
- (10) The owner or operator shall record a notation on the deed to the facility property or on another instrument which is examined during title search, alerting in perpetuity any potential purchaser of the property that the land has been used as a construction and demolition debris facility. The notation shall include information describing the acreage, exact location, depth, volume and nature of the placed debris.

(11) Not later than each anniversary of ceasing to accept debris for disposal, the owner or operator shall annually submit updated final closure and post-closure care financial assurance documentation prepared in accordance with rules 3745-400-13 and 3745-400-18 of the Administrative Code using forms prescribed by the director. The cost estimates shall be revised to account for any changes at the facility and shall be adjusted for inflation. At a minimum, the cost estimates shall be increased for inflation. The adjustment shall be made using an inflation factor derived from the annual implicit price deflator for gross domestic product as published by the United States department of commerce in the most recent February issue of "Survey of Current Business."

[Comment: The text of the incorporated materials is not included in this rule and are hereby made a part of this rule. The "Survey of Current Business" document is available at <http://www.bea.gov> or by writing to the "United States Bureau of Economic Analysis, 1441 L Street NW, Washington, DC 20230."]

(12) The owner or operator shall retain all authorizing documents and completed daily logs of operations at a location acceptable to the licensing authority where the documents are available for inspection by Ohio EPA or the approved board of health during normal business hours.

(13) The owner or operator shall maintain all records and reports generated during final closure at a location acceptable to the licensing authority where the documents are available for inspection by Ohio EPA or the approved board of health during normal business hours.

[Comment: Records required by paragraphs (E)(12) and (E)(13) of this rule shall be kept throughout the post-closure care period in accordance with rule 3745-400-16 of the Administrative Code.]

(F) Monitoring and reporting. All monitoring and reporting activities required during the operating life of the facility shall be continued during the final closure period.

(G) Completion. Final closure of the facility shall be deemed complete upon the licensing authority's written concurrence with the final closure certification report, required by paragraph (D) of rule 3745-400-08 of the Administrative Code. If required by rule 3745-400-16 of the Administrative Code, post-closure care of the facility shall begin when final closure has been deemed complete.

The licensing authority shall make a determination on concurrence within ninety days of receipt of the final closure certification report.

(H) Entry for inspection. The licensing authority, upon proper identification, may enter any facility at reasonable times during the final closure period for the purpose of determining compliance with this rule.

(I) Cap requirements for existing facilities for which an initial license application was not submitted. The owner or operator shall construct a cap system meeting the requirements of paragraph (E) of rule 3745-400-07 of the Administrative Code.

Effective: 08/01/2012

R.C. 119.032 review dates: 11/30/2011 and 08/01/2017

CERTIFIED ELECTRONICALLY

Certification

06/08/2012

Date

Promulgated Under: 119.03
Statutory Authority: 3714.02
Rule Amplifies: 3714.02, 3714.05, 3714.052
Prior Effective Dates: 3/23/06, 08/31/02, 09/30/96

3745-400-13 Financial assurance for construction and demolition debris facility final closure.

[Comment: Financial assurance for construction and demolition debris facilities includes financial assurance for final closure as required by this rule and financial assurance for post-closure care as required by rule 3745-400-18 of the Administrative Code.]

(A) The owner or operator of a construction and demolition debris facility shall establish and maintain financial assurance for final closure of the facility as required by paragraph (S) of rule 3745-400-11 of the Administrative Code. Financial assurance may be established and maintained through the use of one of the options specified in paragraphs (B) to (F) of this rule, unless it is demonstrated to the satisfaction of the health commissioner or director of the licensing authority that an alternate option will guarantee funding for final closure. The owner or operator may use the options in combination as specified in paragraph (G) of this rule. Financial assurance documentation shall be submitted and include the information specified in this paragraph and in rule 3745-400-18 of the Administrative Code.

[Comment: Because many local health departments had construction and demolition rules in place prior to September 30, 1996, many existing facilities may have financial assurance mechanisms already established. These mechanisms may be acceptable alternatives to the mechanisms outlined in this rule.]

- (1) Final closure cost estimate. Financial assurance documentation shall include an itemized written final closure cost estimate that calculates the cost of conducting final closure activities in accordance with rule 3745-400-12 of the Administrative Code. The amount shall be calculated in current dollars and be based upon a third party conducting all of the final closure activities required by rule 3745-400-12 of the Administrative Code. The amount of the final closure cost estimate shall not be less than thirteen thousand dollars per acre to the nearest tenth of an acre as established in the license application for the construction and demolition debris facility for areas that have been or are being used for disposal.
- (2) Amount and funding of financial assurance. Final closure financial assurance shall be funded in an amount not less than the final closure cost estimate calculated in accordance with paragraph (A)(1) of this rule unless the owner or operator has chosen the five year transition in accordance with rule 3745-400-25 of the Administrative Code.

If the funded financial assurance for the facility is less than the final closure cost estimate authorized in the license, the owner or operator shall fund an amount not less than the final closure cost estimate not later than thirty days after license issuance. If a portion of the increase in the final closure cost estimate is due to the addition of active licensed disposal area for which a construction certification report has not been submitted in accordance with rule 3745-400-08 of the Administrative Code, the owner or operator may delay funding that portion of the final closure cost estimate necessary to close that uncertified active licensed disposal area until the date of submittal of the construction certification report. The owner or operator shall use any single or combination of financial assurance instruments as specified in paragraphs (B) to (G) of this rule.

- (3) Review of the final closure financial assurance.
 - (a) The final closure cost estimate shall be recalculated in accordance with paragraph (A)(1) of the rule for each renewal of the annual license application and each application for a facility modification.
 - (i) The final closure cost estimate shall be recalculated if there is a change in the location or an

increase in the acreage of the active licensed disposal area established in the facility's most recent issued license.

(ii) If there is no change in the location and no increase in the acreage of the active licensed disposal area established in the facility's most recent issued license, the owner or operator may as an alternative to recalculating the final closure cost estimate, adjust the final closure cost estimate established in the facility's most recent issued license for inflation as provided in paragraph (A)(3)(b) of this rule.

(b) Adjustment of the final closure cost estimate for inflation. The adjustment shall be made as specified in this paragraph and paragraphs (A)(3)(b)(i) and (A)(3)(b)(ii) of this rule, using an inflation factor derived from the annual implicit price deflator for gross domestic product as published by the United States department of commerce in the most recent February issue of "Survey of Current Business." The inflation factor is the result of dividing the latest published annual deflator by the deflator for the previous year.

(i) The first adjustment is made by multiplying the final closure cost estimate by the inflation factor. The result is the adjusted final closure cost estimate.

(ii) Subsequent adjustments are made by multiplying the most recently adjusted final closure cost estimate by the most recent inflation factor.

[Comment: The text of the incorporated materials is not included in this rule and are hereby made a part of this rule. The "Survey of Current Business" document is available at <http://www.bea.gov> or by writing to the "United States Bureau of Economic Analysis, 1441 L Street NW, Washington, DC 20230."]

(c) The amount of financial assurance shall not be less than the recalculated final closure cost estimate for each renewal of the annual license application and each application for a facility modification. The financial assurance provided in a current unexpired license may be utilized to fulfill the financial assurance requirements of an annual license application or a modification if the dollar amount of the financial assurance is equal to or greater than the license application's calculated amount as specified in paragraph (A)(1) of this rule.

(4) Final closure financial assurance documentation. Final closure financial assurance documentation shall include the original copy of the financial assurance instruments necessary to achieve compliance with the financial assurance provisions of this rule. The wording contained in the instruments shall be in accordance with the appropriate paragraph of rule 3745-400-14 of the Administrative Code, unless either of the following are applicable:

(a) A financial assurance instrument that has been established prior to the effective date of this rule is being utilized pursuant to paragraph (A)(3)(c) of this rule.

(b) An option other than those specified in paragraphs (B) to (F) of this rule is proposed.

(5) Notice of deficiency. The licensing authority shall notify the license applicant of deficiencies with the final closure cost estimate and final closure financial assurance documentation not later than thirty days after licensing authority receipt of the license application. Such notification shall identify any adjustment in the amount of final closure financial assurance being considered by the licensing authority.

The licensing authority may adjust the amount of financial assurance in conjunction with the issuance of the annual license. If the licensing authority issues the annual license with adjustment of the amount of

financial assurance, the licensing authority shall identify the deficiencies in the itemized final closure cost estimate and provide an explanation of the rationale for financial assurance exceeding thirteen thousand dollars per acre, which may include information provided to or obtained by Ohio EPA or a local board of health.

(6) Release of funds.

(a) Release of funds prior to final closure certification. The owner or operator, or any other person authorized to perform final closure on behalf of the owner or operator, may request and receive authorization for reimbursement from or a reduction of the financial assurance required under this rule when the licensing authority has provided written approval of the construction certification report for engineered components of the cap system required in paragraph (A)(3) of rule 3745-400-08 of the Administrative Code. The amount of financial assurance remaining shall not be less than the final closure cost estimate recalculated in accordance with paragraph (A)(1) of this rule. A request for reimbursement from or a reduction of financial assurance shall be submitted to the licensing authority and include the following:

- (i) A copy of the licensing authority's written approval with the construction certification report for engineered components of the cap system required in paragraph (A)(3) of rule 3745-400-08 of the Administrative Code.
- (ii) The amount of reimbursement or reduction of the financial assurance calculated based upon the unit cost of the completed engineered components contained in the current approved final closure cost estimate, or the total acreage of the certified cap system, to the nearest tenth of an acre.
- (iii) A final closure cost estimate recalculated in accordance with paragraph (A)(1) of this rule.
- (iv) A comparison of the revised final closure cost estimate to the amount of financial assurance remaining if the requested amount of reimbursement or reduction of the financial assurance is released or reduced.

(b) Release of funds after final closure certification. The owner or operator, or any other person authorized to perform final closure on behalf of the owner or operator, may request and receive authorization for reimbursement of all remaining funds or termination of the financial assurance required under this rule only after facility final closure is deemed complete in accordance with paragraph (G) of rule 3745-400-12 of the Administrative Code.

(c) The licensing authority shall make a determination not later than ninety days after receipt of a complete request.

(B) Final closure trust fund.

(1) The owner or operator may satisfy the requirements of this rule by establishing a final closure trust fund that conforms to the requirements of paragraphs (B)(1) to (B)(4) of this rule and by sending an originally signed duplicate of the trust agreement to the health commissioner or director of the licensing authority. The trustee shall be an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency.

- (2) The wording of the trust agreement shall be identical to the wording specified in paragraph (A)(1) of rule 3745-400-14 of the Administrative Code and the trust agreement shall be accompanied by a formal certification of acknowledgment except for a trust agreement established prior to the effective date of this rule that is being utilized pursuant to paragraph (A)(3)(c) of this rule.
- (3) The total dollar amount of the trust fund shall be funded by the owner or operator not later than thirty days after the date of license issuance unless the owner or operator has chosen the five year transition in accordance with rule 3745-400-25 of the Administrative Code or the owner or operator is delaying funding only of that portion of the final closure cost estimate necessary to close that uncertified active licensed disposal area in accordance with paragraph (A)(2) of this rule. The owner or operator shall submit to the licensing authority a receipt from the trustee for the deposit made into the trust fund.
- (4) If the owner or operator establishes a final closure trust fund to replace one or more alternative mechanisms specified in this rule, the owner or operator shall fund the trust in an amount sufficient to ensure that any combination of financial assurance mechanisms provide a total amount at least equal to the final closure cost estimate.
- (5) The owner or operator, or any other person authorized to perform final closure, may request release of funds for final closure expenditures in accordance with paragraph (A)(6) of this rule. The health commissioner or director of the licensing authority shall calculate in accordance with paragraph (A)(6) of this rule the amount to be release and shall instruct the trustee, in writing, to make such release.
- (6) The health commissioner or director of the licensing authority shall agree to termination of the trust when either of the following occur:
 - (a) The owner or operator substitutes alternative financial assurance for final closure as specified in this rule.
 - (b) The health commissioner or director of the licensing authority notifies the owner or operator that the owner or operator is no longer required by this rule to maintain financial assurance for final closure of the facility.

(C) Surety bond guaranteeing payment into a final closure trust fund.

- (1) The licensee may satisfy the requirements of this rule by obtaining a surety bond that conforms to the requirements of paragraphs (C)(1) to (C)(7) of this rule and by submitting the originally signed surety bond to the health commissioner or director of the licensing authority. The surety company issuing the bond shall at a minimum be among those listed as acceptable sureties on federal bonds in the most recent "Circular 570" of the U.S. department of the treasury.

[Comment: The text of the incorporated materials is not included in this rule and are hereby made a part of this rule. "Circular 570" is published in the "Federal Register" annually on the first day of July; interim changes in the circular are also published in the "Federal Register." This United States department of treasury document is available at <http://www.fms.treas.gov>.]

- (2) The wording of the surety bond shall be identical to the wording specified in paragraph (B) of rule 3745-400-14 of the Administrative Code except for a surety bond obtained prior to the effective date of

this rule that is being utilized pursuant to paragraph (A)(3)(c) of this rule.

(3) The owner or operator who uses a surety bond to satisfy the requirements of this rule shall also establish a standby trust fund not later than the date the bond is obtained. Under the terms of the surety bond, all payments made thereunder shall be deposited by the surety bond company directly into the standby trust fund in accordance with instructions from the health commissioner or director of the licensing authority. This standby trust fund shall meet the requirements specified in paragraph (B) of this rule, except as follows:

(a) An originally signed duplicate of the trust agreement and the surety bond shall be submitted.

(b) Until the standby trust fund is funded, pursuant to the requirements of this rule, payments into the trust fund as specified in paragraph (B) of this rule are not required.

[Comment: When the Ohio environmental protection agency is the licensing authority, the standby trust fund must be established to hold the funds from the bond for final closure. When a health district is the licensing authority, other financial mechanisms may be possible to hold the funds from the bond for final closure.]

(4) The surety bond shall guarantee that the owner or operator will do one of the following:

(a) Fund the standby trust fund in an amount equal to the penal sum of the surety bond before the beginning of the facility final closure.

(b) Fund the standby trust fund in an amount equal to the penal sum of the surety bond not later than fifteen days after a mandatory final closure in compliance with paragraph (B) of rule 3745-400-12 of the Administrative Code.

(c) Provide alternative financial assurance as specified in this rule, and obtain the health commissioner or director of the licensing authority's written approval of the alternative financial assurance provided, not later than ninety days after both the owner or operator and the health commissioner or director of the licensing authority receive notice of cancellation of the surety bond from the surety bond company.

(5) Under the terms of the surety bond, the surety bond company shall become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.

(6) Except as provided in paragraph (G) of this rule, the penal sum of the surety bond shall be in an amount at least equal to the final closure cost estimate determined in accordance with paragraph (A) of this rule.

(7) Under the terms of the surety bond, the surety bond shall remain in full force and effect unless the surety bond company sends written notice of cancellation by certified mail or other form of mail accompanied by a receipt to the owner or operator, the health commissioner, and the director of the licensing authority. Cancellation shall not occur, however, during the one hundred twenty day period beginning on the first day that both the owner or operator and the health commissioner or director of the licensing authority have received the notice of cancellation, as evidenced by the return receipts.

(8) The owner or operator may cancel the surety bond if the health commissioner or director of the licensing

authority has given prior written consent. The health commissioner or director of the licensing authority shall provide such written consent when one of the following occurs:

- (a) The owner or operator substitutes alternative financial assurance for final closure as specified in this rule.
- (b) The health commissioner or director of the licensing authority notifies the licensee that the owner or operator is no longer required to maintain financial assurance for final closure of the facility.

(D) Surety bond guaranteeing performance of final closure.

- (1) The owner or operator may satisfy the requirements of this rule by obtaining a surety bond that conforms to the requirements of this rule and by delivering the originally signed surety bond to the health commissioner or director of the licensing authority. The surety bond company issuing the surety bond shall, at a minimum, be among those listed as acceptable sureties on federal bonds in the most recent "Circular 570" of the U.S. department of the treasury.

[Comment: The text of the incorporated materials is not included in this rule and are hereby made a part of this rule. "Circular 570" is published in the "Federal Register" annually on the first day of July; interim changes in the circular are also published in the "Federal Register." This United States department of treasury document is available at <http://www.fms.treas.gov>.]

- (2) The wording of the surety bond shall be identical to the wording specified in paragraph (C) of rule 3745-400-14 of the Administrative Code except for a surety bond obtained prior to the effective date of this rule that is being utilized pursuant to paragraph (A)(3)(c) of this rule.
- (3) The owner or operator who uses a surety bond to satisfy the requirements of this rule shall also establish a standby trust fund not later than the date the surety bond is obtained. Under the terms of the surety bond, all payments made thereunder shall be deposited by the surety bond company directly into the standby trust fund in accordance with instructions from the health commissioner or director of the licensing authority. This standby trust fund shall meet the requirements specified in paragraph (B) of this rule except as follows:
 - (a) An originally signed duplicate of the trust agreement and the surety bond shall be submitted.
 - (b) Until the standby trust fund is funded, pursuant to the requirements of this rule, a deposit into the trust fund as specified in paragraph (B) of this rule are not required.
- (4) The surety bond shall guarantee that the owner or operator will do one of the following:
 - (a) Perform final closure in accordance with this chapter and Chapter 3745-37 of the Administrative Code and any other requirements of the license.
 - (b) Provide alternative financial assurance as specified in this rule, and obtain written approval of the alternative financial assurance from the health commissioner or director of the licensing authority written approval of the alternate financial assurance provided, not later than ninety days after both the licensee and the health commissioner or director of the licensing authority receive notice of

cancellation of the bond from the surety as evidenced by the return receipts.

- (5) Under the terms of the surety bond, the surety bond company shall become liable on the surety bond obligation when the owner or operator fails to perform as guaranteed by the surety bond. Following a determination, pursuant to rule 3745-400-12 of the Administrative Code, that the owner or operator has failed to perform final closure activities in accordance with this chapter and license requirements, the surety shall perform final closure in accordance with rule 3745-400-12 of the Administrative Code, and license requirements or will deposit the amount of the penal sum into the standby trust fund.
 - (6) The penal sum of the surety bond shall be in an amount at least equal to the final closure cost estimate determined in accordance with paragraph (A) of this rule.
 - (7) Under the terms of the surety bond, the surety bond shall remain in full force and effect unless the surety bond company sends written notice of cancellation by certified mail or other form of mail accompanied by a receipt to the owner or operator, health commissioner, and director of the licensing authority. Cancellation shall not occur, however, during the one hundred twenty day period beginning on the first day that both the owner or operator and the health commissioner or director of the licensing authority have received the notice of cancellation as evidenced by the return receipts.
 - (8) The owner or operator may cancel the surety bond if the health commissioner or director of the licensing authority has given prior written approval. The health commissioner or director of the licensing authority shall provide such written approval when one of the following occurs:
 - (a) The owner or operator substitutes alternative financial assurance for final closure as specified in this rule.
 - (b) The health commissioner or director of the licensing authority notifies the owner or operator that the owner or operator is no longer required to maintain financial assurance for final closure of the facility.
 - (9) The surety bond company shall not be liable for deficiencies in the completion of final closure activities by the owner or operator after the owner or operator has been notified by the health commissioner or director of the licensing authority, in accordance with this rule, that the owner or operator is no longer required to maintain financial assurance for final closure of the facility.
- (E) Final closure letter of credit.
- (1) The owner or operator may satisfy the requirements of this rule by obtaining an irrevocable standby letter of credit that conforms to the requirements of paragraphs (E)(1) to (E)(6) of this rule and by having the originally signed letter of credit delivered to the health commissioner or director of the licensing authority. The issuing institution shall be an entity that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a federal or state agency.
 - (2) The wording of the letter of credit shall be identical to the wording specified in paragraph (D) of rule 3745-400-14 of the Administrative Code except for a letter of credit obtained prior to the effective date of this rule that is being utilized pursuant to paragraph (A)(3)(c) of this rule.

- (3) A owner or operator who uses a letter of credit to satisfy the requirements of this rule shall also establish a standby trust fund not later than the date the letter of credit is obtained. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the health commissioner or director of the licensing authority shall be deposited and directly by the issuing institution into the standby trust fund in accordance with instructions from the health commissioner or director of the licensing authority. The standby trust fund shall meet the requirements of the trust fund specified in paragraph (B) of this rule, except as follows:
- (a) An originally signed duplicate of the trust agreement and the letter of credit shall be submitted to the health commissioner or director of the licensing authority.
 - (b) Until the standby trust fund is funded, pursuant to the requirements of this rule, a deposit into the trust fund as specified in paragraph (B) of this rule is not required.
- (4) The letter of credit shall be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: the names and addresses of the construction and demolition debris facility and the owner or operator and the amount of funds assured for final closure of the facility by the letter of credit.
- (5) The letter of credit shall be irrevocable and issued for a period of at least one year. The letter of credit shall provide that the expiration date shall be automatically extended for a period of at least one year unless, at least one hundred twenty days prior to the current expiration date, the issuing institution notifies the owner or operator, health commissioner, and director of the licensing authority by certified mail or other form of mail accompanied by a receipt of a decision not to extend the expiration date. Under the terms of the letter of credit, the one hundred twenty day period shall begin on the day when both the owner or operator and the health commissioner or director of the licensing authority have received the notice, as evidenced by the return receipts.
- (6) Except as provided in paragraph (G) of this rule, the letter of credit shall be issued in an amount at least equal to the final closure cost estimate determined in accordance with paragraph (A) of this rule.
- (7) Following a determination by the health commissioner or director of the licensing authority that the owner or operator has, when required to do so, failed to perform final closure activities in accordance with rule 3745-400-12 of the Administrative Code, and license requirements, the health commissioner or director of the licensing authority may draw on the letter of credit.
- (8) If the owner or operator does not establish alternative financial assurance as specified in this rule and obtain written approval of such alternative financial assurance from the health commissioner or director of the licensing authority not later than ninety days after both the owner or operator and the health commissioner or director of the licensing authority have received notice from the issuing institution that it will not extend the letter of credit beyond the current expiration date, the health commissioner or director of the licensing authority shall draw on the letter of credit. The health commissioner or director of the licensing authority may delay the drawing if the issuing institution grants an extension of the term of the credit. During the final thirty days of any such extension the health commissioner or director of the licensing authority shall draw on the letter of credit if the owner or operator has failed to provide alternative financial assurance as specified in this rule and has failed to obtain written approval of such

alternative financial assurance from the health commissioner or director of the licensing authority.

(9) The health commissioner or director of the licensing authority shall return the original letter of credit to the issuing institution for termination when one of the following occurs:

- (a) The owner or operator substitutes alternative financial assurance for final closure care as specified in this rule.
- (b) The health commissioner or director of the licensing authority notifies the owner or operator that the owner or operator is no longer required to maintain financial assurance for final closure of the facility.

(F) Final closure insurance.

- (1) The owner or operator may satisfy the requirements of this rule by obtaining final closure insurance that conforms to the requirements of this rule and by submitting an originally signed certificate of such insurance to the health commissioner or director of the licensing authority.
- (2) The owner or operator using insurance as a financial assurance mechanism shall submit documentation stating whether the insurer is a subsidiary or has a corporate, legal, or financial affiliation with the owner or operator. If the final closure insurance is issued by a subsidiary or affiliate, the owner or operator shall include a detailed written description of the relationship between the insurer and the owner or operator.
- (3) An insurer issuing an insurance policy in satisfaction of this rule shall be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more states. The owner or operator shall submit to the licensing authority the following information regarding the insurer's qualifications:
 - (a) The most recent A.M. Best rating of the insurer.
 - (b) Documentation demonstrating that the insurer is domiciled in the United States.
 - (c) The most recent report on examination from the insurance department from the insurer's state of domicile.
 - (d) Documentation demonstrating that the insurer has capital and surplus of at least one hundred million dollars.
 - (e) Documentation demonstrating that the insurer received an unqualified opinion of the insurer's annual financial statements from an independent certified public accountant.
- (4) The licensing authority may disallow use of the insurer by the owner or operator on the basis of one or more of the following:
 - (a) The A.M. Best rating is less than A-.
 - (b) The report on examination does not demonstrate that the status of the insurer is satisfactory.
 - (c) The opinion expressed by the independent certified public accountant in the report on examination of the insurer's financial statements.

- (5) The wording of the certificate of insurance shall be identical to the wording specified in paragraph (E) of rule 3745-400-14 of the Administrative Code except for a certificate of insurance obtained prior to the effective date of this rule that is being utilized pursuant to paragraph (A)(3)(c) of this rule.
- (6) Except as provided in paragraph (G) of this rule, the final closure insurance policy shall be issued for a face amount at least equal to the final closure cost estimate determined in accordance with paragraph (A) of this rule. The "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer shall not change the face amount, but the insurer's future liability shall be lowered by the amount of the payments.
- (7) The final closure insurance policy shall guarantee that funds shall be available to close the facility and conduct final closure activities whenever final closure is mandated. The policy shall also guarantee that once final closure of the facility occurs, the insurer shall be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the health commissioner or director of the licensing authority, to such party or parties as the health commissioner or director of the licensing authority specifies.
- (8) The owner or operator, or any other person authorized to perform final closure, may request reimbursement for final closure expenditures in accordance with paragraph (A)(6) of this rule. The health commissioner or director of the licensing authority shall calculate in accordance with paragraph (A)(6) of this rule the amount to be reimbursed and shall instruct the insurer, in writing, to make such reimbursement.
- (9) The owner or operator shall maintain the policy in full force and effect until the health commissioner or director of the licensing authority consents to termination of the policy by the owner or operator as specified in paragraph (F)(13) of this rule. Failure to pay the premium, without substitution of alternative financial assurance as specified in this rule, constitutes a violation of these rules, warranting such remedy as the health commissioner or director of the licensing authority deems necessary. Such violation shall be deemed to begin upon receipt by the health commissioner or director of the licensing authority of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.
- (10) Each policy shall contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.
- (11) The policy shall provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy shall at a minimum provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending written notice by certified mail or other form of mail accompanied by a receipt to the owner or operator and to the health commissioner or director of the licensing authority not later than one hundred twenty days prior to the date of cancellation, termination, or failure to renew. Cancellation, termination, or failure to renew shall not occur, however, during the one hundred twenty day period beginning on the first day that both the owner or operator and the health commissioner or director of the licensing authority have received

the notice, as evidenced by the return receipts.

- (12) If the health commissioner or director of the licensing authority disallows use of the insurer, the owner or operator shall provide alternative financial assurance as specified in this rule not later than thirty days after notification of the disallowance of the insurer.
- (13) The health commissioner or director of the licensing authority shall give written approval that the owner or operator may terminate the insurance policy when one of the following occurs:
 - (a) The owner or operator substitutes alternative financial assurance for final closure as specified in this rule.
 - (b) The health commissioner or director of the licensing authority notifies the owner or operator that the owner or operator is no longer required to maintain financial assurance for final closure of the facility.
- (G) Use of multiple financial mechanisms. The owner or operator may satisfy the requirements of this rule by establishing more than one financial mechanism for each facility. The mechanisms are limited to trust funds, surety bonds guaranteeing payment into a final closure trust fund, letters of credit, and insurance. The mechanisms shall be as specified in paragraphs (B), (C), (E), and (F) respectively, of this rule, except that it is the combination of mechanisms, rather than each single mechanism, that shall provide financial assurance for an amount at least equal to the current final closure cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, the owner or operator may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The health commissioner or director of the licensing authority may invoke use of any or all of the mechanisms, in accordance with paragraphs (B), (C), (E), and (F) of this rule, to provide for final closure of the facility.

Effective: 08/01/2012

R.C. 119.032 review dates: 11/30/2011 and 08/01/2017

CERTIFIED ELECTRONICALLY

Certification

06/08/2012

Date

Promulgated Under: 119.03
Statutory Authority: 3714.02
Rule Amplifies: 3714.02
Prior Effective Dates: 8/31/02, 9/30/96

3745-400-14 Wording of the financial instruments.

(A) Trust agreement.

- (1) The trust agreement for the trust fund specified in paragraph (B) of rule 3745-400-13 of the Administrative Code and the trust fund agreement for the trust fund specified in paragraph (B) of rule 3745-400-18 of the Administrative Code shall be worded as follows on forms prescribed by the director, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

"Trust agreement

Trust agreement. The "agreement", entered into as of [date] by and between [name of the owner or operator], a [state] [corporation, partnership, association, proprietorship], the "grantor", and [name of corporate trustee], ["incorporated in the state of _____" or "a national bank"], the "trustee".

Whereas, the Ohio Environmental Protection Agency, ("Ohio EPA"), has established certain rules applicable to the grantor, requiring that the owner or operator of a construction and demolition debris disposal facility provide assurance that funds will be available when needed for final closure of the facility or post-closure care.

Whereas, the grantor has elected to establish a trust to provide all or part of such financial assurance for the facilities identified herein.

Whereas, the grantor, acting through its duly authorized officers, has selected the trustee to be the trustee under this agreement, and the trustee is willing to act as trustee,

Now, therefore, the grantor and the trustee agree as follows:

Section 1. Definitions. As used in this agreement:

- (a) The term "grantor" means the owner or operator who enters into this agreement and any successors or assigns of the grantor.
- (b) The term "trustee" means the trustee who enters into this agreement and any successor trustee.
- (c) The term "licensing authority" means a city or general health district as created by or under authority of Chapter 3709. of the Revised Code, which is on the approved list in accordance with section 3714.09 of the Revised Code, or the director where the health district is not on the approved list.

Section 2. Identification of facilities and amount for final closure or post-closure care. This agreement pertains to the facilities and amount for final closure or post-closure care identified on attached schedule A [on Schedule A, for each facility list the name, address, and the amount for final closure or post-closure care, or portions thereof, for which financial assurance is demonstrated by this agreement].

Section 3. Establishment of fund. The grantor and the trustee hereby establish a trust fund, the "fund", for the benefit of the licensing authority. The grantor and the trustee intend that no third party have access to the fund except as herein provided. The fund is established initially as consisting of the property, which is acceptable to the trustee, described in schedule B attached hereto. Such property and any other property subsequently transferred to the trustee is referred to as the fund, together with all earnings and profits thereon, less any payments or distributions made by the trustee pursuant to this

agreement. The fund will be held by the trustee, in trust, as hereinafter provided. The trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the grantor, any payments necessary to discharge any liabilities of the grantor established by the licensing authority.

Section 4. Payment for final closure or post-closure care. The trustee will make such payments from the fund as the licensing authority will direct, in writing, to provide for the payment of the costs of final closure or post-closure care of the facilities covered by this agreement. The trustee will reimburse the grantor or other persons as specified by the licensing authority from the fund for final closure or post-closure care expenditures in such amounts as the licensing authority will direct, in writing. In addition, the trustee will refund to the grantor such amounts as the licensing authority specifies in writing. Upon refund, such funds will no longer constitute part of the fund as defined herein.

Section 5. Payments comprising the fund. Payments made to the trustee for the fund will consist of cash or securities acceptable to the trustee.

Section 6. Trustee management. The trustee will invest and reinvest the principal and income of the fund and keep the fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the grantor may communicate in writing to the trustee periodically, subject, however, to the provisions of this section. In investing, reinvesting, exchanging, selling, and managing the fund, the trustee will discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(a) Securities or other obligations of the grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended through July 2010, 15 U.S.C. section 80a-2(a), will not be acquired or held, unless they are securities or other obligations of the federal or a state government;

[Comment: The text of the incorporated materials is not included in this rule and are hereby made a part of this rule. 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. The Investment Company Act is available at The full text is available in electronic format at <http://www.gpo.gov/fdsys/browse/collectionUScode.action>.]

(b) The trustee is authorized to invest the fund in time or demand deposits of the trustee, to the extent insured by an agency of the federal or state government; and

(c) The trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and investment. The trustee is expressly authorized in its discretion:

(a) To transfer periodically any or all of the assets of the fund to any common, commingled, or collective trust fund created by the trustee in which the fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of

1940, 15 U.S.C. sections 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the trustee. The trustee may vote such shares in its discretion.

Section 8. Express powers of trustee. Without in any way limiting the powers and discretions conferred upon the trustee by the other provisions of this agreement or by law, the trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the trustee will be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States government, or any agency or instrumentality thereof, with a federal reserve bank, but the books and records of the trustee will at all times show that all such securities are part of the fund;

(d) To deposit any cash in the fund in interest-bearing accounts maintained or savings certificates issued by the trustee, in its separate corporate capacity, or in any other banking institution affiliated with the trustee, to the extent insured by an agency of the federal or state government; and

(e) To compromise or otherwise adjust all claims in favor of or against the fund.

Section 9. Taxes and expenses. All taxes of any kind that may be assessed or levied against or in respect of the fund and all brokerage commissions incurred by the fund will be paid from the fund. All other expenses incurred by the trustee in connection with the administration of this trust, including fees for legal services rendered to the trustee, the compensation of the trustee to the extent not paid directly by the grantor, and all other proper charges and disbursements of the trustee will be paid from the fund.

Section 10. Annual valuation. The trustee will annually, not later than thirty days prior to the anniversary date of the establishment of the fund, furnish to the grantor and to the licensing authority a statement confirming the value of the trust. Any securities in the fund will be valued at market value as of no more than sixty days prior to the anniversary date of establishment of the fund. The failure of the grantor to object in writing to the trustee not later than ninety days after the statement has been furnished to the grantor and the licensing authority will constitute a conclusively binding assent by the grantor, barring the grantor from asserting any claim or liability against the trustee with respect to matters disclosed in the statement.

Section 11. Advice of counsel. The trustee may periodically consult with counsel, who may be counsel to the grantor, with respect to any question arising as to the construction of this agreement or any action to be taken hereunder. The trustee will be fully protected, to the extent licensed by law, in acting upon the advice of counsel.

Section 12. Trustee compensation. The trustee will be entitled to reasonable compensation for its service as agreed upon in writing periodically with the grantor.

Section 13. Successor trustee. The trustee may resign or the grantor may replace the trustee, but such resignation or replacement shall not be effective until the grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee will have the same powers and duties as those conferred upon the trustee hereunder. Upon the successor trustee's acceptance and the licensing authority's written approval of the appointment, the trustee will assign, transfer, and pay over to the successor trustee the funds and properties then constituting the fund. If for any reason the grantor cannot or does not act in the event of the resignation of the trustee, the trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the grantor, the licensing authority, and the present trustee by certified mail or other form of mail accompanied by a receipt not later than ten days before such change becomes effective. Any expenses incurred by the trustee as a result of any of the acts contemplated by this section will be paid as provided in section 9.

Section 14. Instructions to the trustee. All orders, requests, and instructions by the grantor to the trustee will be in writing, signed by such persons as are designated in the attached exhibit A or such other designees as the grantor may designate by amendment to exhibit A. The trustee will be fully protected in acting without inquiry in accordance with the grantor's orders, requests, and instructions. All orders, requests, and instructions by the licensing authority to the trustee will be in writing, signed by the licensing authority, and the trustee will act and will be fully protected in acting in accordance with such orders, requests, and instructions. The trustee will have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the grantor or the licensing authority hereunder has occurred. The trustee will have no duty to act in the absence of such orders, requests, and instructions from the grantor and/or the licensing authority except as provided for herein.

Section 15. Notice of nonpayment. The trustee will notify the grantor and the licensing authority by certified mail or other form of mail accompanied by a receipt not later than ten days after the expiration of the thirty-day period following the anniversary of the establishment of the trust, if no payment is received from the grantor during the period. After the pay-in period is completed the trustee is not required to send a notice of nonpayment.

Section 16. Amendment of agreement. This agreement may be amended by an instrument in writing executed by the grantor, the trustee, and the licensing authority, or by the trustee and the licensing authority if the grantor ceases to exist.

Section 17. Irrevocability and termination. Subject to the right of the parties to amend this agreement as provided in section 16, this trust will be irrevocable and will continue until termination at the written agreement of the grantor, the trustee, and the licensing authority, or by the trustee and the licensing authority if the grantor ceases to exist. Upon termination of the trust, all remaining trust property, less final trust administration expenses, will be delivered to the grantor, unless the trust is a "standby trust" fund created in accordance with paragraph (C), (D), or (E) of rule 3745-400-13 of the Administrative Code or paragraph (C), (D), or (E) of rule 3745-400-18 of the Administrative Code, in which case all

remaining trust property, less final trust administration expenses, will be delivered to the provider of the financial assurance.

Section 18. Immunity and indemnification. The trustee will not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this trust, or in carrying out any directions by the grantor or the licensing authority issued in accordance with this agreement. The trustee will be indemnified and saved harmless by the grantor or from the trust fund, or both, from and against any personal liability to which the trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the grantor fails to provide such defense.

Section 19. Choice of law. This agreement will be administered, construed, and enforced according to the laws of the state of Ohio.

Section 20. Interpretation. As used in this agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this agreement will not affect the interpretation or the legal efficacy of this agreement.

In witness whereof the parties have caused this agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written: the parties below certify that the wording of this agreement is identical to the wording specified in paragraph (A)(1) of rule 3745-400-14 of the Administrative Code as such rule was constituted on the date first above written.

[Signature of grantor]

[Title]

Attest:

[Title]

[Seal]

[Signature of trustee]

Attest:

[Title]

[Seal]"

- (2) The following is an example of the certification of acknowledgment, which must accompany the trust agreement for a trust fund as specified in paragraph (B) of rule 3745-400-13 of the Administrative Code or paragraph (B) of rule 3745-400-18 of the Administrative Code:

"State of _____

County of _____

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], and the corporation described in and which executed the above instrument; that she/he knows the seal of said

corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the board of licensing authority(ies) of said corporation, and that she/he signed her/his name thereto by like order.

[Signature of notary public]"

(B) The surety bond guaranteeing payment into the trust fund specified in paragraph (C) of rule 3745-400-13 of the Administrative Code and the surety bond guaranteeing payment into the trust fund specified in paragraph (C) of rule 3745-400-18 of the Administrative Code shall be worded as follows on forms prescribed by the director, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

"Financial guarantee bond

Date bond executed: _____

Effective date: _____

Principal: [legal name and business address of owner or operator]

Type of organization: [insert "individual", "joint venture", "partnership", or "corporation"]

State of incorporation: _____

Surety(ies): [name(s) and business address(es)]

Name, address, and final closure or post-closure care amount(s) for each facility guaranteed by this bond [indicate amount of final closure or post-closure care]: \$ _____

Total penal sum of bond: \$ _____

Surety's bond number: _____

Know all persons by these presents, that we, the principal and surety(ies) hereto are firmly bound to the licensing authority, in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally; provided that, where the surety(ies) are corporations acting as co-sureties, we, the sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each surety binds itself, jointly and severally with the principal, for the payment of such sum only as is set forth opposite the name of such surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas, said principal is required to have a valid license, in order to operate each construction and demolition debris facility(ies) identified above, and

Whereas, said principal is required to provide financial assurance for final closure or post-closure care of the facility(ies) as a condition of Chapter 3714. of the Revised Code; and

Whereas said principal shall establish a standby trust fund as specified by rule 3745-400-13 or 3745-400-18 of the Administrative Code,

Now, therefore, the conditions of the obligation are such that if the principal shall faithfully, before the

beginning of final closure of each facility identified above, fund the standby trust fund in the amount(s) identified above for the facility.

Or, if the principal shall fund the standby trust fund in such an amount(s) not later than fifteen days after an order to begin final closure is issued by the licensing authority, or an Ohio court, or a U.S. district court, or other court of competent jurisdiction, or not later than fifteen days after a notice of revocation of the construction and demolition debris facility license, or, if the principal shall provide alternative financial assurance as specified in rule 3745-400-13 or 3745-400-18 of the Administrative Code as applicable, and obtain the licensing authority's written approval of such alternative financial assurance, not later than ninety days after the first day that notice of cancellation has been received by both the principal and the licensing authority from the surety(ies), then this obligation will be null and void; otherwise it is to remain in full force and effect.

The surety(ies) shall become liable on this bond obligation only when the principal has failed to fulfill the conditions described above. Upon notification by the licensing authority that the principal has failed to perform as guaranteed by this bond, the surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the licensing authority.

The liability of the surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the surety(ies) hereunder exceed the amount of said penal sum.

The surety(ies) may cancel the bond by sending notice of cancellation by certified mail or other form of mail accompanied by a receipt to the principal and to the licensing authority, provided, however, that cancellation shall not occur during the one hundred twenty day period beginning on the first day of receipt of the notice of cancellation by both the principal and the licensing authority as evidenced by the return receipt(s) or while a compliance procedure is pending, as defined in rule 3745-400-13 or 3745-400-18 of the Administrative Code.

The principal may terminate this bond by sending written notice to the surety(ies), provided, however, that no such notice shall become effective until the surety(ies) receives written authorization for termination of the bond by the licensing authority.

[The following paragraph is an optional rider that may be included but is not required.]

Principal and surety(ies) hereby agree to adjust the penal sum of the bond annually so that it guarantees a new final closure or post-closure care amount, and no decrease in the penal sum takes place without the written permission of the licensing authority.

In witness whereof, the principal and surety(ies) have executed this financial guarantee bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the principal and surety(ies) and that the wording of this surety bond is identical to the wording specified in paragraph (B) of rule 3745-400-14 of the Administrative Code as such rule was constituted on the date this bond was executed.

Principal

Signature(s): _____

Name(s) and title(s) [typed]: _____

Corporate seal:

Corporate surety(ies)

Name and address: _____

State of incorporation: _____

Liability limit: \$_____

Signature(s): _____

Name(s) and title(s) [typed]: _____

Corporate seal:

[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for surety above.]

Bond premium: \$_____ "

(C) The surety bond guaranteeing performance of final closure specified in paragraph (D) of rule 3745-400-13 of the Administrative Code and the surety bond guaranteeing performance of post-closure care specified in paragraph (D) of rule 3745-400-18 of the Administrative Code shall be worded as follows on forms prescribed by the director, except that instructions in brackets are to be replaced by the relevant information and the brackets deleted:

"Performance bond

Date bond executed: _____

Effective date: _____

Principal: [legal name and business address of owner or operator]

Type of organization: [insert "individual", "joint venture", "partnership", or "corporation"]

State of incorporation: _____

Surety(ies): [name(s) and business address(es)]

Name, address, and final closure or post-closure care amount for each facility guaranteed by this bond [indicate final closure or post-closure care amount]:

\$_____

Total penal sum of bond: \$_____

Surety's bond number: _____

Know all persons by these presents, that we, the principal and surety(ies) hereto are firmly bound to the

licensing authority, in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the surety(ies) are corporations acting as co-sureties, we, the sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each surety binds itself, jointly and severally with the principal, for the payment of such sum only as is set forth opposite the name of such surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas, said principal is required to have an Ohio EPA license or licenses in order to operate each construction and demolition debris facility(ies) identified above, and

Whereas said principal is required to provide financial assurance for final closure or post-closure care, as a condition of the license(s), and

Whereas said principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, therefore, the conditions of this obligation are such that if the principal shall faithfully perform final closure or post-closure care, whenever required to do so, of each facility for which this bond guarantees final closure or post-closure care, in accordance with rule 3745-400-12 or 3745-400-16 of the Administrative Code and other requirements of the license as such license may be amended, pursuant to all applicable laws, statutes, rules, and regulations, as such laws, statutes, rules, and regulations may be amended.

Or, if the principal shall provide alternative financial assurance as specified in rule 3745-400-13 or 3745-400-18 of the Administrative Code and obtain the licensing authority's written approval of such alternative financial assurance not later than ninety days after the date notice of cancellation is received by both the principal and the licensing authority from surety(ies), then this obligation will be null and void, otherwise it is to remain in full force and effect.

The surety(ies) shall become liable on this bond obligation only when the principal has failed to fulfill the conditions described above.

Upon notification by the licensing authority that the principal has been found in violation of the final closure requirements of rule 3745-400-12 of the Administrative Code or post-closure care requirements of rule 3745-400-16 of the Administrative Code, for a facility for which this bond guarantees performance of final closure or post-closure care, the surety(ies) shall either perform final closure in accordance with rule 3745-400-12 of the Administrative Code or post-closure care in accordance with rule 3745-400-16 of the Administrative Code and other license requirements or place the final closure or post-closure care amount guaranteed for the facility into the standby trust fund as directed by the licensing authority.

Upon notification by the licensing authority that the principal has failed to provide alternative financial assurance as specified in rule 3745-400-13 or 3745-400-18 of the Administrative Code and obtain written approval of such alternative financial assurance from the licensing authority not later than ninety days after receipt by both the principal and the licensing authority of a notice of cancellation of the bond, the surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the licensing authority.

The surety(ies) hereby waives notification of amendments to licenses, applicable laws, statutes, rules, and regulations and agrees that no such amendment shall in any way alleviate its (their) obligation on this bond.

The liability of the surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the surety(ies) hereunder exceed the amount of said penal sum.

The surety(ies) may cancel the bond by sending notice of cancellation by certified mail or other form of mail accompanied by a receipt to the owner or operator and to the licensing authority, provided, however, that cancellation cannot occur during the one hundred twenty day period beginning on the first day of receipt of the notice of cancellation by both the principal and the licensing authority as evidenced by the return receipts.

The principal may terminate this bond by sending written notice to the surety(ies), provided, however, that no such notice shall become effective until the surety(ies) receives written approval for termination of the bond by the licensing authority.

[The following paragraph is an optional rider that may be included but is not required.]

Principal and surety(ies) hereby agree to adjust the penal sum of the bond annually so that it guarantees a new final closure or post-closure care amount, and no decrease in the penal sum occurs without the written approval of the licensing authority.

In witness whereof, the principal and surety(ies) have executed this performance bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the principal and surety(ies) and that the wording of this surety bond is identical to the wording specified in paragraph (C) of rule 3745-400-14 of the Administrative Code, as such rule was constituted on the date this bond was executed.

Principal

Signature(s): _____

Name(s) and title(s) [typed]: _____

Corporate seal: _____

Corporate surety(ies)

Name and address: _____

State of incorporation: _____

Liability limit: \$ _____

Signature(s): _____

Name(s) and title(s) [typed]: _____

Corporate seal:

[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for surety above.]

Bond premium: \$ _____ "

(D) The letter of credit specified in paragraph (E) of rule 3745-400-13 of the Administrative Code and the letter of credit specified in paragraph (E) of rule 3745-400-18 of the Administrative Code shall be worded as follows on forms prescribed by the director, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted [note: a letter of credit may also contain provisions used by the issuing institution in its regular course of business, provided that such provisions do not alter the terms and conditions in this paragraph]:

"Irrevocable standby letter of credit

[Licensing authority]

Dear sir or madam: We hereby establish our irrevocable standby letter of credit no. _____ in your favor, at the request and for the account of [owner's or operator's name and address] up to the aggregate amount of [in words] U.S. Dollars (\$_____), available upon presentation of

- (1) Your sight draft, bearing reference to this letter of credit no. _____, and
- (2) Your signed statement reading as follows: 'I certify that the amount of the draft is payable pursuant to regulations issued under the authority of Chapter 3714. of the Revised Code.'

This letter of credit is effective as of [date] and will expire on [date of at least one year later], but such expiration date will be automatically extended for a period of [at least one year] on [date] and on each successive expiration date, unless, at least one hundred twenty days prior to the current expiration date, we notify both you and [owner's or operator's name] by certified mail or other form of mail accompanied by a receipt that we have decided not to extend this letter of credit beyond the current expiration date. In the event that you are so notified, any unused portion of the credit will be available upon presentation of your sight draft for one hundred twenty days after the first day of receipt by both you and [owner's or operator's name] as evidenced by the return receipts.

Whenever this letter of credit is drawn under and in compliance with the terms of this credit, we will duly honor such draft upon presentation to us, and we will deposit the amount of the draft directly into the standby trust fund by [owner's or operator's name] in accordance with your instructions.

We certify that the wording of this letter of credit is identical to the wording specified in paragraph (D) of rule 3745-400-14 of the Administrative Code as such rule was constituted on the date shown immediately below.

[Signature(s) and title(s) of official(s) of issuing institution] [date]

This credit is subject to [insert "the most recent edition of the "Uniform Customs and Practice for Documentary Credits", published by the "International Chamber of Commerce" or "The Uniform Commercial Code"]."

[Comment: In the event that the owner or operator ceases to exist, any unused portion of the credit will

be available for the one hundred twenty day period after the date of receipt by the licensing authority, as evidenced by the return receipt.]

(E) The certificate of insurance specified in paragraph (F) of rule 3745-400-13 of the Administrative Code and the certificate of insurance specified in paragraph (F) of rule 3745-400-18 of the Administrative Code shall be worded as follows on forms prescribed by the director, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

"Certificate of insurance for final closure or post-closure care.

Name and address of insurer

(Herein called the "insurer"): _____

Name and address of insured

(Herein called the "insured"): _____

Facilities covered: [List for each facility: name, address, county in which the facility is located, and the amount of insurance for final closure or post-closure care provided under the insurance policy the aggregate amount for all facilities covered must total the face amount shown below).]

Face Amount: \$ _____

Policy Number: _____

Effective date: _____

The insurer hereby certifies that it has issued to the insured insurance policy identified above to provide financial assurance for [insert "final closure or post-closure care"] for the facilities identified above. The insurer further warrants that such insurance policy conforms in all respects with the requirements of paragraph (F) of rule 3745-400-13 of the Administrative Code or paragraph (F) of rule 3745-400-18 of the Administrative Code, as applicable as such rules were constituted on the date shown immediately below. It is agreed that any provision of the insurance policy inconsistent with such regulations is hereby amended to eliminate such inconsistency.

Whenever requested by the licensing authority the insurer agrees to furnish to the licensing authority a duplicate original of the policy listed above, including all endorsements thereon.

I hereby certify that the wording of this certificate is identical to the wording specified in paragraph (E) of rule 3745-400-14 of the Administrative Code as such rule was constituted on the date shown immediately below.

[Authorized signature for insurer]

[Name of person signing]

[Title of person signing]

Signature of witness or notary: _____

[Date]"

Effective: 08/01/2012

R.C. 119.032 review dates: 11/30/2011 and 08/01/2017

CERTIFIED ELECTRONICALLY

Certification

06/08/2012

Date

Promulgated Under: 119.03
Statutory Authority: 3714.02
Rule Amplifies: 3714.02
Prior Effective Dates: 8/31/02, 4/4/99

3745-400-15 Modifications and exemptions.

- (A) Facility modifications. The following shall be deemed a modification to a construction and demolition debris facility:
- (1) Any extension beyond the approved limits of debris placement specified in the valid operating license; or
 - (2) Any extension beyond the active licensed disposal area specified in the valid operating license; or
 - (3) Any other substantial change to the approved facility design plan contained in the valid operating license.

[Comment: The contents of the facility design plan are specified in rule 3745-400-07 of the Administrative Code. Changes to operational activities are not modifications, since the operational aspects of the facility change annually by means of the license review and approval process.]

- (B) Application for a modification. The owner or operator who desires to modify a facility shall make application for a specific facility modification at least ninety days prior to the proposed implementation date of the modification. The application shall contain sufficient detail so the licensing authority can understand the proposed change(s).

An application to laterally extend the limits of debris placement shall include a demonstration that the entire limits of debris placement (proposed and existing) meet the requirements of rule 3745-400-07 of the Administrative Code.

- (C) Criteria for modification approval. If the licensing authority finds that the modification is unlikely to adversely affect the public health or safety or the environment or create a fire hazard, then the licensing authority shall approve the modification.

[Comment: For ease in program implementation, decisions with respect to modification applications remain separate from decisions made with respect to license applications. This will allow an owner or operator to continue operations if a license application is approvable and issued, but a modification request is not approvable and is denied. Note that all denials are first issued as proposed actions of the licensing authority.]

- (D) Exemptions.

- (1) General exemption criteria. The licensing authority may by order exempt any person disposing of or proposing to dispose of construction and demolition debris in such quantities or under such circumstances that, in the determination of the licensing authority, are unlikely to adversely affect the public health or safety or the environment, or create a fire hazard, from any provision of Chapter 3745-400 or 3745-37 of the Administrative Code or Chapter 3714. of the Revised Code or order issued pursuant to either chapter, except for those circumstances stated in paragraph (E) of this rule.

[Comment: Guidelines for exemption criteria, including alternatives to ground water monitoring, are available from the Ohio EPA; and]

- (2) Floodplain exemption criteria. The licensing authority may grant an exemption from the one-hundred-year floodplain restriction stated in paragraph (B)(1) of rule 3745-400-06 of the Administrative Code if the licensing authority finds that the establishment of a new construction and demolition debris in the one-hundred-year floodplain would not result in an increase of more than one foot in the elevation of that flood stage of the watercourse upstream or downstream from the proposed facility.
- (E) The licensing authority shall not grant an exemption to paragraph (B)(2) of rule 3745-400-06 (sole source aquifer location prohibition) of the Administrative Code or to paragraph (F)(3)(c) of rule 3745-400-11 (asbestos) of the Administrative Code.

HISTORY: Eff 9-30-96

Rule promulgated under: RC Chapter 119.

Rule amplifies: RC 3714.02

3745-400-16 Post-closure care of a construction and demolition debris facility.

- (A) Unless the owner or operator of the construction and demolition debris facility has complied with paragraph (B)(1) of this rule, an owner or operator of a facility that has accepted construction and demolition debris in calendar year 2006 or later shall conduct post-closure care activities at the construction and demolition debris facility upon the licensing authority's written concurrence with the final closure certification report for the facility.
- (B) Post-closure care activities shall be conducted for five years unless the one of the following applies:
- (1) With respect to a facility that permanently ceased acceptance of construction and demolition debris in calendar year 2006, the post-closure care and post-closure care financial assurance requirements do not apply, provided that the owner or operator of the facility gave written notice of the date of the cessation to the applicable board of health or the director, the owner or operator of the facility did not submit a subsequent application for a license renewal for the facility after that cessation, and no order was issued by the applicable board of health, the director, or a court of competent jurisdiction governing the post-closure care of and post-closure financial assurance for that facility prior to the date specified in the written notice.
 - (2) With respect to a facility that permanently ceased acceptance of construction and demolition debris in calendar year 2007, the required period of time for post-closure care and post-closure care financial assurance shall be one year after the final closure of the facility, provided that the owner or operator of the facility gave written notice of the date of the cessation to the applicable board of health or the director, the owner or operator did not submit a subsequent application for a license renewal for the facility after that cessation, and no order was issued by the applicable board of health, the director, or a court of competent jurisdiction governing the post-closure care of and post-closure care financial assurance for that facility prior to the date specified in the written notice.
- (C) The post-closure care period may be extended in accordance with rule 3745-400-17 of the Administrative Code except for facilities where either paragraph (B)(1) or (B)(2) of this rule applies.
- (D) An owner or operator shall complete post-closure care of a construction and demolition debris facility in a manner that reasonably accomplishes the following:
- (1) Minimizes the need for maintenance at the facility.
 - (2) Prevents the failure of final slopes.
 - (3) Protects public health and safety and the environment.
 - (4) Does not create a nuisance or fire hazard.
 - (5) Does not cause or contribute to air or water pollution.
 - (6) Minimizes erosion; infiltration of surface water; production of leachate; production of hydrogen sulfide, other gases, and odors; and accumulation and runoff of contaminated surface water.
- (E) Post-closure care activities. The owner or operator shall conduct post-closure care activities as follows:
- (1) Complying with any orders and authorizing documents issued in accordance with Chapter 3714. of the Revised Code.
 - (2) Complying with applicable provisions of the following:

- (a) Paragraph (E) of rule 3745-400-11 of the Administrative Code regarding maintaining the integrity of the engineered components of the facility and repairing any damage to or failure of the components.
 - (b) Paragraph (M) of rule 3745-400-11 of the Administrative Code regarding fire control.
 - (c) Paragraph (O) of rule 3745-400-11 of the Administrative Code regarding leachate outbreaks.
 - (d) Paragraph (P) of rule 3745-400-11 of the Administrative Code regarding leachate system management.
 - (e) Paragraph (Q) of rule 3745-400-11 of the Administrative Code regarding surface and ground water management.
 - (f) Paragraph (R) of rule 3745-400-11 of the Administrative Code regarding ground water monitoring and leachate sampling and analysis.
 - (g) Paragraph (S) of rule 3745-400-11 of the Administrative Code regarding financial assurance for post-closure care.
- (3) Complying with the compliance disclosure requirements in section 3714.052 of the Revised Code when employing a new key employee.
- (4) Establishing and maintaining complete and dense vegetative cover as specified in paragraph (G)(2)(a)(iii) or (G)(2)(b)(ii) of rule 3745-400-07 of the Administrative Code in areas where seeding to establish vegetative cover is required during facility final closure in accordance with rule 3745-400-12 of the Administrative Code. Areas where a standard cap system is required in accordance with paragraph (G)(2)(a) of rule 3745-400-07 of the Administrative Code shall be mowed at least once per year.
- (5) Maintaining and complying with all applicable permits and authorizations required by Chapters 3704. and 6111. of the Revised Code.
- (6) Limiting access to the facility and maintaining access roads as follows:
- (a) Limiting access to authorized personnel only and excluding live domestic and live farm animals from the facility except those used for security or vector control.
 - (b) Maintaining the signs stating that the facility is closed required by rule 3745-400-12 of the Administrative Code such that the signs remain legible.
 - (c) Maintaining the gates, fencing, or other sturdy obstacles blocking each entrance to the construction and demolition debris facility required by rule 3745-400-12 of the Administrative Code.
 - (d) Maintaining access roads to allow for the inspection, maintenance, and repair of engineered components, ground water sampling, and other activities required under this rule.
- (7) Annually submitting not later than each anniversary of commencing post-closure care updated post-closure care financial assurance documentation prepared in accordance with rule 3745-400-18 of the Administrative Code.
- (8) Submitting a post-closure care evaluation report not later than the third anniversary of commencing the post-closure care period. The post-closure care evaluation report shall contain the following:
- (a) An assessment of the integrity and long term stability of the cap system. The assessment shall consider observations, inspections, maintenance, repairs, and other information relating to the cap

system since the commencement of post-closure care. The assessment shall identify needed maintenance and repair at the time of the evaluation report.

- (b) A summary of changes to leachate quality and quantity since the commencement of post-closure care.
- (c) The rate of leachate generation and quantity of leachate generated at the facility since the commencement of post-closure care, with an explanation of how these figures were derived.
- (d) An assessment of hydrogen sulfide gas generation and emissions by the facility. The assessment shall consider observations, inspections, maintenance, repairs, and other information relating to hydrogen sulfide gas generation and emissions since the commencement of post-closure care. The assessment shall identify needed hydrogen sulfide gas emission controls at the time of the evaluation report.

~~(8)~~(9) Retaining all authorizing documents and completed daily logs of operations at a location acceptable to the licensing authority where the documents are available for inspection by Ohio EPA or the approved health department during normal business hours.

~~(9)~~(10) Maintaining all records and reports generated during final closure and the post-closure care period at a location acceptable to the licensing authority where the records and reports are available for inspection by Ohio EPA or the approved health department during normal business hours.

[Comment: The obligation under this rule to maintain the documents required under paragraphs (E)(9) and (E)(10) of this rule ends upon completion of the post-closure care period.]

(F) The owner or operator shall submit to Ohio EPA and the approved board of health a post-closure care certification report during the last thirty days of the post-closure care period. The post-closure care certification report shall conform with the following:

- (1) The post-closure care certification report shall be signed by a professional skilled in the appropriate discipline and shall certify that the owner or operator has completed post-closure care in accordance with this chapter.
- (2) The post-closure care certification report shall contain at a minimum the documentation relied upon in the preparation of the post-closure care certification report.
- (3) If applicable, the post-closure care certification report shall include information on the status of ground water monitoring wells. The status shall include the identification of intended use or anticipated time frame for well abandonment.

[Comment: Decommissioning of the ground water monitoring system and proper abandonment of ground water monitoring wells is required by Chapter 3745-09 of the Administrative Code.]

- (4) If applicable, the post-closure care certification report shall include information on the status of any other environmental monitoring being conducted at the facility and any required environmental control systems. The status shall include the identification of the anticipated timeframe for cessation of monitoring or abandonment of any environmental control systems that were required during post-closure care.

Effective: 08/01/2012

R.C. 119.032 review dates: 08/01/2017

CERTIFIED ELECTRONICALLY

Certification

06/08/2012

Date

Promulgated Under: 119.03
Statutory Authority: 3714.02
Rule Amplifies: 3714.02, 3714.05, 3714.052

3745-400-17 Procedures for issuance of an order extending the post-closure care period.

- (A) The post-closure care period may be extended by order of the approved board of health, the director, or a court of competent jurisdiction if conditions at a construction and demolition debris facility are impacting public health or safety or the environment or if ground water assessment and ground water corrective measures are required to be conducted at the facility in accordance with rules adopted under section 3714. of the Revised Code. The requirement to maintain financial assurance for post-closure care may be extended if the post-closure care period is extended pursuant to this rule.
- (B) An order of the director or approved board of health extending the post-closure care period shall contain at a minimum the following information:
- (1) The identification and location of the facility for which the post-closure care period is extended.
 - (2) The effective date of the order.
 - (3) A description of the conditions at the facility that are impacting public health or safety or the environment or whether ground water assessment or ground water corrective measures are required to be conducted at the facility in accordance with rules adopted under section 3714. of the Revised Code.
 - (4) The length of the extended post-closure care period established by the order.
 - (5) Any extension of the length of time that financial assurance for post-closure care is required to be maintained.
 - (6) A timeframe of at least forty-five days for the submittal of the revised cost estimate and a timeframe of at least ninety days for re-establishment of financial assurance.
 - ~~(6)-(7)~~ Any terms or conditions established by the order.
 - ~~(7)-(8)~~ A termination date or termination provisions.
 - (9) A description of the post-closure care activities required by paragraph (E) of rule 3745-400-16 of the Administrative Code that are to be continued during the extended post-closure care period.
- (C) When issuing an order extending the post-closure care period, the director shall act in accordance with Chapters 119., 3714., 3734., and 3745. of the Revised Code, as applicable.
- (D) When issuing an order extending the post-closure care period, an approved board of health shall act in accordance with Chapter 3714. and section 3709.20 of the Revised Code.
- (E) Upon issuance of an order extending the post-closure care period, a copy of the order shall be retained by the licensing authority and a copy of the order shall be distributed by certified mail or other form of mail accompanied by a receipt to the owner and operator.

Effective: 08/01/2012

R.C. 119.032 review dates: 08/01/2017

CERTIFIED ELECTRONICALLY

Certification

06/08/2012

Date

Promulgated Under: 119.03
Statutory Authority: 3714.02
Rule Amplifies: 3714.02, 3734.03

3745-400-18 Financial assurance for post-closure care of construction and demolition debris facilities.

(A) The owner or operator of a construction and demolition debris facility shall establish and maintain financial assurance for post-closure care of the facility as required by this rule. Financial assurance may be established and maintained through the use of one of the options specified in paragraphs (B) to (F) of this rule, unless it is demonstrated to the satisfaction of the health commissioner or director of the licensing authority that an alternate option will guarantee funding for post-closure care. The owner or operator may use the options in combination as specified in paragraph (G) of this rule.

(1) Post-closure care cost estimate. Financial assurance documentation shall include an itemized written post-closure care cost estimate that calculates the cost of conducting the post-closure care activities required by rule 3745-400-16 of the Administrative Code for all active licensed disposal areas and for all inactive licensed disposal areas containing debris. The amount shall be calculated in current dollars and be based upon a third party conducting all of the post-closure care activities required by rule 3745-400-16 of the Administrative Code.

(2) Amount and funding of financial assurance. Post-closure care financial assurance shall be funded in an amount not less than the post-closure care cost estimate calculated in accordance with paragraph (A)(1) of this rule unless the owner or operator has chosen the five year transition in accordance with rule 3745-400-25 of the Administrative Code. If the funded post-closure care financial assurance for the facility is less than the post-closure care cost estimate, the owner or operator shall fund an amount not less than the post-closure care cost estimate not later than thirty days after each of the following:

(a) License issuance.

(b) The updated post-closure care financial assurance documentation required by paragraph (E)(11) of rule 3745-400-12 of the Administrative Code.

(c) The updated post-closure care financial assurance documentation required by paragraph (E)(7) of rule 3745-400-16 of the Administrative Code.

If a portion of the increase in the post-closure care cost estimate is due to the addition of active licensed disposal area for which a construction certification report has not been submitted in accordance with rule 3745-400-08 of the Administrative Code, the owner or operator may delay funding that portion of the post-closure care cost estimate necessary to conduct post-close activities for that uncertified active licensed disposal area until the date of submittal of the construction certification report. The owner or operator shall use any single or combination of financial assurance instruments as specified in paragraphs (B) to (F) of rule 3745-400-13 of the Administrative Code.

(3) Review of post-closure care financial assurance.

(a) The post-closure cost care estimate shall be recalculated for each of the following:

(i) Renewal of the annual license application.

(ii) Any application for a facility modification

(iii) Prior to submittal of the updated post-closure care financial assurance documentation required by paragraph (E)(11) of rule 3745-400-12 of the Administrative Code

(iv) Prior to submittal of the updated post-closure care financial assurance documentation required by paragraph (E)(7) of rule 3745-400-16 of the Administrative Code.

- (b) The post-closure cost care estimate shall be recalculated if there is a change in the acreage of the active licensed disposal area or inactive licensed disposal area containing debris.
- (c) If there is no change in the acreage of the active licensed disposal area or inactive licensed disposal area containing debris, the owner or operator may as an alternative to recalculating the post-closure care cost estimate, adjust the post-closure cost estimate established in the facility's most recent issued license for inflation in accordance with paragraph (A)(3)(d) of this rule.
- (d) Adjustment of the post-closure cost estimate for inflation. The adjustment shall be made as specified in this paragraph, using an inflation factor derived from the annual implicit price deflator for gross domestic product as published by the U.S. department of commerce in the most recent February issue of "Survey of Current Business." The inflation factor is the result of dividing the latest published annual deflator by the deflator for the previous year.
 - (i) The first adjustment is made by multiplying the post-closure care cost estimate by the inflation factor. The result is the adjusted post-closure care cost estimate.
 - (ii) Subsequent adjustments are made by multiplying the most recently adjusted post-closure care cost estimate by the most recent inflation factor.

[Comment: The text of the incorporated materials is not included in this rule and are hereby made a part of this rule. The "Survey of Current Business" document is available at <http://www.bea.gov> or by writing to the "United States Bureau of Economic Analysis, 1441 L Street NW, Washington, DC 20230."]

- (e) The amount of financial assurance shall not be less than the recalculated post-closure cost estimate for each renewal of the annual license application, application for a facility modification, submittal of the updated post-closure care financial assurance documentation required by paragraph (E)(11) of rule 3745-400-12 of the Administrative Code, and submittal of the updated post-closure care financial assurance documentation required by paragraph (E)(7) of rule 3745-400-16 of the Administrative Code. Established and funded financial assurance may be utilized to fulfill the financial assurance requirements if the dollar amount of the financial assurance is equal to or greater than the amount required in paragraph (A) of this rule.
- (4) Post-closure care financial assurance documentation shall also include the original copy of the financial assurance instruments necessary to achieve compliance with the financial assurance provisions of this rule. The wording contained in the instruments shall be in accordance with the appropriate paragraph of rule 3745-400-14 of the Administrative Code, unless an option other than those specified in paragraphs (B) to (F) of this rule is proposed.
- (5) Release of funds. Reimbursement shall be made as follows:
- (a) Release of funds prior to completion of post-closure care. The owner or operator, or any other person authorized to perform post-closure care activities on behalf of the owner or operator, may request and receive authorization for reimbursement from or a reduction of the financial assurance required under this rule. In accordance with paragraph (A)(3)(e) of this rule, the amount of financial assurance remaining shall not be less than the recalculated post-closure care cost estimate. A request for reimbursement from or reduction of financial assurance shall be submitted to the licensing authority and include the following:
 - (i) The amount of reimbursement or reduction of the financial assurance calculated based upon the unit cost of the completed post-closure care activities contained in the current approved

financial assurance cost estimate.

(ii) A post-closure care cost estimate recalculated in accordance with paragraph (A)(1) of this rule.

(iii) A comparison of the recalculated post-closure care cost estimate to the amount of financial assurance remaining if the requested amount of reimbursement or reduction of the financial assurance is released or reduced.

(b) Release of funds after completion of post-closure care period. The owner or operator or any other person authorized to perform post-closure care activities may request and receive authorization for reimbursement of all remaining funds or termination of the financial assurance required under this rule after post-closure care has been completed in accordance with rule 3745-400-16 of the Administrative Code.

(c) The licensing authority shall make a determination not later than ninety days after receipt of a complete request.

(B) Post-closure care trust fund.

(1) The owner or operator may satisfy the requirements of this rule by establishing a post-closure care trust fund that conforms to this rule and by submitting an originally signed duplicate of the trust agreement to the health commissioner or director of the licensing authority. The trustee shall be an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency.

(2) The wording of the trust agreement shall be identical to the wording specified in paragraph (A)(1) of rule 3745-400-14 of the Administrative Code and the trust agreement shall be accompanied by a formal certification of acknowledgment.

(3) Unless the owner or operator has chosen the five year transition in accordance with rule 3745-400-25 of the Administrative Code or the owner or operator is delaying funding of a portion of the post-closure cost estimate until submittal of a construction certification report in accordance with (A)(2) of this rule, the owner or operator shall fully fund the total dollar amount of the trust fund not later than thirty days after each of the following:

(a) License issuance.

(b) The updated post-closure care financial assurance documentation required by paragraph (E)(11) of rule 3745-400-12 of the Administrative Code.

(c) The updated post-closure care financial assurance documentation required by paragraph (E)(7) of rule 3745-400-16 of the Administrative Code.

The owner or operator shall submit to the licensing authority a receipt from the trustee for the deposit made into the trust fund.

(4) If the owner or operator establishes a post-closure care trust fund to replace one or more alternative mechanisms specified in this rule, the owner or operator shall fully fund the trust fund in an amount at least equal to the post-closure care cost estimate determined in accordance with paragraph (A) of this rule.

(5) The owner or operator, or any other person authorized to perform post-closure care, may request release of funds for post-closure care expenditures in accordance with paragraph (A)(5) of this rule. The health

commissioner or director of the licensing authority shall calculate in accordance with paragraph (A)(5) of this rule the amount to be released and shall instruct the trustee, in writing, to make such release.

- (6) The health commissioner or director of the licensing authority shall agree to termination of the trust fund when either of the following occurs:
- (a) The owner or operator substitutes alternative financial assurance for post-closure care as specified in this rule.
 - (b) The health commissioner or director of the licensing authority notifies the owner or operator that the owner or operator is no longer required by this rule to maintain financial assurance for post-closure care of the construction and demolition debris facility.

(C) Surety bond guaranteeing payment into a post-closure care trust fund.

- (1) The owner or operator may satisfy the requirements of this rule by obtaining a surety bond that conforms to this rule and by submitting the originally signed surety bond to the health commissioner or director of the licensing authority. At a minimum, the surety bond company issuing the surety bond shall be among those listed as acceptable sureties on federal bonds in the most recent "Circular 570" of the U.S. department of the treasury.

[Comment: The text of the incorporated materials is not included in this rule and are hereby made a part of this rule. "Circular 570" is published in the "Federal Register" annually on the first day of July; interim changes in the circular are also published in the "Federal Register." This United States department of treasury document is available at <http://www.fms.treas.gov>.]

- (2) The wording of the surety bond shall be identical to the wording specified in paragraph (B) of rule 3745-400-14 of the Administrative Code.
- (3) The owner or operator who uses a surety bond to satisfy the requirements of this rule shall also establish a standby trust fund not later than the date the surety bond is obtained. Under the terms of the surety bond, all payments made thereunder shall be deposited by the surety bond company directly into the standby trust fund in accordance with instructions from the health commissioner or director of the licensing authority. This standby trust fund shall meet the requirements specified in paragraph (B) of this rule, except as follows:
- (a) An originally signed duplicate of the trust agreement shall be submitted with the surety bond.
 - (b) Until the standby trust fund is funded, pursuant to the requirements of this rule, a deposit into the standby trust fund as specified in paragraph (B) of this rule is not required.
- (4) The surety bond shall guarantee that the owner or operator will do one of the following:
- (a) Fund the standby trust fund in an amount equal to the penal sum of the surety bond before the beginning of post-closure care.
 - (b) Fund the standby trust fund in an amount equal to the penal sum of the surety bond not later than fifteen days after post-closure care is required in compliance with paragraph (A) of rule 3745-400-16 of the Administrative Code.
 - (c) Provide alternative financial assurance as specified in this rule and obtain written approval of the alternative financial assurance from the health commissioner or director of the licensing authority not later than ninety days after both the owner or operator and the health commissioner or director

of the licensing authority receive notice of cancellation of the surety bond from the surety bond company.

- (5) Under the terms of the surety bond, the surety bond company shall become liable on the surety bond obligation when the owner or operator fails to perform as guaranteed by the surety bond.
- (6) Except as provided in paragraph (G) of this rule, the penal sum of the surety bond shall be in an amount at least equal to the post-closure care cost estimate determined in accordance with paragraph (A) of this rule.
- (7) Under the terms of the surety bond, the surety bond shall remain in full force and effect unless the surety bond company sends written notice of cancellation by certified mail or other form of mail accompanied by a receipt to the owner or operator, the approved board of health, and the director. Cancellation shall not occur during the one hundred twenty day period beginning on the first day that both the owner or operator and the health commissioner or director of the licensing authority have received the notice of cancellation, as evidenced by the return receipts.
- (8) The owner or operator may cancel the surety bond if the licensing authority has given prior written approval. The health commissioner or director of the licensing authority shall provide such written approval when one of the following occurs:
 - (a) The owner or operator substitutes alternative financial assurance for post-closure care as specified in this rule.
 - (b) The health commissioner or director of the licensing authority notifies the owner or operator that the owner or operator is no longer required to maintain financial assurance for post-closure care of the construction and demolition debris facility.

(D) Surety bond guaranteeing performance of post-closure care.

- (1) The owner or operator may satisfy the requirements of this rule by obtaining a surety bond that conforms to this rule and by submitting the originally signed surety bond to the health commissioner or director of the licensing authority. The surety bond company issuing the surety bond shall at a minimum be among those listed as acceptable sureties on federal bonds in the most recent "Circular 570" of the U.S. department of the treasury.

[Comment: Comment: The text of the incorporated materials is not included in this rule and are hereby made a part of this rule. "Circular 570 is published in the "Federal Register" annually on the first day of July; interim changes in the circular are also published in the "Federal Register." This United States department of treasury document is available at <http://www.fms.treas.gov>.]

- (2) The wording of the surety bond shall be identical to the wording specified in paragraph (C) of rule 3745-400-14 of the Administrative Code.
- (3) The owner or operator who uses a surety bond to satisfy the requirements of this rule shall also establish a standby trust fund not later than the date the surety bond is obtained. Under the terms of the surety bond, all payments made thereunder shall be deposited by the surety bond company directly into the standby trust fund in accordance with instructions from the health commissioner or director of the licensing authority. This standby trust fund shall meet the requirements specified in paragraph (B) of this rule except as follows:
 - (a) An originally signed duplicate of the trust agreement shall be submitted with the surety bond.

(b) Until the standby trust fund is funded, pursuant to the requirements of this rule, a deposit into the standby trust fund as specified in paragraph (B) of this rule is not required.

(4) The surety bond shall guarantee that the owner or operator shall do one of the following:

(a) Perform post-closure care in accordance with rule 3745-400-16 of the Administrative Code and other requirements of any authorizing documents.

(b) Provide alternative financial assurance as specified in this rule, and obtain written approval of the alternative financial assurance from the health commissioner or director of the licensing authority not later than ninety days after both the owner or operator and the health commissioner or director of the licensing authority receive notice of cancellation of the surety bond from the surety bond company, as evidenced by the return receipts.

(5) Under the terms of the surety bond, the surety bond company shall become liable on the surety bond obligation when the owner or operator fails to perform as guaranteed by the surety bond. Following a determination by the approved board of health or the director that the owner or operator has failed to perform post-closure care activities in accordance with rule 3745-400-16 of the Administrative Code and requirements of any authorizing documents, the surety bond company shall perform post-closure care activities in accordance with rule 3745-400-16 of the Administrative Code and requirements of any authorizing documents or shall deposit the amount of the penal sum of the surety bond into the trust fund.

(6) The penal sum of the surety bond shall be in an amount at least equal to the post-closure care cost estimate determined in accordance with paragraph (A) of this rule.

(7) Under the terms of the surety bond, the surety bond shall remain in full force and effect unless the surety bond company sends written notice of cancellation by certified mail or other form of mail accompanied by a receipt to the owner or operator, the approved board of health, and the director. Cancellation shall not occur during the one hundred twenty day period beginning on the first day that both the owner or operator and the health commissioner or director of the licensing authority have received the notice of cancellation, as evidenced by the return receipts.

(8) The owner or operator may cancel the surety bond if the health commissioner or director of the licensing authority has given prior written approval. The health commissioner or director of the licensing authority shall provide such written approval when one of the following occurs:

(a) The owner or operator substitutes alternative financial assurance for post-closure care as specified in this rule.

(b) The health commissioner or director of the licensing authority notifies the owner or operator that the owner or operator is no longer required to maintain financial assurance for post-closure care of the construction and demolition debris facility.

(9) The surety bond company shall not be liable for deficiencies in the completion of post-closure care activities by the owner or operator after the owner or operator has been notified by the health commissioner or director of the licensing authority in accordance with this rule that the owner or operator is no longer required to maintain financial assurance for post-closure care of the construction and demolition debris facility.

(E) Post-closure care letter of credit.

- (1) The owner or operator may satisfy the requirements of this rule by obtaining an irrevocable standby letter of credit that conforms to the requirements of this rule and by having the originally signed letter of credit delivered to the health commissioner or director of the licensing authority. The issuing institution shall be an entity that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a federal or state agency.
- (2) The wording of the letter of credit shall be identical to the wording specified in paragraph (D) of rule 3745-400-14 of the Administrative Code.
- (3) An owner or operator who uses a letter of credit to satisfy the requirements of this rule shall also establish a standby trust fund not later than the date the letter of credit is obtained. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the health commissioner or director of the licensing authority shall be deposited directly by the issuing institution into the standby trust fund in accordance with instructions from the health commissioner or director of the licensing authority. The standby trust fund shall meet the requirements of the trust fund specified in paragraph (B) of this rule, except as follows:
 - (a) An originally signed duplicate of the trust agreement shall be submitted with the letter of credit.
 - (b) Until the standby trust fund is funded, pursuant to the requirements of this rule, a deposit into the standby trust fund as specified in paragraph (B) of this rule is not required.
- (4) The letter of credit shall be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the following information: the names and addresses of the construction and demolition debris facility and the owner or operator and the amount of funds assured for post-closure care of the construction and demolition debris facility by the letter of credit.
- (5) The letter of credit shall be irrevocable and issued for a period of at least one year. The letter of credit shall provide that the expiration date shall be automatically extended for a period of at least one year unless, at least one hundred twenty days prior to the current expiration date, the issuing institution notifies the owner or operator, the approved board of health, and the director by certified mail or any other form of mail accompanied by a receipt of a decision not to extend the expiration date. Under the terms of the letter of credit, the one hundred twenty day period shall begin on the day when the owner or operator, licensing authority, and director have received the notice, as evidenced by the return receipts.
- (6) Except as provided in paragraph (G) of this rule, the letter of credit shall be in an amount at least equal to the post-closure care cost estimate determined in accordance with paragraph (A) of this rule.
- (7) Following a determination by the approved board of health or the director that the owner or operator has failed to perform post-closure care activities in accordance with rule 3745-400-16 of the Administrative Code and requirements of any authorizing documents, the approved board of health or director may draw on the letter of credit.
- (8) If the owner or operator does not establish alternative financial assurance as specified in this rule and obtain written approval of such alternative financial assurance from the health commissioner or director of the licensing authority not later than ninety days after the owner or operator, licensing authority, and director have received notice from the issuing institution that it shall not extend the letter of credit beyond the current expiration date, the approved board of health or director shall draw on the letter of credit. The approved board of health or the director may delay the drawing if the issuing institution grants an extension of the term of the credit. During the final thirty days of any such extension, the approved board of health or the director shall draw on the letter of credit if the owner or operator has

failed to provide alternative financial assurance as specified in this rule and has failed to obtain written approval of such alternative financial assurance from the health commissioner or director of the licensing authority.

- (9) The health commissioner or director of the licensing authority shall return the original letter of credit to the issuing institution for termination when one of the following occurs:
- (a) The owner or operator substitutes alternative financial assurance for post-closure care as specified in this rule.
 - (b) The health commissioner or director of the licensing authority notifies the owner or operator that the owner or operator is no longer required to maintain financial assurance for post-closure care of the construction and demolition debris facility.

(F) Post-closure care insurance.

- (1) The owner or operator may satisfy the requirements of this rule by obtaining post-closure care insurance that conforms to this rule and by submitting an originally signed certificate of such insurance to the health commissioner or director of the licensing authority.
- (2) The owner or operator using insurance as a financial assurance mechanism shall submit documentation stating whether the insurer is a subsidiary or has a corporate, legal, or financial affiliation with the owner or operator. If the post-closure care insurance is issued by a subsidiary or affiliate, the owner or operator shall include a detailed written description of the relationship between the insurer and the owner and the operator.
- (3) An insurer issuing an insurance policy in satisfaction of this rule shall be licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more states. The owner or operator shall submit to the licensing authority the following information regarding the insurer's qualifications:
 - (a) The most recent A.M. Best rating of the insurer.
 - (b) Documentation demonstrating that the insurer is domiciled in the United States.
 - (c) The most recent report on examination from the insurance department from the insurer's state of domicile.
 - (d) Documentation demonstrating that the insurer has capital and surplus of at least one hundred million dollars.
 - (e) Documentation demonstrating that the insurer received an unqualified opinion of the insurer's annual financial statements from an independent certified public accountant.
- (4) The licensing authority may disallow use of the insurer by the owner or operator on the basis of one or more of the following:
 - (a) The A.M. Best rating is less than A-.
 - (b) The report on examination does not demonstrate that the status of the insurer is satisfactory.
 - (c) The opinion expressed by the independent certified public accountant in the report on examination of the insurer's financial statements.

- (5) The wording of the certificate of insurance shall be identical to the wording specified in paragraph (E) of rule 3745-400-14 of the Administrative Code.
- (6) Except as provided in paragraph (G) of this rule, the post-closure care insurance policy shall be issued for a face amount at least equal to the amount of the post-closure care cost estimate determined in accordance with paragraph (A) of this rule. The face amount shall be the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer shall not change the face amount, but the insurer's future liability shall be lowered by the amount of the payments.
- (7) The post-closure care insurance policy shall guarantee that funds shall be available to conduct post-closure care of the construction and demolition debris facility whenever post-closure care begins. The policy shall also guarantee that once post-closure care of the construction and demolition debris facility begins, the insurer shall be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the health commissioner or director of the licensing authority, to such party or parties as the health commissioner or director of the licensing authority specifies.
- (8) After beginning post-closure care, the owner or operator, or any other person authorized to perform post-closure care activities, may request reimbursement for post-closure care expenditures. The health commissioner or director of the licensing authority shall calculate in accordance with paragraph (A) of this rule the amount to be reimbursed and shall instruct the insurer, in writing, to make such reimbursement.
- (9) The owner or operator shall maintain the policy in full force and effect until the health commissioner or director of the licensing authority consents to termination of the policy by the owner or operator as specified in paragraph (F)(13) of this rule. Failure to pay the premium, without substitution of alternative financial assurance as specified in this rule, constitutes a violation of these rules, warranting such remedy as the health commissioner or director of the licensing authority deems necessary. Such violation shall be deemed to begin upon receipt by the health commissioner or director of the licensing authority of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.
- (10) Each policy shall contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.
- (11) The policy shall provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy shall at a minimum provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending written notice by certified mail or other form of mail accompanied by a receipt to the owner or operator, health commissioner, and director of the licensing authority not later than one hundred twenty days prior to the date of cancellation, termination, or failure to renew. Cancellation, termination, or failure to renew shall not occur during the one hundred twenty day period beginning on the first day that both the owner or operator and the health commissioner or director of the licensing authority have received the notice, as evidenced by the return receipts.
- (12) If the health commissioner or director of the licensing authority disallows use of the insurer, the owner or operator shall provide alternative financial assurance as specified in this rule not later than thirty days after notification of the disallowance of the insurer.

- (13) The health commissioner or director of the licensing authority shall give written approval that the owner or operator may terminate the insurance policy when one of the following occurs:
- (a) The owner or operator substitutes alternative financial assurance for post-closure care as specified in this rule.
 - (b) The health commissioner or director of the licensing authority notifies the owner or operator that the owner or operator is no longer required to maintain financial assurance for post-closure care of the construction and demolition debris facility.
- (G) Use of multiple financial assurance mechanisms. The owner or operator may satisfy the requirements of this rule by establishing more than one financial assurance mechanism for the construction and demolition debris facility. The mechanisms are limited to trust funds, surety bonds guaranteeing payment into a post-closure care trust fund, letters of credit, and insurance. The mechanisms shall conform to paragraphs (B), (C), (E), and (F) of this rule, except that it is the combination of mechanisms, rather than each single mechanism, that shall provide financial assurance for an amount at least equal to the post-closure care cost estimate calculated in accordance with paragraph (A) of this rule. If an owner or operator uses a trust fund in combination with a surety bond or a letter of credit, the owner or operator may use the trust fund as the standby trust fund for the other mechanisms. A single standby trust fund may be established for two or more mechanisms. The licensing authority may invoke use of any or all of the mechanisms in accordance with paragraphs (B), (C), (E), and (F) of this rule to provide for post-closure care of the construction and demolition debris facility.

Effective: 08/01/2012

R.C. 119.032 review dates: 08/01/2017

CERTIFIED ELECTRONICALLY

Certification

06/08/2012

Date

Promulgated Under: 119.03
Statutory Authority: 3714.02
Rule Amplifies: 3714.02

3745-400-20 Leachate sampling and analysis and additional requirements to monitor ground water for leachate parameters.

(A) Leachate sampling and analysis. Throughout the operation, closure, and post-closure care, the owner or operator shall do the following:

(1) Sample and test leachate in accordance with the following unless the facility was licensed and operating on December 22, 2005, and was not required to have a leachate monitoring system on that date. For the purposes of this rule, a "leachate monitoring system" is any leachate collection system that includes sump risers or other access that can be used for collecting samples of leachate.

(a) Sampling frequency.

(i) An owner or operator shall sample leachate at the facility at least annually.

(ii) If the owner or operator recirculates leachate after the effective date of this rule, the owner or operator shall sample leachate at the facility at least quarterly.

(b) Sampling locations.

(i) At least annually an owner or operator shall obtain at least one representative leachate sample from a minimum of one sump collecting leachate from areas of the facility containing disposed material. Within every five year period, an owner or operator shall obtain at least one representative leachate sample from each sump collecting leachate from areas of the facility containing disposed material.

(ii) At least quarterly an owner or operator that has recirculated leachate through a facility after the effective date of this rule shall obtain at least one representative leachate sample from each sump capable of collecting leachate from such areas of the facility receiving the recirculated leachate.

[Comment: The licensing authority may utilize authority under section 3714.04 of the Revised Code to specify different sampling locations and frequencies than required by this rule as deemed appropriate.]

(c) Field analysis. During each leachate sampling event, an owner or operator shall measure the pH, specific conductance, temperature, and turbidity for each sump from which a sample is taken.

(d) Laboratory analysis.

(i) An owner or operator shall analyze each leachate sample for the parameters listed in rule 3745-400-21 of the Administrative Code.

(ii) The practical quantitation limit (PQL) used for laboratory analysis shall be the following:

(a) The lowest concentration level that can be reliably achieved during routine laboratory operating conditions that are reasonably available for the analytical method chosen by the owner or operator, unless paragraph (A)(1)(d)(iii) of this rule applies.

(b) Lower than the primary drinking water standard for the parameter included in Chapter 3745-81 of the Administrative Code, if one exists, and the secondary drinking water standard for the parameter included in Chapter 3745-82 of the Administrative Code, if one exists, unless paragraph (A)(1)(d)(ii) of this rule applies.

(iii) If the PQL does not comply with paragraph (A)(1)(d)(ii) of this rule then an owner or operator shall do one of the following:

(a) Choose alternative sampling or analytical procedures or choose an alternative analytical method that will result in a PQL that complies with paragraph (A)(1)(d)(ii) of this rule and reanalyze the sample or resample.

(b) Identify and report interferences that prevent the use of a PQL meeting the requirements of paragraph (A)(1)(d)(ii) of this rule and provide a written justification in the leachate report why the use of another procedure or method in accordance with paragraph (A)(1)(d)(iii)(a) of this rule is impractical.

(c) Conclude that the parameter has been detected in leachate for the purpose of conducting ground water detection monitoring in accordance with paragraph (B) of this rule.

(e) Submitting the sampling and analysis results. An owner or operator shall submit to the director and approved board of health the following information not later than seventy-five days after each leachate sampling event:

(i) The results of the field analysis required by paragraph (A)(1)(c) of this rule.

(ii) The results of the laboratory analysis of the parameters listed in rule 3745-400-21 of the Administrative Code in the same order as listed in rule 3745-400-21 of the Administrative Code.

(iii) Identification of the leachate parameters required by paragraph (B) of this rule to be monitored in ground water.

(iv) Quality control data used by the laboratory to determine whether the analysis results are accurate.

(v) The method detection limits, PQLs, and analysis methods used.

(vi) Forms in the leachate sampling and analysis plan that were completed during leachate sampling and analysis.

(2) Develop and comply with a leachate sampling and analysis plan that contains the following:

(a) A description of the equipment, procedures, and techniques to be used to sample and analyze leachate in accordance with this rule. Sample collection, preservation, and handling methods described in the plan shall provide for collection of representative samples of leachate.

[Comment: An owner or operator is not required to include references to specific laboratory analysis methods, specific method detection limits, or specific practical quantitation limits in the leachate sampling and analysis plan.]

(b) Blank forms to be used to record the information obtained during leachate sampling and analysis including at a minimum the following types of forms:

(i) Forms for recording field analysis results and conditions encountered at the facility during a sampling event.

(ii) Forms for recording the chain of custody of leachate samples.

(B) Additional requirements to monitor ground water for leachate parameters.

- (1) The owner or operator of a facility with a ground water monitoring system and a leachate monitoring system that can be used for conducting the leachate sampling required by paragraph (A) of this rule shall monitor ground water for parameters that have been detected in the facility's leachate.
- (2) If Ohio EPA or the licensing authority has detected a parameter listed in rule 3745-400-21 of the Administrative Code through conducting sampling in accordance with paragraph (A) of this rule with the exclusion of paragraph (A)(1)(d)(iii)(c), Ohio EPA or the licensing authority may require that the owner or operator add a parameter listed in rule 3745-400-21 of the Administrative Code that is detected by the Ohio EPA or the licensing authority to the ground water monitoring parameter list.
- (3) The owner or operator of a facility that has a ground water monitoring system and does not have a leachate monitoring system that can be used for conducting the leachate sampling required by paragraph (A) of this rule shall monitor ground water for the parameters listed in rule 3745-400-21 of the Administrative Code.
- (4) The owner or operator shall monitor ground water for the additional parameters required by this rule in accordance with rule 3745-400-10 of the Administrative Code.

[Comment: The licensing authority may utilize authority under section 3714.04 of the Revised Code should the addition of parameters required by this paragraph no longer be determined appropriate.]

Effective: 01/01/2013

R.C. 119.032 review dates: 08/01/2017

CERTIFIED ELECTRONICALLY

Certification

06/08/2012

Date

Promulgated Under: 119.03
Statutory Authority: 3714.02
Rule Amplifies: 3714.02

*****DRAFT - NOT FOR FILING*****

3745-400-21 Construction and demolition debris facility - leachate parameter list.

This rule contains the common names of parameters that are widely used in government regulation, scientific publications, and commerce. However, synonyms may exist for many parameters. The chemical abstract service registry number (CAS RN) for each parameter has been provided.

(A) Metals and cyanide. The metals include all species in leachate that contain the element and laboratory analysis shall be for total metals.

Parameter:	CAS RN:
1) Aluminum	7429-90-5
2) Antimony	7440-36-0
3) Arsenic	7440-38-2
4) Barium	7440-39-3
5) Beryllium	7440-41-7
6) Cadmium	7440-43-9
7) Chromium	7440-47-3
8) Copper	7440-50-8
9) Cyanide (free)	57-12-5
10) Lead	7439-92-1
11) Mercury	7439-97-6
12) Nickel	7440-02-0
13) Selenium	7782-49-2
14) Strontium	7440-24-6
15) Thallium	7440-28-0
16) Vanadium	7440-62-2
17) Zinc	7440-66-6

(B) Inorganic water quality parameters.

Parameter:	CAS RN:
18) Ammonia	7664-41-7
19) Calcium	7440-70-2
20) Chloride	16887-00-6
21) Magnesium	7439-95-4
22) Potassium	7440-09-7
23) Sodium	7440-23-5
24) Sulfate	14808-79-8

*****DRAFT - NOT FOR FILING*****

(C) Other inorganic parameters.

Parameter:	CAS RN:
25) Boron	7440-42-8
26) Iron	7439-89-6
27) Manganese	7439-96-5
28) Nitrate/Nitrite	
29) pH	
30) Total alkalinity	
31) Total dissolved solids	

(D) Volatile organic compounds.

Parameter:	CAS RN:
32) Acetone; 2-Propanone	67-64-1
33) Benzene	71-43-2
34) Bromodichloromethane; Dibromochloromethane	75-27-4
35) Carbon disulfide	75-15-0
36) Carbon tetrachloride; Tetrachloromethane	56-23-5
37) Chlorobenzene	108-90-7
38) Chloroethane; Ethyl chloride	75-00-3
39) Chloroform; Trichloromethane	67-66-3
40) 2-Chlorotoluene	95-49-8
41) 4-Chlorotoluene	106-43-4
42) o-Dichlorobenzene; 1,2-Dichlorobenzene	95-50-1
43) p-Dichlorobenzene; 1,4-Dichlorobenzene	106-46-7
44) Dichlorodifluoromethane; CFC-12	75-71-8
45) 1,1-Dichloroethane; Ethylidene chloride	75-34-3
46) 1,2-Dichloroethane; Ethylene dichloride	107-06-2
47) 1,1-Dichloroethylene; 1,1-Dichloroethene; Vinylidene chloride	75-35-4
48) cis-1,2-Dichloroethylene; cis-1,2-Dichloroethene	156-59-2
49) trans-1,2-Dichloroethylene; trans-1,2-Dichloroethene	156-60-5
50) 1,2-Dichloropropane; Propylene dichloride	78-87-5
51) 1,1-Dichloropropene; 1,1-Dichloro-1-propene	563-58-6
52) Ethylbenzene	100-41-4
53) 2-Hexanone; Methyl butyl ketone	591-78-6

*****DRAFT - NOT FOR FILING*****

54) Isopropylbenzene; Cumene	98-82-8
55) 4-Isopropyltoluene; p-Isopropyltoluene	99-87-6
56) Methyl chloride; Chloromethane	74-87-3
57) Methyl ethyl ketone; MEK; 2-Butanone	78-93-3
58) 4-Methyl-2-pentanone; Methyl isobutyl ketone	108-10-1
59) Methylene chloride; Dichloromethane	75-09-2
60) N-Butylbenzene	104-51-8
61) N-Propylbenzene	103-65-1
62) Naphthalene	91-20-3
63) Sec-Butylbenzene	135-98-8
64) Styrene; Ethenylbenzene	100-42-5
65) Tert-Butylbenzene	98-06-6
66) 1,1,1,2-Tetrachloroethane	630-20-6
67) Tetrachloroethylene; Tetrachloroethene; Perchloroethylene	127-18-4
68) Toluene; Methylbenzene	108-88-3
69) 1,2,3-Trichlorobenzene	87-61-6
70) 1,2,4-Trichlorobenzene	120-82-1
71) 1,1,1-Trichloroethane; Methylchloroform	71-55-6
72) Trichloroethylene; Trichloroethene	79-01-6
73) Trichlorofluoromethane; CFC-11	75-69-4
74) 1,2,4-Trimethylbenzene	95-63-6
75) 1,3,5-Trimethylbenzene	108-67-8
76) Vinyl chloride; Chloroethene	75-01-4
77) Xylene (total); Dimethylbenzene	See note

Note: Xylene (total): Where "total" is entered, all species in leachate that contain this element are included. This entry includes o-xylene (CAS RN 96-47-6), m-xylene (CAS RN 108-38-3), p-xylene (CAS RN 106-42-3), and unspecified xylenes (dimethylbenzenes) (CAS RN 1330-20-7).

Effective: 01/01/2013

R.C. 119.032 review dates: 08/01/2017

CERTIFIED ELECTRONICALLY

Certification

06/08/2012

Date

Promulgated Under: 119.03
Statutory Authority: 3714.02
Rule Amplifies: 3714.02

3745-400-25 Five year transition for final closure and post-closure care financial assurance for construction and demolition debris facilities.

[Comment: This rule provides the owner or operator of a construction and demolition debris facility a choice to be subject to the five year transition for funding a portion of final closure and post-closure care financial assurance in lieu of full funding required by paragraph (A)(2) of rule 3745-400-13 and paragraph (A)(2) of rule 3745-400-18 of the Administrative Code. This rule establishes the eligibility, notice, and requirements of the five year transition for funding financial assurance.]

- (A) An owner or operator that holds a construction and demolition debris facility license for the license year 2012 may utilize the five year transition period for funding financial assurance as described in this rule by submitting to the licensing authority and the director a written notice in accordance with the following:
- (1) The notice shall be submitted not later than the date of submittal of the renewal license application for license year 2013.
 - (2) The notice shall be signed in accordance with paragraph (F) of this rule.
 - (3) The notice shall contain the following:
 - (a) An affirmative statement signed by the owner or operator declaring the owner or operator's intention to utilize the five year transition period described this rule and to adhere to this rule.
 - (b) A demonstration that there is sufficient licensed disposal area to maintain operation throughout the five year transition.
 - (c) The calculations and the amount of the final closure transition amount and the post-closure transition amount applicable to the year for which the license is sought.
- (B) An owner or operator who is ineligible or fails to maintain eligibility to utilize the five year transition period described in this rule shall comply with paragraph (A)(2) of rules 3745-400-13 and 3745-400-18 of the Administrative Code. To maintain eligibility to utilize the five year transition period, an owner or operator shall do the following:
- (1) Continue to provide notification with each license application in accordance with paragraph (A)(3) this rule.
 - (2) Maintain a construction and demolition debris facility license for the current license year.
 - (3) Maintain compliance with this rule. Failure to fund final closure and post-closure care financial assurance according to this rule are grounds for license revocation and proposed denial of any pending license application.
- (C) Transition period final closure cost estimate and final closure transition amount. As used in this rule:
- (1) "Transition period final closure cost estimate" means the final closure cost estimate calculated in accordance with paragraph (A)(1) of rule 3745-400-13 of the Administrative Code for the base ALDA acreage.
 - (2) "Base ALDA acreage" means the amount of acreage identified as active licensed disposal area in the construction and demolition debris facility license for year 2013.
 - (3) "Reference final closure financial assurance" is the dollar amount of financial assurance required in the

construction and demolition debris facility license for year 2012.

(4) "Final closure transition amount" is calculated by multiplying the difference between the transition period final closure cost estimate and the reference final closure financial assurance by the appropriate transition year percentage as follows:

(a) Twenty per cent for the first year of the transition period.

(b) Forty per cent for the second year of the transition period.

(c) Sixty per cent for the third year of the transition period.

(d) Eighty per cent for the fourth year of the transition period.

(e) One hundred per cent for the fifth year of the transition period.

(D) Transition period post-closure cost estimate and post-closure transition amount. As used in this rule:

(1) "Transition period post-closure care cost estimate" is the post-closure care cost estimate calculated in accordance with paragraph (A)(1) of rule 3745-400-18 of the Administrative Code for the amount of acreage identified as active licensed disposal areas plus the acreage identified as inactive licensed disposal areas containing debris in the construction and demolition debris facility license for year 2013.

(2) "Post-closure transition amount" is calculated by multiplying the transition period post-closure cost estimate by the appropriate transition year percentage as follows:

(a) Twenty per cent for the first year of the transition period.

(b) Forty per cent for the second year of the transition period.

(c) Sixty per cent for the third year of the transition period.

(d) Eighty per cent for the fourth year of the transition period.

(e) One hundred per cent for the fifth year of the transition period.

(E) Amount and funding of final closure and post-closure financial assurance. The owner or operator shall annually fund final closure and post-closure financial assurance for each year of the five year transition in accordance with the following:

(1) The owner or operator shall maintain financial assurance in an amount equal to the previous year's financial assurance for the facility, including the amount of the final closure transition amount plus the amount of the post-closure transition amount required for the previous year.

(2) In addition to the financial assurance amount maintained in accordance with paragraph (E)(1) of this rule, the owner or operator shall fund financial assurance in an amount not less than the final closure transition amount plus the post-closure transition amount, less the amount of final closure transition amount and post-closure transition amount funded the previous year and maintained in accordance with paragraph (E)(1) of this rule. The owner or operator shall fund this additional amount not later than the expiration date of the license.

(3) If the license authorizes an increase in active licensed disposal area such that the active licensed disposal area is greater than the base ALDA acreage, the owner or operator shall establish and fund one hundred per cent of the portion of the final closure cost estimate necessary to close the increased acreage. The

owner or operator shall establish and fund the amount required by this paragraph not later than the date of submittal of the construction certification report for the portion of the active licensed disposal area that constitutes an increase. The owner or operator shall use any single or combination of financial assurance instruments as specified in paragraphs (B) to (F) of rule 3745-400-13 of the Administrative Code.

(4) If the license authorizes an increase in the amount of active licensed disposal area such that the sum of the acreage identified as inactive licensed disposal areas containing debris and the acreage of the active licensed disposal area is greater than the acreage identified in the construction and demolition debris facility license for year 2013, the owner or operator shall establish and fund one hundred per cent of the portion of the post-closure cost estimate necessary to conduct post-closure activities for the increased acreage. The owner or operator shall establish and fund the amount required by this paragraph not later than the date of submittal of the construction certification report for that area. The owner or operator shall use any single or combination of financial assurance instruments as specified in paragraphs (B) to (F) of rule 3745-400-18 of the Administrative Code.

(F) Notification. Notification submitted in accordance with paragraph (A)(2) or (B)(1) of this rule shall be signed by the owner or operator of the construction and demolition debris facility consistent with paragraph (B) of rule 3745-37-02 of the Administrative Code. The signatures on the notification shall constitute personal affirmation that all statements or assertions of fact made in the notification are true and complete, comply fully with the eligibility requirements in paragraph (A) of this rule, and shall subject the owner or operator to liability under applicable state laws concerning the submittal of false or misleading statements. The signatures shall represent that the owner or operator shall assume responsibility for compliance with this rule, Chapter 3714. of the Revised Code, this chapter, and Chapter 3745-37 of the Administrative Code.

Effective: 08/01/2012

R.C. 119.032 review dates: 08/01/2017

CERTIFIED ELECTRONICALLY

Certification

06/08/2012

Date

Promulgated Under: 119.03
Statutory Authority: 3714.02
Rule Amplifies: 3714.02