



Environmental  
Protection Agency

## Division of Materials and Waste Management

### Response to Comments

**Rule:** 3745-400 Construction and Demolition Debris Rules

#### Agency Contact for this Package

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Prior to filing proposed rules, Ohio EPA has provided opportunities for interested party review of drafts of revisions to Chapter 3745-400 rules regarding construction and demolition debris disposal facilities. This response to comment document addresses those interested comments received on the draft rules released for interested party review on October 11, 2011.

This document does not include those comments received on an initial draft of Chapter 3745-400 rules released on January 7, 2011. Those comments were addressed in a separate response to comment document available at [www.epa.ohio.gov/dsiwm](http://www.epa.ohio.gov/dsiwm).

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. The name of the commenter follows the comment in parentheses.

#### 3745-400-08 Construction and final closure certification.

**Comment 1:** This rule is duplicative of ODNR requirements for well log submittal. Why is it necessary to submit the certification of monitoring wells within 60 days of construction? As written, this rule requires each well have a separate 60 day deadline for submittal of the well log. It also implies that a well certification report for wells/piezometers installed as part of a hydrogeologic investigation, which may or may not be part of the future ground-water monitoring system, to be submitted within 60 days. The specific drilling and well construction details are submitted in the hydrogeologic site investigation report (HSIR) with the expansion application and should not be required to be submitted prior to the HSIR. Often during hydrogeologic field investigations, drilling activities can last for several weeks and possibly months. Keeping track of the

**individual well log due dates is a pointless bureaucratic requirement. Often drill core or soil samples are re-evaluated and rechecked as the hydrogeologic investigation progresses. Final logs may include results of soils analysis which are not available within 60 days. Thus, submittal of a well certification report should only be required for wells that are added to an existing ground-water monitoring system, and the time frame should be increased to 180 days. (Eagon and Associates, CDAO)**

**Response 1:** In consideration of this comment, the existing language in paragraph (A)(1) was revised to allow submittal of the certification of ground water monitoring wells prior to or with submittal of the annual ground water monitoring report that includes the new wells. This provides the flexibility requested in the comment but still ensures that the licensing authority has confirmation of the installation of new wells when ground water data from that well is first used in the annual ground water monitoring report.

While ODNR requires submittal of well logs that contain information required by this chapter, the chapter requires additional site-specific information necessary to monitor specific zones of ground water. Owners and operators may utilize the ODNR information in the required submittal to the licensing authority. The proposed rule retains this existing requirement.

**Comment 2:** **(A)(3) Please note a typographical omission in Paragraph 3745-400-08(A)(3) "certification of construction of engineered components of the final cap system ..." Finally, we reserve comment on the text of the incorporated materials which are made a part of this Rule as indicated in Paragraph 3745-400-08(C)(6). We will require additional time to review these incorporated ASTM materials to determine if they are consistent with the Rule and our discussions with the Agency. (CDAO)**

**Response 2:** The identified topographical omission in paragraph (A)(3) has been corrected as suggested.

3745-400-12 Final closure of facilities

**Comment 3:** (E)(2) Please reference the ability to comply with the background disclosure process under ORC 3734.44 as allowed by ORC 3714. This process allows the background review to be governed by the Attorney General's office if a facility owner has completed that process. (WM)

**Response 3:** The reference to ORC 3714.052 is accurate and sufficient since paragraph (F) of ORC 3714.052 specifically states that in lieu of complying with this section, an applicant for a permit to install, or a transferee of a permit to install or a license for a construction and demolition debris facility may choose to comply with sections 3734.41 to 3734.47 of the Revised Code. No change was made in response to this comment.

**Comment 4:** (E)(8)(a) Generally, the enumerated activities for and the timing of final closure reflect our discussions and concerns. We note, however, that the establishment of a dense vegetative cover within one year after completion of construction of the cap (e.g. Paragraph 3745-400-12(E)(8)(a)) may not be realistic in all circumstances. As evidenced by recent adverse weather patterns and conditions in the country, one "growing season" may be insufficient time to establish the dense vegetative cover contemplated by this rule. We would ask for an express provision in the Rule indicating that the licensing authority may grant a time extension for just cause. We do not, however, believe that the time extension should require a formal "exemption" petition pursuant to Revised Code, Section 3714.04. An exemption subject to Revised Code, Section 3714.04 relates only to the disposal or proposed disposal of waste. (CDAO)

**Response 4:** Establishment of dense vegetative cover is recognized as a common and less expensive means of minimizing erosion of the constructed final cap. Ohio EPA's experience has not indicated a significant problem with establishing dense vegetative cover in a year. To the extent that there are extraordinary circumstances which prevent the establishment of dense vegetative cover as a means of minimizing erosion, Ohio EPA believes that there are ways to procedurally address the need to implement other alternatives to minimize erosion. Ohio EPA will retain the

existing requirement with an understanding that an owner or operator may need to explore with the licensing authority alternative means of minimizing erosion to the extent that the owner and operator has been unable to establish dense vegetative cover.

**Comment 5:** **(E)(8)(b)(vi) Similarly, where construction of the cap is postponed (e.g. Paragraph 3745-400-12(E)(8)(b)(vi)) it may not be possible to complete construction of the cap system within 180 days of termination of the postponement. For example, if the Environmental Review Appeals Commission issues an order affirming the denial or revocation of the license in the September to November time frame, construction of the cap during the ensuing winter months would be impossible. Again, an express provision should be provided in this Paragraph to acknowledge the availability of an extension of time for just cause without the need for a formal "exemption" to this Rule. (CDAO)**

**Response 5:** OAC 3745-400-12(E)(8)(b)(vi) is existing language requiring the owner or operator to have entered into a binding contractual obligation to complete construction of a cap system within 180 days after an ERAC decision. This contract should consider the level of effort necessary to construct the cap during winter. Ohio EPA's experience has not indicated a significant problem with cap construction in late fall, early spring or even most winters. Ohio EPA will retain the existing requirement with an understanding that an owner or operator may need to explore with the licensing authority the need for an alternative schedule for the completion of closure.

**Comment 6:** **(E)(12) and (E)(13) Paragraphs 3745-400-12(E)(12) and (13) requires that the owner or operator must retain "all" authorizing documents, daily logs of operations, records and reports generated during final closure for inspection by Ohio EPA or the approved board of health. While it is debatable whether some of these documents and records might be useful during the closure and post-closure period, retention of all these records and documents by the owner or operator in perpetuity is unnecessary and unreasonable. We would suggest that these paragraphs contain a "sunset" provision triggered by the conclusion of the post-closure care period, as follows:**

**At the conclusion of the post-closure care activities and submittal of the post-closure care certification report, the owner or operator may destroy all documentation. The owner or operator shall notify the Ohio EPA and approved health district at least 90 days prior to the destruction of any such records, reports or documents, and upon request by the Ohio EPA or approved health district, shall make any such records, reports or documents available to the requesting agency. (CDAO, Hull and Associates, Inc.)**

**Response 6:** Paragraphs (E)(12) and (E)(13) require retention of authorizing documents, records and reports generated during final closure, and daily logs of operation during final closure. The compliance end date for retaining records during closure is found in rule 3745-400-12(G), which specifies when final closure of the facility is deemed complete and the obligation to comply with 3745-400-12(F) has ended.

Paragraphs (E)(8) and (E)(9) of rule 3745-400-16 have similar requirements for the 5 year post-closure period. After the 5 year post-closure period, the owner or operator is no longer required to maintain any documents (unless the licensing authority extends the post-closure period in accordance with rule 3745-400-17). The retention period is therefore 6-7 years after ceasing acceptance of debris. No change was made in response to this comment.

**Comment 7:** **What is Ohio EPA's reason for requiring an itemized final closure cost estimate? Does the agency have experience when existing facilities that required the use of final closure financial assurance instrument where there were not enough funds available? (Hull and Associates, Inc.)**

**Response 7:** An itemized final closure cost estimate assures that all of the cost of required final closure activities have been identified and accounted for in developing a third party cost of conducting the activity. An itemized final closure cost estimate allows for an owner or operator to tailor the final closure cost estimate to the specific facility using local third party cost estimates. The licensing authorities have experience with facilities that have failed to conduct closure activities and have found the \$13,000/acre significantly inadequate to complete a third party closure. The licensing

authorities have had to use other funds, including taxpayer funds, to make up the financial shortage.

3745-400-13 Financial assurance for construction and demolition debris facilities.

**Comment 8:** (A)(4) The CDAO believes that the current revisions to the final closure cost estimate, the delay in funding of financial assurance for an uncertified active license disposal area, the submittal of financial assurance documentation not later than thirty days after license issuance, the option to choose a five year transition for financial assurance in accordance with Rule 3745-400-25 and the continued use of financial assurance instruments with pre-effective date wording substantially and appropriately mitigate many of the economic hardships on existing C&DD facilities that would have resulted from the January 2011 draft rule. We note, however, that these agreed-upon concepts may not have been consistently incorporated into each paragraph of this rule. For example, in Paragraph 3745-400-13(A)(4), the text continues to indicate that all final closure financial assurance documents must contain the wording specified in Revised Rule 3745-400-14. This Paragraph should be revised to indicate that an owner or operator may continue to maintain a financial assurance instrument that was established prior to the effective date of these revised rules. (CDAO)

**Response 8:** In consideration of the comment, Ohio EPA has added language to paragraph 3745-400-13(A)(4) clarifying that an owner or operator may continue to maintain a financial assurance instrument that was established prior to the effective date of these revised rules.

**Comment 9:** Similarly, in Paragraphs 3745-400-13(B)(I), 3745-400-13(C)(I), 3745-400-13(C)(3)(a), 3745-400-13(D)(I), 3745-400-13(D)(3)(a), 3745-400-13(E)(I), 3745400- 13(E)(3)(a), and 3745-400-13(F)(I), the submittal of the final, signed financial assurance documents should be "not later than thirty days after license issuance", not "with the license application". As recognized during our discussions, the final financial assurance instrument cannot be finalized or executed until after the full terms and conditions are known when the final license is issued. After issuance of the license, a minimum of thirty days is necessary to

**incorporate any changes in the instrument and to collect the needed approvals and signatures. (CDAO)**

**Response 9:** In consideration of the comment, Ohio EPA has deleted the language "with the license application" from 3745-400-13(B)(1), 3745-400-13(C)(1), 3745-400-13(C)(3)(a), 3745-400-13(D)(1), 3745-400-13(D)(3)(a), 3745-400-13(E)(1), and 3745400-13(E)(3)(a). Rule 3745-400-13(A)(2) specifies that funded financial assurance is to be submitted not later than thirty days after license issuance.

**Comment 10:** **Paragraph 3745-400-13(A)(6)(a) should be revised to indicate: "Release of financial assurance shall be calculated based upon the unit cost of the completed engineered component contained in the current approved financial assurance cost estimate, ..." As recognized in other paragraphs of this Rule, the owner or operator may be entitled to a "progress payment" when an engineered component has been completed and certified. (CDAO)**

**Response 10:** In consideration of the comment, Ohio EPA has added language to 3745-400-13(A)(6)(a)(ii) to acknowledge progress payments. The new language provides that a request for reimbursement or reduction of financial assurance must include "[t]he amount of reimbursement or reduction of the financial assurance calculated based upon the unit cost of the completed engineered component contained in the current approved financial assurance cost estimate[.]"

**Comment 11:** **Paragraph 3745-400-13(A)(6)(a) provides that the licensing authority may withhold reimbursement of such amounts as the licensing authority "deems prudent". This "standard" is subjective and incapable of an objective determination. Since the cost estimate for closure must be approved during each license renewal, only a reasonable retainage (e.g. up to 10%) should be permitted until the final closure activities are completed and the certification report is submitted. (CDAO)**

**Response 11:** In response to this comment, Ohio EPA has revised this language to be clearer on the circumstance under which the licensing authority would withhold reimbursement. Reimbursement would be withheld if reimbursement of the requested amount would result in the underfunding of financial assurance.

**Comment 12:** Consistent with the provision for termination of the other financial assurance instruments, the discretionary "may" in Paragraph 3745-400-13(F)(13) for insurance policies should be changed to "will". Upon the owner/operator satisfactorily demonstrating the criteria for terminating the insurance policy, the licensing authority must give written consent for the termination. Otherwise, the discretionary withholding of the consent would be unreasonable. (CDAO)

**Response 12:** In response to the comment, Ohio EPA has revised the language and replaced the word "may" with "shall".

**Comment 13:** Rules OAC 3745-400-13(A)(3)(b), and similarly OAC 3745-400-18(A)(3), suggests that inflation factors be applied to the total final closure costs. It is our experience with your district offices that they have traditionally preferred that inflation factors be applied to the individual itemized line items and that these amounts are totaled in lieu of only adjusting the total cost for inflation from year to year. (Hull and Associates, Inc.)

**Response 13:** Rules OAC 3745-400-13(A)(3)(b), and similarly OAC 3745-400-18(A)(3) are correct. The trigger for recalculating the itemized cost estimate is whether there is a change in the location or an increase in the acreage of the active licensed disposal area established in the most recent license. This is a different trigger than the solid waste landfill cost estimate review. In the C&DD rules, if there is no change in the location or increase in acreage, then there is no recalculation of the cost estimate required and the inflation factor would be applied to the final closure cost estimate. No change has been made in response to this comment.

**Comment 14:** Is a Local Government Financial Test or Corporate Guarantees for Closure (currently allowed in OAC 3745-27-15(L) and (K), respectively, for solid waste landfills) appropriate financial assurance instruments for C&DD facilities in the proposed rules? (Hull)

**Response 14:** The Corporate Guarantee is not mechanism used in C&DD financial assurance. Current rule does not include the Local Governmental Financial Test. No changes have been made in response to comment.

3745-400-14 Wording of the financial instruments.

**Comment 15:** We assume that the Ohio EPA has contacted a reasonable number of institutions that have provided financial assurance instruments for C&DD facilities in the State of Ohio and have received assurance that the revised wording of the financial assurance instruments will be acceptable. While the revised language appears to be non-substantive or for clarification purposes, the C&DD industry has no control over whether these institutions will accept the Ohio EPA's revised language. An institution's discretionary refusal to accept the Ohio EPA's new wording would have a catastrophic impact on the prompt issuance of financial assurance. (CDAO, Hull and Associates, Inc.)

**Response 15:** Ohio EPA has contacted several financial institutions regarding the revised wording as well as the establishment of a new financial assurance requirement for post-closure care. The financial institutions contacted consistently emphasized that their primary focus is the creditworthiness of the applicant to meet the terms set forth by the financial institution and whether there is sufficient airspace available in the facility. The financial institutions contacted did not have any issue or particularly any concern with the revised wording or establishment of a post-closure care requirement.

The contacted financial institutions confirmed that Ohio EPA's plan to make the revised wording available in electronic form for the financial institutions to download was something they felt strongly would be beneficial to them.

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

**Comment 16:** (D) Please revise this section to read as follows:

**“(D) An owner or operator shall complete post-closure care of a construction and demolition debris facility in a manner which minimizes further maintenance at the facility, as well as the formation and release of leachate to the air, soil and surface water, or ground water and release of gas constituents from the construction and demolition debris facility to the extent ...”. (WM, CDAO)**

**Response 16:** Upon consideration of issues raised by comments, Ohio EPA has revised the language of 3745-400-16(D) and 3745-400-12(A) to be consistent with language as it appeared in the January 2011 interested party draft of 3745-400-12(A).

While the proposed rule changes the structure of 3745-400-12(A) as established in 1996 and last revised in 2002, Ohio EPA believes that the proposed format and language of 3745-400-12(A) appropriately improves clarity. For consistency, this proposed format and language is also proposed for the new post-closure care rule 3745-400-16(D).

Ohio EPA is aware of earlier interested party description of this rule as “inclusion of “aspirational requirements” and “inappropriate”. Prior comments held that “If the facility closes in accordance with the approved design, construction, and operating requirements, the closure must be approved. A licensing authority should not be permitted to require additional work simply because it subjectively believes that compliance with the approved plans haven't “minimized” maintenance, erosion, infiltration of surface water, etc. The term “minimize” is incapable of any objective standard.”

Ohio EPA does not agree. Ohio EPA's position is that the owner or operator is responsible for addressing the facility's impacts on public health and safety, and the environment. Facilities are not to create a nuisance, fire hazard, or health hazard or cause or contribute to air or water pollution. While in most cases, complying with those closure activities as contained in the approved design, construction, and operational requirements will be sufficient, in some cases compliance with such requirements may not adequately address significant issues of concern. Closure rules are to establish minimum requirements necessitating the appropriateness of broad performance standards. Experience has demonstrated that unforeseen circumstances do develop, such as subsurface fire and hydrogen sulfide generation and release, that dictate changes to the “approved design, construction, and operating requirements”. The owner or operator should be obligated to address these significant issues when operating, closing, or caring for their facility during post-closure.

A license authority should be able to require additional work in response to failure to minimize maintenance, erosion, infiltration of surface water, etc. through established

mechanisms of orders and license conditions, which are appealable. Licensing authorities should also be able to adjust the amount of closure financial assurance to ensure appropriate closure through issuance of the license. Experience has demonstrated that such licensing authority action is necessary to ensure that public funds do not have to be used to subsidize an underfunded closure.

**Comment 17:** **What is the rationale in Paragraph 3745-400-16(E)(4) for mandatory mowing of all vegetative cover at least once per year? Some vegetation suitable for a landfill might be adversely affected by mowing. Similarly, mowing in dry weather conditions may be unnecessary or might adversely affect the vegetative cover. Unlike MSW facilities, tree growth - eliminated by periodic mowing -- can provide significant structural integrity to certain berms and slopes and should be encouraged. Flexibility should be allowed. (CDAO)**

**Response 17:** The rationale for requiring mowing at least once a year is to minimize erosion by maintaining a shallow root vegetative cover. The use of grass to minimize soil erosion and maintain slopes is a widely recognized and common practice. The required use of shallow root vegetation at debris disposal sites minimizes root penetration damage to the final cap and creation of pathways for water to reach the underlying debris. To simply not mow at least once a year could allow establishment of a mix of natural woody brush and trees with deep root systems. No change has been made in response to this comment.

**Comment 18:** **As we proposed for the final closure rule, a "sunset provision" is required for the record retention requirements in Paragraphs 3745-400-16(E)(8) and (9). We suggest the following provision:**

**"At the conclusion of the post-closure care activities and submittal of the post-closure care certification report, the owner or operator may destroy all documentation. The owner or operator shall notify the Ohio EPA and approved health district at least ninety days prior to the destruction of any such records, reports, or documents, and upon request by the Ohio EPA or approved health district shall make any such records, reports or documents available to the requesting agency." (CDAO)**

**Response 18:** Paragraphs (E)(12) and (E)(13) require retention of authorizing documents, records and reports generated during final closure, and daily logs of operation during final closure. The compliance end date for retaining records during closure is found in rule 3745-400-12(G), which specifies when final closure of the facility is deemed complete and the obligation to comply with 3745-400-12(F) has ended.

Paragraphs (E)(8) and (E)(9) of rule 3745-400-16 have similar requirements for the 5 year post-closure period. After the 5 year post-closure period, the owner or operator is no longer required to maintain any documents (unless the licensing authority extends the post-closure period in accordance with rule 3745-400-17). The retention period is therefore 6-7 years after ceasing acceptance of debris. No change was made in response to this comment.

**Comment 19:** **The "trigger" in Paragraph 3745-400-16(F) (i.e., "not earlier than sixty days and not later than thirty days") is confusing. Is such a "window" necessary? It should be sufficient to say that the submittal of the post-closure care certification report shall be accomplished not later than thirty days prior to the expiration of the post-closure care period. Decommissioning should be allowed within 30 days after the expiration of the post-closure care period. (CDAO)**

**Response 19:** In consideration of this comment, the language of paragraph 3745-400-16(F) has been revised to read more clearly but retain the requirement to decommission the wells within the 5 year post-closure care period.

**Comment 20:** **The provision in Paragraph 3745-400-16(F)(2) regarding the decommissioning of a gas management system is unnecessary and should be removed. No rule for existing facilities requires a gas management system and no existing facility has installed such a system. (CDAO)**

**Response 20:** While there may not be a rule in Chapter 3745-400 requiring a gas management system, there are facilities that do have gas management systems to control odorous gas emissions. No changes have been made in response to this comment.

**Comment 21:** **It is recommended that clarification be added to 400-16 that the 5-year post-closure care activities clock starts**

**on the date the licensing authority provides written concurrence with the final closure certification report is approved. (Hull and Associates, Inc.)**

**Response 21:** Paragraph 3745-400-16(A) clearly states that "...an owner or operator...shall conduct post-closure care activities at the construction and demolition debris facility upon the licensing authority's written concurrence with the final closure certification report for the facility." No change is necessary in response to this comment.

**Comment 22:** **Suggest changing 400-16(D) to... "further maintenance at the facility under normal conditions, as well as.... ". (Hull and Associates, Inc.)**

**Response 22:** The owner or operator is expected to conduct activities with consideration of unusual circumstances and adjust their efforts to still minimize impacts. No change has been made in response to this comment.

**Comment 23:** **Suggest changing 400-16(E) to ... "shall conduct the following activities during the post-closure care period." (Hull and Associates, Inc.)**

**Response 23:** In consideration of comment, the language of paragraph 3745-400-16(E) has been revised to read "The owner or operator shall conduct post-closure care activities as follows:"

**Comment 24:** **Provide clarification to 400-16(E)(2)(d) and (f) that the noted items are required only if a leachate management and ground water monitoring systems are present. (Hull and Associates, Inc.)**

**Response 24:** The suggested change is best clarified in 3745-400-11, which is not being revised at this time. The suggestion will be saved and addressed when that rule is to be revised.

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

**Comment 25:** **(B)(3) Please revise this section to specify if active ground water correction action is required then a post-closure care period may be extended. Ground water assessment alone does not require corrective action.**

**“(3) A description of the conditions at the facility that are impacting public health or safety or the environment or if ground water assessment or an active ground water correction actions are required ...” (WM)**

**Response 25:** Paragraph (B)(3) does not set forth the circumstances under which the post closure care period may be extended, but merely requires that any such order include the specified information. No change was made in response to this comment.

**Comment 26:** **Extension of the post-closure care period should be via a "final appealable order" to allow the owner or operator to immediately appeal and contest the rationale for the extension. (CDAO)**

**Response 26:** 3745-400-17(A) provides that the post closure care period may be extended by order. Paragraph (C) further requires that an order extending the post-closure care period be in accordance with applicable chapters of the Revised Code. No change has been made in response to this comment.

**Comment 27:** **Paragraph 3745-400-17(C) should delete the reference to Chapter 3734 -- the MSW laws do not apply to the post-closure care of a construction and demolition debris facility. (CDAO)**

**Response 27:** The reference in rule 3745-400-17(C) to Chapter 3734 is intended to address the situation where a C&DD facility has disposed or mismanaged solid wastes. No change has been made in response to this comment.

**Comment 28:** **Paragraph 3745-400-17(D) should include a reference to Chapter 119 – adjudication orders of an agency of the State, such as a health department, must comply with this Chapter 119 of the Revised Code. (CDAO)**

**Response 28:** The reference in rule 3745-400-17(D) is to the primary statutory authorities (ORC Chapter 3714 and ORC section 3709.20). The inclusion of other references is unnecessary. No change has been made in response to this comment.

**Comment 29:** **The reference to "entity" in Paragraph 3745-400-17 is undefined. The term "owner and operator" should be substituted. (CDAO)**

**Response 29:** In response to this comment, the suggested change was made to paragraph (E) of 3745-400-17.

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

**Comment 30:** **The reference to Paragraph (A)(3)(b) in Paragraph 3745-400-18(A)(3)(c), we believe should be changed to "(A)(3)(d)". (CDAO)**

**Response 30:** In response to the comment, Ohio EPA has corrected the reference to paragraph (A)(3)(b) in paragraph 3745-400-18(A)(3)(c) to (A)(3)(d).

**Comment 31:** **With respect to the licensing authority's discretion to withhold a requested reimbursement or release of funds in Paragraph 3745-400-18(A)(5), the licensing authority must respond to such a request with a concurrence or explanation supporting a denial within thirty days. (CDAO)**

**Response 31:** In response to this comment, Ohio EPA has revised this language to be clearer on the circumstance under which the licensing authority would withhold reimbursement. Reimbursement would be withheld if reimbursement of the requested amount would result in the underfunding of financial assurance.

**Comment 32:** **Since it is likely that an existing C&DD facility may use an existing financial assurance instrument to provide post-closure care financial assurance, Paragraph 3745-400-18(A)(4) should be modified to provide a wording exception for a financial assurance instrument established prior to the effective date of these rules. This "exception" to the mandatory wording should be added to all of the individual post-closure care financial assurance instruments (e.g. Paragraphs 3745-400-08(B)(2), 3745-400-18(C)(2), 3745-400-18(D)(2), 3745-400-18(E)(2) and 3745-400-18(F)(5)). (CDAO)**

**Response 32:** In order for an existing closure financial assurance instrument to be used for establishing post-closure care financial assurance, there must be changes to that closure instrument. Missing in the wording of an existing closure financial instrument is any concept of post-closure care, the

post-closure care cost estimate, or release or availability of post-closure care funds to the licensing authority should the owner or operator fail to perform post-closure care activities. These are the essence of post-closure care financial assurance. An exception to the mandatory wording is not appropriate and no change has been made to the proposed rules.

Ohio EPA understands from discussion with some financial institutions that they can do either new post-closure care financial assurance instruments or possibly amend existing closure financial assurance instruments to include the proposed rule's mandatory wording and the necessary post-closure care financial assurance concepts. As long as the amendments provide for equivalent language, Ohio EPA would accept the amended instrument. No revision to the proposed rules or issuance of an exemption would be necessary.

Note that the proposed rules provide the owner or operator with the option of continuing the use their existing closure cost instruments. However, the owner or operator would need to obtain a separate new post-closure care financial instrument meeting the language of the proposed rule. The second option available to the owner or operator is to obtain one new financial assurance instrument that uses the proposed rule language to provide both closure and post-closure care financial assurance in one new instrument. As described above, there seems to be a potential third option to discuss with the financial institution regarding the amendment of an existing closure instrument to add post-closure care financial assurance.

**Comment 33:**        **The permissive "may" should be changed to "will" in Paragraphs 3745-400-18(B)(6) and 3745-400-18(F)(13). If the designated criteria for termination is met, the licensing authority should not have discretion to withhold termination of the financial assurance instrument. (CDAO)**

**Response 33:**     In response to the comment, Ohio EPA has revised the language and replaced the word "may" with "shall."

3745-400-19 Post-closure care certification report.

**Comment 34:** This rule appropriately recognizes that the information required for the post-closure care certification report relates solely to information developed during the period of post-closure care. (CDAO)

**Response 34:** Thank you for your support.

**Comment 35:** (B)(2) Please revise this section to recognize the certification report does not have to identify “maintenance and repair” if none is needed. “(2) ... The assessment report shall identify any needed maintenance and repair at the time of certification.” (WM)

**Response 35:** No change has been made in response to this comment. The rule is sufficiently clear and states the assessment shall identify needed maintenance and repair at the time of certification.

**Comment 36:** (B)(5) Please revise the wording to better reflect the gas migration assessment actions: “(5) An assessment of hydrogen sulfide gas migration and generation and emissions by the facility. The assessment shall consider observations, inspections, maintenance, repairs, and other information relating to hydrogen sulfide gas migration and generation and emissions during time of post-closure care. The assessment shall identify needed hydrogen sulfide gas migration and generation emission controls at the time of certification.” (WM, Hull and Associates, Inc.)

**Response 36:** In consideration of the comment, Ohio EPA has revised the language to read as follows:

“(B)(5) An assessment of hydrogen sulfide gas generation and emissions by the facility. The assessment shall consider observations, inspections, maintenance, repairs, and other information relating to hydrogen sulfide gas generation and emissions during time of post-closure care. The assessment shall identify needed hydrogen sulfide gas emission controls at the time of certification.”

**Comment 37:** What are the agencies expectations of the qualifications for the "professional" noted in 400-19(A)? Will the report need to be signed by a professional engineer licensed by the State of Ohio or can an operator with significant landfill experience be considered a professional? (Hull and Associates, Inc.)

**Response 37:** Requiring that the individual signing the post-closure care certification report be a professional skilled in the appropriate discipline recognizes that Ohio statutes require professional certification in the practice of certain disciplines. Engineers, surveyors, and sanitarians are professions regulated under Ohio statutes. No change was made in response to this comment.

**Comment 38:** Is the comparison of the leachate quality and quantity as proposed in 400-19(B)(3) to be completed between the last sampling event or from when the facility was active? (Hull and Associates, Inc.)

**Response 38:** Paragraph (B)(3) does not require a one-time comparison of the leachate quality and quantity at the completion of post-closure care and one other point in time (such as the last sampling event). Instead, paragraph (B)(3) requires that the post-closure certification report summarize the changes in leachate quality and quantity that occurred over the course of the 5 year post-closure care period. No change was made in response to this comment.

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

**Comment 39:** It is unreasonable and very costly to require leachate sampling from every sump in each cell as required by Rule 3745-400-20(A)(1). The cost becomes extreme for quarterly sampling where the facility recirculates leachate. Composite sampling of leachate from multiple risers/sumps in a cell should be permitted. Quarterly sampling of cells should be limited to cells that received recirculated leachate. Paragraph 3745-400-20(A)(1)(b) should be revised to state:

"During each sampling event, an owner or operator shall obtain at least one representative sample from the leachate collection system." (CDAO, Eagon and

**Associates, WM, Cox-Colvin and Associates, Inc., Hull and Associates, Inc.)**

**Response 39:** Leachate is the potential source of ground water contamination. An understanding of leachate characteristics and parameters of concern is fundamental to selection of appropriate ground water monitoring parameters and ultimately determining if a facility has an impact to ground water. ORC 3714.02(F) is specific to the monitoring and sampling of leachate, sampling frequency, number of parameters, and reporting of leachate sampling data. ORC 3745.02(F)(4) specifically requires that any parameter detected through the monitoring of leachate be added to that facility's ground water monitoring parameters. The statutory requirement ensures that ground water is monitored for those parameters detected in leachate. It is key that the monitoring of leachate be representative of the conditions present in the landfill to adequately detect the parameters potentially released to ground water. Sampling sumps is appropriate.

C&DD may consist of a wide range of materials resulting from the construction and demolition of different types and ages of structures (residential, commercial, and industrial). Structures may have been treated with preservatives, pesticides, fungicides, etc., or been subjected to contamination from spills, fires, floods, etc. Older structures may have been treated with chemicals that have been later banned or restricted from use due to public health and environmental concerns. The disposed material is often a heterogeneous mix that can vary significantly within areas of a disposal facility based upon the scale and timing of demolition projects. Within different areas of the landfill, leachate characteristics will change as the disposed debris ages and the products of decomposition enter the leachate. Sampling individual sumps appropriately ensures that the different areas of disposal are examined for changing leachate parameters potentially released to ground water.

The suggestion to sample only permanent sumps offered no clarification or distinction from non-permanent sumps. Sumps collecting leachate are an opportunity to sample and characterize the leachate. The Agency has made no change in response to this suggestion.

Upon consideration of comments regarding the cost of sampling numerous sumps, the rule has been revised to

reduce the number of sumps to be sampled in a year to the proposed requirement to sample at least one sump per year while ensuring that all sumps be sampled during each three year period. This change maintains the statutory requirement to annually sample leachate while providing the owner or operator with a period of three years to sample all sumps.

In consideration of comments regarding the cost of the statutory requirement for quarterly sampling if the facility is recirculating leachate, the rule has been revised to limit sampling to each sump capable of collecting leachate from areas of the facility where leachate is recirculated. This allows the owner or operator to manage sampling costs by deciding the locations to recirculate leachate.

**Comment 40:** Paragraph 3745-400-20(A)(1)(d)(ii)(a) states that the practical quantification limit ("PQL") shall be "protective of public health, safety and the environment". This "standard" is very vague and uncertain. (CDAO, Eagon and Associates)

**Response 40:** Due to the requirement in law (ORC 3714.02(F)(4)) that parameters detected in leachate to be added to the ground water monitoring list, it would be inappropriate to not require the PQL to be the "lowest that can be reliably achieved." However, Ohio EPA agrees that matrix interference causing elevated PQLs is sometimes unavoidable in leachate sample analysis, and thus has revised the rule to allow the owner or operator to document and justify in the leachate report elevated PQLs due to matrix interference.

**Comment 41:** (A)(1)(d) For volatile organic compounds, elevated PQLs for leachate are typically the result of foaming of the sample when preservative is added. Changing to another method will not resolve the problem in this case. Adding additional parameters to the ground-water monitoring requirements because of matrix interference or sample foaming in the leachate sample will not result in increased protection of the environment; it will just add cost and additional bureaucratic requirements. We recommend that this rule be removed. However, at a minimum, the rule should be clarified that in the case where the PQL is elevated above the MCL for one leachate analysis and subsequently lowered for the next and the parameter not detected above the MCL, the parameter is no longer required to be added to the

**ground-water parameter list. In addition, the analytical laboratory from time to time may report false positive results; the rule needs a mechanism to remove parameters from the ground-water monitoring list if they are no longer detected above the PQL in leachate. (Eagon and Associates, Cox-Colvin and Associates, Inc.)**

**Response 41:** Foaming of a VOC sample due to acid preservative reaction is typically easily remedied by changing sampling procedures to collecting an unpreserved sample that is cooled only and thus has a laboratory hold time of 7 days instead of the typical 14 days with acid preservation. However, please see response to comments above regarding paragraph (A)(1)(d) for changes to this rule allowing the owner or operator to justify that matrix interference is unavoidable.

**Comment 42:** Paragraph 3745-400-20(A)(1)(d)(iii) is unclear and improperly implies that Tentatively Identified Compounds will have to be reported as detections. The leachate analytical list should be clearly identified and limited to parameters on that list. H.B. 397 (e.g. R.C. §3714.02(F)(2)) only required testing for the 77 parameters listed in Rule 3745-400-21. (CDAO, Eagon and Associates)

**Response 42:** In response to this comment, paragraph (A)(1)(e)(iii) has been removed from this rule.

**Comment 43:** It should be unnecessary to develop a separate leachate sampling and analysis plan as required by Paragraph 3745-400-20(A)(2) if the facility's approved Groundwater Sampling and Analysis Plan included a plan for leachate sampling and analysis. (CDAO)

**Response 43:** Ohio EPA feels it is necessary to keep the two documents separate because they serve distinct purposes. No change was made in response to this comment.

**Comment 44:** Paragraph 3745-400-20(B) must contain a provision for deleting a parameter from groundwater testing if the parameter no longer is detectable in the leachate. (CDAO)

**Response 44:** Once a leachate detected parameter is added to the ground water monitoring detection system in accordance with this

proposed rule, rule 3745-400-10 (Ground Water Monitoring) is the appropriate rule to address when to remove a parameter from the required ground water monitoring parameters. While rule 3745-400-10 is not a part of this proposed rule package, this comment will be considered in future rulemaking efforts that include revisions to 400-10.

**Comment 45:** **“(A)(1)(c) Field Analysis. ... and turbidity prior to sample collection. ~~of each leachate sample.~~” (WM)**

**Response 45:** In response to this comment, the language has been revised to "and turbidity for each sump from which a sample is taken[.]"

**Comment 46:** **Based on the proposed regulations related to groundwater monitoring, most C&DD landfill facilities will need to analyze groundwater for an extensive parameter list given that most C&DD facilities are not required to and do not have a leachate collection system. While Ohio EPA has stated the parameters proposed in OAC 37545-400-25 is based on analyses of leachate from various leachate samples collected from C&DD facilities across the state, not all sample points may not have yielded a truly representative C&DD leachate sample and do not necessarily represent the quality of leachate expected to be encountered at this type of facility. Also, some of the requirements for analyses of the leachate samples may not be appropriate. For example, the proposed OAC 3745-400-20(A)(1)(d)(iii) rule, requires that the PQL for each leachate sample be lower than the primary and secondary drinking water standard for the parameters included in Chapter 3545-81 and 82 of the OAC, respectively, if one exists. However, due to the nature of leachate, matrix interference often precludes for a PQL that low to be utilized. It is unclear, why leachate would need to be analyzing to such low PQL. (Hull and Associates, Inc.)**

**Response 46:** The rules must be consistent with the statute. The statute [ORC 3714.02] requires that leachate be monitored for at least seventy-seven parameters and that ground water be monitored for those parameters detected in leachate. A facility with a ground water monitoring system but without a leachate monitoring system is required to monitor ground water for all seventy-seven parameters.

Regarding why the PQLs in leachate should be below MCLs and SMCLs, concentrations in ground water below the MCL and SMCL are considered to be protective of human health and preventing nuisance in accordance with ORC 3714.02. Should a release of leachate to ground water be suspected or in fact occur, it is necessary for purposes of assessment and/or corrective actions to know what the concentrations of constituents are in leachate for comparison to results in ground water. If a PQL typically utilized for leachate samples is much higher than that in ground water samples, the high PQL may yield non-detect results for leachate and thus mask the occurrence of that constituent in leachate, and thus complicate or even confound the assessment and/or corrective actions efforts. However, Ohio EPA agrees that sometimes it is unavoidable that matrix interference will prevent achieving PQLs below the MCL, and thus has revised the rule as described in response to comments on paragraph (A)(1)(d) above.

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

**Comment 47:**        **The CDAO supports the five year transition period for final closure and post-closure care financial assurance.**

**Response 47:**      Thank you for your support.

**Comment 48:**        **The reference to (A)(2) in Paragraph 3745-400-25(B)(1) we believe should read "(A)(3)". (CDAO)**

**Response 48:**      In response to this comment, Ohio EPA has made the suggested correction.

**Comment 49:**        **To be consistent with the other similar provisions, the reference to "upon issuance of the license" in Paragraph 3745-400-25(B) should read "not later than thirty days after license issuance". (CDAO)**

**Response 49:**      In response to this comment, Ohio EPA has removed the phrase "upon issuance of the license" and will rely on the reference to 400-13(A)(2) and 400-18(A)(2).

**Comment 50:**        **In Paragraph 3745-400-25(C)(4) strike the language "which is then" in the third line. (CDAO)**

**Response 50:** In response to this comment, Ohio EPA has made the suggested change.

**Comment 51:** The first sentence in Paragraph 3745-400-25(E)(2) is confusing. Clearly, this paragraph is meant to convey that the annual transition period payment is due no later than the expiration date of the current annual license (e.g. December 31). The reference in the preceding sentence to "upon issuance of the license" also makes this paragraph unclear. (CDAO)

**Response 51:** In response to this comment, Ohio EPA has removed the reference "upon issuance of the license" from paragraph (E)(2).

**Comment 52:** Paragraph 3745-400-25(F) makes the signatory to the notice opting for the transition period liable for all non-compliance with Chapter 3714 of the Revised Code. This is unreasonable since the signatory may have no management responsibilities whatsoever for operational activities. While the CDAO understands that the "facts" in any notice must be true and that false or misleading statements ought to be actionable, it is entirely unreasonable to hold a signatory responsible for compliance issues that are beyond his or her control. The General Assembly did not authorize such a broad sweeping liability in Am. Sub. H.B. 397 or any other statute. This is a significant issue that must be resolved satisfactorily. The final sentence of Paragraph 3745-400-25(F) must be removed. (CDAO)

**Response 52:** In response to this comment, Ohio EPA has replaced the references to "signatory" with "owner or operator".

**End of Response to Comments**