

# Establishing Financial Assurance Mechanisms for Engineered Barriers at Chapter 21E Sites

## Public Comment Draft

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Comments Due By: October 24, 2025
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### *A. Purpose*

The purpose of this guidance document is to assist parties establishing financial assurance mechanisms (“FAMs”) in order to satisfy the requirements of 310 CMR 40.0998(2) (“Engineered Barriers FAMs”).

### *B. Definitions*

Capitalized terms used in this guidance document without definition shall have the definitions given to them in 310 CMR 40.0000.

### *C. Background*

When the concentration of one or more Oil and/or Hazardous Materials in Soil exceeds a Method 3 Ceiling Limit, to achieve a condition of No Significant Risk such Soil must be (a) permanently immobilized or fixated as part of a remedial action, (b) located at a depth greater than 15 feet from the ground surface, or (c) located beneath an Engineered Barrier. 310 CMR 40.0996(6).

Likewise, at disposal sites where there is a presence of visible coal tar waste deposits, to achieve a condition of No Significant Risk for both current and future conditions: (a) a finding of No Significant Risk of harm for the disposal site to public welfare and the environment for both current and future conditions must be made pursuant to 310 CMR 40.0994 and 310 CMR 40.0995, respectively; (b) the visible coal tar waste deposit is located either: (1). At a depth greater than 15 feet from the ground surface; or (2). beneath an Engineered Barrier implemented pursuant to the

requirements at 310 CMR 40.0998; and (c) and Activity and Use Limitation is implemented as required in 310 CMR 40.1012(2). 310 CMR 40.0997(3).

Pursuant to the MCP, “[a]n Engineered Barrier shall be appropriately monitored and maintained to ensure the long-term integrity and performance in accordance with a monitoring and maintenance plan; such plan shall be submitted to the Department and shall document that one or more financial assurance mechanism(s) as specified at 310 CMR 40.0998(4) have been established which adequately provide for ongoing future monitoring, maintenance and any necessary repair or replacement of the barrier.” 310 CMR 40.0998(2).

An Engineered Barrier FAM shall be consistent with the specifications in 310 CMR 30.906: *Financial Assurance for Post-closure Care*. 310 CMR 30.906 describes six options for the establishment of a FAM:

- Post-closure trust fund;
- Surety bond guaranteeing payment into a post-closure trust fund;
- Surety bond guaranteeing performance of post-closure care;
- Post-closure letter of credit;
- Post-closure Insurance; and
- A combination of any of the five FAMs described above.

#### ***D. Forms***

MassDEP has customized the forms found at 310 CMR 30.909 for BWSC Engineered Barrier FAMs. MassDEP recommends using the following forms:

1. Trust (fully funded)
2. Standby Trust for a Letter of Credit
3. Model Letter of Credit
4. Standby Trust Agreement for a Surety Bond, and
5. Model Surety Bond (Performance Bond).

#### ***E. Amount of FAM***

Consistent with Section 6.1 of the MassDEP, BWSC Guidance on the Use, Design, Construction, Monitoring and Maintenance of Engineered Barriers, sufficient funds must be available for all sites to ensure implementation of post-construction monitoring and maintenance activities for a minimum of 30 years following the construction of the Engineered Barrier, as specified in the monitoring and maintenance plan. In general, unless otherwise specified by MassDEP, this estimate should provide for:

- at least \$60,000 (total) as a one-time allocation for a yearly inspection and monitoring program for 30 years; AND
- at least \$100,000 per acre (or portion thereof) as a one-time allocation, to be available for scheduled or needed maintenance or repair activities; AND
- at least \$40,000 as a one-time allocation for a 30-year groundwater/soil gas monitoring program, if needed.

Any deviations from these amounts shall be justified in detail by the Licensed Site Professional (“LSP”)-of-Record who should also explain the site-specific, current dollar analysis of funding needs to implement the post-construction Monitoring and Maintenance Plan.

Certain sites and installations are more prone to sudden and significant failure of key barrier elements. Such concerns have historically been related to seepage-induced instability of side slopes during a severe storm event, but it is also foreseeable that rising sea levels may affect Engineered Barriers in flood or tidal zones. Accordingly, additional funding should be provided in the Engineered Barrier FAM to cover the complete cost of replacement of all portions of an Engineered Barrier with a top or side slope equal to or greater than 3 (horizontal) to 1 (vertical), and/or installations within flood or coastal inundation zones. The amount of funds secured for this purpose should be based on a site-specific analysis of funding needs to cover the complete cost of replacement of relevant areas of the Engineered Barrier, inclusive of all design and construction activities.

#### ***F. Establishment of BWSC FAM***

Given the role of Licensed Site Professional in the waste site cleanup program, Engineered Barrier FAMs follow a unique review process that differs from FAMs established under other MassDEP programs. MassDEP recommends following the three step process described below to ensure compliance with the applicable regulations:

##### Step 1

The LSP-of-Record for the relevant disposal site develops a recommendation as to the amount of funds that should be secured, consistent with Section E of this Guidance, above. The LSP-of-Record may direct any questions regarding the appropriate amount to the MassDEP Deputy Regional Director (“DRD”) for the MassDEP region where the site is located.

Once the LSP-of-Record has a recommendation, he or she should submit that recommendation, with appropriate justification, to the DRD and for written approval. Such approval may be made by email.

##### Step 2

The party performing response actions should develop a draft BWSC FAM, using the draft BWSC FAM forms referenced in Section D above. Questions regarding the form of BWSC FAMs (as opposed to their amount) should be directed to:

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Email: eric.fahle@mass.gov, or

Erica Judd, Financial Assurance Analyst      Tel.: (857) 278-6438  
Email: erica.judd@mass.gov

A draft BWSC FAM, with the approved FAM amount, should then be submitted to the MassDEP Fiscal Office at the following address.

Fiscal Office: BWSC FAMs  
MassDEP  
100 Cambridge Street, Suite 900  
Boston, MA 02114

MassDEP's Financial Assurance team will review the submitted FAMs to ensure that they are in compliance with the applicable regulations.

### Step 3

Once MassDEP's Financial Assurance team has approved the form of the BWSC FAM, the party performing response actions should finalize the Engineered Barrier FAM, consistent with the Financial Assurance teams' instructions. To the extent a Permanent Solution requires an Engineered Barrier, that Permanent Solution will not be complete until a FAM is finalized.