

# Ohio Administrative Code (OAC) Chapter 3745-520

## NEW CONSTRUCTION AND DEMOLITION DEBRIS (C&DD) PROGRAM REGULATIONS

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3745-520-01      **New construction and demolition debris facility - applicability.**

(A) This chapter is the program chapter for new construction and demolition debris facilities.

(B) This chapter shall apply to the following:

(1) The establishment of a new construction and demolition debris facility.

[Comment: "New construction and demolition debris facility" is defined in rule 3745-520-02 of the Administrative Code.]

(2) Any construction and demolition debris facility that has been permitted pursuant to this chapter.

(C) In addition to the multi-program rules made applicable by reference in this chapter, the following multi-program rules apply to this chapter:

(1) Rule 3745-500-10 of the Administrative Code which identifies wastes and activities generally excluded from regulation under Chapter 3734. of the Revised Code or rules adopted thereunder.

(2) Rule 3745-500-30 of the Administrative Code describes certain relationships among program chapters, multi-program chapters, and other rules.

[Comment: Rule 3745-500-30 of the Administrative Code clarifies, for example, that construction and demolition debris facilities regulated under this chapter are no longer regulated under Chapter 3745-400 of the Administrative Code.]

(3) Rule 3745-500-35 of the Administrative Code pertains to relationships among authorizing documents, rules, and the authority of the director and board of health.

(4) Rule 3745-500-310 of the Administrative Code regarding the criteria for issuing a permit to install.

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3745-520-02      **New construction and demolition debris facility - definitions.**

If a term used in this chapter is defined in rule 3745-500-02 of the Administrative Code the definition in rule 3745-500-02 of the Administrative Code is applicable to this chapter unless the term is defined in this rule. As used in this chapter:

(A)

(1) "Accept" or "acceptance," in the context of material acceptance, handling, and disposal activities, means to record material in the log of operations or to place material on the ground at any location at a C&DD facility other than the designated inspection zone.

[Comment: Designating an inspection zone is optional. See rule 3745-520-640 of the Administrative Code for information regarding the inspection zone.]

(2) "Alter" or "alteration" means either of the following:

(a) As it relates to a C&DD facility, a change other than a modification to a facility.

(b) As it relates to a permit to install for a C&DD facility, a change other than a modification to a facility design plan in the permit to install.

(B) "Best management practices" means activities, procedures, and practices that an owner or operator will use at a C&DD facility to comply with authorizing documents and with Chapter 3714. of the Revised Code and rules adopted thereunder.

(C)

(1) "Category 3 wetland" means a wetland that supports superior habitat or hydrological or recreational functions as determined by an appropriate wetland evaluation methodology acceptable to the director. Category 3 wetland includes a wetland with high levels of diversity, a high proportion of native species, and high functional values and includes but is not limited to a wetland that contains or provides habitat for threatened or endangered species. Category 3 wetland may include high quality forested wetlands, including old growth forested wetlands, mature forested riparian wetlands, vernal pools, bogs, fens, and wetlands that are scarce regionally.

(2) "Closure" means either the time at which a C&DD facility will no longer accept C&DD for disposal or the effective date of an order revoking the license of the facility. Closure includes measures performed to protect public health or safety, to prevent air or water pollution, or to make the facility suitable for other uses, if any, including without limitation, the establishment and maintenance of suitable

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cover of soil and vegetation over areas where C&DD is buried and the minimization of erosion, the infiltration of surface water into such areas, the production of leachate, and the accumulation and runoff of contaminated surface water.

(3) "Construction and demolition debris transfer facility" or "C&DD transfer facility" means a site, location, tract of land, installation, or building that is primarily used or intended to be used for the purpose of transferring C&DD that was generated off the premises of the C&DD transfer facility from vehicles or containers into other vehicles or containers for transportation to a C&DD facility.

(D) [Reserved.]

(E) "Exemption" means a discretionary action of the director or the approved board of health that relieves the applicant from a requirement of Chapter 3714. of the Revised Code or any rule adopted thereunder.

(F)

(1) "Facility" means "construction and demolition debris facility" or "C&DD facility."

(2) "Facility boundary" means the line represented on plan drawings and topographic maps of a C&DD facility that at a minimum encompasses the area that includes the following on property owned or controlled by the owner or operator:

(a) Authorized disposal limits.

(b) Areas within one hundred feet of the authorized disposal limits except that the facility boundary shall not extend beyond the boundary of the property owned or controlled by the owner or operator.

(c) Engineered components.

(d) Ground water monitoring, ground water assessment, and ground water corrective action apparatuses and structures.

(e) Gas monitoring apparatuses and structures.

(f) Other areas on which activities associated with disposal or operation of the facility occur, such as the following:

(i) Parking lots.

(ii) Staging areas.

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(iii) Storage areas.

(iv) Buildings.

(g) Roads used to access any item listed in paragraphs (F)(2)(a) to (F)(2)(f) of this rule.

(3) "Facility's property line" has the same meaning as facility boundary.

(G) [Reserved.]

(H)

(1) "Hot load" means material arriving at a C&DD facility that is on fire or at a temperature likely to cause a fire.

(2) "Hot load handling area" means an area where hot loads are placed and extinguished or cooled.

(I)

(1) "Illegal disposal" means the disposal of C&DD not in accordance with paragraph (B) of rule 3745-520-04 of the Administrative Code. Illegal disposal does not include reuse, recycling, or storage, or the management of clean hard fill in accordance with rule 3745-400-05 of the Administrative Code.

(2) "Inspection zone" means an area where material arriving at the C&DD facility is placed and inspected prior to recording the material in the log of operations.

(J) [Reserved.]

(K) "Key employee" means an individual employed by an applicant for a permit to install for, or by the proposed transferee of a permit to install or license for, a C&DD facility in a supervisory capacity or who is empowered to make discretionary decisions with respect to the C&DD operations of the applicant or transferee, but does not include an employee who is exclusively engaged in the physical or mechanical collection, transfer, transportation, storage, or disposal of C&DD. If the applicant or transferee has entered into a contract with another person to operate the C&DD facility that is the subject of the application or transfer, key employee includes an employee of the contractor who acts in a supervisory capacity or is empowered to make discretionary decisions with respect to the operation of the facility.

(L) [Reserved.]

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(M)

- (1) "Main hauling road" means a road that is used to transport material to be disposed between the facility boundary and the authorized disposal limits. A main hauling road is a type of access road.
- (2) "Maps prepared under the National Flood Insurance Act of 1968," or "maps have been prepared" means that the federal emergency management agency has evaluated the location of the C&DD facility for flood insurance purposes and represented its findings on such a map.
- (3) "Material log-in area" means the location at a C&DD facility where the owner or operator records in the log of operations whether a load of material is accepted.
- (4) "Modify" or "modification" means any of the following:
  - (a) As it relates to a C&DD facility, any of the following:
    - (i) Any design change to the facility that requires new slope stability or settlement analyses except for changes in interim slopes where a slope stability or settlement analysis has been submitted in the phasing plan in the general plan of facility operations in the license.
    - (ii) Removal or relocation of either a vegetated earthen berm or an equivalent barrier that is required by paragraph (B) of rule 3745-520-200 of the Administrative Code.
    - (iii) Construction of a main hauling road outside of the main hauling road areas specified in the facility design plan in the permit to install.
    - (iv) An addition or expansion of a leachate recirculation system at the facility.
    - (v) Any change that Ohio EPA or the approved board of health determines may endanger public health or safety or the environment, cause a nuisance or fire hazard, or cause or contribute to water pollution or air pollution, including but not limited to a change to the operation, design, or construction of the facility.

[Comment: An expansion of the authorized disposal limits of a C&DD facility or an expansion of the facility boundary results in the creation of a new facility and requires a permit to install in accordance with this chapter. An expansion of the authorized disposal limits of a C&DD facility or an expansion of a facility boundary is not a modification of a C&DD facility.]

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(b) As it relates to a permit to install for a C&DD facility, either of the following:

(i) Changes to the facility design plan in the permit to install or narrative necessary to document the modification to a facility as described in paragraph (M)(4)(a) of this rule.

(ii) A change to a term or condition in the permit to install.

(c) As it relates to a license for a C&DD facility, either of the following:

(i) A change to the general plan of facility operations in the license other than at the time of license renewal.

(ii) A change to a term or condition in the license other than at the time of license renewal.

(N)

(1) "Natural area" means either of the following:

(a) An area designated by the director of natural resources as a wild, scenic, or recreational river under section 1517.14 of the Revised Code.

(b) An area designated by the United States department of the interior as a national wild, scenic, or recreational river.

(2) "Nature preserve" means any area that is formally dedicated as a nature preserve under section 1517.05 of the Revised Code.

(3) "New construction and demolition debris facility" or "new C&DD facility" or "new facility" means either of the following:

(a) A C&DD facility that has never before been authorized under Chapter 3714. of the Revised Code.

(b) A C&DD facility that is authorized under Chapter 3714. of the Revised Code and expands the facility beyond the authorized disposal limits.

(O) "Off-specification material" means material from a manufacturer that does not meet the manufacturer's product specifications.

(P)

(1) "Park" means any of the following:

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- (a) A park created or operated pursuant to section 301.26, 511.18, 755.08, 1545.04, or 1545.041 of the Revised Code.
  - (b) A state park established or dedicated under Chapter 1541. of the Revised Code.
  - (c) A state park purchase area established under section 1541.02 of the Revised Code.
  - (d) A national recreation area, any unit of the national park system, or any property that lies within the boundaries of a national park or recreation area, but that has not been acquired or is not administered by the secretary of the United States department of the interior, located in this state.
  - (e) Any area located in this state that is recommended by the secretary of the United States department of the interior for study for potential inclusion in the national park system in accordance with The Act of August 18, 1970, as described in rule 3745-500-03 of the Administrative Code.
- (2) "Potential sources of contamination" means at least the following when applying the requirements of Chapter 3745-506 of the Administrative Code at a C&DD facility:
- (a) Any location where material has been disposed, is being disposed, or will be disposed.
  - (b) A designated inspection zone that is not under roof or not located on an impermeable pad.
  - (c) A storage area that meets the following criteria:

    - (i) The storage area is located outside of the authorized disposal limits.
    - (ii) Material other than exclusively clean hard fill is stored.
    - (iii) Stored material is not under roof, on an impermeable pad, or containerized and covered.
  - (d) A hot load handling area located outside of the authorized disposal limits that is not located on an impermeable pad.
  - (e) Other sources as required in a final action issued by the director or approved board of health.
- (3) "Pulverized debris" means a load of debris that, after demolition has occurred, but prior to acceptance of the load of debris for disposal, has been shredded,

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crushed, ground, or otherwise rendered to such an extent that the load of debris is unidentifiable as C&DD.

(Q) [Reserved.]

(R)

(1) "Refuse," in the context of material acceptance, handling, and disposal activities, means to remove material from a C&DD facility without accepting the material at the facility.

(2) "Reject" means to remove material from a C&DD facility after the material was accepted at the facility.

(S) "Store," "stored," or "storage" means the following:

(1) In reference to C&DD, the holding of C&DD at a C&DD facility or other location for a temporary period in a manner that satisfies the following:

(a) The C&DD remains retrievable and substantially unchanged for reuse, recycling, or disposal.

(b) At the end of the temporary period the C&DD is disposed or is reused or recycled in a beneficial manner.

(c) The holding of the C&DD does not cause a nuisance, a fire hazard, or a threat to public health or safety or the environment, does not violate Chapter 3704. or 6111. of the Revised Code, and does not cause or contribute to air or water pollution.

(d) The temporary period does not exceed thirty days unless specified as follows:

(i) Twelve months for non-putrescible C&DD that has been processed and sorted for recycling or reuse. Non-putrescible C&DD includes but is not limited to metals, non-biodegradable plastics, and glass.

(ii) Three months for putrescible C&DD that has been processed and sorted for recycling or reuse. Putrescible C&DD includes but is not limited to wood and wood-derived materials and wallboard.

(iii) Any storage time frames established in the approved general plan of facility operations if the C&DD is being stored at a licensed C&DD facility.

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(2) In reference to clean hard fill, the holding of clean hard fill at a C&DD facility or other location for a temporary period in a manner that satisfies the following:

(a) The clean hard fill remains retrievable and substantially unchanged for reuse, recycling, or disposal.

(b) At the end of the temporary period the clean hard fill is disposed or is reused or recycled in a beneficial manner.

(c) The holding of the clean hard fill does not cause a nuisance, or a fire hazard, a threat to public health or safety or the environment, does not violate Chapter 3704. or 6111. of the Revised Code, and does not cause or contribute to air or water pollution.

(d) The temporary period does not exceed twenty-four months unless specified in the approved general plan of facility operations if the clean hard fill is being stored at a licensed C&DD facility.

(T) "Transporter" means a person engaged in the transportation of C&DD outside of a C&DD facility boundary.

(U) "Unloading zone" means a designated area where material is separated to ensure that only material authorized for disposal pursuant to paragraph (A) of rule 3745-520-600 of the Administrative Code is disposed in the working face.

(V) [Reserved.]

(W)

(1) "Wildlife area and refuge" means either of the following:

(a) Any area established by the department of natural resources as a state wildlife area under Chapter 1531. of the Revised Code and rules adopted under it.

(b) Any area designated by the United States department of the interior as a national wildlife refuge.

(2) "Working face" means that portion of a C&DD facility that is actively being used to place material for final disposal. The following activities do not constitute establishment of a working face:

(a) Placement of the select C&DD layer pursuant to rule 3745-520-622 of the Administrative Code.

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(b) Placement of asbestos-containing waste materials in an asbestos-containing waste materials disposal area.

(c) Placement of material in the unloading zone.

(d) Placement of material in the inspection zone.

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3745-520-03      **New construction and demolition debris facility - general obligations.**

- (A) No person shall establish a new C&DD facility without first obtaining a permit to install issued in accordance with this chapter by the appropriate permitting authority.
- (B) No person shall engage in construction activities at a C&DD facility without a permit to install issued in accordance with this chapter that authorizes those construction activities, unless the construction is necessary after revocation of a permit to install and authorized by the order that revoked the permit.
- (C) Except for alterations during construction as provided for in Chapter 3745-512 of the Administrative Code, no person shall alter the design of a C&DD facility without first obtaining concurrence from the concurring authority for an alteration of the permit to install for the facility in accordance with rule 3745-520-320 of the Administrative Code.
- (D) No person shall modify a C&DD facility without first obtaining a modified permit to install for the facility from the permitting authority in accordance with rule 3745-520-330 of the Administrative Code.
- (E) No person shall operate or maintain a C&DD facility without a license issued by the licensing authority. The applicant for a license or the owner or operator shall comply with Chapter 3745-501 of the Administrative Code.
- (F) No person shall deviate from the requirements in a license without first obtaining a modified license for the C&DD facility from the licensing authority in accordance with rule 3745-520-410 and Chapter 3745-501 of the Administrative Code.
- (G) An owner or operator shall maintain compliance with all permits to install, licenses, orders, modifications, and alterations concurred with in writing by Ohio EPA or the approved board of health, and all other authorizing documents issued in accordance with Chapter 3714. of the Revised Code and rules adopted thereunder.
- (H) Each application, request, report, notification, compliance disclosure submittal, and document and each revision of the aforementioned items submitted in accordance with this chapter to the director, Ohio EPA, or the approved board of health shall be signed in accordance with rule 3745-500-50 of the Administrative Code.
- (I) An owner or operator shall implement and comply with plans as required by this chapter.
- (J) An owner or operator shall ensure that the C&DD facility does not create a nuisance, fire hazard, or health hazard, or cause or contribute to air or water pollution.

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- (K) An owner or operator shall not cause or allow a C&DD facility to create a nuisance or health hazard from noise, dust, odors, or the attraction or breeding of birds, insects, rodents, or other vectors.
- (L) An owner or operator shall obtain, maintain, and comply with applicable permits and authorizations required by Chapters 3704, and 6111. of the Revised Code.
- (M) An owner or operator shall investigate evidence of damage, evidence of clogging, or evidence of failure to ensure that the integrity and effectiveness of the engineered components at the C&DD facility are maintained.
- (N) An owner or operator shall maintain the integrity and effectiveness of the engineered components of the C&DD facility. If damage to or failure of an engineered component occurs after the concurring authority has concurred with the construction certification report for that engineered component, an owner or operator shall comply with rules 3745-512-60 and 3745-520-500 to 3745-520-599 of the Administrative Code.
- (O) An owner or operator shall comply with the operator certification requirements of rules adopted under division (O) of section 3714.02 of the Revised Code.
- (P) Pursuant to section 3714.101 of the Revised Code, falsification of any material information that is required to be submitted to a board of health or the director with respect to a permit to install or a license issued under Chapter 3714. of the Revised Code and rules adopted under it or an application for such a permit or license, or falsification of any other material information that is required to be submitted to a board of health or the director under Chapter 3714. of the Revised Code and rules adopted under it, is grounds for denial, suspension, or revocation of a permit to install or a license issued under Chapter 3714. of the Revised Code and rules adopted under it.

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3745-520-04

Authorized, limited, and prohibited disposal methods.

(A) No person shall conduct, cause, or allow illegal disposal of C&DD.

(B) C&DD shall be disposed only by one or a combination of the following:

- (1) Disposal in a C&DD facility licensed in accordance with Chapter 3714. of the Revised Code and rules adopted thereunder.
- (2) Disposal in a solid waste disposal facility licensed in accordance with Chapter 3734. of the Revised Code and rules adopted thereunder.
- (3) Disposal of construction debris by means of open burning in compliance with division (C)(1) of section 3704.11 of the Revised Code.
- (4) Disposal of construction debris at a 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.
- (5) Disposal of clean hard fill at a site if the clean hard fill is used, either alone or in conjunction with clean soil, sand, gravel, or other clean aggregates, in legitimate fill operations for construction purposes or to bring the site up to a consistent grade. When clean hard fill is placed off the site of generation, a notice of intent to fill is required in accordance with rule 3745-400-05 of the Administrative Code.

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3745-520-06      Ground water monitoring.

(A) An owner or operator shall conduct a ground water monitoring program in accordance with Chapter 3745-506 of the Administrative Code until the end of the post-closure care period.

(B) Not later than twelve months after issuance of a permit to install or, if it will occur sooner, prior to disposal of material in the disposal limits that were newly approved in the permit to install, an owner or operator shall do the following:

(1) Submit to Ohio EPA new ground water monitoring program plans or updated ground water monitoring program plans that comply with Chapter 3745-506 of the Administrative Code.

(2) Commence ground water sampling in accordance with Chapter 3745-506 of the Administrative Code for potential sources of contamination.

[Comment: If there is a conflict between this rule and a ground water monitoring assessment plan or ground water corrective measures plan that was approved by an order or an action of the director, approved board of health, or court having competent jurisdiction, then see rule 3745-500-35 of the Administrative Code for information about how to resolve the conflict.]

(C) An owner or operator shall not dispose of material in the disposal limits that were newly approved in a permit to install until the owner or operator has complied with paragraph (B) of this rule.

[Comment: Certain rules in Chapter 3745-506 of the Administrative Code apply only to C&DD facilities:

Rule 3745-506-700 of the Administrative Code specifies the sampling schedule and the parameters required to be sampled and analyzed during ground water detection monitoring.

Rule 3745-506-701 of the Administrative Code specifies the sampling schedule and the parameters required to be sampled and analyzed during ground water assessment monitoring.

Rule 3745-506-702 of the Administrative Code specifies the sampling schedule and the parameters required to be sampled and analyzed during ground water monitoring under the ground water corrective actions program.]

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3745-520-20      Exemptions.

(A) The director or approved board of health may by order exempt any person disposing or proposing to dispose C&DD in such quantities or under such circumstances that, in the determination of the director or approved board of health, are unlikely to adversely affect public health or safety or the environment, or create a fire hazard, from any provision of Chapter 3714. of the Revised Code or any rules adopted thereunder or any order issued thereunder, except for those circumstances stated in paragraph (B) or (C) of this rule.

(B) The director or approved board of health shall not grant an exemption from either of the following rules:

(1) The sole source aquifer siting criterion in paragraph (C)(1)(b) of rule 3745-520-100 of the Administrative Code.

(2) The requirement to obtain authorizations prior to disposal of asbestos-containing waste materials in paragraph (A)(2) of rule 3745-520-600 of the Administrative Code.

(C) Flood plain exemption criteria. Neither the director nor an approved board of health shall grant an exemption from the one hundred year flood plain siting criterion in paragraph (C)(1)(a) of rule 3745-520-100 of the Administrative Code if the director or the approved board of health determines from the permit to install application that the establishment of a new C&DD facility in the one hundred year flood plain would result in an increase of more than one foot in the elevation of the flood stage of the watercourse upstream or downstream from the proposed facility.

The applicant for a permit to install shall determine the increase in the flood stage resulting from the location of the new facility within the one hundred year flood plain of a watercourse based upon standard methodologies set forth in "Urban Hydrology for Small Watersheds" and "National Engineering Handbook, part 630, Hydrology" as described in rule 3745-500-03 of the Administrative Code.

(D) The director or approved board of health may decline to act on a request for an exemption.

(E) Obtaining comments from the director on an exemption proposed by an approved board of health.

(1) Except in the event of a natural disaster or public health emergency declared by the governor or the director of health, before an approved board of health issues an order that exempts a person disposing or proposing to dispose C&DD, the board shall provide written notice to the director of the board's intention to grant an exemption.

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- (2) The notice shall contain a description of the facts surrounding the proposed exemption and any other information that the director may request.
- (3) Not later than thirty days after receipt of the notice, the director shall provide written comments to the board of health regarding the proposed exemption.
- (4) After receiving written comments from the director, the approved board of health shall consider these comments prior to the board's issuance of an order granting the exemption.
- (F) When issuing an order exempting any person disposing or proposing to dispose C&DD, the director shall act in accordance with Chapters 119., 3714., 3734., and 3745. of the Revised Code, as applicable.
- (G) When issuing an order exempting any person disposing or proposing to dispose C&DD, an approved board of health shall act in accordance with Chapter 3714. and section 3709.20 of the Revised Code.
- (H) The order exempting any person disposing or proposing to dispose C&DD shall contain the following:

  - (1) Identification of the person to whom the exemption is issued.
  - (2) The effective date of the order.
  - (3) The specific location of the activity subject to the exemption.
  - (4) The specific provisions of Chapter 3714. of the Revised Code or rule adopted or order issued thereunder for which the exemption is granted.
  - (5) Any terms or conditions established with the granting of the exemption.
  - (6) Any time frame or expiration date of the order granting the exemption.
  - (7) A summary of the circumstances and basis for the determination that the granting of the exemption is unlikely to adversely affect public health or safety or the environment or to create a fire hazard.
- (I) Upon issuance of an order granting an exemption, copies of the order and any associated information shall be retained and distributed pursuant to rule 3745-500-130 of the Administrative Code.
- (J) The person to whom an exemption is issued under section 3714.04 of the Revised Code and this rule shall comply with all applicable federal, state, and local laws and

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rules and orders except for those requirements that have been expressly exempted in accordance with section 3714.04 of the Revised Code and this rule.

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3745-520-30

Log of operations prescribed by the director.

(A) The director shall prescribe forms for the log of operations.

(B) The director may include instructions and places to record the following information on the prescribed form:

(1) Name, location, and contact information for the C&DD facility and name and contact information for the owner, property titleholder, and operator.

(2) The name and signature of the person entering the information into the log of operations.

(3) Information regarding each load, hauler and vehicle or container.

(4) The description and amount of unauthorized material discovered at the C&DD facility and actions taken in response.

(5) Information regarding the containers used for the collection of unauthorized material.

(6) Information regarding general C&DD facility operations.

(7) Inspection documentation.

(8) Any other information required to be recorded on the log of operations by this chapter or any other information deemed necessary by the director to document that the C&DD facility is operated in accordance with this chapter.

(9) Dates.

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3745-520-40

Application cover sheet form prescribed by the director.

(A) The director shall prescribe an application cover sheet form.

(B) The director may include instructions and places to record the following information on the prescribed form:

(1) General C&DD facility information including but not limited to name, physical location, mailing address, and telephone number.

(2) Applicant, permittee, preparer, owner, operator, and property titleholder information including but not limited to name, mailing address, and phone number.

(3) A list of the permits, licenses, plan approvals, authorizations, or other approvals that have been obtained and the name of the local, state, or federal office or agency that issued each permit, license, plan approval, authorization, or other approval. This list may include the date of issuance and expiration, if any, and any reference number associated with the permit, license, plan approval, authorization, or other approval.

(4) A notarized written statement from each titleholder of each tract of land on which the C&DD facility is located or proposed to be located that each titleholder acknowledges that the applicant is submitting an application.

(5) The statement described in and signed by the applicant in accordance with rule 3745-500-50 of the Administrative Code.

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3745-520-51      C&DD disposal fee collected by multiple townships or municipal corporations.

For the fee levied under division (A) of section 3714.07 of the Revised Code:

- (A) If a C&DD facility is located within the territorial boundaries of more than one municipal corporation or township and more than one of the municipal corporations or townships has enacted an ordinance or passed a resolution to appropriate a portion of the fee in accordance with division (C) of section 3714.07 of the Revised Code, then the appropriated portion of the fee shall be divided equally among all of the municipal corporations and townships that have enacted an ordinance or passed a resolution to appropriate a portion of the fee.
- (B) The municipal corporation or township may appropriate this fee for the same purposes that a municipal corporation or township may levy a fee under division (C) of section 3734.57 of the Revised Code.

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3745-520-70      Compliance disclosure requirements when employing a new key employee.

Not later than ninety days after employing a new key employee, an owner or operator shall submit or shall require the new key employee to submit to the licensing authority the information regarding the new key employee that is required to be submitted under division (A) of section 3714.052 of the Revised Code by an applicant for a permit to install. This applies to new key employees including but not limited to the following:

- (A) New key employees of an applicant, permittee, or licensee.
- (B) New partners of the applicant, permittee, or licensee, if and where the law allows the addition of a partner without dissolution of the old partnership.
- (C) New officers of a private operating corporation, including:
  - (1) New officers of a private parent corporation.
  - (2) New directors of a private operating corporation.
  - (3) Any new individual who owns or controls the applicant, permittee, or licensee.
- (D) Any new partner of a business concern that owns or controls the applicant, permittee, or licensee.
- (E) If the applicant, permittee, or licensee is a governmental entity, each new key employee of the applicant, permittee, or licensee whose primary duties concern the operation of the subject C&DD facility.
- (F) If the applicant, permittee, or licensee is a governmental entity but the operator of the C&DD facility is a business concern or individual who is not an employee of the governmental entity, the following:
  - (1) Each new individual who is the operator.
  - (2) Each new key employee of the operator.
  - (3) Each new partner of the operator.
  - (4) Each new officer of the operator.

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3745-520-100

Siting criteria.

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, test methods, federal rules, and federal statutory provisions referenced in this rule, see rule 3745-500-03 of the Administrative Code titled "Incorporation by reference."]

[Comment: The siting criteria established in this rule are applied to an application for a permit to install at the time the application is submitted to the director or approved board of health. Circumstances related to the siting criteria that change after the application is submitted are not to be considered in issuing or denying the permit to install.]

(A) Applicability of siting criteria. A new C&DD facility in its entirety shall conform to the siting criteria in this rule except as follows:

(1) No siting criteria apply to a new facility that was operating or under construction on July 24, 1990, if the following conditions are met:

(a) An expansion was approved prior to December 22, 2005 and the expansion was 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) An expansion was approved between December 22, 2005 and the effective date of this rule and the expansion was onto property within the property boundaries identified in any license issued for that facility up to and including the license issued for calendar year 2005.

(c) The applicant is proposing to expand the facility onto property within the property boundaries identified in any license issued for that facility up to and including the license issued for calendar year 2005.

(2) Only the siting criteria in paragraph (C)(1) of this rule apply to a new facility that began construction after July 24, 1990, if the following conditions are met:

(a) The facility was in operation prior to December 22, 2005.

(b) An expansion was approved between December 22, 2005 and the effective date of this rule and the expansion was onto property within the property boundaries identified in any license issued for that facility up to and including the license issued for calendar year 2005.

(c) The applicant is proposing to expand the facility onto property within the property boundaries identified in any license issued for that facility up to and including the license issued for calendar year 2005.

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(B) Siting criteria.

(1) No portion of a C&DD facility shall be in either of the following locations:

(a) Within the boundaries of a one hundred year flood plain, as those boundaries are shown on the applicable maps prepared under the National Flood Insurance Act of 1968, unless the owner or operator has obtained an exemption from the licensing authority in accordance with rule 3745-520-20 of the Administrative Code. If no such maps have been prepared, the boundaries of a one hundred year flood plain shall be determined by the applicant for a permit to install based upon standard methodologies set forth in "Urban Hydrology for Small Watersheds" and "National Engineering Handbook, part 630, Hydrology."

(b) 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.

(2) General setbacks. The horizontal disposal limits shall not be located within any of the following:

(a) One hundred feet of any of the following:

(i) A perennial stream as depicted on a USGS 7.5 minute (topographic) map.

(ii) A category 3 wetland.

(iii) The C&DD facility's property line.

(b) Five hundred feet of any of the following:

(i) Parks, natural areas, nature preserves, and wildlife areas and refuges.

(ii) A state forest purchased or otherwise acquired under Chapter 1503. of the Revised Code.

(iii) A lake or reservoir of one acre or more that is hydrogeologically connected to ground water. For purposes of this paragraph, a lake or reservoir does not include a body of water constructed and used for purposes of surface water drainage or sediment control.

(iv) A residential or public water supply well, unless one of the following conditions is met:

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- (a) The water supply well is a residential supply well and is controlled by the owner or operator.
  - (b) The water supply well is a residential supply well and is hydrologically separated from the horizontal disposal limits.
  - (c) The water supply well is a residential supply well and is at least three hundred feet upgradient from the horizontal disposal limits and the C&DD facility meets the criteria in paragraph (C)(3) of this rule.
  - (v) Land that is placed on the state registry of historic landmarks under section 149.55 of the Revised Code.
  - (vi) An occupied dwelling, unless written permission, which shall be notarized, is given by the owner of the dwelling.
- (3) Isolation distance. The disposal limits of a C&DD facility shall not be less than five feet from the uppermost aquifer system. The material separating the disposal limits from the uppermost aquifer system shall meet the following criteria:
- (a) The hydraulic conductivity of any single sample of the geologic material comprising the five-foot isolation distance shall not exceed 1.0 times ten to the negative five centimeters per second.
  - (b) The overall hydraulic conductivity of the entire thickness of the geologic material comprising the five-foot isolation distance shall not exceed 1.0 times ten to the negative six centimeters per second.
- (4) Location of main hauling road. Any road that is designated by the owner or operator as the main hauling road at a C&DD facility shall not be located within five hundred feet of an occupied dwelling, unless written permission, which shall be notarized, is given by the owner of the occupied dwelling.

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3745-520-200

**Engineered components and systems of engineered components.**

(A) This rule does not apply to engineered components or systems of engineered components that have already been constructed, except for the following:

(1) A vegetated earthen berm or equivalent barrier if the C&DD facility is located or proposed to be located in an area in which an applicable zoning resolution allows residential construction, unless excepted from siting criteria by paragraph (B) of rule 3745-520-100 of the Administrative Code.

(2) A leachate management system below a vertical expansion.

(3) A leachate recirculation system.

(B) A C&DD facility shall have the following engineered components and systems of engineered components:

(1) At least one permanent survey mark.

(2) Access roads that conform to rule 3745-511-120 of the Administrative Code.

(3) Permanent or temporary ground water control structures that conform to rule 3745-511-210 of the Administrative Code if necessary to meet the requirements of this chapter.

(4) An in situ foundation that conforms to rule 3745-511-220 of the Administrative Code.

(5) An added geologic material layer that conforms to rule 3745-511-220 of the Administrative Code if it is necessary in order for the selected liner system design to conform to rule 3745-520-230 of the Administrative Code.

(6) A vegetated earthen berm or an equivalent barrier that conforms to rule 3745-520-225 of the Administrative Code if the facility is located or proposed to be located in an area in which an applicable zoning resolution allows residential construction, unless excepted from siting criteria by paragraph (B) of rule 3745-520-100 of the Administrative Code.

(7) A liner system that conforms to rule 3745-520-230 of the Administrative Code.

(8) A leachate management system that conforms to rule 3745-520-240 of the Administrative Code.

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- (9) When a vertical expansion is proposed, a separatory leachate barrier and collection system that conforms to rule 3745-520-250 of the Administrative Code unless the vertical expansion is above the following:
- (a) At least 5.0 feet of isolation material between the basal elevations of the authorized disposal limits and the uppermost aquifer system.
  - (b) A liner system that conforms to rule 3745-520-230 of the Administrative Code.
  - (c) A leachate management system that conforms to rule 3745-520-240 of the Administrative Code.
- (10) A cap system that conforms to rule 3745-520-260 of the Administrative Code.
- (11) A gas management system that conforms to rule 3745-520-275 of the Administrative Code.
- (12) A surface water management system that conforms to rule 3745-520-280 of the Administrative Code.
- (C) The applicant may include any of the following engineered components and systems of engineered components as part of a C&DD facility:
- (1) Permanent or temporary ground water control structures that conform to rule 3745-511-210 of the Administrative Code.
  - (2) An added geologic material layer that conforms to rule 3745-511-220 of the Administrative Code.
  - (3) Structural fill underlying a liner system or cap system that conforms to rule 3745-511-220 of the Administrative Code. Structural fill shall not incorporate georeinforcements for the purpose of increasing the height or slope of a waste containment berm.
  - (4) Added geologic material layer, liner system, and leachate collection system drainage layer run-out that conform to rule 3745-511-350 of the Administrative Code.
  - (5) Transitional cover that conforms to rule 3745-511-605 of the Administrative Code.
  - (6) Cap system and gas collection layer run-out that conforms to rule 3745-511-680 of the Administrative Code.

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(7) A leachate recirculation system that conforms to rule 3745-520-249 of the Administrative Code.

(8) Georeinforcements.

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3745-520-225

**Vegetated earthen berm and equivalent barrier design.**

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, test methods, federal rules, and federal statutory provisions referenced in this rule, see rule 3745-500-03 of the Administrative Code titled "Incorporation by reference."]

(A) A vegetated earthen berm shall be designed to conform to the following:

- (1) Provide a barrier separating the C&DD facility from adjoining property and have a minimum height of six feet from the ground surface.
- (2) Be comprised of earth and be vegetated.
- (3) Have slopes and top configuration designed to accommodate the operational limitations of maintenance equipment.
- (4) Have a maximum slope length between ditches that shall result in an erosion rate not to exceed five tons per acre per year as calculated using the "Universal Soil Loss Equation," "Revised Universal Soil Loss Equation," or the "Water Erosion Prediction Project Model" assuming disturbed soils and assuming the soil is highly susceptible to rill erosion.
- (5) Be on slopes or have ditches that conform to rule 3745-511-810 of the Administrative Code adjacent to the vegetated earthen berm to prevent surface water from ponding against the vegetated earthen berm or damaging the vegetated earthen berm.
- (6) Be stable from the time the vegetated earthen berm is constructed until the end of the post-closure care period.

(B) An equivalent barrier to a vegetated earthen berm shall be designed to conform to the following:

- (1) Provide a barrier separating the C&DD facility from adjoining property and have a minimum height of six feet from the ground surface.
- (2) Obstruct vision.
- (3) Not cause surface water to pond against or damage the equivalent barrier.
- (4) If an earthen berm is a component of the equivalent barrier, the vegetated earthen berm shall be stable from the time the earthen berm is constructed until the end of the post-closure care period.

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3745-520-230

Liner system design.

(A) The liner system design required by this rule applies to those areas of the C&DD facility that on the date that the permit to install is issued do not contain material that has been disposed in accordance with authorizing documents issued pursuant to Chapter 3714. of the Revised Code and rules adopted thereunder.

(B) Determination of engineered components of a liner system.

(1) Notwithstanding the criteria in paragraphs (B)(2) to (B)(5) of this rule, the engineered components shall conform to paragraph (C)(1) of this rule if any of the following criteria are met:

(a) Any portion of the proposed disposal limits of the area to be lined pursuant to this rule is in a drinking water source protection area for a public water system using ground water, including the area surrounding a public water supply well that will provide water from an aquifer to the well as delineated or endorsed by Ohio EPA under Ohio's wellhead protection and source water assessment and protection programs.

(b) Any portion of the proposed disposal limits of the area to be lined pursuant to this rule is above an unconsolidated aquifer system capable of sustaining a yield of at least one hundred gallons per minute for a twenty-four-hour period.

(c) For a C&DD facility subject to paragraph (B)(1) of rule 3745-520-100 of the Administrative Code, the shortest distance from the uppermost aquifer system to the basal elevations of the liner system of the area to be lined is less than five feet.

(2) If the shortest distance from the uppermost aquifer system to the basal elevations of the liner system of the area to be lined pursuant to this rule is at least five feet and less than fifteen feet, the engineered components shall conform to paragraph (C)(1) of this rule.

(3) If the shortest distance from the uppermost aquifer system to the basal elevations of the liner system of the area to be lined pursuant to this rule is at least fifteen feet and less than twenty five feet, the engineered components shall conform to either paragraph (C)(1) or (C)(2) of this rule.

(4) If the shortest distance from the uppermost aquifer system to the basal elevations of the liner system of the area to be lined pursuant to this rule is at least twenty five feet and less than one hundred fifty feet, the engineered components shall conform to paragraph (C)(1), (C)(2), or (C)(3) of this rule.

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(5) If the shortest distance from the uppermost aquifer system to the basal elevations of the liner system to be lined pursuant to this rule is at least one hundred fifty feet, the engineered components shall conform to paragraph (C)(1), (C)(2), (C)(3), or (C)(4) of this rule.

(C) A liner system shall be designed to conform to one of the following as required by paragraph (B) of this rule:

(1) Be comprised of a recompacted soil liner with a thickness not less than 3.0 feet directly beneath a flexible membrane liner.

(2) Be comprised of a recompacted soil liner with a thickness not less than 1.5 feet directly beneath a flexible membrane liner.

(3) Be comprised of a recompacted soil liner with a thickness not less than 3.0 feet.

(4) Be comprised of either of the following:

(a) A recompacted soil liner with a thickness not less than 1.5 feet.

(b) A flexible membrane liner.

(D) Different designs identified in paragraph (C) shall not be combined in a single permit to install application.

(E) The design of the engineered components of the liner system shall conform to rule 3745-511-310 of the Administrative Code.

(F) For a lateral expansion where a flexible membrane liner is not an engineered component of liner systems in both the existing area and proposed area, the liner system in the tie-in area shall be designed to prevent leachate from seeping under the flexible membrane liner.

(G) The liner system shall have a slope that conforms to the following:

(1) Have a minimum slope of 2.0 per cent in all areas accounting for settlement in accordance with rule 3745-511-60 of the Administrative Code, except along flow lines augmented by leachate collection pipes.

(2) Not exceed compaction equipment limitations.

(3) Satisfies the factors of safety for slope stability specified in rules 3745-511-40 and 3745-511-50 of the Administrative Code.

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3745-520-240

Leachate management system design.

[Comment: When initially designing and constructing a leachate management system, a conservative approach may be necessary to account for further settlement of the underlying materials caused by any potential vertical expansion above the initial design.]

(A) The leachate management system design required by this rule applies to the following:

- (1) Areas that on the date that the permit to install is issued do not contain material that has been disposed in accordance with authorizing documents issued pursuant to Chapter 3714. of the Revised Code and rules adopted thereunder.
- (2) Areas where a vertical expansion is proposed, whether or not the areas contain disposed material.

(B) The leachate management system shall consist of the following:

(1) A leachate collection system that shall consist of the following:

(a) A leachate collection system drainage layer that conforms to rule 3745-511-410 of the Administrative Code, except for the following:

(i) Shredded tires shall not be used.

(ii) Paragraph (D) of rule 3745-511-410 of the Administrative Code does not apply to the basal elevation of the leachate collection system underlying a proposed vertical expansion if the following are true

(a) On or before December thirty-first of the year that this rule became effective, material has been disposed in accordance with authorizing documents issued pursuant to Chapter 3714. of the Revised Code and rules adopted thereunder.

(b) Positive drainage is maintained in the leachate collection system drainage layer to the sumps as demonstrated by the applicant in conformance with rule 3745-511-60 of the Administrative Code for a leachate management system associated with a liner system or with rule 3745-511-65 of the Administrative Code for a leachate management system associated with a separatory leachate barrier and collection system.

(c) Maintain not more than one foot of head of leachate above the basal elevations of the leachate collection system drainage layer.

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- (b) A filter layer that conforms to rule 3745-511-440 of the Administrative Code.
- (c) Sumps that conform to rule 3745-511-434 of the Administrative Code.
- (d) If leachate in the leachate collection system does not drain to conveyance pipes by gravity, pumps that conform to rule 3745-511-436 of the Administrative Code.
- (2) Conveyance pipes that conform to rule 3745-511-450 of the Administrative Code.
- (3) Leachate holding tanks that conform to rule 3745-511-460 of the Administrative Code, leachate treatment works, or a discharge connection to a public sewerage system.
- (C) The leachate collection system drainage layer shall be placed above the liner system.
- (D) The leachate management system shall be designed so that the depth of leachate above the basal elevations of the leachate collection system drainage layer will not exceed one foot, except in sumps.
- (E) Each sump shall provide access to collect a representative sample of leachate.

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3745-520-249

Leachate recirculation system design.

(A) The leachate recirculation system shall be designed to conform to the following:

(1) Be located in a phase that has a liner system that conforms to paragraph (C)(1), (C)(2), or (C)(4)(b) of rule 3745-520-230 of the Administrative Code.

[Comment: This requirement means that leachate recirculation systems may only be located in a phase that has a liner system containing a flexible membrane liner component.]

(2) Be located in a phase that has a leachate management system that conforms to rule 3745-520-240 of the Administrative Code.

(3) Be located in a phase that has a gas management system that conforms to rule 3745-520-275 of the Administrative Code.

(4) Release leachate back into disposed material in a manner that uniformly distributes the leachate within the disposed material and maximizes the contact of leachate with the disposed material, except that leachate shall not be recirculated within fifty feet of a horizontal boundary of disposed material.

(5) Not use surface application, open pits, or open excavations as methods for distributing leachate into the disposed material.

(6) Prevent the release of leachate to surface water control structures and minimize leachate outbreaks.

(B) The leachate management system shall have the capacity to handle the additional leachate. The facility design plan shall include a demonstration that the following criteria are met:

(1) The depth of leachate above the basal elevations of the leachate collection system will not exceed one foot, except in sumps, during and after the period when leachate is recirculated.

(2) The leachate pipes, conveyance structures, pumps, and holding tanks have adequate capacity to manage the amount of leachate to be recirculated.

(3) The leachate drainage layer, filter layer, and pipes will not be damaged by the increased vertical compressive stress.

(C) The design of the C&DD facility shall conform to the long-term deep-seated translational and rotational stability standards in rule 3745-511-40 of the

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Administrative Code while accounting for the increased pore water pressure during and after the period when leachate is recirculated.

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3745-520-250

Separatory leachate barrier and collection system design.

(A) The separatory leachate barrier and collection system shall include the following systems of engineered components:

(1) A gas management system that conforms to rule 3745-520-275 of the Administrative Code to remove gas from under the liner system.

(2) A liner system that consists of a flexible membrane liner that conforms to rule 3745-511-310 of the Administrative Code overlying not less than 1.0 feet of structural fill that conforms to rule 3745-511-220 of the Administrative Code.

(3) A leachate management system above the liner system that conforms to rule 3745-520-240 of the Administrative Code, except that the leachate collection pipes shall have a slope conforming to one of the following:

(a) Rule 3745-520-240 of the Administrative Code, in which case it is necessary for the applicant to conduct a settlement analysis in accordance with rule 3745-511-65 of the Administrative Code.

(b) Be not less than 10.0 per cent in which case it is not necessary for the applicant to conduct a settlement analysis in accordance with rule 3745-511-65 of the Administrative Code.

(B) The separatory leachate barrier and collection system shall be designed to conform to the following:

(1) Function as designed from the time the engineered components are constructed until the end of the post-closure care period.

(2) Serve as a barrier to prevent leachate generated from material disposed above the separatory leachate barrier and collection system from entering into disposed material that is below the separatory leachate barrier and collection system.

(3) Manage all gas generated from the disposed material that is below the barrier in a manner that will not violate Chapter 3704. of the Revised Code and will prevent damage to the other engineered components of the separatory leachate barrier and collection system.

(4) The stability standards in rules 3745-511-40 and 3745-511-50 of the Administrative Code.

(5) For a vertical expansion over disposed waste or C&DD that is above a separatory leachate barrier and collection system that was constructed on or before December thirty-first of the year that this rule became effective, the slope of the

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existing separatory leachate barrier and collection system located beneath the vertical expansion will conform to the following conditions:

- (a) Positive drainage in the leachate collection system drainage layer to the sumps.
- (b) No more than one foot of head of leachate above the basal elevations of the leachate collection system drainage layer of the separatory leachate barrier and collection system.
- (6) The surface of the structural fill shall have no abrupt changes in grade that may result in damage to overlying engineered components.
- (7) Have a slope that does not exceed compaction equipment limitations.
- (8) Minimize the amount of C&DD disposed beneath the separatory leachate barrier and collection system to obtain the required minimum slope.
- (C) The run-out of the separatory leachate barrier and collection system shall extend beyond the phase limits by five feet.

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3745-520-260

Cap system design.

(A) The cap system design required by this rule does not apply to those areas of the C&DD facility for which a certification report for a cap system has been submitted on or before the date that the permit to install is issued that demonstrates compliance with Chapter 3714. of the Revised Code and rules adopted thereunder.

(B) The cap system shall consist of the following:

(1) A means to relieve gas pressure under the cap system consisting of one or both of the following:

(a) A gas collection layer that conforms to rule 3745-511-750 of the Administrative Code placed below the cap system recompacted soil layer and above structural fill. The structural fill shall meet the following:

(i) Consists of soil.

(ii) Conforms to rule 3745-511-220 of the Administrative Code.

(iii) Has a thickness not less than twelve inches.

(b) A gas management system that conforms to rule 3745-520-275 of the Administrative Code.

(2) A filter layer that conforms to rule 3745-511-640 of the Administrative Code placed above the gas collection layer. If a geocomposite that has a filter fabric component is used as a gas collection layer, a separate filter layer is not required.

(3) A cap system recompacted soil layer that conforms to rule 3745-511-610 of the Administrative Code placed above the filter layer. The cap system recompacted soil layer shall have a thickness not less than eighteen inches.

(4) A cap system flexible membrane liner that conforms to rule 3745-511-610 of the Administrative Code placed above and in direct and uniform contact with the cap system recompacted soil layer.

(5) A drainage layer that conforms to rule 3745-511-620 of the Administrative Code placed above the cap system flexible membrane liner.

(6) A filter layer that conforms to rule 3745-511-640 of the Administrative Code placed above the drainage layer. If a geocomposite drainage layer that has a filter fabric component is used, a separate filter layer is not required.

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(7) A protection layer that conforms to rule 3745-511-650 of the Administrative Code placed above the filter layer.

(C) The cap system shall be placed above all disposed material.

(D) The cap system shall minimize infiltration of surface water into the disposal limits.

(E) The cap system shall serve as a barrier to prevent leachate outbreaks.

(F) The slope of the cap system shall not exceed twenty-five per cent.

(G) In preparation for construction of the cap system, the transitional cover shall be completely removed or prepared as necessary for construction of the cap system.

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3745-520-275

Gas management system design.

- (A) A gas management system shall be designed for one or more, as applicable, of the following purposes:
- (1) Relieve gas pressure under a cap system with a flexible membrane liner component or under a separatory leachate barrier and collection system with a flexible membrane liner component.
  - (2) Control hydrogen sulfide and other gases that pose a nuisance, cause an offensive odor, or pose a threat to public health or safety or the environment or which may cause or contribute to air pollution.
  - (3) Control landfill gas generated as a result of leachate recirculation.
- (B) A gas management system designed for the purpose in paragraph (A)(1) of this rule shall be designed as a passive or active gas extraction system, or a combination thereof.
- (C) A gas management system designed for the purpose in paragraph (A)(2) or (A)(3) of this rule shall be designed as an active gas extraction system.
- (D) A gas management system shall conform to rule 3745-511-750 of the Administrative Code. If the gas extraction system is designed for the purpose in paragraph (A)(2) or (A)(3) of this rule, the collected gas shall be conveyed to a gas control system.

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3745-520-280

Surface water management system design.

- (A) Surface water control structures shall be designed to prevent runoff of surface water from within the disposal limits and all disturbed portions of the C&DD facility from discharging to any adjacent property or waters of the state except through a discharge point for which the owner or operator has obtained a permit issued pursuant to Chapter 6111. of the Revised Code.
- (B) Best management practices shall be used to prevent or reduce pollution of waters of the state. In addition to the practices specified by this rule, best management practices include but are not limited to the following:
- (1) Storage practices such as wet ponds and extended-detention outlet structures.
  - (2) Filtration practices such as grassed swales, sand filters, and filter strips.
  - (3) Infiltration practices such as infiltration basins and infiltration trenches.
  - (4) Treatment practices such as pH adjustment and addition of coagulants.
  - (5) Erosion control practices such as rock lined channels and establishment of thick vegetative cover.
- (C) Surface water that originates outside of the boundaries of disposed material shall not be directed under, over, or through disposed material.
- (D) Permanent surface water control structures shall use non-mechanical means to convey surface water.
- (E) If more than one acre of earth is disturbed, a sediment and storm water management basin system is required to treat and discharge the surface water.
- (F) Sediment and storm water management basin systems shall conform to rules 3745-511-820 and 3745-511-870 of the Administrative Code.
- (G) Surface water control structures, other than sediment and storm water management basin systems, shall be designed to conform to the following:
- (1) Promote drainage of surface water.
  - (2) Eliminate ponding.
  - (3) Minimize erosion.
  - (4) Divert surface water from disposed material.

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(5) Rapidly convey surface water that has not come in contact with disposed material away from disposed material.

(H) Permanent ditches shall conform to rule 3745-511-810 of the Administrative Code.

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3745-520-300      **Permit to install - application requirements and applicant procedures.**

(A) An application for a permit to install shall be accompanied by the application fee established in section 3714.051 of the Revised Code.

(B) An applicant shall submit an application for a permit to install to the approved board of health or to the director in the absence of an approved board of health. The application and subsequent revisions to the application shall be submitted in triplicate. Each revised page or drawing shall contain the date of the revision. Revisions to the application shall be accompanied by the following:

(1) An index listing each change and the page where each change occurred.

(2) For plan drawings, a schedule on the drawing indicating what has changed.

(C) Permit to install application content.

The detail of the information in the application shall be sufficient to allow the permitting authority to determine whether the criteria for issuance set forth in rule 3745-520-312 of the Administrative Code are satisfied. A permit to install application shall contain the following:

(1) A completed application cover sheet on the form prescribed by the director.

(2) Completed permit to install application on forms prescribed by the director.

(3) The location or proposed location of the C&DD facility and anticipated beginning and ending dates for work performed.

(4) The compliance disclosure information required by section 3714.052 of the Revised Code.

(5) A copy of any local zoning resolutions for the property where the C&DD facility is located or is proposed to be located and for adjacent properties.

(6) A letter from the department of natural resources or other appropriate agency verifying the type, location, depth, and status of oil wells, gas wells, and water supply wells within five hundred feet of the proposed C&DD facility boundary.

(7) A copy of each notification and request sent pursuant to paragraph (D) of this rule.

(8) A copy of each letter of intent sent pursuant to paragraph (E) of this rule and evidence documenting the delivery of the letters.

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- (9) Documentation that the C&DD facility will have access roads constructed in a manner that allows use in all weather conditions and that will withstand the anticipated degree of use and minimize erosion and generation of dust, unless excepted from siting criteria in accordance with paragraph (B) of rule 3745-520-100 of the Administrative Code.
- (10) A site investigation report that conforms to Chapter 3745-510 of the Administrative Code.
- (11) A facility design plan that conforms to rule 3745-520-302 of the Administrative Code.
- (12) Digital, GIS-compatible mapping data for the C&DD facility boundary and the boundary of the disposal limits. The data shall comply with the following standards:
- (a) The data shall contain spatial reference data in a known, horizontal, geodetic datum such as the North American Datum of 1983 (NAD 83) or the World Geodetic System 1984 (WGS 84).
  - (b) The data shall have a horizontal accuracy of less than one meter in a known, horizontal geodetic datum such as NAD 83 or WGS 84.
  - (c) The boundaries shall be in the form of polygons and submitted as polygon shapefiles. The shapefiles shall be in a form that is readable by GIS software produced after 1996. The shapefiles shall be projected in Ohio state plane south with measurement units in feet.
  - (d) The shapefiles containing boundary features shall contain the data necessary to distinguish between the polygon feature that represents the C&DD facility boundary and the polygon feature that represents the disposal limits using GIS software.
- (13) The following information supporting the digital, GIS-compatible mapping data required by paragraph (C)(12) of this rule:
- (a) The method used to record and digitize the boundary features.
  - (b) The horizontal accuracy of the boundary features.
  - (c) The reference geodetic datum in which the shapefiles were created.
  - (d) Contact information for the person knowledgeable about the methods used to create the shapefiles or for the person that has access to this information.

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- (e) The date the boundary features were digitized.
- (14) An exemption request if an exemption would be necessary for issuance of the permit to install, unless the exemption request was submitted prior to submittal of the permit to install application.
- (15) Any other information requested by Ohio EPA or the approved board of health that is necessary to determine whether the criteria for issuance of a permit to install set forth in rule 3745-520-312 of the Administrative Code are satisfied.
- (D) Prior or concurrent to submitting an application for a permit to install, the applicant shall submit to the following entities a written notification of intent to establish a new C&DD facility and a written request for information pertaining to any regulatory requirements under Chapter 3704. or 6111. of the Revised Code:

  - (1) The local air pollution control authority or Ohio EPA, division of air pollution control, whichever is applicable.
  - (2) Ohio EPA, division of surface water.
- (E) Prior to submitting an application for a permit to install, the applicant shall send letters of intent to establish a new C&DD facility. At a minimum, the letters shall include a description of the proposed facility boundary and the proposed disposal limits. The letters shall be sent via certified mail or another form of mail accompanied by a receipt to the following entities:

  - (1) The governments of the general purpose political subdivisions where the facility is located or proposed to be located, including but not limited to county commissioners, the legislative authority of a municipal corporation, or the board of township trustees.
  - (2) The owner or lessee of any easement or right of way bordering or within the proposed facility boundary.
  - (3) The local zoning authority having jurisdiction if any part of the facility is located or proposed to be located within an area with a zoning resolution.
  - (4) The local fire department that would respond to the facility.
  - (5) The park system administrator if any part of the facility is located or proposed to be located within or adjacent to a park boundary.
  - (6) The conservancy district if any part of the facility is located or proposed to be located within or adjacent to a conservancy district boundary.

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(7) The authority responsible for implementing the National Flood Insurance Act of 1968, as described in rule 3745-500-03 of the Administrative Code, and rules adopted thereunder at the facility and in the vicinity of the facility.

(F) An applicant shall comply with the public hearing requirements in rule 3745-520-304 of the Administrative Code.

(G) Notices of deficiency.

(1) Permittee procedures. If the permitting authority determines that the permit to install application is incomplete or if information in addition to that required by this rule is necessary to determine whether the criteria for issuance set forth in rule 3745-520-312 of the Administrative Code are satisfied, the applicant shall provide such information not later than one hundred eighty days after the date of a notice of deficiency from the permitting authority, unless an extension is granted by the permitting authority. Not later than one hundred eighty days after the date of a notice of deficiency, the applicant may request an extension

[Comment: If after one hundred eighty days of the date of a notice of deficiency the applicant has not responded to a notice of deficiency and the applicant has not requested an extension or an extension has not been granted, it is grounds for denial of the permit to install in accordance with rule 3745-520-312 of the Administrative Code.]

(2) Permitting authority procedures.

(a) The permitting authority may decline to modify a term or condition of a permit to install.

(b) When approving a request to modify a term or condition of a permit to install, the permitting authority shall follow the appropriate procedures set forth in rule 3745-500-120 of the Administrative Code and any other applicable procedures set forth in the Revised Code.

(H) Upon request from Ohio EPA or the approved board of health, the applicant shall submit additional and identically complete copies of the permit to install application.

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3745-520-302

**Permit to install - facility design plan.**

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, test methods, federal rules, and federal statutory provisions referenced in this rule, see rule 3745-500-03 of the Administrative Code titled "Incorporation by reference."]

(A) General facility design plan requirements.

- (1) The facility design plan shall include the drawings, calculations, and narrative necessary to demonstrate the following:
  - (a) That the C&DD facility conforms to the applicable siting criteria in rule 3745-520-100 of the Administrative Code.
  - (b) That the applicable design requirements for engineered components and systems of engineered components specified in rule 3745-520-200 of the Administrative Code are satisfied.
- (2) When present or proposed at the C&DD facility, the elements and features listed in this rule shall be included in the facility design plan.
- (3) If narrative is necessary to explain a drawing or a calculation, the narrative shall appear with the drawing or calculation.
- (4) The facility design plan shall be signed and sealed by a professional engineer.
- (5) All survey information included in the facility design plan shall be signed and sealed by a professional surveyor.
- (6) The facility design plan shall establish a grid system. The grid system shall be referenced to a permanent survey mark at the C&DD facility.

(B) General drawing requirements.

- (1) Drawings shall appear on plan sheets with minimum dimensions of twenty-four inches by thirty-six inches.
- (2) Each plan drawing required by paragraphs (C)(2) and (C)(3) of this rule shall include and identify the following:
  - (a) The C&DD facility boundary.
  - (b) The horizontal disposal limits encompassing and showing the following:

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(i) Areas of disposed material. The applicant may determine the location of disposed material using existing surveys. If the applicant does not have survey results, the applicant shall use the results of a field investigation to provide justification of the delineation of disposed material.

(ii) Areas previously authorized for material disposal where no material has been disposed and which the applicant wants to use for disposal.

(iii) Areas not previously authorized for material disposal that are proposed to be used for disposal.

(c) Roads, railroads, and structures built by humans, including the locations of maintenance buildings, weighing facilities, and storage buildings.

(d) Existing topography showing surface waters and wetlands with a contour interval no greater than five feet.

(e) The north arrow.

(f) Grid lines a maximum of five hundred feet apart.

(g) A legend with information necessary to understand the drawing.

(h) The scale of the drawing.

(C) Facility design plan contents. The facility design plan shall include the following:

(1) A plan drawing cover sheet. The plan drawing cover sheet, to be numbered sheet 1, shall contain the following information:

(a) The name of the C&DD facility.

(b) The precise geographic location of the C&DD facility boundary and of the horizontal disposal limits shown on a road map which includes the area within a five mile radius of the facility boundary with a scale of one inch equals no greater than one mile.

(c) The name, mailing address, and telephone number of the applicant.

(d) The name, mailing address, and telephone number of the C&DD facility owner, if an owner exists.

(e) The name, mailing address, and telephone number of the C&DD facility operator, if an operator exists.

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(f) The name, mailing address, and telephone number of each titleholder of each tract of land to be used for the C&DD facility.

(g) The name, mailing address, and telephone number of the professional engineer signing and certifying the plans.

(2) Drawings showing the C&DD facility environs and compliance with siting criteria. Plan drawings shall show the following items that are within the area that includes the C&DD facility and all property within five hundred feet of the facility boundary. The items shall be illustrated on a series of plan drawings numbered consecutively 2A, 2B, 2C, etc. Items specified in paragraphs (C)(2)(c)(i) to (C)(2)(c)(iii) shall be shown on the same plan drawing, or a note shall be on the plan sheet stating the item does not exist. An individual plan drawing may contain information specified in more than one subparagraph. The scale on these drawings shall be one inch equals no greater than two hundred feet.

(a) Oil wells and gas wells with type, depth, and status noted for each one.

(b) The location of the boundaries of the one hundred year flood plain, as those boundaries are either shown on the applicable maps prepared under the National Flood Insurance Act of 1968, or are calculated by the applicant.

[Comment: The required calculation methodologies and the requirement to include any flood plain calculations in the facility design plan are established in paragraph (C)(6)(m) of this rule.]

(c) The location of following surface waters:

(i) Perennial streams as depicted on a USGS 7.5-minute (topographic) map.

(ii) Wetlands, with category 3 wetlands identified.

(iii) Lakes and reservoirs of one acre or more that are hydrogeologically connected to ground water. For the purpose of this rule, a lake or reservoir does not include a body of water constructed and used for purposes of surface water drainage or sediment control.

(d) The location of the boundaries of the sole source aquifer designated by the administrator of the United States environmental protection agency under the Safe Drinking Water Act.

(e) The location of residential and public water supply wells. Each well shall be identified as a residential or public water supply well. The applicant shall note each person that controls each well.

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- (f) The limits of all drinking water source protection areas for a public water system using ground water including the area surrounding a public water supply well that will provide water from an aquifer to the well as delineated or endorsed by Ohio EPA under Ohio's wellhead protection and source water assessment and protection programs.
- (g) The presence and presumed limits of an unconsolidated aquifer system capable of sustaining a yield of at least one hundred gallons per minute for a twenty-four-hour period.
- (h) The location of parks, natural areas, nature preserves, and wildlife areas and refuges.
- (i) The location of a state forest purchased or otherwise acquired under Chapter 1503. of the Revised Code.
- (j) The location of land that is placed on the state registry of historic landmarks under section 149.55 of the Revised Code.
- (k) The location of occupied dwellings and the areas of the facility where the main hauling road may be located.
- (l) The basal and final elevations of the isolation material located under the disposal limits.
- (m) An isopach showing the difference between the basal and final elevations of the isolation material located under the disposal limits.
- (n) The location of tracts of land showing the property lines and titleholders of each tract.
- (o) The tracts of land upon which an applicable zoning resolution allows residential construction. The drawing shall be cross referenced to the copies of the applicable zoning resolutions required to be included in the permit to install application by rule 3745-520-300 of the Administrative Code. If there are no applicable zoning resolutions, make a note on the plan sheet.
- (3) Drawings showing the C&DD facility design. Plan drawings shall show the following items, and the items shall be illustrated on a series of 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.

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- (b) The horizontal limits and final elevations of structural fill, added geologic material layer, vegetated earthen berm, and equivalent barrier to vegetated earthen berm.
- (c) An isopach showing the difference between the basal and final elevations of an added geologic material layer.
- (d) An isopach showing the difference between the final elevations of an added geologic material layer and top elevations of the uppermost aquifer system.
- (e) The basal elevations, final elevations, and anticipated horizontal limits of the recompacted soil liner.
- (f) The location and grade of temporary access roads on the internal slopes and on the facility bottom.
- (g) The final elevations of the leachate collection system drainage layer, the location of leachate collection system pipes with pipe inverts, the location of temperature monitoring structures, the locations for access for leachate sampling, and the layout of the leachate management system including apparatuses outside the disposal limits.
- (h) The location of sumps and for each sump above a flexible membrane liner the horizontal limits of the second flexible membrane liner.
- (i) The location of the gas management system components excluding the gas collection layer.
- (j) The location of leachate conveyance apparatuses that are part of the leachate recirculation system.
- (k) The anticipated location and anticipated final elevations of the separatory leachate barrier and collection system.
- (l) The horizontal limits and basal elevations of the disposal limits, including disposed material and areas of proposed material disposal.
- (m) The horizontal limits and final elevations of disposal limits, including disposed material and areas of proposed material disposal.
- (n) The location of fencing and gates.
- (o) The anticipated final elevations of existing and proposed cap system.
- (p) The location and grade of permanent and temporary access roads on the cap.

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- (q) The location and final elevations of surface water drainage and sediment controls and the final topography of areas of the facility that will be disturbed.
- (r) The location of ground water control structures.
- (s) The location of borings used for the site investigation.
- (t) The location of permanent survey marks.
- (4) Cross sections. Cross sections of the following shall be on plan drawings numbered consecutively 4A, 4B, 4C, etc. The drawings shall clearly show the horizontal and vertical scale used.
  - (a) The hydrogeology at the C&DD facility intercepted by borings or other subsurface investigation methods and showing the following:
    - (i) Existing topography.
    - (ii) The horizontal and vertical limits of excavation.
    - (iii) The horizontal limits and basal and final elevations of an added geologic material layer.
    - (iv) The horizontal limits and basal and final elevations of structural fill.
    - (v) The horizontal limits and final elevations of the liner system.
    - (vi) Geologic stratigraphy and significant zones of saturation corresponding to information from the subsurface investigation.
    - (vii) The uppermost aquifer system and saturated stratigraphic units above the uppermost aquifer system.
    - (viii) The subsurface investigation logs, including hydraulic conductivity measurements of the stratigraphic units, and monitoring well and piezometer construction diagrams, intercepted by the cross section.
    - (ix) Permanent ground water control structures.
  - (b) The length and width of the C&DD facility dividing the facility into quarters (i.e. three cross sections in each direction) showing the following:

[Comment: Additional cross sections may be submitted.]

    - (i) Existing topography.

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- (ii) The horizontal and vertical limits of excavation.
      - (iii) The horizontal limits and basal and final elevations of existing and proposed disposal limits.
      - (iv) The horizontal limits and basal and final elevations of the cap system.
    - (c) If the permit to install application is for a vertical expansion, the following at an interval no greater than every three hundred feet of length and width of the vertical expansion:
      - (i) Limits of existing disposed material with the date of the survey.
      - (ii) Previously authorized disposal limits and proposed disposal limits.
      - (iii) Limits of the separatory leachate barrier and collection system.
- (5) Detail drawings. The following details shall be on plan drawings numbered consecutively 5A, 5B, 5C, etc. and shall show the following items:
  - (a) The liner system.
  - (b) Each leachate management system element.
  - (c) Each leachate recirculation system element.
  - (d) The separatory leachate barrier and collection system.
  - (e) The cap system and details showing the interactions of the outlets from the drainage layer with roads and surface water drainage controls.
  - (f) The run-out and tie-in area for the added geologic material layer, the liner system, the leachate collection system drainage layer, the separatory leachate barrier and collection system, and the cap system.
  - (g) Interactions between surface water control structures and roads.
- (6) Design calculations. This section shall include the following design calculations with references to equations used, showing site specific input, assumptions, and results:
  - (a) The disposal volume of the C&DD facility in cubic yards.
  - (b) A geotechnical and stability analyses report prepared in the manner specified by Chapter 3745-511 of the Administrative Code. The following analyses,

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as required, shall be included in the geotechnical and stability analyses report:

(i) If the permit application is not solely for the purpose of expanding vertically over previously authorized disposal limits, the hydrostatic uplift analysis in the manner specified in rule 3745-511-20 of the Administrative Code.

(ii) If the permit application is not solely for the purpose of expanding vertically over previously authorized disposal limits, the seepage force analysis in the manner specified in rule 3745-511-25 of the Administrative Code.

(iii) If the design includes vertical sump risers located on the liner system, the bearing capacity analysis for the vertical sump risers in the manner specified in rule 3745-511-30 of the Administrative Code.

(iv) The static stability analysis for excavated slopes, internal slopes, and final slopes in the manner specified in rule 3745-511-40 of the Administrative Code.

(v) The seismic stability analysis for final slopes in the manner specified in rule 3745-511-50 of the Administrative Code.

(vi) The settlement analysis of the liner system and of the leachate management system in the manner specified in rule 3745-511-60 of the Administrative Code.

(vii) If the separatory leachate barrier and collection system is designed with a slope less than ten per cent, the settlement analysis of the separatory leachate barrier in the manner specified in rule 3745-511-65 of the Administrative Code.

(viii) Except for underground mines listed in paragraph (A) of rule 3745-510-335 of the Administrative Code, if any unstable areas were identified during the site investigation, the unstable area demonstration in the manner specified in rule 3745-511-70 of the Administrative Code.

(ix) If underground mines are present within one thousand feet of the disposal limits, the underground mine analysis in the manner specified in rule 3745-511-72 of the Administrative Code.

(c) Soil erosion.

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- (d) Leachate generation and level of leachate above the basal elevations of the leachate collection system drainage layer.
- (e) Filter layer design.
- (f) Infiltration rate of precipitation into the cap system drainage layer.
- (g) Landfill gas pressure, maximum expected gas flow rate, and flow capacity of the gas collection layer.
- (h) Condensate generation.
- (i) Ditch design.
- (j) Sediment and storm water control basin design.
- (k) Level and flow control structure design.
- (l) Boundaries of the one hundred year flood plain if no maps have been prepared boundaries under the National Flood Insurance Act of 1968. The boundaries of a one hundred year flood plain shall be determined by the applicant for a permit to install based upon standard methodologies set forth in "Urban Hydrology for Small Watersheds" and "National Engineering Handbook, part 630, Hydrology."
- (m) Other relevant calculations.
- (7) Construction specifications. This section shall include the following construction specifications when applicable:

  - (a) Alternatives to construction requirements in rules 3745-512-17 and 3745-512-611 of the Administrative Code.
  - (b) As a result of an exemption to a design requirement, construction specifications different than those required by rules 3745-520-500 to 3745-520-599 of the Administrative Code or Chapter 3745-512 of the Administrative Code.
  - (c) Geotechnical and stability limitations, including maximum slopes or minimum shear strengths, and criteria for removal of undesirable in situ material.
  - (d) Material specifications, pre-construction or construction testing, or construction activities necessary to confirm that the following engineered components are constructed to conform to the facility design plan:

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(i) Equivalent barriers to vegetated earthen berms.

(ii) Ground water control structures.

(iii) Gas collection and conveyance system components.

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3745-520-304

Applicant's public hearing and notice requirements.

- (A) Not later than sixty days after the applicant submits an application for a permit to install for a new C&DD facility to the permitting authority, an applicant shall hold a public hearing in the township or municipal corporation in which the new facility is or is proposed to be located. The public hearing shall be held on a weekday and shall begin no earlier than six p.m. and no later than eight p.m. unless otherwise authorized by the permitting authority.
- (B) Not later than thirty days prior to the public hearing, an applicant shall publish public notice of the time, date, and location of the public hearing and a general description of the new facility in a newspaper of general circulation in the locality of the new facility and shall mail a copy of the notice to the director and the approved board of health.
- (C) Not later than thirty days prior to the public hearing, an applicant shall provide notification of the public hearing by certified mail to the owner of each parcel of real property that is adjacent to the new facility.
- (D) If the new facility is or is proposed to be located in more than one township or municipal corporation, an applicant shall provide notice of the public hearing in accordance with paragraph (B) of this rule in a newspaper of general circulation in each locality in which the new facility is or is proposed to be located.
- (E) At the public hearing, an applicant shall describe the new facility and respond to comments and questions concerning the new facility and the permit to install application. At the public hearing, any person may submit written or oral comments or questions about the new facility or the permit to install application.
- (F) Not later than thirty days after the public hearing, an applicant shall provide the director and the approved board of health with a transcript of the full hearing, copies of any exhibits, displays, or other materials presented by the applicant at the hearing, and a copy of any written comments and questions submitted at the hearing.

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3745-520-310

**Procedures for issuing or denying a permit to install.**

- (A) When issuing or denying a permit to install, the permitting authority shall follow the appropriate procedures set forth in rule 3745-500-120 of the Administrative Code and any other applicable procedures set forth in the Revised Code.
- (B) In deciding whether to issue or deny a permit to install, the permitting authority shall act in accordance with rule 3745-520-312 of the Administrative Code.
- (C) Notice of receipt of application. An approved board of health shall notify the director of the receipt of an application for a permit to install not later than seven days after receipt of the application. The notification shall be in writing and shall contain sufficient detail to understand the scope and nature of the application. The notification shall be sent via certified mail or another form of mail accompanied by a receipt.
- (D) Notices of deficiency. If the permitting authority determines that the permit to install application is incomplete or if additional information is necessary to determine whether the criteria for issuance set forth in rule 3745-520-312 of the Administrative Code are satisfied, the permitting authority may issue a notice of deficiency to the applicant. A notice of deficiency shall require that the applicant provide such information not later than one hundred eighty days after the date of a notice of deficiency from the permitting authority, unless an extension is granted. The permitting authority may decline to act on an applicant's request for an extension.
- (E) Ohio EPA or the approved board of health may request that the applicant submit additional and identically complete copies of the permit to install application.
- (F) Issuance of a permit to install.

  - (1) Upon issuance of a permit to install, the permitting authority shall stamp all copies of the permit to install application and approved plans, specifications, and information with the word "Approved" and the date of issuance.
  - (2) Copies of the signed permit to install and stamped copies of the permit to install application and approved plans, specifications, and information shall be retained and distributed by the permitting authority pursuant to rule 3745-500-130 of the Administrative Code.

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3745-520-312

Criteria for issuing and grounds for denying a permit to install.

(A) General criteria for issuance. The permitting authority shall not issue a permit to install for a C&DD facility unless the permitting authority determines that the following criteria are satisfied:

- (1) Establishment or expansion of the facility will not violate Chapter 3704., 3714., 3734., or 6111. of the Revised Code or rules adopted under those chapters.
- (2) The applicant has demonstrated that the facility will not pose a threat to public health or safety or the environment, will not cause or create a nuisance, create a fire hazard, create a health hazard, and will not cause or contribute to air or water pollution.
- (3) The applicant and, if they exist, owner and operator are in substantial compliance with applicable provisions of Chapter 3714. of the Revised Code and any rules adopted and any authorizing documents issued thereunder.
- (4) The applicant, owner, or operator is capable of constructing, operating, and closing the facility and maintaining the facility during the post-closure care period in accordance with this chapter and with the terms and conditions of the permit to install.
- (5) The applicant demonstrated that other approvals and authorizations including but not limited to approvals and authorizations issued pursuant to Chapters 3704. and 6111. of the Revised Code necessary for the construction and operation of the facility have been obtained, except for a license to operate required by Chapter 3745-501 of the Administrative Code.
- (6) The permit to install application contains the information required by rule 3745-520-300 of the Administrative Code and the application documents that the facility has been designed in accordance with rule 3745-520-200 of the Administrative Code.
- (7) The permit to install application demonstrates that the facility and the disposal limits will conform to the applicable siting criteria contained in rule 3745-520-100 of the Administrative Code. The permitting authority shall apply the siting criteria established in rule 3745-520-100 of the Administrative Code to an application for a permit to install at the time the application is submitted to the director or approved board of health. Circumstances related to the siting criteria that change after the application is submitted shall not be considered in issuing or denying the permit to install.
- (8) Unless excepted from siting criteria by paragraph (B) of rule 3745-520-100 of the Administrative Code, the permit to install application demonstrates that access

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roads at the facility will be constructed in a manner that allows use in all weather conditions and that will withstand the anticipated degree of use and minimize erosion and generation of dust.

(9) If the permit to install application contains an expansion of the authorized disposal limits, the proposed expansion will not interfere with or prohibit ground water assessment or ground water corrective actions.

(10) If the permit to install application contains a vertical expansion of the authorized disposal limits, the proposed expansion will not cause any existing ground water contamination to worsen.

(11) If an exemption is necessary for issuance of the permit to install, the exemption has been issued in accordance with rule 3745-520-20 of the Administrative Code prior or concurrent to issuance of the permit to install.

(B) Grounds for denial of a permit to install. At a minimum, the permitting authority may deny a permit to install for any of the following reasons:

(1) The criteria for issuance specified in paragraph (A) of this rule are not satisfied.

(2) Falsification of material information pursuant to section 3714.101 of the Revised Code.

(3) The applicant does not respond to a notice of deficiency in the manner required by rule 3745-520-300 of the Administrative Code.

(4) The applicant, owner, or operator is not in substantial compliance with applicable provisions of Chapter 3704., 3714., 3734., or 6111. of the Revised Code or any rules adopted or any authorizing documents issued under those chapters.

(C) Discretionary criteria. When determining whether to issue or deny a permit to install, the permitting authority may consider the following:

(1) The impact the C&DD facility may have on corrective actions that are presently being taken, or that are proposed to be taken at the facility or in the immediate area, including but not limited to corrective actions pertaining to fire, gas, odors, or ground water contamination.

(2) The technical feasibility of adequately monitoring the impact of the C&DD facility on the environment.

(3) Pursuant to division (B) of section 3714.052 of the Revised Code, the history of compliance with state and federal laws pertaining to environmental protection or the environmental laws of another state or country, indicating if the applicant or any other person listed on the application has sufficient reliability, expertise, and

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[competence to operate the proposed new C&DD facility in substantial compliance with Chapter 3714. of the Revised Code and rules adopted thereunder.](#)

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3745-520-320      Alteration of a permit to install.

[Comment: Pursuant to rule 3745-520-03 of the Administrative Code, no person shall alter the design of a C&DD facility without first obtaining concurrence from the concurring authority for an alteration of the permit to install for the facility except for alterations made during construction as provided for in Chapter 3745-512 of the Administrative Code.]

(A) A permittee may request that the concurring authority concur with an alteration of the permit to install for the C&DD facility.

(B) Content requirements for a request to alter a permit to install. A request to alter a permit to install shall at a minimum contain the following:

(1) The information necessary to demonstrate the following:

(a) The alteration is at least equivalent to applicable rule requirements of this chapter.

(b) The request is not a modification of the C&DD facility.

(c) The alteration is compatible with the unaltered requirements of the permit to install.

(d) The alteration of the C&DD facility will not violate Chapters 3704., 3714., 3734., or 6111. of the Revised Code or rules adopted under those chapters.

(e) That other approvals and authorizations including but not limited to approvals and authorizations issued pursuant to Chapters 3704. and 6111. of the Revised Code made necessary by the alteration have been obtained.

(f) The alteration of the facility design plan does not also cause a modification of the license, unless a modification request for the license is submitted concurrently.

(2) The following information describing the alteration, with revisions clearly identified:

(a) A copy of the index of alterations required by paragraph (B) of this rule.

(b) A narrative description of the alteration being requested.

(3) As needed, the following portions of the facility design plan that conform to rule 3745-520-302 of the Administrative Code:

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- (a) Revised plan drawings.
    - (b) Revised cross sections.
    - (c) Revised detail drawings.
    - (d) Additional drawings necessary to depict changes to the C&DD facility proposed in the alteration request.
    - (e) Revised or additional design calculations.
    - (f) Revised or additional construction, testing, verification, and certification requirements that are not otherwise required by rule that are necessary to ensure that the engineered components affected by the alteration request are constructed to conform to the facility design plan.
  - (4) An exemption request if an exemption would be necessary for concurrence with the alteration, unless the exemption request was submitted prior to submittal of the alteration request.
  - (5) Any other information requested by Ohio EPA or the approved board of health that is necessary to determine whether the alteration conforms to this rule.
- (C) Permittee procedures.
- (1) A permit to install alteration request and subsequent revisions to the request shall be submitted in triplicate to the concurring authority. Each revised page or drawing shall contain the date of the revision. Revisions to the request shall be accompanied by the following:
    - (a) An index listing each change and the page where each change occurred.
    - (b) For plan drawings, a schedule on the drawing indicating what has changed.
  - (2) If the approved board of health is the concurring authority, the permittee shall notify Ohio EPA of the submittal of a permit to install alteration request concurrent to initially submitting the request to the approved board of health. The notification shall be in writing and shall contain sufficient detail to understand the scope and nature of the alteration request.
  - (3) Upon request from Ohio EPA or the approved board of health, the permittee shall submit additional and identically complete copies of the alteration request.
  - (4) If the alteration is concurred with by the concurring authority, the permittee shall do the following:

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(a) Insert the revised drawings and other information that were stamped by and received from the concurring authority into the appropriate place in the permit to install.

(b) Update the index of alterations required by paragraph (B) of this rule.

## (D) Concurring authority procedures.

(1) The concurring authority may decline to concur with an alteration to a permit to install.

(2) Except as provided for in rule 3745-512-51 of the Administrative Code, the concurring authority shall not concur with an alteration if that alteration has already occurred at the C&DD facility.

(3) The concurring authority shall not concur with an alteration unless the concurring authority determines that the following criteria are satisfied:

(a) The permittee has demonstrated compliance with paragraph (C) of this rule.

(b) The alteration will not interfere with the permittee's, owner's, or operator's ability to construct, operate, and close the C&DD facility and maintain the facility during the post-closure care period in accordance with this chapter and with the terms and conditions of the permit to install.

(c) If an exemption is necessary for concurrence with the alteration, the exemption has been issued in accordance with rule 3745-520-20 of the Administrative Code prior or concurrent to concurrence with the alteration.

(4) When determining whether to concur with an alteration the concurring authority may consider the following:

(a) The impact the alteration may have on corrective actions that are presently being taken, or that are proposed to be taken at the C&DD facility or in the immediate area, including but not limited to corrective actions pertaining to fire, gas, odors, or ground water contamination.

(b) The technical feasibility of adequately monitoring the impact of the C&DD facility on the environment.

(c) The owner's and operator's compliance with Chapter 3714. of the Revised Code and the rules adopted thereunder and authorizing documents.

(5) Upon concurrence with an alteration, the concurring authority shall stamp the copies of the alteration request and the associated drawings and information with the word "Altered," the permit number, and the date of concurrence.

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(6) Copies of the signed concurrence letter and stamped copies of the alteration request and associated drawings and information shall be retained and distributed by the concurring authority pursuant to rule 3745-500-130 of the Administrative Code.

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3745-520-330

Modification of a permit to install to modify a C&DD facility.

[Comment: Pursuant to rule 3745-520-03 of the Administrative Code, no person shall modify a C&DD facility without first obtaining a modified permit to install for the facility from the permitting authority.]

[Comment: An expansion of the disposal limits or facility boundary of a C&DD facility results in the creation of a new facility and is not a modification of a facility, and requires a permit to install in accordance with this chapter.]

(A) A permittee may request that the permitting authority modify the permit to install for the C&DD facility.

(B) Content requirements for a request to modify a permit to install. A request to modify a permit to install shall at a minimum contain the following:

(1) A completed application cover sheet on the form prescribed by the director.

(2) The information necessary to demonstrate the following:

(a) The modification is at least equivalent to applicable rule requirements of this chapter.

(b) The modification is compatible with the unmodified requirements of the permit to install.

(c) The modification of the C&DD facility will not violate Chapters 3704., 3714., 3734., or 6111. of the Revised Code or rules adopted under those chapters.

(d) That other approvals and authorizations including but not limited to approvals and authorizations issued pursuant to Chapters 3704. and 6111. of the Revised Code made necessary by the modification have been obtained.

(e) The modification of the facility design plan does not also cause a modification of the license, unless a modification request for the license is submitted concurrently.

(3) The following information describing the modification, with revisions clearly identified:

(a) An index of modifications that have occurred since the permit to install was issued.

(b) A narrative description of the modification being requested.

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(4) As needed, the following portions of the facility design plan that conform to rule 3745-520-302 of the Administrative Code:

(a) Revised plan drawings.

(b) Revised cross sections.

(c) Revised detail drawings.

(d) Additional drawings necessary to depict changes to the C&DD facility proposed in the modification request.

(e) Revised or additional design calculations.

(f) Revised or additional construction, testing, verification, and certification requirements that are not otherwise required by rule that are necessary to confirm that the engineered components affected by the modification request are constructed to conform to the facility design plan.

(5) An exemption request if an exemption would be necessary for modification of the permit to install, unless the exemption request was submitted prior to submittal of the modification request.

(6) Any other information requested by Ohio EPA or the approved board of health that is necessary to determine whether the modification conforms to this rule.

(C) Permittee procedures.

(1) A permit to install modification request and subsequent revisions to the request shall be submitted in triplicate to the approved board of health or to the director in the absence of an approved board of health. Each revised page or drawing shall contain the date of the revision. Revisions to the request shall be accompanied by the following:

(a) An index listing each change and the page where each change occurred.

(b) For plan drawings, a schedule on the drawing indicating what has changed.

(2) If the approved board of health is the licensing authority, the permittee shall notify Ohio EPA of the submittal of a permit to install modification request concurrent to initially submitting the request to the approved board of health. The notification shall be in writing and shall contain sufficient detail to understand the scope and nature of the modification request.

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- (3) Notices of deficiency. If the permitting authority issues a notice of deficiency pursuant to paragraph (D)(2) of this rule, the permittee shall provide such information not later than one hundred eighty days after the date of a notice of deficiency from the permitting authority. Not later than one hundred eighty days after the date of a notice of deficiency, the permittee may request an extension.
- (4) Upon request from Ohio EPA or the approved board of health, the permittee shall submit additional and identically complete copies of the permit to install modification request.
- (5) If the permitting authority modifies the permit to install, the permittee shall insert the revised drawings and other information that were stamped by and received from the permitting authority into the appropriate place in the approved permit to install.

(D) Permitting authority procedures for acting on a permit to install modification request.

- (1) The permitting authority shall follow the appropriate procedures set forth in rule 3745-500-120 of the Administrative Code and any other applicable procedures set forth in the Revised Code.
- (2) Notices of deficiency. If the permitting authority determines that the permit to install modification request is incomplete or if additional information is necessary to determine whether the criteria for issuance set forth in this rule are satisfied, the permitting authority may issue a notice of deficiency to the permittee. The notice of deficiency shall require that the permittee provide such information not later than one hundred eighty days after the date of a notice of deficiency from the permitting authority, unless an extension is granted by the permitting authority. The permitting authority may decline to act on the permittee's request for an extension.
- (3) The permitting authority shall not modify a permit to install for a modification of a C&DD facility that has already occurred.
- (4) Grounds for modifying a permit to install. The permitting authority shall not modify a permit to install unless the permitting authority determines that the following criteria are satisfied:

  - (a) The permittee has demonstrated compliance with paragraph (B) of this rule.
  - (b) The modification will not interfere with the permittee's, owner's, or operator's ability to construct, operate, and close the C&DD facility and maintain the facility during the post-closure care period in accordance with this chapter and with the terms and conditions of the permit to install.

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- (c) The disposal limits and facility boundary will not expand.
- (d) The C&DD facility has been designed in accordance with the rule 3745-520-200 of the Administrative Code.
- (e) Unless a siting criteria exception in paragraph (B)(1) or (B)(2) of rule 3745-520-100 of the Administrative Code is satisfied, the following criteria:

  - (i) The modification will not result in less than five feet of isolation material existing between the uppermost aquifer system and the disposal limits, and the isolation material continues to conform to the specifications in paragraph (C)(3) of rule 3745-520-100 of the Administrative Code.
  - (ii) Any change to the areas where the main hauling road may be located does not result in the main hauling road being allowed within five hundred feet of an occupied dwelling unless the owner of the occupied dwelling has given written permission, which shall be notarized, to the owner or operator to do so and proof of written permission is submitted to the permitting authority. However, this criterion does not apply to occupied dwellings constructed after the date the application for the permit to install being modified was originally submitted.
  - (iii) The permit to install modification request demonstrates that access roads will be constructed in a manner that allows use in all weather conditions and that will withstand the anticipated degree of use and minimize erosion and generation of dust.
  - (iv) The permit to install modification request demonstrates that the C&DD facility will have a vegetated earthen berm or an equivalent barrier with a minimum height of six feet separating the facility from adjoining property if the facility is located in an area in which an applicable zoning resolution allowing residential construction existed on the date the application for the permit to install being modified was originally submitted and the area is still zoned in that manner.
- (f) If an exemption is necessary for modification of the permit to install, the exemption has been issued in accordance with rule 3745-520-20 of the Administrative Code prior or concurrent to modification of the permit to install.
- (5) Discretionary criteria. When determining whether to modify a permit to install, the permitting authority may consider the following:

  - (a) The impact the modification may have on corrective actions that are presently being taken, or that are proposed to be taken at the C&DD facility

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or in the immediate area, including but not limited to corrective actions pertaining to fire, gas, odors, or ground water contamination.

(b) The technical feasibility of adequately monitoring the impact of the C&DD facility on the environment.

(c) The owner's and operator's compliance with Chapter 3714. of the Revised Code and the rules adopted thereunder and authorizing documents.

(d) Whether the permittee responded to a notice of deficiency in the manner required by paragraph (C)(3) of this rule.

(E) Permitting authority procedures upon modifying a permit to install.

(1) Upon modifying a permit to install, the permitting authority shall stamp the copies of the permit to install modification request and the associated drawings and information with the word "Modified," the permit number, and the date of modification.

(2) Copies of the signed approval letter and stamped copies of the permit to install modification request and associated drawings and information shall be retained and distributed by the permitting authority pursuant to rule 3745-500-130 of the Administrative Code.

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3745-520-335

**Modification of a permit to install to change a term or condition of a permit to install.**

(A) A permittee may request that the permitting authority modify a term or condition of the C&DD facility's permit to install.

(B) Permittee procedures.

- (1) The permittee shall submit a request to modify a term or condition of a permit to install to the approved board of health or to the director in the absence of an approved board of health.
- (2) If the permittee submits a permit to install modification request to the approved board of health, the permittee shall notify Ohio EPA of the submittal of the modification request concurrent to initially submitting the request to the approved board of health. The notification shall be in writing and shall contain sufficient detail to understand the scope and nature of the modification request.
- (3) Upon request from Ohio EPA or the approved board of health, the permittee shall submit additional and identically complete copies of the modification request.
- (4) If the permitting authority approves the request, the permittee shall retain a copy of the approval letter with the approved permit to install.

(C) Permitting authority procedures.

- (1) The permitting authority may decline to modify a term or condition of a permit to install.
- (2) When approving a request to modify a term or condition of a permit to install, the permitting authority shall follow the appropriate procedures set forth in rule 3745-500-120 of the Administrative Code and any other applicable procedures set forth in the Revised Code.
- (3) To approve a request to modify a term or condition of a permit to install, the permitting authority shall issue an approval letter to the permittee. The approval letter shall contain the following:
  - (a) The name and location of the C&DD facility for which the approval is being issued.
  - (b) Identification of the term or condition of the permit to install that is being modified.
  - (c) The new term or condition that will supersede the original term or condition.

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(d) A notice of appeal rights.

(e) The signature of the health commissioner, if the approved board of health is the permitting authority.

(4) The permitting authority shall retain and distribute copies of the signed approval letter pursuant to rule 3745-500-130 of the Administrative Code.

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3745-520-340

Transfer of a permit to install.

(A) A permittee may request that the permitting authority approve transfer of the permit to install for the C&DD facility. A permit to install transfer shall not be effective unless approved by the permitting authority.

(B) Permittee and transferee procedures.

(1) Not later than one hundred twenty days prior to the proposed date of a permit to install transfer, the permittee for a C&DD facility shall submit a written request for transfer in triplicate to the approved board of health or to the director in the absence of an approved board of health. A request shall include the following information:

(a) Facility name and location.

(b) The name, mailing address, and contact information of the permittee.

(c) The names, mailing addresses, and contact information of the proposed transferee and key employees of the proposed transferee.

(d) The proposed transferee's statement of intent to assume the permittee's obligations.

(e) A notarized written statement from each titleholder of each tract of land on which the facility is located that each titleholder acknowledges that the permittee intends to transfer the permit to install to the proposed transferee.

(2) If the permittee submits a request to the approved board of health to transfer a permit to install, the permittee shall notify Ohio EPA of the submittal of a request to transfer a permit to install concurrent to initially submitting the request to the approved board of health. The notification shall be in writing and shall contain the name and location of the C&DD facility for which the permit to install is proposed to be transferred, the identity of the proposed transferee, and the reason for the transfer.

(3) Not later than one hundred twenty days prior to the date of the proposed acquisition of the C&DD facility by the proposed transferee, the proposed transferee shall comply with division (D) or (F) of section 3714.052 of the Revised Code. Compliance with division (D) or (F) of section 3714.052 of the Revised Code includes providing compliance disclosure information regarding key employees of the proposed transferee. The proposed transferee shall submit the statement described in and signed in accordance with rule 3745-500-50 of the Administrative Code when submitting the compliance disclosure information.

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(4) Upon request from Ohio EPA or the approved board of health, the permittee shall submit additional and identically complete copies of the request to transfer a permit to install.

(C) Permitting authority procedures.

(1) When approving or denying the transfer of a permit to install, the permitting authority shall follow the appropriate procedures set forth in rule 3745-500-120 of the Administrative Code and any other applicable procedures set forth in the Revised Code.

(2) Not later than one hundred twenty days after receiving the request as described in paragraph (B) of this rule, the permitting authority shall approve or deny the transfer. The permitting authority may deny the transfer of the permit to install for any of the reasons specified in division (B) of section 3714.052 of the Revised Code.

(3) Upon approving or denying the transfer of a permit to install, the permitting authority shall retain and distribute copies of the signed approval or denial letter pursuant to rule 3745-500-130 of the Administrative Code.

(4) Concurrent to approving a transfer of a permit to install, the permitting authority shall administratively change the permit to install in accordance with rule 3745-500-360 of the Administrative Code to update the administrative information in the permit to install. Copies of the administratively changed permit to install shall be distributed in accordance with rule 3745-500-130 of the Administrative Code.

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3745-520-350

Suspension of a permit to install.

(A) At a minimum, the permitting authority may order the suspension of a permit to install if any of the following occur:

(1) Falsification of material information pursuant to section 3714.101 of the Revised Code.

(2) A violation of any section of Chapter 3714. of the Revised Code or any rule adopted thereunder.

(3) A violation of a term or condition of the C&DD facility's permit.

(4) Entry to the C&DD facility is refused or inspection or investigation is refused, hindered, or thwarted.

(5) The C&DD facility is not being operated or constructed in substantial compliance with applicable provisions of Chapter 3704., 3734., or 6111. of the Revised Code or any rules adopted under those chapters.

(6) The C&DD facility is not being operated or constructed in substantial compliance with authorizing documents.

(7) The director or approved board of health determines that construction at the C&DD facility has caused or is likely to cause the following:

(a) Slope stability failure.

(b) Improper installation or failure of an engineered component at the facility.

(c) A nuisance, fire hazard, health hazard, or a threat to public health, safety, or the environment, or cause or contribute to water pollution or air pollution.

(8) The director or approved board of health determines the following:

(a) Information has become known after issuance of the permit to install about circumstances related to the C&DD facility or the owner, operator, or permittee.

(b) The circumstances related to the C&DD facility or the owner, operator, or permittee existed prior to issuing the permit to install.

(c) If the information had been known prior to issuing the permit to install then one of the following would have occurred:

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(i) The permit to install would not have been issued without revisions to the application.

(ii) The permit to install would have been issued with different terms or conditions.

(iii) The permit to install would have been denied.

(B) Procedures for suspending a permit to install. When suspending a permit to install, the permitting authority shall do at least the following:

(1) If the director is the permitting authority, act in accordance with Chapters 119., 3714., and 3745. of the Revised Code.

(2) If the approved board of health is the permitting authority, act in accordance with Chapter 3714. and section 3709.20 of the Revised Code.

(3) Provide notice of the intention to suspend the permit to install to the permittee prior to issuance of the written order required by paragraph (B)(4) of this rule.

(4) Issue a written order to suspend the permit to install that contains at a minimum the following information:

(a) Information identifying the permittee and the C&DD facility.

(b) The findings upon which the suspension is based.

(c) The effective date of the order.

(d) A notice of appeal rights.

(5) Retain and distribute copies of the order suspending the permit to install pursuant to rule 3745-500-130 of the Administrative Code.

(C) Permittee procedures if a permit to install has been suspended.

(1) Construction of all engineered components included in the facility design plan of the permit to install shall cease upon the effective date of the order suspending the permit to install, unless the order suspending the permit to install provides otherwise.

(2) A permittee may submit a written request for removal of the suspension of a permit to install to the approved board of health or to the director in the absence of an approved board of health. The request shall include at a minimum the following:

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- (a) Information that demonstrates that the grounds for suspension listed in paragraph (A) of this rule have been eliminated.
  - (b) A description of the actions that will be taken to prevent the grounds for suspension from reoccurring.
  - (3) If the permittee submits a request for removal of the suspension of a permit to install to the approved board of health, the permittee shall notify Ohio EPA of the submittal of a request concurrent to submitting the request to the approved board of health. The notification shall be in writing and shall contain sufficient detail to understand the scope and nature of the request.
  - (4) Suspended activities shall not recommence unless the request for removal of the suspension of a permit to install is approved through an order issued by the permitting authority.
- (D) Permitting authority procedures for removing a suspension of a permit to install.
- (1) A suspension shall not be removed from a permit to install until the following have occurred:
    - (a) The permittee has complied with paragraph (C) of this rule.
    - (b) Conditions or violations cited as the reason for the suspension have been remedied.
  - (2) The permitting authority shall remove a suspension from a permit to install through issuance of an order when the permittee has complied with paragraph (C) of this rule and the conditions or violations cited as the reason for the suspension have been remedied.
  - (3) Copies of an order removing a suspension from a permit to install shall be retained and distributed pursuant to rule 3745-500-130 of the Administrative Code.

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3745-520-360

Revocation of a permit to install.

(A) The permitting authority may revoke a permit to install if any of the following occur:

- (1) Falsification of material information pursuant to section 3714.101 of the Revised Code.
- (2) Any cause that would be grounds for denial of an application for a permit to install pursuant to division (B) of section 3714.052 of the Revised Code.
- (3) Information regarding a new key employee indicates any of the reasons specified in division (B) of section 3714.052 of the Revised Code for the denial of an application for a permit to install.
- (4) The C&DD facility is not being operated or constructed in substantial compliance with applicable provisions of Chapter 3704., 3714., 3734., or 6111. of the Revised Code or any rules adopted under those chapters.
- (5) The director or approved board of health determines that a nuisance, fire hazard, or health hazard exists at the C&DD facility including but not limited to ongoing fires or hazardous leachate, or the facility is a threat to public health or safety or the environment, or may cause or contribute to water pollution or air pollution.

(B) Permitting authority procedures.

- (1) When revoking a permit to install, the permitting authority shall follow the appropriate procedures set forth in rule 3745-500-120 of the Administrative Code and any other applicable procedures set forth in the Revised Code.
- (2) Revocation of a permit to install shall be through issuance of a written order that contains at a minimum the following information:
  - (a) Information identifying the permittee and the C&DD facility.
  - (b) The findings upon which the revocation is based.
  - (c) The effective date of the order.
  - (d) A notice of appeal rights.
- (3) Copies of an order revoking a permit to install shall be retained and distributed pursuant to rule 3745-500-130.

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(C) Construction of all engineered components included in the facility design plan of the permit to install shall cease upon the effective date of the order revoking the permit to install, unless the order revoking the permit to install provides otherwise.

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3745-520-370

Expiration of a permit to install - extension and renewal requests.

(A) If a permittee has not established the C&DD facility, has not undertaken a continuing program of construction, has not entered into a binding contractual obligation to undertake and complete a continuing program of construction within a reasonable time, or has not obtained an extension pursuant to this rule, a permit to install shall expire upon the third anniversary of the issuance of the permit to install.

(B) Requests for an extension of a permit to install expiration date.

(1) A permittee may submit a written request for an extension of the expiration date to the approved board of health or to the director in the absence of an approved board of health.

(2) If the permittee submits a request for an extension of the expiration date to the approved board of health, the permittee shall notify Ohio EPA of the submittal of an extension request concurrent to submitting the request to the approved board of health. The notification shall be in writing and shall contain sufficient detail to understand the scope and nature of the extension request.

(3) The request for an extension shall contain at a minimum the following information:

(a) C&DD facility name and location information.

(b) Permittee, owner, operator, and property titleholder information including but not limited to name, mailing address, and phone number.

(c) Justification for the extension of time.

(d) Demonstration that the C&DD facility satisfies the applicable siting criteria and design standards established in the rules in effect on the date the permit to install is to expire.

(4) Upon request from Ohio EPA or the approved board of health, the permittee shall submit additional and identically complete copies of the extension request.

(C) Permitting authority procedures for a request for an extension of a permit to install expiration date.

(1) The permitting authority may decline to act on a request for an extension of a permit to install expiration date.

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- (2) The permitting authority shall not approve a request for an extension unless the permitting authority determines the following:
  - (a) The C&DD facility satisfies the applicable siting criteria and design standards established in the rules in effect on the date the permit to install is to expire.
  - (b) The permittee submitted a request that conforms to this rule.
- (3) If the permitting authority approves a request for an extension of the expiration date, the extension shall not exceed twelve months.
- (4) The permitting authority shall retain and distribute copies of the signed approval letter and copies of any associated information pursuant to rule 3745-500-130 of the Administrative Code.
- (5) The permitting authority shall not approve more than two extensions under this rule for each permit to install.
- (D) If a permittee has established a C&DD facility, the permit to install for the facility will expire on the tenth anniversary of the issuance of the permit to install, unless it is renewed pursuant to this rule, and will expire every ten years thereafter, unless it is renewed every ten years pursuant to this rule.
  - (1) A request for renewal of a permit to install shall be submitted prior to expiration of the permit to install.
  - (2) A permittee shall submit a renewal request to the approved board of health or to the director in the absence of an approved board of health.
  - (3) If the permittee submits a renewal request to the approved board of health, the permittee shall notify Ohio EPA of the submittal of a renewal request concurrent to submitting the request to the approved board of health. The notification shall be in writing and shall contain sufficient detail to understand the scope and nature of the renewal request.
  - (4) The request for renewal shall include at a minimum the following information:
    - (a) Facility name and location information.
    - (b) Permittee, preparer, owner, operator, and property titleholder information including but not limited to name, mailing address, and phone number.
    - (c) A demonstration that the unconstructed portions of the facility satisfy the design standards established in the rules in effect on the date the permit to install is to expire.



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3745-520-380

**Administrative change to a permit to install.**

A permit to install may be administratively changed in accordance with rule 3745-500-360 of the Administrative Code.

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3745-520-400

**License - application requirements and applicant procedures.**

(A) License application. The detail of the information in the application shall be sufficient to allow the licensing authority to determine whether the criteria for issuance set forth in Chapter 3745-501 of the Administrative Code are satisfied. A license application shall contain the following:

- (1) A completed application cover sheet on the form prescribed by the director.
- (2) Completed application on forms prescribed by the director. The completed forms shall contain the following information:
  - (a) Hours of operation.
  - (b) The estimated life of the C&DD facility in years and remaining capacity information.
  - (c) The date the permit to install for the C&DD facility will expire.
  - (d) Whether the applicant is requesting authorization to recirculate leachate.
  - (e) Whether the applicant is requesting authorization to dispose asbestos-containing waste materials.
  - (f) Financial assurance documentation prepared in accordance with rules 3745-520-905 and 3745-520-910 of the Administrative Code.

[Comment: Chapter 3745-501 of the Administrative Code requires that financial assurance instruments for closure and post-closure care be executed and funded prior to the issuance of the license.]
- (3) For each license application submitted after the first license issued pursuant to this chapter, identification of what has changed from the previous year's license application including an index listing each change and the page where each change occurred and for plan drawings, a schedule on the drawing indicating what has changed.
- (4) If the applicant is requesting that the licensing authority authorize disposal of asbestos-containing waste materials, documentation that the C&DD facility is authorized pursuant to Chapter 3704. of the Revised Code to dispose asbestos-containing waste materials.
- (5) A compliance disclosure update or an affidavit stating that there have been no changes in or addition to that information in accordance with division (C) of section 3714.052 of the Revised Code.

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- (6) A copy of each notification and request sent pursuant to paragraph (B)(2) of this rule.
- (7) A general plan of facility operations for operating the C&DD facility using best management practices that conforms to rule 3745-520-402 of the Administrative Code. For renewal license applications, the applicant may reference a previously submitted and approved general plan of facility operations and submit updates to that plan as part of the license application in lieu of submitting an entire plan as part of the license application.
- (8) An exemption request if an exemption would be necessary for issuance of the license, unless the exemption request was submitted prior to submittal of the license application.
- (9) Any other information requested by Ohio EPA or the approved board of health that is necessary to determine whether the C&DD facility is capable of being operated in accordance with this chapter.

(B) Procedures for submitting a license application.

- (1) An applicant for a license shall comply with Chapter 3745-501 of the Administrative Code.
- (2) Prior or concurrent to submitting an application for a license, an applicant shall submit to the following entities a written notification of intent to operate a C&DD facility and a written request for information pertaining to any regulatory requirements under Chapter 3704. or 6111. of the Revised Code:
  - (a) The local air pollution control authority or Ohio EPA, division of air pollution control, whichever is applicable.
  - (b) Ohio EPA, division of surface water.
- (3) Pursuant to division (B) of section 3714.061 of the Revised Code, an applicant shall provide, at the time that an application is submitted, to the fire department that would respond to the C&DD facility a copy of the fire and explosion contingency plan and the hydrogen sulfide and other gases contingency plan that are required by rule 3745-520-402 of the Administrative Code.
- (4) Concurrent to submitting an application for a license, an applicant shall provide the local air pollution control authority or Ohio EPA, division of air pollution control, whichever is applicable, a copy of the hydrogen sulfide and other gases contingency plan that is required by rule 3745-520-402 of the Administrative Code.

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(5) When submitting a revision to an application for a license, an applicant shall record the date of the revision on each revised page or drawing. An applicant shall accompany subsequent revisions to a license application with the following:

(a) An index listing each change and the page where each change occurred.

(b) For plan drawings, a schedule on the drawing indicating what has changed.

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3745-520-402

License application - general plan of facility operations.

A general plan of facility operations for operating the C&DD facility using best management practices shall contain the following:

- (A) A phasing plan that conforms to rule 3745-520-420 of the Administrative Code.
- (B) A material acceptance and handling plan that conforms to rule 3745-520-440 of the Administrative Code.
- (C) A leachate sampling and analysis plan that conforms to rule 3745-520-460 of the Administrative Code.
- (D) A fire and explosion contingency plan that conforms to 3745-520-470 of the Administrative Code.
- (E) A hydrogen sulfide and other gases contingency plan that conforms to rule 3745-520-480 of the Administrative Code.
- (F) A contingency plan for the storage, treatment, and disposal of leachate. The contingency plan for the storage, treatment, and disposal of leachate shall describe the immediate and long-term steps, including the location of an existing or proposed on-site treatment works, to be taken for leachate management in the event that collected leachate cannot be managed in accordance with the permit to install.
- (G) A contingency plan for equipment failure. This plan shall specify how the owner or operator intends to operate in compliance with this chapter in the event of equipment failure. This plan shall include a description of the site-specific conditions and circumstances when the failed equipment contingency plan will be implemented.

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3745-520-410      Modification of a license.

[Comment: Pursuant to rule 3745-520-03 of the Administrative Code, no person shall deviate from the requirements in a license without first obtaining a modified license for the C&DD facility from the licensing authority in accordance with this rule and Chapter 3745-501 of the Administrative Code.]

(A) Content requirements for a request to modify a license. A request to modify a license shall at a minimum contain the following:

(1) A completed application cover sheet on the form prescribed by the director in accordance with rule 3745-520-40 of the Administrative Code.

(2) A brief narrative explanation of the modification being requested.

(3) The information necessary to demonstrate the following:

(a) The modification is at least equivalent to applicable rule requirements of this chapter.

(b) The modification is compatible with the unmodified requirements of the license.

(c) Operations conducted in accordance with the modified general plan of facility operations will not violate Chapters 3704., 3714., 3734., or 6111. of the Revised Code or rules promulgated under those chapters.

(d) The modification of the license does not also cause an alteration or modification of the permit to install, unless a permit to install alteration or modification request is submitted concurrently.

(4) The following information as needed to describe changes to the operations proposed in the modification request, with revisions clearly identified:

(a) Revised portions of the general plan of facility operations.

(b) Revised or additional plan drawings.

(c) Revised or additional specifications or calculations.

(d) Revised or additional reporting or monitoring requirements that are not otherwise required by rule that are necessary to confirm the following:

(i) That the engineered components will not be adversely affected.

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(ii) That the operations affected by the modification request will be in compliance with this chapter.

(5) An exemption request if an exemption would be necessary for modification of the license, unless the exemption request was submitted prior to submittal of the modification request.

(B) Licensee procedures.

(1) The license modification request and subsequent revisions to the request shall be submitted in triplicate to the licensing authority. Each revised page or drawing shall contain the date of the revision. Revisions to the request shall be accompanied by the following:

(a) An index listing each change and the page where each change occurred.

(b) For plan drawings, a schedule on the drawing indicating what has changed.

(2) If the approved board of health is the licensing authority, a licensee shall notify Ohio EPA of the submittal of a license modification request concurrent to submitting the initial license modification request to the approved board of health. The notification shall be in writing and shall contain sufficient detail to understand the scope and nature of the modification request.

(3) Upon request from Ohio EPA or the approved board of health, a licensee shall submit additional and identically complete copies of the license modification request.

(4) If the licensing authority modifies the license, the licensee shall insert the revised drawings and other information that were stamped by and received from the licensing authority into the appropriate place in the current license.

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3745-520-420

Phasing plan.

(A) General requirements for the phasing plan. The phasing plan shall conform to the following:

(1) Drawings shall appear on plan sheets with minimum dimensions of twenty-four inches by thirty-six inches. If narrative is necessary to explain a drawing or a calculation, the narrative shall appear with the drawing or calculation.

(2) The phasing plan shall be signed and sealed by a professional engineer.

(3) All survey information included in the phasing plan shall be signed and sealed by a professional surveyor.

(4) Except for the plan cover sheet required by paragraph (B)(1) of this rule, each drawing in the phasing plan shall show northings and eastings referenced to the C&DD facility grid system as established in the approved facility design plan.

(5) Each drawing in the phasing plan shall show the C&DD facility boundary and the authorized disposal limits in the same location as the facility boundary and the authorized disposal limits are shown in the approved facility design plan.

(6) Each plan drawing required by paragraphs (B)(2)(a) and (B)(2)(b) of this rule shall include the following:

(a) Roads, railroads, and structures, including the locations of existing or proposed permanent access roads, maintenance buildings, office buildings, weighing facilities, and storage buildings.

(b) The areas of the C&DD facility where the main hauling road may be located shown in the same location as those areas are shown in the approved facility design plan.

(c) The north arrow.

(d) A legend containing information necessary to understand the drawing.

(e) The scale of the drawing.

(B) Phasing plan format and content. The phasing plan shall include the following:

(1) A plan cover sheet. The plan cover sheet, to be numbered sheet 1, shall contain the following information:

(a) The name of the C&DD facility.

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- (b) The precise geographic location of the C&DD facility boundary and of the horizontal authorized disposal limits shown on a road map which includes the area within a five mile radius of the facility boundary with a scale of one inch equals no greater than one mile.
- (c) Owner, operator, and property titleholder information including name, mailing address, and telephone number.
- (d) The name, mailing address, and telephone number of the professional engineer signing and certifying the plans.
- (2) The following plan drawings showing the phasing. The plan drawings shall be numbered consecutively 2A, 2B, 2C, etc. An individual plan drawing may contain information specified in more than one subheading. 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) A general phasing diagram that shows all of the phases at the C&DD facility.
  - (b) One plan drawing for each phase of the C&DD facility showing the following engineered components and other items as they will exist immediately prior to beginning disposal in the phase:

    - (i) The horizontal disposal limits for the phase and the basal elevations of the disposal limits of the phase.
    - (ii) Topography of areas of the C&DD facility that are undisturbed, with a contour interval no greater than five feet, including but not limited to vegetation, surface waters, and wetlands.
    - (iii) Topography of areas of the C&DD facility that were disturbed.
    - (iv) The tie-in areas for the phase.
    - (v) The final elevations and horizontal limits of disposed material and of the cap system or transitional cover as they will exist when the phase construction is certified.
    - (vi) Ground water monitoring wells, piezometers, and gas monitoring locations.
    - (vii) The engineered components of the leachate management system.

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(viii) If leachate recirculation is proposed, the location of leachate conveyance apparatuses that are part of the leachate recirculation system.

(ix) The horizontal limits of the cap system or transitional cover.

(x) The location and grade of access roads for the phase, including access roads on the cap system or transitional cover and access roads that are proposed to be built on internal slopes or across the facility bottom. Roads that are proposed but that will not be constructed until construction of subsequent phases shall be clearly marked.

(xi) The direction of flow and locations of concentrations of surface water.

(xii) Permanent and temporary surface water control structures and any permanent and temporary ground water control structures.

(xiii) The horizontal limits and final elevations of structural fill and added geologic material that do not have any engineered components constructed above them.

(xiv) The horizontal limits and final elevations of vegetated earthen berms or equivalent barriers to vegetated earthen berms, if vegetated earthen berms or equivalent barriers are required at the facility.

[Comment: Rule 3745-520-600 of the Administrative Code requires that vegetated earthen berms or equivalent barriers identified in the permit to install be constructed prior to disposing material in the disposal limits newly authorized by the permit to install.]

(xv) The location of permanent survey marks.

(c) At least one plan drawing that clearly identifies the phases of the C&DD facility where the owner or operator will be disposing material during either of the following:

(i) If the phasing plan is being submitted as part of a modification request and not with a license application, the current license year.

(ii) If the phasing plan is being submitted with a license application, the year for which the license application applies.

(d) At least one plan drawing that clearly identifies the phases of the C&DD facility where the owner or operator anticipates disposal will occur during the license year subsequent to the applicable license year described in paragraph (B)(2)(c) of this rule.

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(e) At least one plan drawing that clearly identifies the phases of the C&DD facility where the owner or operator anticipates disposal will occur during the license year subsequent to the license year described in paragraph (B)(2)(d) of this rule.

(f) Plan drawings that show when cap will be constructed in accordance with the following:

[Comment: Cost estimates for financial assurance require the inclusion of the costs for construction of the cap system. As a result, as the number of phases that are not capped increases, the cost of financial assurance will also increase. A provision in rule 3745-520-905 of the Administrative Code allows the owner or operator to request a reduction in the amount of financial assurance each year that cap system is constructed at the C&DD facility.]

(i) At least one drawing shall show the cap and transitional cover that will be constructed prior to beginning disposal in the phases described in paragraph (B)(2)(c) of this rule.

(ii) At least one drawing shall show the cap and transitional cover that will be constructed prior to beginning disposal in the phases described in paragraph (B)(2)(d) of this rule.

(iii) At least one drawing shall show the cap and transitional cover that will be constructed prior to beginning disposal in the phases described in paragraph (B)(2)(e) of this rule.

(g) If leachate recirculation is being proposed, at least one plan drawing that clearly identifies the phases of the C&DD facility where the owner or operator proposes to recirculate leachate.

[Comment: To conduct leachate recirculation, the design of the leachate recirculation system must be contained within an approved permit to install and the current license must authorize leachate recirculation.]

(3) Cross sections. Cross sections of the C&DD facility shall be at an interval no greater than every three hundred feet of length and width and shall clearly show the horizontal and vertical scales used. Each cross section shall be on plan drawings numbered consecutively 3A, 3B, 3C, etc., and shall show the following items:

(a) Existing topography.

(b) The horizontal and vertical limits of excavation.

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- (c) The horizontal limits, basal elevations, and final elevations of the authorized disposal limits.
- (d) The horizontal and vertical limits of each phase.
- (e) The horizontal limits and final elevations of the following:

  - (i) Structural fill.
  - (ii) An added geologic material layer.
  - (iii) Liner system.
  - (iv) Leachate collection system.
  - (v) Cap protection layer, surface water control structures, berms, benches, and roads.
- (4) Design calculations. This section shall include the following design calculations with references to equations used, showing site specific input, assumptions, and results:

  - (a) The static stability analyses for interim slopes of the phases in the manner specified in rule 3745-511-40 of the Administrative Code.
  - (b) The seismic stability analyses for interim slopes of the phases in the manner specified in rule 3745-511-50 of the Administrative Code.
  - (c) The acreage within the horizontal disposal limits that has had material disposed and the acreage within the horizontal disposal limits of each phase.
  - (d) The volume within the disposal limits of each phase.
  - (e) The total volume within the disposal limits.
  - (f) If leachate recirculation is being proposed, calculations for leachate recirculation including the following:

    - (i) The anticipated amount of leachate that will be generated by the C&DD facility. If leachate recirculation is being proposed for phases in which material has been disposed, documentation of how much leachate is currently being removed from within the disposal limits on a daily, weekly, monthly, and annual basis shall also be included.
    - (ii) The anticipated amount of leachate that will be recirculated.

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[Comment: Rule 3745-520-654 of the Administrative Code specifies the maximum volume of leachate that may be recirculated.]

(iii) Capacity of the leachate drainage layer, filter layer, leachate piping, leachate conveyances, leachate pumps, and leachate storage tanks to manage the amount of leachate that will be recirculated.

(iv) The vertical compressive stress and pore water pressure due to leachate recirculation. For existing leachate management systems, include documentation that leachate management system components will not be damaged by the increased vertical compressive stress.

(v) The depth of leachate above the liner, except in sumps.

(g) Other relevant calculations.

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3745-520-440

**Material acceptance and handling plan.**

The content of the material acceptance and handling plan shall be consistent with the acceptance, handling, and disposal requirements of rule 3745-520-640 of the Administrative Code. At a minimum, the material acceptance and handling plan shall contain the following:

(A) A plan drawing showing the location of the following:

(1) The inspection zone, if the C&DD facility will have an inspection zone. The plan drawing shall demonstrate that the inspection zone conforms to the following criteria:

(a) Be outside the authorized disposal limits.

(b) Be located within the main hauling road areas specified in the facility design plan.

(c) Be in close proximity to the material log-in area.

(d) Not exceed one acre in size, including associated storage areas.

[Comment: The location of each storage area within the inspection zone is not required to be shown on the plan drawing.]

(2) Material log-in area.

(3) Each fixed storage area, if the C&DD facility will have any fixed storage areas, and the type of material that will be stored in each area.

(B) If the C&DD facility will have an inspection zone, an indication of whether storage will occur within the inspection zone, and if so, a description of when and what types of material will be stored there.

(C) An indication of whether storage will occur in other areas of the C&DD facility, and if so, a description of where and when material will be stored and the type of material that will be stored. The combined total area of all storage areas at a facility shall not exceed two acres.

[Comment: This paragraph is intended to cover circumstances when the owner or operator plans to occasionally store material at the facility in a variety of locations. If the owner or operator intends to store material in a fixed storage area, that fixed storage area is required to be depicted on the plan drawing required by paragraph (A)(1) of this rule.]

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- (D) If portable containers will be used at the C&DD facility, a description of where and how the portable containers will be used.
- (E) An indication of whether more than one working face will be used, and if so, a description of the circumstances when multiple working faces will be used.
- (F) If the C&DD facility will operate during inclement weather, a description of how the facility will operate during inclement weather.
- (G) A description of how each main hauling road will be marked.
- (H) A description of the process to be used for recording material in the log of operations and tracking fees including but not limited to the process for assessing and calculating the fees to be remitted. The process described shall result in the following:

  - (1) The assessment of fees as required by Chapter 3714. of the Revised Code and rules promulgated thereunder on loads brought to the C&DD facility for disposal.
  - (2) The remittance of fees as required by Chapter 3714. of the Revised Code and rules promulgated thereunder that have been charged or collected.

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3745-520-460

**Leachate sampling and analysis plan.**

[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.]

The leachate sampling and analysis plan shall contain the following:

- (A) A description of the equipment, procedures, and techniques to be used to sample and analyze leachate in accordance with rule 3745-520-660 of the Administrative Code. Sample collection, preservation, and handling methods described in the plan shall provide for collection of representative samples of leachate.
- (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:
  - (1) Forms for recording field analysis results and conditions encountered at the C&DD facility during a sampling event.
  - (2) Forms for recording the chain of custody of leachate samples.

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3745-520-470

Fire and explosion contingency plan.

[Comment: This plan is required to be included in an application for a license; however, the plan should also serve as a stand-alone plan that can be easily retrieved in the event the plan must be implemented.]

(A) The fire and explosion contingency plan shall provide for effective action to prevent the spread of a fire, extinguish a fire, and respond to an explosion at a C&DD facility.

(B) The fire and explosion contingency plan shall contain the following:

(1) A section containing the following general C&DD facility information:

(a) A copy of the completed application cover sheet submitted with the license application.

(b) The precise geographic location and facility boundary shown on a road map with all access points and entrances clearly identified.

(c) The name, mailing address, and telephone number of the emergency contacts for the facility. The emergency contacts shall be individuals authorized to commit facility resources such as equipment, material, and services necessary for responding to a fire or explosion. At a minimum, one individual and one back-up individual shall be designated and listed in the plan as the emergency coordinator for the facility.

(d) The name, mailing address, and telephone number of the person who prepared the fire and explosion contingency plan.

(2) A section containing notification procedures to be used by C&DD facility personnel to contact the following entities upon detection of fire or explosion and contact information for those entities. The procedures shall at a minimum conform to the notification requirements in rule 3745-520-670 of the Administrative Code. The contact information shall at a minimum include emergency telephone numbers, if available, and non-emergency telephone numbers.

(a) The fire department that would respond to the C&DD facility and other appropriate emergency response authorities.

(b) Ohio EPA, the approved board of health, and other appropriate governmental authorities.

(c) Asbestos specialists.

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- (3) A section describing the fire response equipment, material, and services at or available to the C&DD facility. This section shall demonstrate that the equipment, material, and services are adequate for the facility.
- (4) A section describing how C&DD facility personnel may respond to a fire or explosion that includes the following:
- (a) For each type of identified response, the owner or operator shall describe the actions, personnel, and equipment the owner or operator may commit to the response, and the circumstances when the response may be implemented.
  - (b) Each identified response shall be protective of public health and safety and the environment, shall minimize the cause or contribution to water pollution and air pollution, and shall not adversely impact the integrity or effectiveness of engineered components at the C&DD facility.
  - (c) At a minimum, the following types of responses shall be identified and described:
    - (i) Responses that may be taken during the time between the detection of a fire or explosion and the arrival of the fire department. In the case where the fire department will not respond to a particular type of fire or explosion at the C&DD facility, this section shall include the responses the owner or operator may provide in those circumstances.
    - (ii) Actions that may be taken by facility personnel to prevent the spread of a fire and to extinguish a fire.
    - (iii) Responses for subsurface fires including at a minimum the following:
      - (a) Techniques and frequency to be used for sampling leachate in addition to the leachate sampling required by rule 3745-520-660 of the Administrative Code in order to monitor leachate temperature, increases in the concentration of parameters due to fire, and fire-related parameters. At a minimum, leachate shall be analyzed for the following:
        - (i) The same parameters as the ground water assessment parameters listed in rule 3745-506-704 of the Administrative Code.
        - (ii) Chemical oxygen demand, total suspended solids, and total organic carbon.
        - (iii) Alkanes and alkenes.

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(iv) Chlorinated dibenzo-p-dioxin or chlorodibenzofuran.

(b) If a gas management system exists at the C&DD facility, techniques and frequency for monitoring gas collection devices in addition to the monitoring required by rule 3745-520-675 of the Administrative Code. At a minimum, the gas collection devices shall be monitored for the gas temperature and fire-related gases and vapors, including but not limited to carbon monoxide, alkanes, alkenes, chlorinated dibenzo-p-dioxin, and chlorodibenzofuran.

(5) Any other information requested by Ohio EPA or the approved board of health that is necessary to determine whether the owner or operator is prepared to provide effective action in response to either a fire or explosion at the C&DD facility.

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3745-520-480

Hydrogen sulfide and other gases contingency plan.

[Comment: This plan is required to be included in an application for a license; however, the plan should also serve as a stand-alone plan that can be easily retrieved in the event the plan must be implemented.]

(A) The hydrogen sulfide and other gases contingency plan shall provide for effective action in response to a release of hydrogen sulfide gas or other gases created by the operation of a C&DD facility that pose the following:

- (1) A nuisance.
- (2) An offensive odor.
- (3) A threat to public health or safety or the environment.
- (4) The cause or contribution to air pollution.

(B) The hydrogen sulfide and other gases contingency plan shall contain the following:

- (1) A section containing the following general C&DD facility information:
  - (a) A copy of the completed application cover sheet submitted with the license application.
  - (b) The precise geographic location and facility boundary shown on a road map with all access points and entrances clearly identified.
  - (c) The name, mailing address, and telephone number of the emergency contacts for the facility. The emergency contacts shall be individuals authorized to commit facility resources such as equipment, material, and services necessary for responding to a release of hydrogen sulfide or other gases created by the operation of a C&DD facility that pose a nuisance, cause an offensive odor, or pose a threat to public health or safety or the environment. At a minimum, one individual and one back-up individual shall be designated and listed in the plan as the emergency coordinator for the facility.
  - (d) Emergency telephone numbers, if available, and non-emergency telephone numbers for the fire department that would respond to the facility, the local air pollution control authority, if applicable, Ohio EPA, and the approved board of health.
  - (e) The name, mailing address, and telephone number of the person who prepared the hydrogen sulfide and other gases contingency plan.

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- (2) A section containing a description of how and when the owner or operator will install and operate meteorological stations at the C&DD facility at locations selected to maximize the detection of hydrogen sulfide and other gases at and beyond the facility boundary. This section shall contain the following:
- (a) Selection of the number and locations of the meteorological stations necessary to characterize weather conditions at the facility and conditions affecting the transport of hydrogen sulfide and other gases.
  - (b) Procedures, equipment, and time frames for the installation and operation of meteorological stations. The contingency plan shall ensure that each meteorological station meets the following criteria:
    - (i) Be sited and located in accordance with EPA-454/R-99-005 or EPA-450/4-87-007 as described in rule 3745-500-03 of the Administrative Code.
    - (ii) Be capable of accurately measuring temperature, wind speed, wind direction, and barometric pressure on a continuous basis.
    - (iii) Record wind direction in one degree increments.
    - (iv) Be equipped with a data recording device capable of recording each reading.
    - (v) Be able to sample and record measurements at least three hundred sixty times per hour and generate thirty minute average data for all parameters as well as standard deviation and turbulence wind data for use in the calculation of atmospheric stability.
- (3) A section containing a description of how and when the owner or operator will install and operate continuous ambient air monitoring equipment at the C&DD facility to maximize the detection of hydrogen sulfide at and beyond the facility boundary at locations selected to evaluate the migration of odor to off-site receptors. This section shall contain the following:
- (a) Procedures for selecting the number and locations of continuous monitors to measure ambient air concentrations of hydrogen sulfide and other gases.
  - (b) Procedures for selection of equipment and time frames for the installation and operation of equipment. The contingency plan shall ensure that each continuous monitor conforms to and is operated in accordance with the following specifications:

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- (i) The equipment shall be capable of detecting hydrogen sulfide concentrations of five parts per billion by volume.
    - (ii) The equipment shall be compatible with a data recorder and data software.
    - (iii) The equipment shall take automated and continuous measurements.
    - (iv) The equipment shall perform an automated zero calibration at least once every twenty-four hours.
  - (c) Procedures to ensure that equipment is calibrated, operated, and maintained in accordance with manufacturer recommendations, instructions, and operating manuals, or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.
  - (d) Procedures to ensure that equipment is field calibrated at the facility prior to placing the equipment into operation at the facility.
  - (e) Procedures to ensure that all measurements are recorded and retained at the facility or other location acceptable to the licensing authority and such recorded measurements are made available upon the request of the Ohio EPA or the approved board of health.
  - (f) Procedures to ensure that records of equipment calibration and maintenance are retained at the facility or other location acceptable to the licensing authority and such records are made available upon the request of Ohio EPA or the approved board of health.
- (4) A section containing a description of the procedures, equipment, and time frames that the owner or operator will utilize to place transitional cover or construct a cap system on areas of the C&DD facility necessary to control the release of hydrogen sulfide or other gases. This section shall also contain the following:
- (a) An indication of whether transitional cover will be placed or a cap system will be constructed.
  - (b) Provisions for complying with applicable rules for placement of transitional cover or with applicable rules for design and construction of a cap system, whichever option is chosen.
- (5) A section containing a description of the procedures, equipment, and time frames that the owner or operator will utilize to construct and operate a gas management system to control the release of hydrogen sulfide or other gases. This section shall also contain the following:

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(a) A statement that the owner or operator will design and construct a gas management system in accordance with rule 3745-520-275 and Chapter 3745-512 of the Administrative Code.

(b) A statement that the owner or operator will operate and monitor a gas management system in accordance with rules 3745-520-665 and 3745-520-675 of the Administrative Code.

(c) Procedures and time frames that the owner or operator will utilize to obtain each necessary authorization pursuant to Chapter 3704. of the Revised Code.

[Comment: The design of the gas management system and construction specifications are not required to be included in the contingency plan.]

(6) Any other information requested by Ohio EPA or the approved board of health that is necessary to determine whether the owner or operator is prepared to provide effective action in response to a release of hydrogen sulfide gas or other gases created by the operation of the C&DD facility that pose a nuisance, cause an offensive odor, or pose a threat to public health or safety or the environment.

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3745-520-500

Construction and construction certification requirements.

- (A) An owner or operator shall comply with this chapter, Chapter 3745-512 of the Administrative Code, and authorizing documents when constructing an engineered component or a system of engineered components described in rule 3745-520-200 of the Administrative Code.
- (B) An owner or operator shall do the following for construction of an engineered component or a system of engineered components described in rule 3745-520-200 of the Administrative Code:
- (1) Submit notification to the licensing authority at least seven days prior to beginning construction of an engineered component.
  - (2) Perform the shear strength evaluation required by rule 3745-512-10 of the Administrative Code for the following engineered components that are included in the C&DD facility design. The evaluation shall be submitted to the licensing authority at least seven days prior to the intended use of the materials.
    - (a) Added geologic material.
    - (b) Structural fill material.
    - (c) Material for the recompacted soil liner in the liner system.
    - (d) Flexible membrane liner.
    - (e) Granular drainage layer, filter layer, cushion layer, and protective layer material.
    - (f) Geocomposite.
    - (g) Geotextile.
    - (h) Georeinforcements.
  - (3) Perform the shear strength evaluation required by rule 3745-512-10 of the Administrative Code for any stratigraphic unit in the in-situ foundation that was not anticipated and that may be more susceptible to slope failure than the stratigraphic units that were tested and reported in the application for the permit to install. The evaluation shall be submitted to the licensing authority at least seven days prior to construction on the in-situ foundation.

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- (4) Submit the results of pre-construction testing required by rule 3745-512-15 of the Administrative Code to the licensing authority at least seven days prior to the intended use of the materials.
- (5) Comply with the following if a recompacted soil liner is included in the C&DD facility design:

  - (a) Rule 3745-512-21 of the Administrative Code for the test pad.

    - (i) The owner or operator shall submit the test pad certification report to the concurring authority not later than fourteen days prior to the intended construction of the recompacted soil liner that was modeled by the test pad.
    - (ii) Construction of the recompacted soil liner shall not commence until the owner or operator has received concurrence from the concurring authority for the test pad certification report.
  - (b) Rule 3745-512-20 of the Administrative Code for the evaluation of the soils to be used to construct the recompacted soil liner. The evaluation shall be submitted to the concurring authority at least seven days prior to the intended use of the soils.
- (C) For construction certification reports required by rule 3745-512-50 of the Administrative Code, an owner or operator shall comply with the following:

  - (1) Submit the construction certification report to the concurring authority not later than sixty days after construction activities for the construction phase have been completed.
  - (2) Include results of all testing and verification that the applicable construction requirements in rules 3745-520-525, 3745-520-541, and 3745-520-549 of the Administrative Code have been met.
  - (3) If closure activities are being conducted because the permit to install has been revoked, paragraph (A)(1) of rule 3745-512-50 of the Administrative Code does not apply. Instead, the owner or operator shall submit with the construction certification report the following:

    - (a) A comparison of the engineered component to the revoked permit to install.
    - (b) If there is a design change to the C&DD facility that requires a new slope stability analysis, a geotechnical and stability analyses report prepared in the manner specified by rule 3745-511-10 of the Administrative Code. The geotechnical and stability analyses report shall include the following:

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- (i) A static stability analysis for final slopes that conforms to rule 3745-511-40 of the Administrative Code.
  - (ii) A seismic stability analysis for final slopes that conforms to rule 3745-511-50 of the Administrative Code.
- (4) If closure activities are being conducted before all final elevations have been reached and the permit to install has not been revoked, paragraph (D) of rule 3745-520-03 of the Administrative Code does not apply to a design change to the C&DD facility that requires a new slope stability analysis. Instead, the owner or operator shall submit with the construction certification report the following:
  - (a) Information necessary to demonstrate that the modification is at least equivalent to applicable rule requirements of this chapter.
  - (b) Information necessary to demonstrate that the modification is compatible with the unmodified requirements of the permit to install.
  - (c) Information necessary to demonstrate that the modification of the facility will not violate Chapters 3704., 3714., 3734., or 6111. of the Revised Code or rules adopted under those chapters.
  - (d) Information necessary to demonstrate that other approvals and authorizations including but not limited to approvals and authorizations issued pursuant to Chapters 3704. and 6111. of the Revised Code made necessary by the modification have been obtained.
  - (e) A geotechnical and stability analyses report prepared in the manner specified by rule 3745-511-10 of the Administrative Code. The geotechnical and stability analyses report shall include the following:
    - (i) A static stability analysis for final slopes that conforms to rule 3745-511-40 of the Administrative Code.
    - (ii) A seismic stability analysis for final slopes that conforms to rule 3745-511-50 of the Administrative Code.
- (5) If the approved board of health is the concurring authority, notify Ohio EPA of the submittal of a construction certification report concurrent to submitting the report to the approved board of health. The notification shall be in writing and shall contain sufficient detail to understand the scope and nature of the construction certification report.

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(6) Submit additional and identically complete copies of the construction certification report upon request from Ohio EPA or the approved board of health.

(7) Do the following upon the concurring authority's concurrence with an alteration contained within a construction certification report:

(a) Insert the revised drawings and other information that were stamped by and received from the concurring authority into the appropriate place in the permit to install.

(b) Update the index of alterations required by rule 3745-520-320 of the Administrative Code.

[Comment: Rule 3745-512-17 of the Administrative Code requires that an alternative construction material be approved prior to use of the material; therefore, a construction certification report cannot include a request for approval of an alternative material.]

(D) Concurring authority procedures for acting on a construction certification report.

(1) The concurring authority shall comply with procedures for concurrence of construction certifications in accordance with the following:

(a) If the permit to install has not been revoked, rule 3745-512-51 of the Administrative Code.

(b) If the permit to install has been revoked, rule 3745-512-52 of the Administrative Code.

(c) If the construction certification report contains a modification pursuant to paragraph (C)(4) of this rule, the concurring authority shall not concur with the construction certification report unless it determines the following:

(i) The modification is at least equivalent to applicable rule requirements of this chapter.

(ii) The modification is compatible with the unmodified requirements of the permit to install.

(iii) The modification of the facility will not violate Chapters 3704., 3714., 3734., or 6111. of the Revised Code or rules adopted under those chapters.

(iv) That other approvals and authorizations including but not limited to approvals and authorizations issued pursuant to Chapters 3704. and

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6111. of the Revised Code made necessary by the modification have been obtained.

(2) Upon concurrence with an alteration contained in a construction certification report, the concurring authority shall stamp the copies of the alteration request and any altered drawings and information with the word "Altered," the permit number, and the date of concurrence.

(3) Upon concurrence with a modification contained in a construction certification report pursuant to paragraph (C)(4) of this rule, the concurring authority shall stamp the copies of the construction certification report and any drawings and information regarding the modification with the word "Modified," the permit number, and the date of concurrence.

(4) Upon concurrence with a construction certification report and any alterations or any modifications pursuant to paragraph (C)(4) of this rule contained therein, the concurring authority shall retain and distribute copies of the construction certification report, concurrence letter, and any altered or modified drawings and information pursuant to rule 3745-500-130 of the Administrative Code.

(E) Alternative materials used to construct engineered components.

(1) An owner or operator may request approval of an alternative material to construct an engineered component in accordance with rule 3745-512-17 of the Administrative Code.

(2) An alternative material request shall be submitted in triplicate to the applicable authority identified in rule 3745-512-17 of the Administrative Code.

(3) If the approved board of health is the applicable authority, an owner or operator shall notify Ohio EPA of the submittal of an alternative material request concurrent to initially submitting the request to the approved board of health. The notification shall be in writing and shall contain sufficient detail to understand the scope and nature of the alternative material request.

(4) Upon request from Ohio EPA or the approved board of health, the owner or operator shall submit additional and identically complete copies of the alternative material request.

(F) Director or approved board of health procedures for acting on a request for approval of an alternative material to construct an engineered component.

(1) The applicable authority shall comply with rule 3745-512-17 of the Administrative Code.

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- (2) Upon approval of an alternative material, the authority shall stamp the copies of the alternative material request with the word "Approved" and the date of approval.
- (3) Copies of the approval letter and stamped copies of the alternative material request shall be retained and distributed by the applicable authority pursuant to rule 3745-500-130 of the Administrative Code.

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3745-520-525

Vegetated earthen berm and equivalent barrier construction.

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, test methods, federal rules, and federal statutory provisions referenced in this rule, see rule 3745-500-03 of the Administrative Code titled "Incorporation by reference."]

(A) Vegetated earthen berms and equivalent barriers shall conform to the following:

- (1) Not be comprised of solid waste or C&DD, except clean hard fill can be used.
- (2) If vegetation is included in the design, the surface of the earthen berm shall be of sufficient thickness and fertility to support a complete and dense cover of vegetation.
- (3) If comprised of an earthen berm, the surface of the berm shall be comprised of soil that results in a maximum erosion rate not exceeding five tons per acre per year as calculated using the "Universal Soil Loss Equation," "Revised Universal Soil Loss Equation," or the "Water Erosion Prediction Project Model" corresponding to the maximum slope length between ditches and assuming disturbed soils and assuming the soil is highly susceptible to rill erosion.
- (4) If comprised of an earthen berm, not later than seven days after construction, be covered with mulch or other material. The cover material shall result in a maximum erosion rate not exceeding five tons per acre per year as calculated using the "Universal Soil Loss Equation," "Revised Universal Soil Loss Equation," or the "Water Erosion Prediction Project Model" corresponding to the maximum slope length between ditches and assuming disturbed soils and assuming the soil is highly susceptible to rill erosion.

(B) Certification of the vegetated earthen berm or equivalent barrier by the owner or operator shall include the following:

- (1) Record drawings showing the location and topographic representation of the vegetated earthen berm or equivalent barrier, as constructed.
- (2) Results of all testing and verification the vegetated earthen berm or equivalent barrier meets the standards in paragraph (A) of this rule and the design specifications in the permit to install.

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3745-520-541

Leachate collection system granular drainage layer construction.

(A) If not underlying a leachate recirculation system, the granular drainage layer of the leachate collection system shall have a hydraulic conductivity at least 0.3 centimeters per second.

(B) If underlying a leachate recirculation system, the granular drainage layer of the leachate collection system shall have a hydraulic conductivity of at least two centimeters per second.

[Comment: In accordance with rule 3745-520-420 of the Administrative Code, shredded tires shall not be used.]

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3745-520-549

Leachate recirculation system construction.

Certification of construction of the leachate recirculation system by the owner or operator shall include certification for each engineered component included in the design of the leachate recirculation system in the manner specified in Chapter 3745-512 of the Administrative Code, as appropriate.

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3745-520-600

Operations - general obligations.

An owner or operator shall do the following:

(A) Dispose only the following materials at a C&DD facility:

(1) C&DD.

(2) Asbestos or asbestos-containing materials or products, excluding asbestos-containing waste materials unless disposal of asbestos-containing waste materials is authorized under Chapter 3704. of the Revised Code and by the licensing authority in the current license.

(B) Dispose material only within the authorized disposal limits as identified in the permit to install for the C&DD facility.

(C) Construct vegetated earthen berms or equivalent barriers if contained in the permit to install prior to disposing material in the disposal limits newly authorized by the permit to install.

(D) Upon issuance of the annual operating license, comply with the general plan of facility operations and conduct C&DD facility operations within the C&DD facility boundary only.

(E) Limit access to the C&DD facility to authorized persons only.

(F) Employ reasonable measures necessary to collect, contain, and properly dispose scattered litter at the C&DD facility. Measures may include but are not limited to frequently inspecting the facility, using portable wind screens, and ceasing disposal activities until litter can be collected and properly contained.

(G) Maintain roads within the C&DD facility in a manner that allows use in all weather conditions, which will withstand the anticipated degree of use, and will minimize erosion and generation of dust.

(H) Employ measures necessary to minimize the incidence of mud, dirt, and dust on public roads from vehicles leaving the C&DD facility.

(I) Exclude domestic and farm animals from the C&DD facility except those used for security or vector control.

(J) Post legible instructions for using the C&DD facility at each entrance to the facility. At a minimum, instructions shall include telephone numbers of emergency personnel including the local fire department, the approved board of health, and the appropriate district office of Ohio EPA, and whether the facility has authorization to dispose

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asbestos-containing waste materials. The instructions shall be readable from vehicles arriving to dispose material at the facility.

(K) Mow vegetative cover in areas where a cap system has been constructed at least once per year.

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3745-520-605

Topographic maps, isopachs, and exceedances of the vertical or horizontal authorized disposal limits.

(A) Not later than forty-five days after receiving a written request from Ohio EPA or the approved board of health, an owner or operator shall submit to Ohio EPA and the approved board of health a topographic map of the C&DD facility and an isopach comparing the topography of areas of the facility where material has been disposed to the authorized disposal limits. The maps shall represent existing contours of the facility and shall conform to this rule.

(B) When it is discovered that the topography of the C&DD facility exceeds the vertical or horizontal authorized disposal limits, the owner or operator shall do the following:

(1) Immediately notify Ohio EPA and the approved board of health.

(2) Not later than thirty days after the discovery, submit a work plan to Ohio EPA and the approved board of health that describes how the owner or operator will determine the extent, volume, and composition of the material exceeding the authorized disposal limits.

(3) Not later than sixty days after the discovery, implement the work plan. At a minimum, the owner or operator shall conduct tests at a frequency sufficient to determine the extent, volume, and composition of the exceedance.

(4) Provide a topographic map and isopach that conform to this rule to Ohio EPA and the approved board of health after the owner or operator has determined the extent, volume, and composition of the material exceeding the authorized disposal limits.

(C) Topographic maps.

(1) A topographic map of the C&DD facility shall be certified by a professional skilled in the appropriate discipline.

(2) The scale, contour interval, and grid system of a topographic map shall be consistent with the permit to install.

(3) A topographic map shall include the following:

(a) Delineation and acreage of constructed cap including the type of cap and the year the cap system was constructed.

(b) Delineation and acreage of areas containing disposed material that has not had a cap system constructed.

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(c) Delineation and acreage of areas that have been approved for disposal but have not been used.

(d) Access roads and buildings.

(e) Borrow areas and cover material stockpiles within the C&DD facility boundary.

(f) The C&DD facility boundary, horizontal authorized disposal limits, and horizontal limits of where material has been disposed.

(g) The location of the permanent survey marks.

## (D) Isopachs.

(1) An isopach shall compare the topography of areas of the C&DD facility where material has been disposed to the authorized disposal limits.

(2) An isopach shall be certified by a professional skilled in the appropriate discipline.

(3) The scale, contour interval, and grid system of an isopach shall be consistent with the permit to install.

(4) An isopach shall delineate the following:

(a) The C&DD facility boundary and the horizontal authorized disposal limits.

(b) The location of the permanent survey marks.

(5) If the topography of the C&DD facility exceeds the vertical or horizontal authorized disposal limits, an isopach shall include the following:

(a) A comparison that delineates the acreage where disposal of material exceeds the authorized disposal limits.

(b) Notes that indicate the composition, calculated volume in cubic yards, maximum depth, and average depth of the material exceeding the authorized disposal limits.

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3745-520-610

**Records management, log of operations, and log of odor complaints.**

(A) An owner or operator shall retain all authorizing documents at the C&DD facility or at another location acceptable to the licensing authority.

(B) An owner or operator shall maintain an index of alterations that have been concurred with since the permit to install was issued.

(C) Log of operations.

(1) An owner or operator shall complete a log of operations using the forms prescribed by the director, except that alternative forms may be used pursuant to paragraph (B)(2) of this rule.

(2) Alternative forms. An owner or operator shall submit an alternative form to the licensing authority at least fourteen days prior to the owner or operator using the alternative form. The owner or operator may use the alternative form unless not later than fourteen days from the date of submittal unless the licensing authority sends written notification to the owner or operator that the alternative form is unacceptable. Alternative forms for the log of operations may be either in paper or electronic format provided that all of the information requested on the prescribed forms is present.

(3) The log of operations shall be completed in accordance with the instructions on the forms prescribed by the director.

(4) The log of operations shall be completed and signed by personnel at the C&DD facility who are familiar with the operations of the facility.

(5) Completed logs of operations shall be retained at the C&DD facility or at another location acceptable to the licensing authority.

(6) If requested by Ohio EPA or the approved board of health, an owner or operator shall make logs of operations available for inspection during normal operating hours.

(7) If requested by Ohio EPA or the approved board of health, an owner or operator shall submit logs of operations or summaries of logs of operations to Ohio EPA and the approved board of health.

(D) Log of odor complaints.

(1) An owner or operator shall maintain a log of odor complaints received at the C&DD facility.

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- (2) Odor complaints shall be recorded in the log in chronological order.
- (3) The log of odor complaints shall be retained at the C&DD facility or at another location acceptable to the licensing authority.
- (4) If requested by Ohio EPA or the approved board of health, an owner or operator shall make the log of odor complaints available for inspection during normal operating hours.
- (5) If requested by Ohio EPA or the approved board of health, an owner or operator shall submit the log of odor complaints to Ohio EPA and the approved board of health.
- (6) The log of odor complaints shall contain the following:

  - (a) The date and time of receipt of the complaint.
  - (b) The date, time, and location the odor was experienced and a description of the odor if this information was provided in the complaint.
  - (c) The name and affiliation of the person submitting the complaint, if this information was provided in the complaint.
  - (d) A description of any investigation conducted by the owner or operator in response to the complaint.
  - (e) A description of any response taken by the owner or operator to reduce or eliminate the odor.

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3745-520-615

Routine facility inspections.

(A) Daily inspections. An owner or operator shall inspect a C&DD facility on each day material is accepted for disposal in accordance with the following:

(1) At least once for the following:

(a) Ponding of surface water.

(b) Erosion.

(c) Litter.

(d) Leachate outbreaks.

(e) Cover integrity.

(f) Leaks and failures of the leachate conveyance and storage components, pumps, and meters.

(g) Indications of gas generation and migration.

(h) Indications of a fire or explosion including but not limited to the following:

(i) Heat.

(ii) Light from embers, combustion, or oxidation.

(iii) Settlement of disposed material that is unexpected or abnormal.

(iv) Smoke, steam, or vapor.

(v) Smoldering material.

(vi) Soot, charred material, or combustion residue.

(vii) Abnormal snowmelt patterns.

(viii) Combustion odors.

(2) At least twice for odors in accordance with the following:

(a) The owner or operator shall at a minimum conduct odor inspections prior to the day's initial acceptance of material for disposal and following the day's final acceptance of material for disposal.

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(b) Odor inspections shall be conducted by the owner or operator using the following odor intensity reference scale:

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| <u>Level:</u> | <u>Descriptors:</u>  |
|---------------|--|
| <u>0</u>      | <u>A concentration of an odorant that produces no sensation.</u>                       |
| <u>1</u>      | <u>A concentration of an odorant that is barely detectable.</u>                        |
| <u>2</u>      | <u>A distinct and definite odor whose characteristic is clearly detectable.</u>        |
| <u>3</u>      | <u>An odor strong enough to cause a person to avoid it completely.</u>                 |
| <u>4</u>      | <u>An odor so strong as to be overpowering and intolerable for any length of time.</u> |

(c) To maximize the detection of odors, the owner or operator shall at a minimum conduct odor inspections by doing the following:

(i) Inspecting along the perimeter of disposed material and along the C&DD facility boundary.

(ii) Selecting additional locations within the C&DD facility when necessary based on previous inspections.

(iii) Stopping at each location where an odor is detected and evaluating the odor using the odor intensity reference scale.

(iv) During a subsequent inspection of the day, returning to each location where an odor was detected in a previous inspection for that day and reevaluating the odor using the odor intensity reference scale.

(B) Weekly inspections. Unless an alternative time is specified elsewhere in this chapter, an owner or operator shall inspect engineered components and systems of engineered components described in rule 3745-520-200 of the Administrative Code at least weekly for evidence of damage, clogging, or failure.

[Comment: Rule 3745-520-03 of the Administrative Code requires an owner or operator to comply with rules 3745-512-60 and 3745-520-500 to 3745-520-599 of the Administrative Code if damage to or failure of an engineered component occurs.]

[Comment: Compliance with paragraph (B) of this rule does not require destructive activities but does include observations made possible via inspection ports and equipment installed for the purpose of monitoring engineered components.]

(C) Inspection documentation. At a minimum, the following information regarding an inspection conducted in accordance with this rule shall be recorded in the log of operations:

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- (1) The time of the inspection and weather conditions at the time of the inspection.
- (2) A description of each affected area discovered during an inspection conducted in accordance with paragraph (A)(1) of this rule and the location of each affected area on a general map of the C&DD facility.
- (3) For odor inspections conducted in accordance with paragraph (A)(2) of this rule:
  - (a) Each location where odor was evaluated on a general map of the C&DD facility.
  - (b) Odor evaluation information, including intensity and general characterization of the odor, time of each odor observation, and source of the odor, if known.
- (4) A discussion of each response or corrective action taken and whether the response or corrective action was successful.
- (5) Whether any types of samples were taken, and if so, the type of sample and analysis results. Analysis results available after the date of the inspection shall be inserted into the log of operations for the day of the sampling event.

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3745-520-620

**Obligations prior to disposing in a phase.**

An owner or operator shall not begin disposing in a phase until the following have occurred:

- (A) The disposal limits in the previous phase have reached final elevations depicted in the approved phasing plan, except to the extent necessary for the proper operation of the C&DD facility, including the placement of the select C&DD layer pursuant to rule 3745-520-622 of the Administrative Code.
- (B) The owner or operator has completed construction of all engineered components shown on the drawing representing the phase in the approved phasing plan.
- (C) A construction certification report for the phase has been prepared and submitted to the concurring authority in accordance with rules 3745-520-500 and 3745-512-50 of the Administrative Code.
- (D) The concurring authority has inspected the phase and provided written concurrence in accordance with rules 3745-520-500 and 3745-512-51 of the Administrative Code.

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3745-520-622

Select C&DD layer.

(A) An owner or operator shall place select C&DD as the first layer disposed on a filter layer that is above a leachate collection system drainage layer. The select C&DD layer shall meet the following criteria:

(1) The select C&DD layer shall not contain asbestos-containing waste materials.

(2) The select C&DD layer shall not be comprised of fines or small particles that can restrict the flow of leachate to the leachate collection system drainage layer or clog the leachate management system.

(3) The select C&DD layer shall be placed in the following manner:

(a) As a single lift so that a minimum distance of five feet is created between the liner system and the next lift of material to be disposed.

(b) Be spread but not compacted.

(c) In a manner that protects the liner system and leachate collection system from intrusion of objects during operation of the C&DD facility.

(d) In a manner that does not damage the liner system or leachate collection system. At a minimum, material shall not be placed by pushing the material down a slope.

(B) An individual who is not the equipment operator shall be present at all times during placement of the select C&DD layer to observe placement of the select C&DD layer and confirm the leachate management system and the liner system are not damaged.

(C) An owner or operator shall submit notification to the licensing authority at least three days prior to the placement of the select C&DD layer.

(D) An owner or operator shall record in the log of operations the following information verifying the completion of placement of the select C&DD layer within a phase:

(1) The date that the select C&DD layer was placed.

(2) The phase where the select C&DD layer was placed.

(3) The thickness of the select C&DD layer.

(4) The composition of the material used for the select C&DD layer.

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3745-520-630      Unauthorized material.

[Comment: Only the material authorized by paragraph (A) of rule 3745-520-600 of the Administrative Code may be disposed at a C&DD facility.]

(A) An owner or operator shall not accept pulverized debris at a C&DD facility.

(B) Upon detection of unauthorized material after acceptance, an owner or operator shall ensure that the unauthorized material is managed in accordance with the following:

(1) Unauthorized material shall be handled, stored, transported, and disposed in accordance with applicable local, state, and federal requirements.

(2) Unauthorized material shall be managed in accordance with the material acceptance and handling plan.

(3) The information required in the log of operations regarding the unauthorized material shall be recorded in the log of operations.

(4) Pulverized debris.

(a) Upon detection of pulverized debris at the unloading zone of the C&DD facility or if the approved board of health or Ohio EPA requests removal of pulverized debris from the facility in accordance with section 3714.081 of the Revised Code, an owner or operator shall do either of the following:

(i) Immediately remove the pulverized debris from the facility.

(ii) In accordance with the material acceptance and handling plan, store the pulverized debris at the facility for not longer than ten days in an area where C&DD is not disposed.

(b) An owner or operator shall reject the pulverized debris in accordance with rule 3745-520-632 of the Administrative Code.

(5) Solid waste.

This paragraph does not apply to asbestos or asbestos-containing materials or products disposed in accordance with paragraph (A) of rule 3745-520-600 of the Administrative Code. An owner or operator shall comply with the following regarding solid waste:

(a) The owner or operator shall not dispose any solid waste at the C&DD facility.

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- (b) If solid waste is discovered on a working face or removal is requested by the approved board of health or Ohio EPA, the owner or operator shall immediately remove the solid waste from the working face.
- (c) The owner or operator shall not place any cover, C&DD, or other material on solid waste that is on a working face.
- (d) The existence of solid waste on a working face of a C&DD facility does not constitute a violation of Chapter 3714. of the Revised Code or rules adopted thereunder if the following apply:

  - (i) The owner or operator or the employees of the facility remove the solid waste from the working face immediately.
  - (ii) The waste constitutes not more than two cubic yards per one thousand cubic yards of C&DD or four cubic yards per one thousand tons of C&DD disposed at the facility based on the amount of C&DD disposed at the facility on the preceding full business day as determined by using the amount of disposal fees collected under section 3714.07 of the Revised Code for wastes disposed at the facility on that preceding full business day.
  - (iii) The facility is not located within the boundary of a sole source aquifer as described in division (B) of section 3714.03 of the Revised Code.

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3745-520-632

**Loads rejected at the unloading zone.**

(A) If an owner or operator of a C&DD facility rejects a load at the unloading zone of the facility because the load is not authorized for disposal at the facility or if the approved board of health or Ohio EPA requests removal of pulverized debris from the facility in accordance with section 3714.081 of the Revised Code, the owner or operator shall do the following:

- (1) Record the rejection of the load in the log of operations.
- (2) Prior or concurrent to removal of a rejected load from the C&DD facility, complete a rejected load form prescribed by the director. An owner or operator has successfully completed the form when all of the information is provided except for the item in paragraph (B)(8) of this rule, which applies to the transporter or shipper.
- (3) Give the transporter or shipper removing the rejected load from the C&DD facility a copy of the completed rejected load form described in paragraph (B) of this rule prior to the transporter or shipper departing from the facility.
- (4) Place a copy of the completed form in the log of operations.
- (5) Submit by the end of the working day during which the load was removed a copy of the completed form to the licensing authority.

(B) The rejected load form prescribed by the director shall contain at a minimum the following information:

- (1) The date and time the load was rejected.
- (2) A unique identification number of the vehicle, trailer, railcar, or other container that was used to transport the load to the facility and the origin of the load.
- (3) The name of the transporter or shipper that brought the load to the facility, if ascertainable.
- (4) The reason for rejecting the load.
- (5) The name of the transporter or shipper removing the load from the facility.
- (6) The date and time that the load was or is being removed from the facility.
- (7) Instructions for the transporter or shipper for complying with rule 3745-520-634 of the Administrative Code.

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(8) Places for the transporter or shipper to record the information required by rule 3745-520-634 of the Administrative Code.

(9) The name and mailing address of the licensing authority that has jurisdiction over the facility.

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3745-520-634

Transporter or shipper requirements regarding rejected loads.

[Comment: An owner or operator is required by rule 3745-520-632 to give a transporter or shipper removing a load rejected from a C&DD facility a rejected load form containing instructions for complying with this rule.]

(A) A transporter or shipper of a load that has been rejected pursuant to rule 3745-520-632 of the Administrative Code shall do the following after the load's rejection by a C&DD facility in order to notify the licensing authority of the ultimate disposition of the load:

(1) Complete the rejected load form described in paragraph (B) of rule 3745-520-632 of the Administrative Code in accordance with the following:

(a) Each transporter or shipper having custody of the rejected load shall record the following information on the rejected load form:

(i) Name and contact information.

(ii) The date and time the transporter or shipper took custody and relinquished custody of the rejected load.

(b) The transporter or shipper having final custody of the rejected load shall record the following information on the rejected load form:

(i) The date and time that one of the following occurred to the load:

(a) Ultimately disposed after its rejection.

(b) Relinquished to a licensed solid waste transfer facility.

(c) Relinquished to a location authorized to handle the material.

(ii) The location of the disposal, if known.

(iii) The name of the owner or operator of the location that accepted the load for disposal, if known.

(2) For the transporter or shipper having final custody of the rejected load, ensure that a copy of the completed rejected load form is submitted to the licensing authority listed on the rejected load form not later than fifteen days after relinquishing custody of the rejected load.

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(B) A transporter or shipper of a load that has been rejected pursuant to rule 3745-520-632 of the Administrative Code shall manage the load in accordance with applicable local, state, and federal laws and regulations.

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3745-520-640

**Acceptance, handling, and disposal.**

- (A) Except for material selected for inspection in accordance with paragraph (J) of this rule, an owner or operator shall take material arriving at the C&DD facility directly to the material log-in area.
- (B) While material is at the material log-in area, the owner or operator shall record in the log of operations whether the material has been accepted. No material may enter the disposal limits unless the material has been recorded as accepted in the log of operations.
- (C) Refused material. Material has been refused at a C&DD facility in the following circumstances:
- (1) After arriving at the facility, the material was not recorded in the log of operations and the material was immediately removed from the facility.
  - (2) The material was inspected in a designated inspection zone and then immediately removed from the facility.
  - (3) The material was inspected in a designated inspection zone, placed in the appropriate storage area in the inspection zone, stored, and then removed from the facility.
- (D) Main hauling road.
- (1) An owner or operator shall designate or use a road as a main hauling road only within the main hauling road areas specified in the facility design plan.
  - (2) An owner or operator shall not transport any material to be disposed to the disposal limits using a road that is outside of the main hauling road areas specified in the facility design plan.
  - (3) An owner or operator shall mark each road that is used to transport material between the facility boundary and the disposal limits to be disposed as a main hauling road in the manner described in the material acceptance and handling plan.
- (E) If material has been recorded as accepted in the log of operations, an owner or operator shall directly place the material in the unloading zone in accordance with paragraph (G) of this rule, except as follows:
- (1) Loads consisting of exclusively clean hard fill may be placed directly in a working face or used as fill material.

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- (2) Material may be taken directly to a storage area if the owner or operator has indicated in the material acceptance and handling plan that storage will occur at the C&DD facility.
- (3) Hot loads shall be taken directly to the hot load handling area and managed in accordance with paragraph (F) of this rule.
- (4) Asbestos-containing waste materials shall be placed in an asbestos-containing waste materials disposal area.

## (F) Hot load handling.

- (1) An owner or operator shall not establish the hot load handling area in a location where materials have been disposed.
- (2) To prevent a fire from a hot load, the owner or operator shall establish the hot load handling area a sufficient distance away from any working face, unloading zone, and combustible material.
- (3) An owner or operator shall mark the hot load handling area with at least four markers that clearly delineate the limits of the hot load handling area and that are observable by equipment operators.
- (4) An owner or operator shall establish the hot load handling area where the hot load handling area is easily accessible by equipment, materials, and services necessary to prevent the spread of fire and to extinguish fire.
- (5) After material has been recorded as accepted on the log of operations, an owner or operator shall ensure that any hot load is placed in the hot load handling area.
- (6) An owner or operator shall prevent a hot load from damaging engineered components of the C&DD facility.
- (7) An owner or operator shall prevent the spread of the fire and extinguish any fire while the material is in the hot load handling area.
- (8) Once extinguished or cooled, the owner or operator shall reject the material from the C&DD facility, store the material, or place the material into the unloading zone in accordance with paragraph (G) of this rule.
- (9) An owner or operator shall record information about each hot load placed in the hot load handling area in the log of operations.

## (G) Unloading zone.

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- (1) An owner or operator shall establish the unloading zone within the boundaries of the phase that has been certified for disposal.
- (2) An owner or operator shall establish the unloading zone at least one hundred feet away from an area where disposal of asbestos-containing waste materials is being conducted.
- (3) An owner or operator shall mark the unloading zone with at least four markers that clearly delineate the limits of the unloading zone and that are observable by equipment operators.
- (4) An owner or operator shall remove unauthorized material from the unloading zone. If unauthorized material is found in the unloading zone, the owner or operator shall comply with rules 3745-520-630 and 3745-520-632 of the Administrative Code (unauthorized material and loads rejected at the unloading zone).

[Comment: Except for pulverized debris placed in a designated inspection zone, if pulverized debris is recorded in the log of operations or unloaded anywhere within the C&DD facility, including in the unloading zone, it is a violation of division (A) of section 3714.081 of the Revised Code and rule 3745-520-630 of the Administrative Code.]

- (5) An owner or operator may remove material to be stored from the unloading zone if the owner or operator has indicated in the material acceptance and handling plan that storage will occur at the C&DD facility.
- (6) After an owner or operator has complied with paragraphs (G)(4) and (G)(5) of this rule, an owner or operator shall place material remaining in the unloading zone directly in a working face in accordance with paragraph (H) of this rule.

(H) Working face.

- (1) An owner or operator shall establish a working face within the boundaries of the phase that has been certified for disposal.
- (2) An owner or operator shall establish a working face at least one hundred feet away from an area where disposal of asbestos-containing waste materials is being conducted.
- (3) An owner or operator shall mark a working face with at least four markers that clearly delineate the limits of the working face and that are observable by equipment operators.

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- (4) An owner or operator shall not have more than one working face at the C&DD facility unless the use of multiple working faces is authorized in the material acceptance and handling plan.
- (5) An owner or operator shall establish a working face that is the smallest area necessary for operations.
- (6) An owner or operator shall ensure that material is spread evenly over the working face and compacted to the smallest practical volume.
- (7) An owner or operator shall ensure that material is placed or spread in the working face in lifts.
- (8) An owner or operator shall not place disposed material in a manner that creates a cliff or a high steep face of disposed material.
- (9) An owner or operator shall ensure that material is disposed in a manner that does not damage engineered components.
- (10) An owner or operator shall ensure that material is disposed in a manner such that the slope or height of the interim slope does not exceed the slope limits established in the permit to install or license or through the geotechnical and stability analyses conducted pursuant to rules 3745-511-40 and 3745-511-50 of the Administrative Code.
- (11) Upon detection of unauthorized material at a working face, an owner or operator shall comply with rule 3745-520-630 of the Administrative Code.

(I) Storage areas.

If an owner or operator has been authorized and has chosen to store material at the C&DD facility, the owner or operator shall do the following:

- (1) Ensure that storage does not cause a nuisance, a fire hazard, or a threat to public health or safety or the environment, does not violate Chapter 3704., 3714., 3734., or 6111. of the Revised Code, and does not cause or contribute to air or water pollution.
- (2) Ensure that unauthorized material is stored and removed from the C&DD facility in accordance with applicable rules.
- (3) Mark each storage area including an area that consists solely of one or more portable containers with at least four markers that clearly delineate the limits of the storage area and that are observable by equipment operators.

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- (4) Ensure that unauthorized material is not stored at the C&DD facility for longer than ten days unless a longer time frame is approved in the current license.
- (5) Store material containing solid waste in accordance with the time frames for storage of solid waste in Chapter 3734. of the Revised Code and rules adopted thereunder.
- (6) Store asbestos-containing waste materials in accordance with Chapter 3704. of the Revised Code and any authorization issued thereunder.
- (7) Document the date and quantity of material when removed, recycled, reused, or disposed from the storage area.

## (J) Inspection zone.

- (1) An owner or operator shall ensure that material is not placed in an inspection zone unless an owner or operator has designated an inspection zone in the material acceptance and handling plan.
- (2) An owner or operator shall ensure that material is not stored in an inspection zone unless the material acceptance and handling plan contains provisions for storage within the inspection zone. Storage within the inspection zone shall conform to paragraph (I) of this rule.
- (3) If an owner or operator has designated an inspection zone in the material acceptance and handling plan and has chosen to use the inspection zone, the owner or operator shall do the following:
  - (a) Ensure that the inspection zone conforms to the following:
    - (i) Has a push wall or some other method to ensure that material is contained within the inspection zone while it is being unloaded, moved, or reloaded.
    - (ii) Has a minimum of at least four markers that clearly delineate the limits of the inspection zone and that are observable by equipment operators.
    - (iii) Can be easily accessed by equipment, materials, and services necessary to prevent the spread of fire and extinguish a fire.
  - (b) Take material selected for inspection directly to the inspection zone after the material arrives at the C&DD facility.
  - (c) After inspecting the material, if the material is not refused in accordance with paragraph (C) of this rule, take the material directly to material log-in area and comply with paragraphs (B) to (I) of this rule.

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- (d) Place hot loads designated for inspection in the inspection zone in a manner that does not cause a fire or result in the spread of fire.
- (e) Extinguish material that is within the inspection zone that is on fire.
- (4) If an owner or operator removes material from a storage area within the inspection zone to transport the material to a storage area outside the inspection zone but at the C&DD facility, the owner or operator shall do the following:
  - (a) First take the material directly to the material log-in area.
  - (b) Comply with paragraphs (B), (E), and (I) of this rule.

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3745-520-642

Phase completion.

- (A) Not later than thirty days after completing disposal in a phase, an owner or operator shall survey the top of the disposed waste and create a topographic map and isopach of the C&DD facility that conform to rule 3745-520-605 of the Administrative Code. The drawings shall be made available to the approved board of health and Ohio EPA upon request.
- (B) Not later than thirty-one days after beginning disposal in a new phase, an owner or operator shall begin constructing either cap system or transitional cover over those areas of the previous phase in accordance with the phasing plan.

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3745-520-650

Control of surface water and ground water to minimize leachate generation.

To control surface water and ground water in order to minimize the generation of leachate, an owner or operator shall do the following:

- (A) Grade the C&DD facility and provide drainage and diversion structures or systems to minimize infiltration of water through the cover material and cap system and to minimize erosion of the cover material and cap system.
- (B) Eliminate conditions causing ponding or erosion over disposed material.
- (C) Eliminate conditions causing silting or scouring in surface water drainage structures.
- (D) Divert surface water that originates outside of the boundaries of disposed material away from disposed material in a manner such that water is not directed under, over, or through disposed material.
- (E) Divert ground water from all phases of the C&DD facility by non-mechanical means once disposal commences at the facility.

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3745-520-652

**Leachate management and disposal.**

(A) Leachate management system operation. An owner or operator shall do the following:

(1) Operate the leachate management system to collect leachate from each area in the C&DD facility in which a leachate collection system has been installed.

(2) Keep leachate generated by disposed material within the certified portions of the leachate management system until the leachate is removed from the C&DD facility.

(3) Operate the leachate management system such that all collected leachate is conveyed to a leachate storage tank, leachate treatment works, or discharge connection to a public sewerage system, as specified in the permit to install.

(4) Record the quantity of leachate conveyed in the log of operations.

(5) Operate the leachate management system such that depth of leachate above the basal elevations of the leachate collection system drainage layer will not exceed one foot, except in sumps.

(6) Record all incidents of activation of the leachate high level alarm in the log of operations.

(7) Have at least one back-up pump at the C&DD facility at all times unless the leachate management system functions entirely upon gravity flow. An owner or operator shall place a back-up pump into service as needed to comply with paragraph (A)(3) of this rule. Not later than seven days after a pump is replaced, the owner or operator shall submit a construction certification report for the installation of the replacement pump in accordance with rules 3745-520-500, 3745-512-50, and 3745-512-436 of the Administrative Code.

(8) Not later than thirty days after placing the select C&DD layer over any of the leachate collection pipes, visually or physically inspect the leachate collection pipes for evidence of damage or failure including but not limited to deflection, deformation, or crushing. An owner or operator shall record documentation of this inspection in the log of operations and submit the documentation to the concurring authority with a construction certification report if repair or reconstruction is necessary.

[Comment: Rule 3745-520-03 of the Administrative Code requires an owner or operator to comply with rules 3745-512-60 and 3745-520-500 to 3745-520-599 of the Administrative Code if damage to or failure of an engineered component occurs.]

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(9) An owner or operator shall annually inspect the leachate collection pipes for clogging or obstruction. If any pipe is clogged or obstructed, the owner or operator shall remove the clog or obstruction.

(B) Leachate management in areas not underlain by a leachate management system.

If an owner or operator places C&DD or waste on the ground in an area of the C&DD facility not required to be underlain by a leachate management system, the owner or operator shall do the following in that area:

(1) Take action to minimize the production of leachate.

(2) Collect and contain leachate within the area and prevent leachate from discharging to waters of the state.

(3) Remove leachate from each area by the end of each working day.

(4) If they exist, maintain the structures or mechanisms used for the collection or containment of leachate to prevent blockage, clogging, leakage, or damage that may impede proper collection or containment of leachate.

[Comment: Examples of areas that may be subject to this rule are an inspection zone, a hot load handling area, and a storage area.]

(C) If a leachate outbreak occurs at the C&DD facility, an owner or operator shall at a minimum repair the outbreak and properly manage leachate from the outbreak by doing at a minimum the following:

(1) Containing and collecting the leachate and disposing the leachate and leachate-contaminated materials in accordance with paragraph (D) of this rule.

(2) Taking action to minimize, control, or eliminate the conditions that contribute to the production of leachate.

(D) An owner or operator shall manage and dispose leachate and leachate-contaminated materials in accordance with local, state, and federal requirements.

(E) An owner or operator shall implement the contingency plan for the storage, treatment, and disposal of leachate if leachate can no longer be treated and disposed in accordance with the permit to install.

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3745-520-654

Leachate recirculation system operation.

(A) An owner or operator shall not operate a leachate recirculation system unless the following criteria are met:

(1) The design of the leachate recirculation system is approved in the permit to install.

(2) Operation of the leachate recirculation system is authorized in the current license.

(3) A gas management system is being operated to control hydrogen sulfide or other gases in the phase where leachate is to be recirculated.

(4) Ground water monitoring is being performed in accordance with rule 3745-520-06 and Chapter 3745-506 of the Administrative Code and the C&DD facility is not conducting a ground water assessment program or a ground water corrective actions program.

(5) The leachate sampling and analysis plan conforms to rule 3745-520-460 of the Administrative Code and leachate sampling and analysis is being performed in accordance with rule 3745-520-660 of the Administrative Code.

(B) An owner or operator shall not apply more than 4.3 gallons of leachate to any given cubic yard of area where material is disposed. The owner or operator shall record in the log of operations the amount of leachate applied to an area where material is disposed.

(C) An owner or operator shall operate a leachate recirculation system in a manner that prevents leachate outbreaks and leachate ponding.

(D) An owner or operator shall cease recirculating leachate if any of the following occur:

(1) The gas collection and conveyance system or gas control system becomes inoperable. This paragraph does not apply during periods of startup, shutdown, or malfunction, provided that the duration of startup, shutdown, or malfunction does not exceed five days.

(2) The leachate storage tank is full.

(3) Leachate outbreaks or leachate ponding.

(4) The leachate recirculation system or leachate management system or an engineered component of either fails.

(5) A slope failure.

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- (6) The owner or operator is conducting a ground water assessment or ground water corrective actions program.
- (7) The fire and explosion contingency plan is required to be implemented for a subsurface fire.
- (8) The hydrogen sulfide and other gases contingency plan is required to be implemented.
- (9) The volume of leachate applied to disposed material has exceeded the volume specified in paragraph (B) of this rule.
- (10) The owner or operator permanently ceases acceptance of material for disposal.

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3745-520-660

Leachate sampling, analysis, and reporting.

[Comment: Chapter 3745-506 of the Administrative Code requires an owner or operator to monitor ground water for parameters that have been detected in the C&DD facility's leachate.]

(A) The owner or operator shall comply with the leachate sampling and analysis plan.

(B) Sampling frequency.

(1) An owner or operator shall sample leachate at the C&DD facility at least annually.

(2) If an owner or operator has authorization in a current license to recirculate leachate, the owner or operator shall sample leachate at the C&DD facility at least quarterly.

(C) Sampling locations. During each sampling event, an owner or operator shall obtain at least one representative leachate sample from each phase containing disposed material. Each sample shall be collected from a sampling access identified in the facility design plan.

(D) Field analysis. During each leachate sampling event, an owner or operator shall measure the pH, specific conductance, temperature, and turbidity of each leachate sample.

(E) Laboratory analysis.

(1) An owner or operator shall analyze each leachate sample for the parameters listed in rule 3745-506-703 of the Administrative Code.

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

(a) Protective of public health and safety and the environment.

(b) 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.

(3) For each sample the PQL shall be 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.

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(4) If the PQL does not comply with paragraph (E)(3) of this rule then an owner or operator shall do one of the following:

(a) Choose an alternative analytical method that will result in a PQL that complies with paragraph (E)(3) of this rule.

(b) Conclude that the parameter has been detected in leachate for the purpose of conducting ground water detection monitoring under Chapter 3745-506 of the Administrative Code.

(F) Submitting the sampling and analysis results.

(1) The information required by paragraph (F)(2) of this rule shall be submitted to Ohio EPA and the approved board of health as follows:

(a) An owner or operator that is not authorized in a current license to recirculate leachate shall submit the information in the annual operational report required by rule 3745-520-695 of the Administrative Code.

(b) An owner or operator that is authorized in a current license to recirculate leachate shall submit the information not later than seventy-five days after each quarterly sampling event.

(2) An owner or operator shall submit the following information when required by paragraph (F)(1) of this rule:

(a) The results of the field analysis required by paragraph (D) of this rule.

(b) The results of the laboratory analysis of the parameters listed in rule 3745-506-703 of the Administrative Code in the same order as those listed in that rule.

(c) All other parameters detected in the C&DD facility's leachate through the laboratory analysis method.

(d) The parameters that were added to the ground water monitoring parameter list in the C&DD facility's ground water monitoring plan.

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

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

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

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(3) The information required by paragraph (F)(2) of this rule shall be signed and certified by a professional skilled in the appropriate discipline.

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3745-520-665

**Gas management system operation.**

An owner or operator shall comply with this rule if a gas management system has been installed at the C&DD facility.

(A) Gas management system operations. An owner or operator shall do the following:

- (1) Extract gas from each area of the C&DD facility in which gas collection devices have been installed.
- (2) Vent collected gas to the atmosphere or convey collected gas to a gas control device, whichever is authorized in applicable authorizing documents and regulations.
- (3) Operate the gas management system in a manner that prevents fire and controls odors.
- (4) Perform cover maintenance to prevent ambient air infiltration into disposed material.
- (5) Keep the gas management system free of liquids to the extent necessary to maintain the function of the gas management system.

(B) Gas collection device operations. An owner or operator shall operate a gas collection device in accordance with the following:

- (1) Negative pressure shall be maintained at each gas well wellhead except during the following circumstances:
  - (a) When an increased temperature is measured and the owner or operator takes measures to prevent a subsurface fire.
  - (b) When a subsurface fire is occurring in the vicinity of the well and the owner or operator takes measures to respond to the fire.
- (2) For gas from a gas collection device going through disposed material:
  - (a) The temperature shall not exceed one hundred thirty degrees Fahrenheit.
  - (b) The nitrogen concentration shall not exceed twenty per cent by volume.
  - (c) The oxygen concentration shall not exceed five per cent by volume.

(C) If monitoring of the gas management system pursuant to rule 3745-520-675 of the Administrative Code indicates positive pressure during circumstances other than

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those specified in paragraph (B)(1) of this rule or if monitoring indicates an exceedance of a value in paragraph (B)(2) of this rule (temperature, nitrogen, or oxygen), the owner or operator shall do the following:

(1) Prevent additional occurrences of positive pressure and additional exceedances of values in paragraph (B)(2) of this rule while performing maintenance, adjustments, or other corrective actions.

(2) For an exceedance of a value in paragraph (B)(2) of this rule, the following:

(a) Perform cover maintenance and maintenance of the gas collection device and connections to reduce air infiltration not later than five days after the monitoring event. Remonitor the gas collection device not later than one calendar day after performing maintenance.

(b) If a gas collection device is connected to a gas mover, adjust the vacuum to reduce the gas extracted not later than five days after the monitoring event. Remonitor the gas collection device not later than one calendar day after the adjustment.

(c) If the correction of the exceedance cannot be achieved not later than fifteen calendar days after the original monitoring event, notify the licensing authority in writing of the exceedance and of the actions that the owner or operator plans to take to correct the exceedance.

(3) For positive pressure, the following:

(a) Adjust the vacuum to increase the gas extracted not later than five days after the monitoring event. Remonitor the gas well not later than one calendar day after the adjustment.

(b) Do one or more of the following not later than one hundred twenty days after the original monitoring event if negative pressure cannot be achieved within fifteen calendar days of the original monitoring event, unless the monitoring event occurred during the first one hundred eighty days after gas collection system startup:

(i) Replace the gas well or expand the gas management system.

(ii) Upgrade the gas mover equipment, header pipe, or control device.

(iii) Alter the gas management system design in the permit to install to incorporate new or different components if the design of the gas management system is documented in the permit to install.

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This paragraph does not apply during periods of startup, shutdown, or malfunction, provided that the duration of startup, shutdown, or malfunction does not exceed five days for the gas collection and conveyance systems and does not exceed one hour for control devices.

(D) Gas control device operations. If a gas control device exists, an owner or operator shall operate the gas control device in accordance with the following:

- (1) At all times when the collected gas is conveyed to the control device.
- (2) In accordance with applicable authorizations and regulations pertaining to air pollution control.

(E) In the event a component of the gas management system is inoperable, an owner or operator shall comply with the following:

- (1) Not later than one hour after discovering the inoperable component, close all valves in the gas management system contributing to venting of the gas to the atmosphere.
- (2) Record the incident in the log of operations. The record shall contain a description of any response or corrective actions taken and the effectiveness of the response or corrective action, including the date and time that the inoperable component was discovered and the date and time that the operation of the component resumed.

(F) Decommissioning a gas well or gas vent. An owner or operator shall decommission a gas well or gas vent in a manner that prevents infiltration of air and water into disposed material. If the gas well or gas vent penetrated the cap system, an owner or operator shall do the following:

- (1) Remove any casing to a minimum of two feet below the ground surface.
- (2) If casing remains within the cap system, cap the gas vent or gas well.
- (3) If casing remains but is no longer present within the cap system, place fill material in the remaining casing or cap the gas vent or gas well.
- (4) If all casing is removed, place fill material in the remaining borehole.
- (5) Construct cap system engineered components in the area of the penetration to maintain the continuity of the cap system.
- (6) Submit a construction certification report prepared in accordance with rules 3745-520-500 and 3745-512-50 of the Administrative Code for the activities required by paragraph (F) of this rule.

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3745-520-670

Fire and explosion prevention, investigation, and response;  
implementation of the fire and explosion contingency plan.

(A) Prevention. An owner or operator shall do the following:

- (1) Prohibit smoking near combustible material.
- (2) Operate the C&DD facility in a manner that prevents fire from occurring in disposed material and in C&DD and waste being stored, reused, or recycled at the facility. This paragraph does not apply to hot loads handled in accordance with rule 3745-520-640 of the Administrative Code.
- (3) Operate the C&DD facility in a manner that prevents explosion including but not limited to explosions in confined spaces, occupied structures, and other places where explosive gases may accumulate.
- (4) Maintain at or near the C&DD facility or have available to the facility adequate equipment, material, and services to prevent the spread of fire and extinguish fire. At a minimum, the owner or operator shall ensure that the equipment, materials, and services described in the fire and explosion contingency plan are at or available to the facility.
- (5) At least weekly, cover disposed combustible material with non-combustible soil or non-combustible clean hard fill. Cover material shall be placed in a manner such that it minimizes void spaces, inhibits the ability of oxygen to reach combustible material, and covers all disposed combustible material so that it is not visible. The date the cover was placed and the location, area, and type of the placed cover shall be recorded in the log of operations.

(B) Investigation.

This paragraph applies only to fires and explosions in disposed material and in C&DD and waste being stored, reused, or recycled at the facility and does not apply to hot loads handled in accordance with rule 3745-520-640 of the Administrative Code.

- (1) If an indication of fire or explosion as described in paragraph (A)(1)(h) of rule 3745-520-615 of the Administrative Code is found during an inspection or at any other time, an owner or operator shall do one of the following:
  - (a) Acknowledge there is a fire or explosion by complying with paragraph (C) of this rule.
  - (b) Determine whether a fire or explosion is occurring or has occurred.

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(2) When investigating, an owner or operator shall verbally notify the licensing authority prior to disturbing buried disposed material. The owner or operator shall send written notification to the licensing authority not later than seven days after delivery of the verbal notification.

(3) Investigation activities and results shall be recorded in the log of operations.

(4) If an owner or operator determines there is a fire or explosion, an owner or operator shall comply with paragraph (C) of this rule.

(C) Response.

This paragraph applies only to fires and explosions in disposed material and in C&DD and waste being stored, reused, or recycled at the facility and does not apply to hot loads handled in accordance with rule 3745-520-640 of the Administrative Code.

(1) Upon detection of a fire or explosion, an owner or operator shall do the following:

(a) Prevent the spread of the fire and extinguish the fire.

(b) Implement the fire and explosion contingency plan.

(c) Delineate the extent of the fire or the area affected by the explosion.

(d) Evaluate slope stability and the integrity of the engineered components.

(e) Record the incident in the log of operations. The record shall contain a description of any response or corrective actions taken and the effectiveness of the response or corrective action.

(f) Notify Ohio EPA and the approved board of health not later than twenty-four hours after detection of the fire or explosion. The notification shall contain the following information:

(i) A description of the incident.

(ii) Whether the fire department or other emergency personnel have entered the C&DD facility in response to the incident.

(iii) Whether the integrity or effectiveness of any engineered component at the C&DD facility has been damaged or has failed as a result of the fire or explosion, if this information is known at the time of notification.

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(2) Upon a measurement equal to or greater than twenty-five per cent of the lower explosive limit of an explosive gas within a structure or confined space, an owner or operator shall do the following immediately:

(a) Evacuate the area to a safe distance.

(b) Eliminate ignition sources.

(c) Notify the fire department, Ohio EPA, and the approved board of health.

(D) Continued compliance with a fire and explosion contingency plan.

(1) An owner or operator shall continue to comply with an implemented fire and explosion contingency plan until the owner or operator has obtained written authorization from the licensing authority releasing the owner or operator from the obligation to comply with the contingency plan.

(2) The licensing authority may decline to act on a request for such an authorization.

(3) If the licensing authority chooses to act on the request, the licensing authority may release the owner or operator from the obligation to comply with the contingency plan if the licensing authority determines that the fire or explosion has been remedied.

(4) If the licensing authority grants authorization releasing the owner or operator from the obligation to comply with the contingency plan, the licensing authority shall retain and distribute copies of the authorization pursuant to rule 3745-500-130 of the Administrative Code.

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3745-520-675

Monitoring to determine whether a gas management system is being properly operated and to detect fire; responses required based on monitoring results.

(A) An owner or operator shall conduct monitoring in accordance with this rule to determine whether a gas management system, if one exists at the facility, is being properly operated and to detect fire.

(B) Equipment and methods.

(1) Temperature shall be determined using monitoring equipment with an accuracy of plus or minus 2.8 degrees Fahrenheit.

(2) Carbon monoxide concentration of gas shall be determined using appropriate laboratory techniques suitable for the constituent concentration expected.

[Comment: Ohio EPA recommends using ASTM D1945-03, ASTM D1946-90, and USEPA methods 3C, 10B, and 25C, as described in rule 3745-500-03 of the Administrative Code.]

(C) Borings. At any time a boring is made into disposed material, an owner or operator shall monitor the temperature of the disposed material and the temperature of the gas within the boring.

(D) Monthly monitoring. An owner or operator shall monitor each gas collection device at least monthly for the following:

(1) Temperature of the gas.

(2) Nitrogen concentration of the gas.

(3) Oxygen concentration of the gas.

(4) Carbon dioxide concentration of the gas.

(5) Hydrogen sulfide concentration of the gas.

(6) Pressure if the gas collection device is a gas well.

(E) Quarterly monitoring. An owner or operator shall monitor the temperature of gas within leachate cleanout access pipes and leachate sump risers at least quarterly.

(F) When monitoring indicates that the temperature of the gas exceeds one hundred thirty degrees Fahrenheit but is below one hundred fifty degrees Fahrenheit, an owner or operator shall do the following:

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- (1) If the location demonstrating the exceedance is a gas collection device, do the following:
- (a) Respond to the exceedance in accordance with the gas management system operation requirements in rule 3745-520-665 of the Administrative Code.
  - (b) If correction of the exceedance cannot be achieved not later than fifteen days after the original monitoring event, comply with paragraph (J) of this rule not later than twenty days after the original monitoring event.
- (2) If the location demonstrating the exceedance is not a gas collection device, re-monitor the location of the exceedance to determine the temperature of the gas not later than five days after the original monitoring event. If re-monitoring reveals that the temperature exceeds one hundred thirty degrees Fahrenheit, an owner or operator shall comply with paragraph (J) of this rule not later than five days after the re-monitoring event.
- (G) When monitoring indicates that the temperature of the gas is at or above one hundred fifty degrees Fahrenheit, an owner or operator shall comply with paragraph (J) of this rule not later than five days after the monitoring event and shall respond to the exceedance in accordance with the gas management system operation requirements in rule 3745-520-665 of the Administrative Code if the location demonstrating the exceedance is a gas collection device.
- (H) When monitoring indicates positive pressure at a gas well, an owner or operator shall respond to the positive pressure in accordance with the gas management system operation requirements in rule 3745-520-665 of the Administrative Code.
- (I) When monitoring of gas in a gas collection device indicates that the nitrogen concentration exceeds twenty per cent by volume or the oxygen concentration exceeds five per cent by volume, an owner or operator shall respond to the exceedance in accordance with the gas management system operation requirements in rule 3745-520-665 of the Administrative Code.
- (J) When required by paragraph (F) or (G) of this rule, an owner or operator shall conduct additional gas monitoring to determine the following:
- (1) Temperature of the gas where the temperature is monitored pursuant to paragraphs (C) to (E) of this rule.
  - (2) Temperature of gas within the leachate collection pipes, if the location of the exceedance is a leachate cleanout access pipe or leachate sump riser.
  - (3) Temperature profile of the location of the exceedance, if the original exceedance was at or above one hundred fifty degrees Fahrenheit and if the location of the

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exceedance is a vertical boring or vertical engineered component. A temperature measurement shall be taken at least once every ten feet.

(4) Carbon dioxide concentration.

(5) Nitrogen concentration.

(6) Oxygen concentration.

(7) Hydrogen sulfide concentration.

(8) Carbon monoxide concentration in parts per million by volume and pressure, if the location of the exceedance is a gas well.

(K) Monitoring documentation.

(1) At a minimum, an owner or operator shall record the following information regarding monitoring conducted in accordance with this rule in the log of operations:

(a) The time of the monitoring event and weather conditions at the time of monitoring.

(b) The monitoring location.

(c) The parameters that were monitored.

(d) Monitoring results available on the date of monitoring.

(e) A discussion of each response or corrective action taken.

(2) An owner or operator shall insert the monitoring results available after the date of monitoring into the log of operations for the day of the monitoring event.

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3745-520-680

Hydrogen sulfide and other gases and odors - prevention and investigation of releases; implementation of the hydrogen sulfide and other gases contingency plan.

(A) Prevention. An owner or operator shall do the following:

- (1) Operate the C&DD facility in a manner that minimizes the release of hydrogen sulfide or other gases created by the operation of the C&DD facility.
- (2) Prevent a nuisance, offensive odor, threat to public health or safety or the environment, air pollution, or contribution to air pollution, from the release of hydrogen sulfide or other gases created by the operation of the C&DD facility.

(B) Investigation of the source of odors.

- (1) An owner or operator shall commence investigating the source of odors not later than seven days after the frequency, duration, or intensity of odors at the C&DD facility increases, as determined through routine facility inspections conducted in accordance with rule 3745-520-615 of the Administrative Code.
- (2) An investigation shall include at a minimum complying with paragraphs (C) and (D) of this rule to investigate whether a release of hydrogen sulfide or other gases is a source of the odors.
- (3) An odor investigation shall be conducted for a period of ninety days.
- (4) An owner or operator shall record in the log of operations the steps of the investigation and any actions taken to remediate the odor during the investigation.
- (5) Portable equipment used to measure ambient air concentrations of hydrogen sulfide and other gases shall conform to and be operated in accordance with paragraph (E) of this rule.

(C) Ambient air monitoring using portable equipment.

When an odor investigation in accordance with paragraph (B) of this rule is occurring, an owner or operator shall do the following:

- (1) While conducting an odor inspection in accordance with rule 3745-520-615 of the Administrative Code, use portable equipment to take at least one measurement of the ambient air concentration of hydrogen sulfide and other gases at each location where an odor is evaluated using the odor intensity reference scale.

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(2) Record each measurement in the log of operations.

(D) Surface emissions surveys.

(1) To evaluate the emissions of hydrogen sulfide and other gases from areas of disposed material, an owner or operator shall conduct a surface emissions survey at least weekly and in accordance with the following:

(a) Using portable equipment to measure ambient air concentrations of hydrogen sulfide and other gases from a consistent height near the surface of disposed material.

(b) Consisting of measurements taken along the perimeter of areas of disposed material and along a pattern that traverses the areas of disposed material at intervals no greater than one hundred feet apart and where visual observations are indicative of elevated concentrations of gas emissions.

(c) Consisting of measurements taken approximately fifty feet apart along the perimeter of areas of disposed material and along the traversing pattern and at intervening distances where pronounced odors are detected during the survey.

(d) At a time and during weather conditions conducive to evaluating surface emissions.

(2) An owner or operator shall complete a surface emissions survey report that includes the following:

(a) The date and time the survey was conducted.

(b) Weather conditions at the time of the survey.

(c) A topographic map that conforms to rule 3745-520-605 of the Administrative Code and includes the following:

(i) Delineation of the monitoring route taken.

(ii) The location of each measurement and the result.

(iii) The wind direction.

[Comment: An owner or operator may use the topographic map submitted in the most recent annual operational report to report the results of surface emissions surveys.]

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(d) The name, mailing address, and telephone number of the person who conducted the surface emissions survey.

(e) An evaluation of the survey results.

(f) A summary of the results of the ambient air monitoring required by paragraph (C) of this rule updated to the date of the surface emissions survey.

(g) A description of any actions taken to minimize the release of hydrogen sulfide or other gases by the owner or operator in response to surface emissions survey or ambient air monitoring results. This description shall include the date when and the location where each action was performed.

(3) Not later than five days after each surface emissions survey, an owner or operator shall submit the surface emissions survey report to the licensing authority. An owner or operator shall insert a copy of the report into the log of operations for the day the survey was conducted.

(E) Portable equipment requirements.

(1) An owner or operator shall do the following:

(a) Select equipment capable of detecting hydrogen sulfide concentrations of five parts per billion.

(b) Select equipment that has a manufacturer-specified field sensor calibration verification method.

(c) Calibrate, operate, and maintain the equipment in accordance with manufacturer recommendations, instructions, and operating manuals, or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.

(d) Field calibrate the equipment at the C&DD facility prior to placing the equipment into operation at the facility.

(2) The owner or operator shall maintain records of equipment calibration and maintenance at the C&DD facility or other location acceptable to the licensing authority.

(3) The owner or operator shall provide equipment calibration and maintenance records upon the request of Ohio EPA or the approved board of health.

(F) Implementation of the hydrogen sulfide and other gases contingency plan.

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(1) An owner or operator shall implement and comply with the hydrogen sulfide and other gases contingency plan in response to any one or combination of the following events:

(a) The owner or operator determines that implementation of the contingency plan is warranted.

(b) Upon receipt of a notice that paragraph (A) of this rule has been violated.

(2) As soon as practicable but not later than twenty-four hours after an owner or operator determines that implementation of the contingency plan is warranted pursuant to paragraph (F)(1) of this rule, the owner or operator shall notify the following authorities:

(a) The fire department that would respond to the C&DD facility.

(b) The local air pollution control authority, if applicable.

(c) Ohio EPA.

(d) The approved board of health.

If the notification is not in writing, then a written notification shall be submitted to these authorities not later than three days after the owner or operator determines that implementation of the contingency plan is warranted.

(3) An owner or operator shall record in the log of operations the date and time the contingency plan was implemented.

(4) An owner or operator shall continue to comply with paragraph (B) of this rule when implementing a hydrogen sulfide and other gases contingency plan.

[Comment: Pursuant to rule 3745-520-685 of the Administrative Code, no permit to install modifications or alterations or license modifications are necessary prior to installing the required engineered components during implementation of a hydrogen sulfide or other gases contingency plan.]

(G) Continued compliance with a hydrogen sulfide or other gases contingency plan.

(1) An owner or operator shall continue to comply with an implemented contingency plan until the owner or operator has obtained written authorization from the licensing authority releasing the owner or operator from the obligation to comply with the contingency plan.

(2) The licensing authority may decline to act on a request for such an authorization.

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- (3) If the licensing authority chooses to act on a request, the licensing authority shall consider the concentrations measured by monitoring equipment, the trends in air quality concentrations, and the value of the air quality data.
- (4) If the licensing authority grants authorization releasing the owner or operator from the obligation to comply with the contingency plan, the licensing authority shall retain and distribute copies of the authorization pursuant to rule 3745-500-130 of the Administrative Code.

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3745-520-685

Exclusions from rules and instructions for complying with rules when implementing a hydrogen sulfide and other gases contingency plan.

(A) Notwithstanding the requirements of this chapter, an owner or operator is excluded from compliance with the following when implementing a hydrogen sulfide and other gases contingency plan, in order to perform the activities listed in paragraph (B) of this rule:

- (1) Paragraph (B) of rule 3745-520-03 of the Administrative Code regarding construction activities.
- (2) Paragraphs (C), (D), and (F) of rule 3745-520-03 of the Administrative Code regarding modifications and alterations of a permit to install and modifications of a license.
- (3) Paragraph (G) of rule 3745-520-03 of the Administrative Code regarding compliance with authorizing documents, except that the owner or operator shall only deviate from the authorizing documents as little as necessary to perform the activities in paragraph (B) of this rule.
- (4) The requirement of paragraph (A)(1) of rule 3745-512-50 of the Administrative Code to demonstrate compliance with the C&DD facility design in the authorizing document if design provisions for the activities listed in paragraph (B) of this rule are not contained within the authorizing document.

(B) Activities conducted under the hydrogen sulfide and other gases contingency plan:

- (1) Placement of transitional cover.
- (2) Installation of a cap system.
- (3) Installation of a gas management system.
- (4) Voluntary activities to control the release of hydrogen sulfide, other gases, and odors.

(C) For the purpose of complying with Chapter 3745-512 of the Administrative Code, the changes to the C&DD facility identified in paragraph (B) of this rule shall be submitted and reviewed as alterations submitted within a construction certification report.

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3745-520-690

**Certification of material by C&DD transfer facilities and documentation from railroads.**

(A) Certification by an owner or operator of a facility that transfers C&DD.

(1) An owner or operator of a C&DD facility may request an owner or operator of a facility that transfers C&DD to certify that material being transferred from the transfer facility to the C&DD facility is not any of the following:

(a) Off-specification material.

(b) Hazardous waste.

(c) Solid waste.

(d) Infectious waste.

(e) Low-level radioactive waste for which treatment, recycling, storage, or disposal is regulated under division (B) of section 3748.10 of the Revised Code.

(2) Forms for certification of material from a facility that transfers C&DD.

(a) An owner or operator of a C&DD facility choosing to request that an owner or operator of a facility that transfers C&DD certify material in accordance with paragraph (A)(1) of this rule shall use a form prescribed by the director. When requesting an owner or operator of a facility that transfers C&DD to certify material, the owner or operator shall provide the form to the owner or operator of the transfer facility. The owner or operator of the C&DD facility shall make completed certification forms available upon the request of Ohio EPA or the approved board of health.

(b) The director may include instructions and places to record the following information on the prescribed certification forms:

(i) General information about the C&DD facility.

(ii) General information about the facility that transfers C&DD.

(iii) Certification information pursuant to paragraph (A)(1) of this rule.

(B) Documentation from railroads.

(1) If material is transported to a C&DD facility by a railroad that is regulated under U.S.C. Title 49, Transportation as described in rule 3745-500-03 of the

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Administrative Code, an owner or operator of a C&DD facility may request the railroad operator to provide either of the following:

(a) A bill of lading, or a copy of a bill of lading, from the shipper of the material.

(b) Written information indicating that the railroad did not process or add to the material.

(2) An owner or operator of a C&DD facility choosing to request that a railroad operator provide information in accordance with paragraph (B)(1) of this rule shall make available all bills of lading or written information upon the request of Ohio EPA or the approved board of health.

(C) Information provided in accordance with paragraph (A) or (B) of this rule shall not alleviate an owner or operator of a C&DD facility from the obligation to comply with the authorized materials requirements of paragraph (A) of rule 3745-520-600 and the unauthorized materials requirements of rule 3745-520-630 of the Administrative Code.

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3745-520-695      Annual operational report.

An owner or operator shall submit an annual operational report to Ohio EPA and the approved board of health not later than April first of each year. The annual operational report shall be submitted using forms prescribed by the director. At a minimum, the annual operational report shall include the following information summarizing operations during the reporting year:

- (A) The calendar year that the submittal represents.
- (B) General C&DD facility information including but not limited to name, location, contact information, facility owner, property titleholder, and facility operator.
- (C) The name, contact information, and signature of the person completing the annual operational report.
- (D) A topographic map of the C&DD facility that conforms to paragraph (C) of rule 3745-520-605 of the Administrative Code and includes the following:
  - (1) Delineation and acreage of areas that were used for disposal during the reporting year.
  - (2) Delineation and acreage of areas that are to be used for disposal in the next year.
- (E) An isopach of the C&DD facility that conforms to paragraph (D) of rule 3745-520-605 of the Administrative Code and includes delineation and acreage of areas that were used for disposal during the reporting year.
- (F) A summary of the log of operations for the reporting year.
- (G) A summary of the disposal fees collected during the reporting year.
- (H) An estimate of the remaining disposal capacity and the remaining life of the C&DD facility.
- (I) If the owner or operator has received concurrence for alterations to a permit to install, a copy of the index of alterations required by paragraph (B) of rule 3745-520-320 of the Administrative Code.
- (J) Leachate management and treatment information, including at a minimum the following:
  - (1) A summary of the quantity of leachate collected for treatment and disposal on a monthly basis during the reporting year.

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(2) The location of leachate treatment and disposal.

(3) Verification that the leachate management system has been inspected in accordance with paragraph (A)(8) of rule 3745-520-652 of the Administrative Code and the findings of the inspection.

(4) A comparison of the total volume of leachate collected during the reporting year to each previous year.

(5) A summary of the occurrences of any high-level alarms, causes of the alarms, and the corrective actions taken.

(K) Leachate recirculation information if the owner or operator recirculated leachate during the reporting year, including at a minimum the following:

(1) A summary of the amount of leachate that has been recirculated during the reporting year.

(2) The total volume of leachate recirculated (cumulative) in gallons per square yard of area where material was disposed. This information shall be depicted on a map of the C&DD facility.

(3) A comparison of the total volume of leachate recirculated during the reporting year to each previous year.

(4) An evaluation and supporting documentation of whether the leachate recirculation system meets the criteria in paragraph (A) of rule 3745-520-249 of the Administrative Code.

(L) Annual leachate sampling and analysis results if the owner or operator was not authorized to recirculate leachate during the reporting year. The results shall contain the information required by paragraph (E) of rule 3745-520-660 of the Administrative Code and shall be signed and certified by a professional skilled in the appropriate discipline.

[Comment: Any owner or operator that has authorization to recirculate leachate is required by rule 3745-520-660 of the Administrative Code to submit leachate sampling and analysis results quarterly.]

(M) Gas management system information if a gas management system has been installed and operated, including at a minimum the following:

(1) Value, length of time, and location for exceedances of the monitored parameters for the gas collection devices.

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(2) Description and duration of periods during the reporting year when the gas management system was not operating for more than one hour.

(3) Description and duration of periods during the reporting year when any portion of the gas collection and conveyance system was not operating for more than five days.

(4) The date of installation and the location of each gas collection device added during the reporting year.

(5) The date of abandonment, decommissioning, recommissioning, or removal of any gas collection device during the reporting year.

(N) A summary of any maintenance performed on the leachate management system, ground water monitoring system, gas management system, and any other monitoring or control system installed at the C&DD facility.

[Comment: Chapter 3745-506 contains the maintenance requirements for a ground water monitoring system.]

(O) Any additional information requested by the director pertaining to operation or construction of the C&DD facility in accordance with this chapter, authorizing documents, or Chapter 3704., 3714., 3734., or 6111., of the Revised Code.

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3745-520-700

General closure and post-closure care activities.

- (A) For closure, an owner or operator shall do the activities listed in paragraph (C) of this rule and rule 3745-520-710 of the Administrative Code.
- (B) For post-closure care, an owner or operator shall do the activities listed in paragraph (C) of this rule and rule 3745-520-750 of the Administrative Code.
- (C) Closure and post-closure care activities shall include but are not limited to an owner or operator doing the following:
- (1) Complying with the general obligations in rule 3745-520-03 of the Administrative Code.
  - (2) Complying with rule 3745-520-06 of the Administrative Code regarding ground water monitoring.
  - (3) Complying with the compliance disclosure requirements in rule 3745-520-70 of the Administrative Code when employing a new key employee.
  - (4) Maintaining and complying with the following portions of the general plan of facility operations:
    - (a) A leachate sampling and analysis plan that conforms to rule 3745-520-460 of the Administrative Code.
    - (b) A fire and explosion contingency plan that conforms to rule 3745-520-470 of the Administrative Code.
    - (c) A hydrogen sulfide and other gases contingency plan that conforms to rule 3745-520-480 of the Administrative Code.
    - (d) A contingency plan for the storage, treatment, and disposal of leachate. The contingency plan for the storage, treatment, and disposal of leachate shall describe the immediate and long-term steps, including the location of an existing or proposed on-site treatment works, to be taken for leachate management in the event that collected leachate cannot be managed in accordance with the permit to install.
    - (e) A contingency plan for equipment failure. This plan shall specify how the owner or operator intends to operate in compliance with this chapter in the event of equipment failure.
  - (5) Complying with the construction requirements in rule 3745-520-500 of the Administrative Code.

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- (6) Complying with rules 3745-520-650, 3745-520-652, and 3745-520-660 of the Administrative Code regarding minimization of leachate generation, leachate management and disposal, and leachate sampling, analysis, and reporting.
- (7) Complying with rules 3745-520-665 to 3745-520-685 of the Administrative Code regarding operation of a gas management system, fire and explosion, and hydrogen sulfide and other gases and odors.
- (8) Maintaining the signs stating that the C&DD facility is closed required by rule 3745-520-710 of the Administrative Code such that the signs remain legible.
- (9) Maintaining the gates, fencing, or other sturdy obstacles blocking each entrance to the C&DD facility required by rule 3745-520-710 of the Administrative Code.
- (10) Complying with the financial assurance requirements for post-closure care in rule 3745-520-910 of the Administrative Code.
- (11) Maintaining roads within the C&DD facility in a manner that allows use in all weather conditions, that will withstand the anticipated degree of use, and will minimize erosion and generation of dust.
- (12) Limiting access to the C&DD facility to authorized persons only.
- (13) Excluding domestic and farm animals from the C&DD facility except those used for security or vector control.
- (14) Mowing vegetative cover in areas where a cap system has been constructed at least once per year.
- (15) Submitting an annual report to Ohio EPA and the approved board of health in accordance with the following:

  - (a) The annual report shall be submitted not later than April first of each year, except that the final annual report shall be submitted at the same time as the post-closure care certification report.
  - (b) An annual report shall contain the following:

    - (i) A summary of the quantity of leachate collected for treatment and disposal on a monthly basis during the reporting year, the location of leachate treatment and disposal, and verification that the leachate management system has been inspected in accordance with paragraph (A)(8) of rule 3745-520-652 of the Administrative Code.

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- (ii) Leachate sampling and analysis results. The results shall contain the information required by paragraph (E) of rule 3745-520-660 of the Administrative Code and shall be signed and certified by a professional skilled in the appropriate discipline.
  - (iii) A summary of maintenance performed on the leachate management system, ground water monitoring system, gas management system, and other monitoring and control systems installed at the C&DD facility.
  - (iv) A summary of ongoing ground water assessment programs or ground water corrective actions programs, if required.
  - (v) Post-closure care financial assurance documentation prepared in accordance with rule 3745-520-910 of the Administrative Code using forms prescribed by the director. The cost estimates shall be revised to account for any changes at the C&DD facility and shall be adjusted for inflation. If no changes have occurred since the last update, then the cost estimates shall only be adjusted 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 February issue of "Survey of Current Business" as described in rule 3745-500-03 of the Administrative Code.
- (16) Retaining all authorizing documents and completed 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.
- (17) Maintaining all records and reports generated during 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.

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3745-520-710

Closure of a C&DD facility.

(A) An owner or operator shall complete closure of a C&DD facility in a manner that 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) An owner or operator shall provide to the licensing authority written notice of the intent and anticipated date to permanently cease acceptance of material for disposal at the C&DD facility at least ninety days prior to the anticipated date.

(C) Closure of a C&DD facility shall begin when any of the following occurs:

- (1) The license issued for the facility has expired and a renewal license has not been applied for in accordance with Chapter 3745-501 of the Administrative Code.
- (2) The license issued for the facility has expired, a renewal license has been applied for, and the renewal license application has been denied as a final action.
- (3) The license issued for the facility has been revoked as a final action.
- (4) All final elevations of the authorized disposal limits have been reached.
- (5) The owner or operator ceases accepting material for disposal at the facility for a period greater than one year and all final elevations of the authorized disposal limits have not been reached.

(D) Closure activities shall include but are not limited to an owner or operator doing the following:

- (1) Complying with rule 3745-520-700 of the Administrative Code (general closure and post-closure care activities).

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- (2) Complying with the financial assurance requirements for closure in rule 3745-520-910 of the Administrative Code.
- (3) In addition to paragraph (C)(15) of rule 3745-520-700 of the Administrative Code, the annual report during closure shall contain closure financial assurance documentation prepared in accordance with rule 3745-520-905 of the Administrative Code using forms prescribed by the director. The cost estimates shall be revised to account for any changes at the C&DD facility and shall be adjusted for inflation. If no changes have occurred since the last update, then the cost estimates shall only be adjusted 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 February issue of "Survey of Current Business" as described in rule 3745-500-03 of the Administrative Code.
- (4) Conducting facility inspections in accordance with rule 3745-520-615 of the Administrative Code with the following exceptions:

  - (a) An inspection pursuant to paragraph (A)(1) of rule 3745-520-615 of the Administrative Code shall be performed on each day that facility personnel are at the C&DD facility.
  - (b) The odor inspection need only be performed once during the day that the inspection required by paragraph (D)(2)(a) of this rule is performed.
- (5) Reclaiming each borrow area within the C&DD facility boundary in accordance with the following:

  - (a) An owner or operator shall grade, contour, or terrace final slopes, wherever needed, sufficient to achieve soil stability and control landslides, erosion, and sedimentation. Highwalls may remain if the highwalls are compatible with future uses and measures will be taken to ensure public safety.
  - (b) Where ponds, impoundments, or other resulting bodies of water are intended for recreational use, the owner or operator shall establish banks and slopes that will provide safe access to those bodies of water. Where such bodies of water are not intended for recreation, the owner or operator shall include measures to ensure public safety, but access need not be provided.
  - (c) The owner or operator shall resoil the area of land affected, wherever needed, with topsoil or suitable subsoil, fertilizer, lime, or soil amendments, as appropriate, in sufficient quantity and depth to raise and maintain a diverse growth of vegetation adequate to bind the soil and control soil erosion and sedimentation.

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(d) Except in borrow areas being used to obtain soil for closure activities, the owner or operator shall establish a diverse vegetative cover of grass and legumes or trees, grasses, and legumes capable of self-regeneration and plant succession.

(6) Completing the following activities within the time required:

(a) Prior to or on the date that acceptance of material for disposal ceases, the owner or operator shall permanently cease leachate recirculation if leachate is being recirculated.

(b) Prior to the completion of closure, the owner or operator shall properly remove or abandon all leachate recirculation equipment.

(c) Not later than seven days after ceasing to accept material for disposal, the owner or operator shall do the following:

(i) Provide written notification to the licensing authority of the date the C&DD facility ceased accepting material for disposal.

(ii) Block each entrance to the C&DD facility by locked gates, fencing, or other sturdy obstacles to prevent unauthorized access during the closure and post-closure care period.

(iii) Cover disposed combustible material pursuant to rule 3745-520-670 of the Administrative Code.

(d) Not later than thirty days after ceasing to accept material for disposal, the owner or operator shall post signs at each entrance to the C&DD facility stating that the facility is closed. The signs shall include the telephone numbers of the owner, emergency personnel including the local fire department, the approved board of health, and the appropriate district office of Ohio EPA. The signs shall be readable from vehicles arriving at the C&DD facility.

(e) Not later than ninety days after ceasing to accept material for disposal, the owner or operator shall submit a final annual operational report that conforms to rule 3745-520-695 of the Administrative Code.

(f) Construction of cap system in uncapped areas as follows:

(i) Not later than one year after ceasing to accept material for disposal, the owner or operator shall complete construction of a cap system over all areas of the authorized disposal limits not previously certified for the construction of a cap system.

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(ii) If the owner or operator appeals the final denial or final revocation of a 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. In order to postpone construction under this rule, the following shall be satisfied:

(a) The owner or operator complies and will continue to comply with all applicable financial assurance requirements.

(b) The owner or operator is in compliance with and will continue to comply with all other applicable closure requirements set forth in this chapter.

(c) The C&DD facility is not the subject of an emergency order requiring the capping or placement of cover over the facility issued pursuant to division (B) of section 3714.12 of the Revised Code.

(d) A court of competent jurisdiction has not ordered the C&DD facility to cease acceptance of material for disposal or to commence closure activities.

(e) Postponement of construction of the cap system will not create a nuisance or fire hazard, or cause or contribute to air or water pollution.

(f) 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 an 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

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this rule not later than one hundred eighty days after the termination of the postponement.

(g) Prior to submitting the closure certification report, the owner or operator shall file with the appropriate county recorder the following:

(i) A plat of the C&DD facility and information describing the acreage, location, depth, volume, and nature of the disposed material.

(ii) A notice that the property was previously used as a C&DD facility. The notice shall be filed in the same manner as a deed to the property. The notice shall include an engineering drawing attachment showing the vertical and lateral extent of disposed material, an indication of the volumes of disposed material, and an indication of the depth of the final cover material.

(h) Not later than ninety days after the completion of closure activities, the owner or operator shall submit to Ohio EPA and the approved board of health a closure certification report that conforms to rule 3745-520-720 of the Administrative Code.

[Comment: Rule 3745-512-30 addresses time frames for establishing complete and dense vegetation on the cap protection layer. "Completion of closure activities" includes construction of the cap system but does not include the seeding and establishment of complete and dense vegetation. Failure to achieve complete and dense vegetation within the time frames established by rule 3745-512-30 would be a violation of that rule and not this rule.]

(E) Post-closure care of a C&DD facility shall begin when one of the following occurs:

(1) The concurring authority concurs with the closure certification report in accordance with rule 3745-520-720 of the Administrative Code.

(2) Both of the following:

(a) Twelve months have passed after the closure certification report was submitted to Ohio EPA and the approved board of health.

(b) The owner and operator are in substantial compliance with the facility's authorizing documents and applicable rules.

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3745-520-720

Closure certification report.

(A) The closure certification report shall be signed by a professional skilled in the appropriate discipline and shall certify that the C&DD facility has been closed in accordance with this chapter.

(B) The closure certification report shall contain at a minimum the following:

(1) A copy of the plat and a copy of the notice filed with the appropriate county recorder in accordance with rule 3745-520-710 of the Administrative Code.

(2) Documentation that the owner or operator has completed the closure activities required by rule 3745-520-710 of the Administrative Code.

(3) A list of the construction certification reports for construction of the cap system with the date of submittal and a topographic map of the entire C&DD facility showing the areas and acreage certified by each report.

The topographic map of the C&DD facility shall be certified by a professional skilled in the appropriate discipline. The scale, contour interval, and grid system of the topographic map shall be consistent with the permit to install. The topographic map shall include the facility boundary, the horizontal authorized disposal limits, the location of all materials disposed outside the authorized disposal limits, and the location of the permanent survey marks.

(4) Any other information requested by Ohio EPA or the approved board of health that is necessary to determine whether the owner or operator has completed closure of the C&DD facility in accordance with this chapter.

(C) Concurring authority requirements.

(1) The concurring authority shall not concur with a closure certification report unless the concurring authority determines that the owner or operator has demonstrated the following:

(a) The owner or operator has completed the closure activities required by rule 3745-520-710 of the Administrative Code.

(b) The owner and operator are in substantial compliance with Chapter 3714. of the Revised Code and rules adopted thereunder and authorizing documents issued thereunder.

(c) The owner and operator are in compliance with Chapters 3704. and 6111. of the Revised Code and rules adopted thereunder and authorizing documents issued thereunder.

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(2) Upon concurrence, the concurring authority shall retain and distribute copies of the signed concurrence letter pursuant to rule 3745-500-130 of the Administrative Code.

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3745-520-750

Post-closure care of a C&DD facility.

- (A) An owner or operator shall commence post-closure care activities at the C&DD facility in accordance with paragraph (E) of rule 3745-520-710 of the Administrative Code.
- (B) Post-closure care activities shall be conducted for five years unless the post-closure care period is extended in accordance with rule 3745-520-755 of the Administrative Code.
- (C) Post-closure care activities shall include but are not limited to an owner or operator doing the following:
- (1) Complying with rule 3745-520-700 of the Administrative Code (general closure and post-closure care activities), except that during post-closure care required information shall be submitted to the licensing authority instead of being recorded in the log of operations.
  - (2) Conducting facility inspections in accordance with rule 3745-520-615 of the Administrative Code with the following exceptions:
    - (a) The frequency of inspection shall at a minimum be quarterly.
    - (b) The odor inspection need only be performed once during the day of the quarterly inspection.
    - (c) Instead of recording inspection results in the log of operations, a written summary shall be submitted to the licensing authority not later than fifteen days after the inspection date detailing the results of the inspection and a schedule of any actions to be taken to maintain compliance with this chapter.
  - (3) Establishing a diverse vegetative cover of grass and legumes or trees, grasses, and legumes capable of self-regeneration and plant succession in each borrow area within the C&DD facility boundary.
- (D) Not earlier than sixty days and not later than thirty days prior to the completion of the post-closure care period, an owner or operator shall do the following:
- (1) Decommission the ground water monitoring system in a manner that will be protective of public health and safety and the environment, unless Ohio EPA or the approved board of health requires that the ground water monitoring system not be decommissioned. The owner or operator shall provide written notification to Ohio EPA and the approved board of health at least thirty days prior to commencing decommissioning of the ground water monitoring system.

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- (2) Decommission the gas management system in a manner that will be protective of public health and safety and the environment. At a minimum, gas wells and gas vents shall be decommissioned pursuant to rule 3745-520-665 of the Administrative Code.
- (3) Submit to Ohio EPA and the approved board of health a post-closure care certification report that conforms to rule 3745-520-760 of the Administrative Code.

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3745-520-755

**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 C&DD facility are impacting public health or safety or the environment or if ground water assessment and ground water corrective actions are required to be conducted at the facility in accordance with Chapter 3745-506 of the Administrative 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 extending the post-closure care period shall contain at a minimum the following information:
- (1) Identification and location of the C&DD facility for which the post-closure care period is extended.
  - (2) The effective date of the order.
  - (3) A summary of the conditions at the C&DD facility that are impacting public health or safety or the environment or whether ground water assessment or ground water corrective actions are required to be conducted at the C&DD facility in accordance with Chapter 3745-506 of the Administrative 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) Any terms or conditions established by the order.
  - (7) A termination date or termination provisions.
- (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, copies of the order shall be retained and distributed pursuant to rule 3745-500-130 of the Administrative Code.

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3745-520-760

Post-closure care certification report.

- (A) 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.
- (B) The post-closure care certification report shall contain at a minimum the following:
- (1) Documentation that the owner or operator has completed the post-closure activities required by rule 3745-520-750 of the Administrative Code.
  - (2) An assessment of the integrity and long term stability of the cap system.
  - (3) A summary of changes to leachate quality and quantity.
  - (4) Rate of leachate generation and quantity of leachate at the C&DD facility, with an explanation of how these figures were derived.
  - (5) A discussion of hydrogen sulfide gas migration and generation by the C&DD facility.
  - (6) Any other information requested by Ohio EPA or the approved board of health that is necessary to determine whether the owner or operator has conducted post-closure care of the C&DD facility in accordance with this chapter.

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3745-520-905

Financial assurance for closure of a C&DD facility.

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, test methods, federal rules, and federal statutory provisions referenced in this rule, see rule 3745-500-03 of the Administrative Code titled "Incorporation by reference."]

(A) Closure cost estimate.

(1) A cost estimate for performing the closure activities required by rule 3745-520-710 of the Administrative Code shall be calculated in current dollars and be based on a third party being paid prevailing wages to conduct the closure activities at the point in time during the licensing year that closure will be the most expensive.

(2) The cost estimate shall be at least thirteen thousand dollars per acre to the nearest tenth of an acre as established in the license application for the C&DD facility for areas that have been and are being used for the disposal.

(B) The closure financial assurance instrument shall contain an itemized written cost estimate calculated in accordance with paragraph (A) of this rule and shall be funded in an amount not less than the calculated closure cost estimate. However, the licensing authority may request that the owner or operator adjust the amount of financial assurance in conjunction with the issuance of an annual license. The licensing authority shall provide with the request an explanation of the rationale for a financial assurance amount exceeding thirteen thousand dollars per acre. If the licensing authority makes such a request, the owner or operator shall comply with the request.

(C) After executing and funding a closure financial assurance instrument, financial assurance for closure shall be maintained and may be released only in accordance with paragraph (N) of this rule.

(D) Review of closure financial assurance instrument.

(1) The owner or operator shall adjust the amount of the financial assurance instrument according to the cost estimate calculated pursuant to paragraphs (A) and (B) of this rule. Whenever the closure cost estimate increases to an amount greater than the amount of the financial assurance maintained, the owner or operator shall cause the amount of the financial assurance instrument to be increased to an amount at least equal to the closure cost estimate and submit evidence of such increase to the licensing authority or obtain alternative financial assurance, as specified in this rule, to compensate for the increase. The amount of the financial assurance instrument shall be increased not later than

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sixty days after the increased cost estimate is calculated or by December thirty-first, whichever occurs first, and at least prior to license issuance.

(2) The owner or operator may use an existing financial assurance instrument to satisfy all or part of the financial assurance requirements of this rule as long as the requirements of paragraph (E) of this rule are met.

(E) The owner or operator shall select a closure financial assurance mechanism from the list of mechanisms specified in paragraphs (F), (G), (H), (I), or (J) of this rule provided the owner or operator satisfies the criteria for use of that mechanism.

(F) Closure trust fund.

(1) The owner or operator may satisfy the requirements of this rule by establishing a closure trust fund that conforms to this rule and by submitting an originally signed duplicate of the trust agreement to the licensing authority. The trustee shall be an entity which 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 3745-520-930 of the Administrative Code and the trust agreement shall be accompanied by a formal certification of acknowledgment.

(3) The owner or operator shall fully fund the trust fund prior to the date of license issuance. 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 closure 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 closure cost estimate determined in accordance with paragraphs (A) and (B) of this rule.

(5) When any area of the C&DD facility with financial assurance has had the cap system constructed and the cap system certification report has been concurred with by the licensing authority, the owner or operator, or any other person authorized to perform closure, may request reimbursement for closure expenditures. Upon request for reimbursement, the licensing authority shall calculate in accordance with paragraph (M) of this rule the amount to be reimbursed and shall instruct, in writing, the trustee to make such reimbursement.

(6) When the C&DD facility is certified closed, the owner or operator, or any other person authorized to perform closure, may request reimbursement for closure expenditures after submitting a closure certification report to the licensing authority. Upon request for reimbursement, the licensing authority shall calculate in accordance with paragraph (M) of this rule the amount to be

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reimbursed and shall instruct, in writing, the trustee to make such reimbursement.

(7) The trust fund may be terminated when either of the following occurs:

(a) The licensing authority has approved termination because the owner or operator has substituted alternative financial assurance for closure as specified in this rule.

(b) The approved board of health or the director notifies the owner or operator in accordance with paragraph (N) of this rule that the owner or operator is no longer required by this rule to maintain financial assurance for closure of the C&DD facility.

(G) Surety bond guaranteeing payment into a closure 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 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 "Circular 570" of the U.S. department of the treasury.

[Comment: "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."]

(2) The wording of the surety bond shall be identical to the wording specified in paragraph (B) of rule 3745-520-930 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 licensing authority. This standby trust fund shall meet the requirements specified in paragraph (F) 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 (F) of this rule is not required.

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

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- (a) Fund the standby trust fund in an amount equal to the penal sum of the surety bond before the beginning of 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 closure is required in compliance with paragraph (C) of rule 3745-520-710 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 licensing authority not later than ninety days after both the owner or operator and 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 (K) of this rule, the penal sum of the surety bond shall be in an amount at least equal to the closure cost estimate determined in accordance with paragraphs (A) and (B) 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 period of one hundred twenty days beginning on the first day that both the owner or operator and 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 licensing authority may provide such written approval when one of the following occurs:
  - (a) The owner or operator substitutes alternative financial assurance for closure as specified in this rule.
  - (b) The licensing authority notifies the owner or operator in accordance with paragraph (N) of this rule that the owner or operator is no longer required to maintain financial assurance for closure of the C&DD facility.
- (H) Surety bond guaranteeing performance of closure.
  - (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 licensing authority. The surety bond company issuing the

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surety bond shall, at a minimum, be among those listed as acceptable sureties on federal bonds in "Circular 570" of the U.S. department of the treasury.

[Comment: "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."]

- (2) The wording of the surety bond shall be identical to the wording specified in paragraph (C) of rule 3745-520-930 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 licensing authority. This standby trust fund shall meet the requirements specified in paragraph (F) 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 in accordance with this rule, a deposit into the standby trust fund as specified in paragraph (F) 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 closure in accordance with rule 3745-520-710 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 licensing authority not later than ninety days after both the owner or operator and 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. Following a determination by the approved board of health or the director that the owner or operator has failed to perform closure activities in accordance with rule 3745-520-710 of the Administrative Code and requirements of any authorizing documents, the surety bond company shall perform closure activities in accordance with rule 3745-520-710 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.

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- (6) The penal sum of the surety bond shall be in an amount at least equal to the closure cost estimate determined in accordance with paragraphs (A) and (B) 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 period of one hundred twenty days beginning on the first day that both the owner or operator and 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 licensing authority may provide such written approval when one of the following occurs:

  - (a) The owner or operator substitutes alternative financial assurance for closure as specified in this rule.
  - (b) The licensing authority notifies the owner or operator in accordance with paragraph (N) of this rule that the owner or operator is no longer required by this rule to maintain financial assurance for closure of the C&DD facility.
- (9) The surety bond company shall not be liable for deficiencies in the completion of closure activities by the owner or operator after the owner or operator has been notified by the licensing authority in accordance with this rule that the owner or operator is no longer required to maintain financial assurance for closure of the C&DD facility.

(I) 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 this rule and by having the originally signed letter of credit delivered to 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 3745-520-930 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

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pursuant to a draft by the licensing authority shall be deposited directly by the issuing institution into the standby trust fund in accordance with instructions from the licensing authority. The standby trust fund shall meet the requirements of the trust fund specified in paragraph (F) 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 (F) 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 C&DD facility and the owner or operator and the amount of funds assured for closure of the C&DD 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 period of one hundred twenty days shall begin on the day when the owner or operator, the licensing authority, and the director have received the notice, as evidenced by the return receipts.
- (6) Except as provided in paragraph (K) of this rule, the letter of credit shall be issued in an amount at least equal to the closure cost estimate determined in accordance with paragraphs (A) and (B) 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 closure activities in accordance with rule 3745-520-710 of the Administrative Code and requirements of any authorizing documents, the approved board of health or the 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 licensing authority not later than ninety days after both the owner or operator, the licensing authority, and the 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

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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 licensing authority.

(9) 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 closure as specified in this rule.

(b) The licensing authority notifies the owner or operator in accordance with paragraph (N) of this rule that the owner or operator is no longer required to maintain financial assurance for closure of the C&DD facility.

(J) Closure insurance.

(1) The owner or operator may satisfy the requirements of this rule by obtaining closure insurance that conforms to this rule and by submitting an originally signed certificate of such insurance to 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 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 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.

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- (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 3745-520-930 of the Administrative Code.
- (6) Except as provided in paragraph (K) of this rule, the closure insurance policy shall be issued for a face amount at least equal to the amount of the closure cost estimate determined in accordance with paragraphs (A) and (B) 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 closure insurance policy shall guarantee that funds shall be available to close the C&DD facility and conduct closure activities whenever closure is mandated. The policy shall also guarantee that once closure of the C&DD 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 licensing authority, payment shall be made to such party or parties as the licensing authority specifies.
- (8) When any area of the C&DD facility with financial assurance has had the cap system constructed and the cap system certification report has been concurred with by the licensing authority, the owner or operator, or any other person authorized to perform closure, may request reimbursement for closure expenditures. The licensing authority shall calculate in accordance with paragraph (M) of this rule the amount to be reimbursed and shall instruct, in writing, the insurer to make such reimbursement.
- (9) The owner or operator shall maintain the policy in full force and effect until the licensing authority consents to termination of the policy by the owner or operator as specified in paragraph (J)(13) of this rule. Failure to pay the premium, without substitution of alternative financial assurance as specified in

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this rule, constitutes a violation of these rules, warranting such remedy as the licensing authority deems necessary. Such violation shall be deemed to begin upon receipt by 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 notice by certified mail to the owner or operator and to the licensing authority at least one hundred twenty days prior to the date of cancellation. Cancellation, termination, or failure to renew shall not occur during the period of one hundred twenty days beginning on the first day that both the owner or operator and the licensing authority have received the notice, as evidenced by the return receipts.

(12) If 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 licensing authority may 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 closure as specified in this rule.

(b) The licensing authority notifies the owner or operator in accordance with paragraph (N) of this rule that the owner or operator is no longer required to maintain financial assurance for closure of the C&DD facility.

(K) Use of multiple financial assurance mechanisms. The owner or operator may satisfy this rule by establishing more than one financial assurance mechanism for the C&DD facility. The mechanisms that may be used in combination are limited to trust funds, surety bonds guaranteeing payment into a closure trust fund, letters of credit, and insurance. The mechanisms shall conform to paragraphs (F), (G), (I) and (J) 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 closure cost estimate calculated in accordance with paragraphs (A) and (B) 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

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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 (F), (G), (I) and (J) of this rule to provide for closure of the C&DD facility.

(L) Use of a financial assurance mechanism for multiple facilities. The owner or operator may use a financial assurance mechanism specified in this rule to meet the requirements of this rule for more than one C&DD facility. Evidence of financial assurance submitted to the licensing authority shall include a list showing, for each C&DD facility, the name, address, and the amount of funds for closure assured by the financial assurance mechanism. The amount of funds available through the financial assurance mechanism shall be no less than the sum of the funds that would be available if a separate financial assurance mechanism had been established and maintained for each C&DD facility.

(M) Release of funds. Reimbursement shall be made as follows:

(1) Release of funds prior to completion of closure. The owner or operator or any other person authorized to construct the cap system on behalf of the owner or operator shall receive reimbursement from the financial assurance mechanism or a reduction in the amount of financial assurance maintained in accordance with this rule after the licensing authority's written concurrence with the cap system certification report in accordance with rules 3745-520-500 and 3745-512-51 of the Administrative Code has been obtained. Reimbursement or a reduction shall be made; however, a financial assurance instrument in the amount of five hundred fifty dollars per acre shall be maintained for maintenance of the certified cap system until closure is completed in accordance with rule 3745-520-710 of the Administrative Code.

(2) Release of funds after closure certification. The owner or operator or any other person authorized to perform closure on behalf of the owner or operator shall receive reimbursement of all remaining funds or termination of the financial assurance required under this rule only after the licensing authority has provided written concurrence with the closure certification report pursuant to rule 3745-520-720 of the Administrative Code.

(N) Release of the owner or operator from the requirements of this rule. Release of the owner or operator from this rule does not release the owner or operator from the requirements to comply with post-closure care financial assurance in accordance with rule 3745-520-910 of the Administrative Code.

(1) Upon the receipt of the written concurrence by the licensing authority with the closure certification report pursuant to rule 3745-520-720 of the Administrative Code, the owner or operator may request written approval to terminate financial assurance for closure of the particular C&DD facility in accordance with this rule.

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(2) The board of health or the director may notify the owner or operator that financial assurance may be terminated if the board of health or director has issued written concurrence that the owner or operator is no longer required by this rule to maintain financial assurance for closure of the C&DD facility and the owner or operator has requested release from financial assurance obligations.

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3745-520-910

Financial assurance for post-closure care of a C&DD facility.

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, test methods, federal rules, and federal statutory provisions referenced in this rule, see rule 3745-500-03 of the Administrative Code titled "Incorporation by reference."]

- (A) A cost estimate for performing the post-closure care activities required by rule 3745-520-750 of the Administrative Code shall be calculated in current dollars and be based on a third party being paid prevailing wages to conduct those activities. The cost estimate shall be accurate, complete, and appropriate for the post-closure care activities and length of time of the post-closure care period.
- (B) The post-closure care financial assurance instrument shall contain an itemized written cost estimate calculated in accordance with paragraph (A) of this rule and shall be funded in an amount not less than the calculated post-closure care cost estimate. However, the licensing authority may determine the amount of financial assurance for post-closure care of a C&DD facility if the cost estimate provided by the owner or operator is inaccurate, incomplete, or inappropriate. If the licensing authority makes such a determination, the owner or operator shall fund the amount determined by the licensing authority.
- (C) After executing and funding a post-closure care financial assurance instrument, financial assurance for post-closure care shall be maintained and may be released only in accordance with paragraph (N) of this rule. If an order extending the post-closure care period is issued pursuant to rule 3745-520-755 of the Administrative Code, the owner or operator may be required to maintain financial assurance for post-closure care beyond a five-year period after closure.
- (D) Review of post-closure care financial assurance instrument.
  - (1) The owner or operator shall adjust the amount of the financial assurance instrument according to the cost estimates calculated pursuant to paragraphs (A) and (B) of this rule. Whenever the post-closure care cost estimate increases to an amount greater than the amount of the financial assurance maintained, the owner or operator shall cause the amount of the financial assurance instrument to be increased to an amount at least equal to the post-closure care cost estimate and submit evidence of such increase to the licensing authority or obtain alternative financial assurance, as specified in this rule, to compensate for the increase. The amount of the financial assurance instrument shall be increased not later than sixty days after the increased cost estimate is calculated or by December thirty-first, whichever occurs first, and at least prior to license issuance.

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(2) The owner or operator may use an existing financial assurance instrument to satisfy all or part of the financial assurance requirements of this rule as long as the requirements of paragraph (E) of this rule are met.

(E) The owner or operator shall select a post-closure care financial assurance mechanism from the list of mechanisms specified in paragraphs (F), (G), (H), (I), or (J) of this rule provided the owner or operator satisfies the criteria for use of that mechanism.

(F) 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 licensing authority. The trustee shall be an entity which 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 3745-520-930 of the Administrative Code and the trust agreement shall be accompanied by a formal certification of acknowledgment.

(3) The owner or operator shall fully fund the trust fund prior to the date of license issuance. 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 paragraphs (A) and (B) of this rule.

(5) After beginning post-closure care, the owner or operator, or any other person authorized to perform post-closure care, may request reimbursement for post-closure care expenditures by submitting itemized bills to the licensing authority for post-closure care activities performed. Upon request for reimbursement, the licensing authority shall determine the amount to be reimbursed and shall instruct, in writing, the trustee to make such reimbursement in accordance with paragraph (M) of this rule.

(6) The licensing authority may 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 licensing authority notifies the owner or operator in accordance with paragraph (N) of this rule that the owner or operator is no longer required

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by this rule to maintain financial assurance for post-closure care of the C&DD facility.

(G) 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 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 "Circular 570" of the U.S. department of the treasury.

[Comment: "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."]

(2) The wording of the surety bond shall be identical to the wording specified in paragraph (B) of rule 3745-520-930 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 licensing authority. This standby trust fund shall meet the requirements specified in paragraph (F) 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 (F) 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 closure is required in compliance with paragraph (B) of rule 3745-520-710 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 licensing authority not later than ninety days after both the owner or operator and the

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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 (K) 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 paragraphs (A) and (B) 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 period of one hundred twenty days beginning on the first day that both the owner or operator and 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 licensing authority may 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 licensing authority notifies the owner or operator in accordance with paragraph (N) of this rule that the owner or operator is no longer required to maintain financial assurance for post-closure care of the C&DD facility.

(H) 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 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 "Circular 570" of the U.S. department of the treasury.

[Comment: "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."]

(2) The wording of the surety bond shall be identical to the wording specified in paragraph (C) of rule 3745-520-930 of the Administrative Code.

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- (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 licensing authority. This standby trust fund shall meet the requirements specified in paragraph (F) 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 (F) 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 3745-520-750 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 licensing authority not later than ninety days after both the owner or operator and 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. 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 3745-520-750 of the Administrative Code and requirements of any authorizing documents, the surety bond company shall perform post-closure care activities in accordance with rule 3745-520-750 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 paragraphs (A) and (B) 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

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occur during the period of one hundred twenty days beginning on the first day that both the owner or operator and 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 licensing authority may 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 licensing authority notifies the owner or operator in accordance with paragraph (N) of this rule that the owner or operator is no longer required to maintain financial assurance for post-closure care of the C&DD 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 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 C&DD facility.

(I) 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 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 3745-520-930 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 licensing authority shall be deposited directly by the issuing institution into the standby trust fund in accordance with instructions from the licensing authority. The standby trust fund shall meet the requirements of the trust fund specified in paragraph (F) of this rule, except as follows:

(a) An originally signed duplicate of the trust agreement shall be submitted with the letter of credit.

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- (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 (F) 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 C&DD facility and the owner or operator and the amount of funds assured for post-closure care of the C&DD 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 period of one hundred twenty days 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 (K) 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 paragraphs (A) and (B) 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 3745-520-750 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 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 licensing authority.

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(9) 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 licensing authority notifies the owner or operator in accordance with paragraph (N) of this rule, that the owner or operator is no longer required to maintain financial assurance for post-closure care of the C&DD facility.

(J) 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 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:

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- (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 3745-520-930 of the Administrative Code.
- (6) Except as provided in paragraph (K) 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 paragraphs (A) and (B) of this rule. 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 will 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 C&DD facility whenever post-closure care begins. The policy shall also guarantee that once post-closure care of the C&DD 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 licensing authority, payment shall be made to such party or parties as 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 licensing authority shall calculate in accordance with paragraph (M) of this rule the amount to be reimbursed and shall instruct, in writing, the insurer to make such reimbursement.
- (9) The owner or operator shall maintain the policy in full force and effect until the licensing authority consents to termination of the policy by the owner or operator as specified in paragraph (J)(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 licensing authority deems necessary. Such violation shall be deemed to begin upon receipt by 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.

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- (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 notice by certified mail to the owner or operator and to the licensing authority at least one hundred twenty days prior to the date of cancellation. Cancellation, termination, or failure to renew may not occur during the period of one hundred twenty days beginning on the first day that both the owner or operator and the licensing authority have received the notice, as evidenced by the return receipts.
- (12) If 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 licensing authority may 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 licensing authority notifies the owner or operator in accordance with paragraph (N) of this rule, that the owner or operator is no longer required to maintain financial assurance for post-closure care of the C&DD facility.
- (K) 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 C&DD 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 (F), (G), (I), and (J) 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 paragraphs (A) and (B) 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 (F), (G), (I), and (J) of this rule to provide for post-closure care of the C&DD facility.

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(L) Use of a financial assurance mechanism for multiple facilities. The owner or operator may use a financial assurance mechanism specified in this rule to meet the requirements of this rule for more than one C&DD facility. Evidence of financial assurance submitted to the licensing authority shall include a list showing, for each C&DD facility, the name, address, and the amount of funds for post-closure care assured by the financial assurance mechanism. The amount of funds available through the financial assurance mechanism shall be no less than the sum of the funds that would be available if a separate financial assurance mechanism had been established and maintained for each C&DD facility.

(M) Release of funds. Reimbursement shall be made as follows:

(1) Release of funds during post-closure care. The owner or operator or any other person authorized to perform post-closure care activities shall receive reimbursement from the financial assurance mechanism or a reduction in the amount of financial assurance maintained in accordance with this rule after the licensing authority's written concurrence that the post-closure care activities listed in the request for reimbursement or reduction have been performed in accordance with rule 3745-520-750 of the Administrative Code.

(2) Release of funds after post-closure care period has ended. The owner or operator or any other person authorized to perform post-closure care activities shall receive reimbursement of funds or termination of the financial assurance required under this rule only after post-closure care has been completed in accordance with rule 3745-520-750 of the Administrative Code.

(N) Release of the owner or operator from the requirements of this rule.

(1) After the completion of the post-closure care period in accordance with rule 3745-520-750 of the Administrative Code, the owner or operator may request written approval to terminate financial assurance for post-closure care of the particular C&DD facility in accordance with this rule.

(2) The board of health or the director may notify the owner or operator that financial assurance may be terminated if the board of health or director has issued written concurrence that the owner or operator is no longer required by this rule to maintain financial assurance for post-closure care of the C&DD facility and the owner or operator has requested release from financial assurance obligations.

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3745-520-930

Wording of the financial instruments.

(A) Trust agreement.

(1) The trust agreement for the trust fund specified in paragraph (F) of rule 3745-520-905 of the Administrative Code and the trust agreement for the trust fund specified in paragraph (F) of rule 3745-520-910 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 closure and/or post-closure care of the facility.

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 the approved board of health or in the absence of an approved board of health, the director.

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Section 2. Identification of facilities and amount for closure and/or post-closure care. This agreement pertains to the facilities and amount for closure and/or post-closure care identified on attached schedule A [on Schedule A, for each facility list the name, address, and the amount for closure and/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 closure and/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 closure and/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 closure and/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:

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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, 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;

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

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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

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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 not later than ten days before such change becomes effective. The licensing authority's written approval must be given prior to the ten days notice provided by the successor trustee. 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 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

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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 (G), (H), or (I) of rule 3745-520-905 of the Administrative Code and/or paragraph (G), (H), or (I) of rule 3745-520-910 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) of rule 3745-520-930 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]

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[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 (F) of rule 3745-520-905 of the Administrative Code and/or paragraph (F) of rule 3745-520-910 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 (G) of rule 3745-520-905 of the Administrative Code and the surety bond guaranteeing payment into the trust fund specified in paragraph (G) of rule 3745-520-910 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 closure and/or post-closure care amount(s) for each facility guaranteed by this bond [indicate amount of closure and/or post-closure care]:  
\$ \_\_\_\_\_

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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 closure and/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 3745-520-905 of the Administrative Code and/or rule 3745-520-910 of the Administrative Code.

Now, therefore, the conditions of the obligation are such that if the principal shall faithfully, before the beginning of 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 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 3745-520-905 of the Administrative Code and/or rule 3745-520-910 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

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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 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 3745-520-905 of the Administrative Code and/or rule 3745-520-910 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 closure and/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 3745-520-930 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)

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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 closure specified in paragraph (G) of rule 3745-520-905 of the Administrative Code and the surety bond guaranteeing performance of post-closure care specified in paragraph (G) of rule 3745-520-910 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 closure and/or post-closure care amount for each facility guaranteed by this bond [indicate closure and/or post-closure care amount]:  
\$ \_\_\_\_\_

Total penal sum of bond: \$ \_\_\_\_\_

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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 closure and/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 closure and/or post-closure care, whenever required to do so, of each facility for which this bond guarantees closure and/or post-closure care, in accordance with rule 3745-520-905 of the Administrative Code and/or rule 3745-520-910 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 3745-520-905 of the Administrative Code and/or rule 3745-520-910 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 closure requirements of rule 3745-520-700 of the Administrative Code or post-closure care requirements of rule 3745-520-750 of the Administrative Code, for a facility for which this bond guarantees performance of closure or post-closure care, the surety(ies) shall either perform closure in accordance with rule

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3745-520-700 of the Administrative Code and/or post-closure care in accordance with rule 3745-520-750 of the Administrative Code and other license requirements or place the closure and/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 3745-520-905 of the Administrative Code and/or rule 3745-520-910 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 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 closure and/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

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rule 3745-520-930 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 (I) of rule 3745-520-905 of the Administrative Code and the letter of credit specified in paragraph (I) of rule 3745-520-910 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

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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 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 3745-520-930 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 (J) of rule 3745-520-905 of the Administrative Code and the certificate of insurance specified in paragraph (J) of rule 3745-520-910 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 closure and/or post-closure care

**\*\*\* DRAFT – NOT FOR FILING \*\*\***

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 closure and/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 the insurance policy identified above to provide financial assurance for [insert "closure and/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 (J) of rule 3745-520-905 of the Administrative Code and/or paragraph (J) of rule 3745-520-910 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 insurance 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 3745-520-930 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]"