



## Delay of Cap System Construction

### Applicable Rules

MSW: OAC 3745-27-08(H)  
ISW: OAC 3745-27-19(H)  
RSW: OAC 3745-30-14(V)(3)

### Purpose

Some owners/operators may desire to delay construction of the cap system. The purpose of this document is to outline the considerations to be taken to determine if construction of the cap system can be delayed and for how long.

### Applicability

This document is applicable to owner/operators of solid waste facilities.

### Background

The cap system is the first engineered component of the landfill used to minimize the amount of water infiltration and consequential leachate generation, and it serves as a barrier between the waste and the environment and humans. Yet it is the last component to be constructed. For these reasons, DMWM requires that the cap system be installed as soon as waste placement has reached the approved limits. These triggers are found:

- for MSW landfills in OAC 3745-27-19(H)
- for ISW landfills in OAC 3745-29-19(H)
- for RSW landfills in OAC 3745-30-14(V)(3)

With the advent of Subtitle D regulations, DMWM provided the option of applying interim final cover until the owner/operator is prepared to construct the cap system. This interim final cover option was deemed necessary due to the new requirement of including an FML in the cap system design. Owner/operators did not want to construct the cap system until large areas were ready. However recent documentation from USEPA clarifies that the FML component should not be considered a required cap system component. Therefore in future rulemaking, DMWM will be considering the removal of the FML component from the cap system design which would also remove the necessity of the interim final cover option.

DMWM has also observed that even with the interim final cover option, owner/operators are manipulating the development of the facility to delay triggering cap construction (redesignating phases, filling in a new phase before final grades were met in the previous phase because it is 'necessary for the proper operation of the facility'). As a result, DMWM will also be considering other means than filling to final grade to trigger cap construction (e.g. requiring a capping plan in the permit) and will be revising the rules accordingly at a later date.

Until the rules are revised, this guidance document can be used for those situations where an owner/operator desires to delay cap system or interim final cover construction because of loss of cap integrity due to significant differential settlement, the potential of returning to the area to refill low spots, a vertical expansion is anticipated in the area, or landfill "mining" is anticipated (i.e. at scrap tire monofills).

DMWM has identified three approaches to delay cap construction:

- (1) Redesignate the phases or units. Use of this approach is considered an alteration to the permit.
- (2) Create a phasing plan for cap construction, separate from the operational phases. Use of this approach is considered an alteration if the permit already contains a 'capping plan'. Otherwise a variance under ORC 3734.02(A)\* is needed.

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- (3) Use an alternate time frame such as a date, or a time period after reaching final elevations. Use of this approach is considered an alteration if the permit already contains alternate time frames. Otherwise a variance under ORC 3734.02(A)\* is needed. Note that such a variance may be issued "for a period specified by the director."

\* The residual solid waste rules incorporate the variance option in OAC 3745-30-15. Although the process is the same, delay of cap system construction would be addressed through this rule instead of the statute.

The following procedure outlines the considerations DMWM will take when reviewing these requests.

### Procedure

DMWM will consider the following criteria when reviewing alteration and variance requests:

- (1) sufficient funds are available through financial assurance to cover the increased closure costs (larger area to be capped)
- (2) the facility is not contaminating the ground water (if the facility is impacting ground water quality, delay of cap construction will exacerbate the problem)
- (3) the facility has a liner and leachate collection system (the risk of creating a hazard is increased if the landfill is not lined and the leachate is not collected)
- (4) the quality of the cover to be in place for the duration of the delay (a measure to protect human health and the environment until the cap system is constructed)
- (5) the duration of the delay (extending the period without minimizing water infiltration or providing a barrier increases the risk to human health and the environment)
- (6)(a) if the operational phases are redesignated, then DMWM may consider other operational issues such as constructability, stability, and traffic patterns
- (6)(b) if a phasing plan for cap construction is created or alternate time frames will be used, then a capping plan is to be prepared to show the capping phases or new time frames.
- (6)(c) if the delay of cap system construction will occur after the facility ceases to accept waste, then the owner/operator needs to show that they will not 'walk away from the site.'

### Questions and Answers

Q.1. If the cap system construction is delayed after the facility ceases to accept waste placement, when does the post-closure care period begin - upon ceasing to accept waste or upon completion of cap construction?

A.1. The rules state that the post closure care period does not begin until the construction certification report has been submitted (OAC 3745-27-14(A), OAC 3745-29-14(A), OAC 3745-30-09(H)). This does not change. For example, if the cap system is not constructed for 5 years after ceasing to accept waste, then the financial assurance for closure must be maintained for that period, monthly explosive gas monitoring continues, NSPS controls will continue, thus the facility is not considered 'closed' (although a license does not have to be obtained). In effect, the 'post-closure care period' is extended for the extent of the delay.

**IMPORTANT:** The delay of cap system construction after the facility ceases to accept waste placement is a special case. The ability of DMWM to approve of such a case will be dependent upon the owner/operator's assurance that they will not 'walk away from the site.' Such assurance may include prepurchasing the construction materials or confirming that the soils are available on-site.

### Contact

If you have questions regarding this document or would like additional information, please contact:

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### Disclaimer

This document is intended for guidance purposes only. Completion of the activities and procedures outlined in this document shall not release an owner or operator from any requirement or obligation for complying with Ohio Revised Code (ORC) Chapter 3734 or 3714 if appropriate, the OAC rules adopted thereunder, or any authorizing documents or orders issued thereunder, nor shall it prevent Ohio EPA from pursuing enforcement actions to require compliance with ORC Chapter 3734 or 3714, the OAC rules or any authorizing documents or orders issued thereunder.