



Former Mt. Tom Station Power Plant  
200 Northampton Street  
Holyoke, Massachusetts

**Initial Structural Stability  
Assessment - Bottom Ash Basin  
A**

**Mt. Tom Generating Company LLC**

May 2026

## Certification

**CCR Unit:** Mt. Tom Generating Company, LLC; former Mt. Tom Generating Station; Bottom Ash Basin A

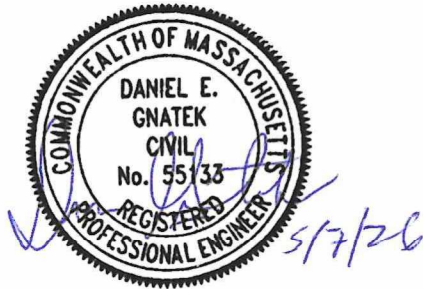
I hereby certify, to the best of my knowledge, information, and belief:

- 1) That the information contained in this certification is prepared in accordance with the accepted practice of engineering; and
- 2) That the initial structural stability assessment of the Mt. Tom Generating Company, LLC Bottom Ash Basin A meets the requirements specified in 40 CFR § 257.73(d)(1).



Printed Name Daniel R Buttrick

Date May 7, 2026



Printed Name DANIEL E. GNATEK

Date 5/7/26

## Table of Contents

SECTION 1   Introduction .....	<b>1-1</b>
1.1 Background .....	1-1
1.2 Purpose .....	1-2
1.3 Regulations .....	1-2
SECTION 2   Structural Stability Assessment .....	<b>2-1</b>
2.1 Foundation and Abutment Stability .....	2-1
2.2 Slope Protection .....	2-1
2.3 Embankment Stability.....	2-1
2.4 Vegetated Slopes .....	2-1
2.5 Spillway Capacity and Hydraulic Structures .....	2-1
SECTION 3   Conclusions .....	<b>3-1</b>
SECTION 4   Recordkeeping and Reporting.....	<b>4-1</b>

### Figures

Figure 1: Site Location Plan

---

## SECTION 1 | Introduction

### 1.1 Background

On behalf of Mt. Tom Generating Company LLC (“MTGC”), a wholly owned indirect subsidiary of ENGIE North America, Inc., Tighe & Bond, Inc. (“Tighe & Bond”) has prepared this initial structural stability assessment report for the Bottom Ash Basin A associated with the Environmental Protection Agency (“EPA”) Coal Combustion Residuals (“CCR”) Final Rule for Legacy CCR Surface Impoundments (“LSI”) and CCR Management Units (“CCRMU”), for the former MTGC facility (the “site”), located at 200 Northampton Street in Holyoke, Massachusetts in accordance with 40 CFR §257.73(d)(1). The Basin known as “Bottom Ash Basin A” is shown in Figure 1, and is a legacy CCR surface impoundment (“LSI”) as defined by 40 CFR § 257.53.

The site is located in Hampden County, Massachusetts. The former plant is adjacent to the Connecticut River approximately 15 miles north of Springfield, MA. Bottom Ash Basin A is located south of the Special Basin and former coal stockpile and runoff area, sharing an embankment with these two areas, and is adjacent to the Connecticut River. Since the decommissioning of the plant, the basin does not receive flow from outside sources, limiting accumulation of water to rainwater directly falling into the basin. There is no functioning low-level-outlet (“LLO”) associated with the basin.

In accordance with a 2018 Massachusetts Department of Environmental Protection (“MassDEP”) Administrative Consent Order (ACO-00002589) (“ACO”) and corresponding regulatory approvals, the power plant and associated infrastructure and appurtenances have been demolished or abandoned in place. Ash from the combustion of coal and fuel oil has historically been deposited throughout portions of the site, generally south and west of the former generation facility infrastructure. Two traditional solid waste landfills are located at the site; a former municipal landfill that received solid waste from the City of Holyoke, and a former plant dump/landfill that received refuse and solid waste generated on-site. The only remaining structure is an electrical substation located to the east of the former generation plant building, which is owned and operated by Eversource Energy. Transmission lines run both north and south of the substation and run along the eastern portion of the site. At the northern side of Kennedy Brook, the lines cross the Connecticut River east into South Hadley. The lines are supported by ground-mounted pad supports and utility poles. Additionally, overhead electrical distribution lines, owned and operated by South Hadley Electric Light Department and Holyoke Gas and Electric, are present at the site.

The width (east to west) of Bottom Ash Basin A varies from 300 feet to 360 feet and it is approximately 360 feet long (north to south) with a maximum depth of approximately 15 feet, and a maximum structural height (compared to the elevation at the downstream toe) of approximately 12.5 feet. The maximum storage of the basin is approximately 29.3 acre-feet. The northern side of the impoundment is partially incised, sharing an embankment with the historical Coal Pile Sump Area and the Special Basin. There is currently no inflow to the basin other than direct precipitation over the basin surface area and immediately adjacent edges of the embankment crest, and the basin is generally dry other than immediately following rainfall events until rainwater infiltrates into the basin. There are no valves or diversions that could contribute flow to the basin other than direct precipitation, nor valves or diversions that would remove water from the basin. The location of the site and Bottom Ash Basin A are included in Appendix A. Additional information pertaining to the history of Bottom Ash Basin A can be found in the Tighe & Bond report “History of Construction – Bottom Ash Basin A”, dated February 2026.

## 1.2 Purpose

The purpose of this assessment is to document whether the design, construction, operation, and maintenance of the LSI Bottom Ash Basin A is consistent with recognized and generally accepted good engineering practices for the maximum volumes of CCR and CCR wastewater which can be impounded therein.

## 1.3 Regulations

The EPA Final CCR Rule, 40 CFR § 257.73(d) states:

*(d) Periodic Structural Stability Assessments.*

*(1) The owner or operator of the CCR unit must conduct initial and periodic structural stability assessments and document whether the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering practices for the maximum volume of CCR and CCR wastewater which can be impounded therein. The assessment must, at a minimum, document whether the CCR unit has been designed, constructed, operated, and maintained with:*

*(i) Stable foundations and abutments;*

*(ii) Adequate slope protection to protect against surface erosion, wave action, and adverse effects of sudden drawdown;*

*(iii) Dikes mechanically compacted to a density sufficient to withstand the range of loading conditions in the CCR unit*

*(iv) Vegetated slopes of dikes and surrounding areas not to exceed a height of six inches above the slope of the dike, except for slopes which have an alternate form or forms of slope protection;*

*(v) A single spillway or a combination of spillways configured as specified in paragraph (d)(1)(v)(A) of this section. The combined capacity of all spillways must be designed, constructed, operated, and maintained to adequately manage flow during and following the peak discharge from the event specified in paragraph (d)(1)(v)(B) of this section.*

*(A) All spillways must be either:*

*(1) Of non-erodible construction and designed to carry sustained flows; or*

*(2) Earth- or grass-lined and designed to carry short-term, infrequent flows at non-erosive velocities where sustained flows are not expected.*

*(B) The combined capacity of all spillways must adequately manage flow during and following the peak discharge from a:*

*(1) Probable maximum flood (PMF) for a high hazard potential CCR surface impoundment; or*

*(2) 1000-year flood for a significant hazard potential CCR surface impoundment; or*

*(3) 100-year flood for a low hazard potential CCR surface impoundment.*

*(vi) Hydraulic structures underlying the base of the CCR unit or passing through the dike of the CCR unit that maintain structural integrity and are free of significant deterioration,*

*deformation, distortion, bedding deficiencies, sedimentation, and debris which may negatively affect the operation of the hydraulic structure; and*

*(vii) For CCR units with downstream slopes which can be inundated by the pool of an adjacent water body, such as a river, stream or lake, downstream slopes that maintain structural stability during low pool of the adjacent water body or sudden drawdown of the adjacent water body.*

This report contains supporting documentation for the initial structural stability assessment. The hazard potential classification for this structure was determined by observation of site conditions, review of available mapping, and use of a publicly available dam breach tool.

---

## SECTION 2 | Structural Stability Assessment

### 2.1 Foundation and Abutment Stability

As discussed in the Initial Safety Factor Assessment report, analysis of the Bottom Ash Basin A embankments meets the safety factor requirements outlined in 40 CFR § 257.73. No record of historical foundation instability has been reported for Bottom Ash Basin A. No visual evidence of conditions associated with potential foundation or abutment instability have been observed during inspections.

### 2.2 Slope Protection

The safety factor assessment report details the slope stability analysis, which supports the conclusion that Bottom Ash Basin A meets safety factor requirements. The vegetated slopes are sufficient erosion protection for the unit which contains no water under most conditions. The filled embankment river-facing slope is well above the Connecticut River level under most conditions and is thickly vegetated. No erosion has been observed.

The impoundment slopes are not susceptible to a rapid drawn down condition as the outlets for the impoundment have been removed or plugged.

### 2.3 Embankment Stability

As discussed in the Initial Safety Factor Assessment report, the eastern embankment of the Bottom Ash Basin A meets the safety factor requirements outlined in 40 CFR § 257.73. The analysis indicates that the downstream slope of the eastern embankment maintains adequate factors of safety during inundation and subsequent recession of the Connecticut River during the inflow design flood, which is equal to the 100-year flood.

No record of historical embankment instability has been reported for Bottom Ash Basin A.

### 2.4 Vegetated Slopes

The vegetated slopes are sufficient erosion protection for the unit which contains no water under most conditions.

### 2.5 Spillway Capacity and Hydraulic Structures

As discussed in the Tighe & Bond report Inflow Design Flood Control System Plan, dated May 2026, Bottom Ash Basin A is not equipped with spillways, outfalls, or other external discharges apart from infiltration processes. The basin has sufficient capacity to discharge precipitation from its Inflow Design Flood (i.e., 100-year flood), through exfiltration in a reasonable period.

---

## SECTION 3 | Conclusions

Based on a review of available information and additional investigations carried out at the site, it is Tighe & Bond's opinion that the Bottom Ash Basin A design and maintenance are consistent with good engineering practices and meet the requirements of 40 CFR § 257.73.

---

## SECTION 4 | Recordkeeping and Reporting

This report will be placed in the facility's operating record and internet site. Identified changes to the structural stability assessment will be updated within this document, and the revised document will be placed in the facility's operating record. In accordance with 40 CFR 257.73, the owner or operator is required to conduct periodic structural stability assessments every five years, also to be placed in the facility's operating record.

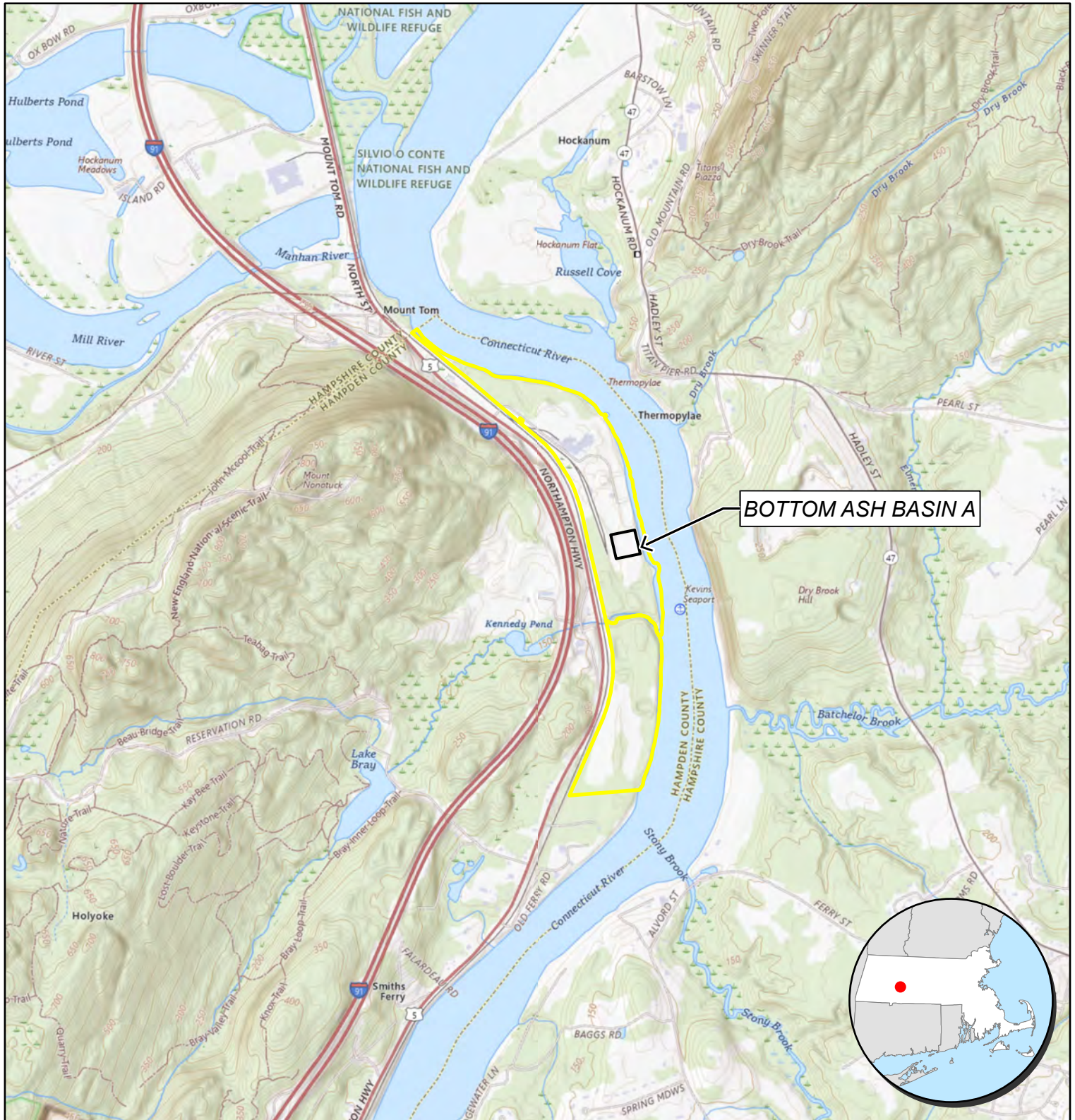
---



## SECTION 4 | Recordkeeping and Reporting

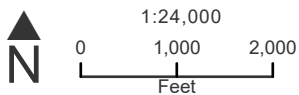
This report will be placed in the facility's operating record and internet site. Identified changes to the structural stability assessment will be updated within this document, and the revised document will be placed in the facility's operating record. In accordance with 40 CFR 257.73, the owner or operator is required to conduct periodic structural stability assessments every five years, also to be placed in the facility's operating record.



Figures



-  Bottom Ash Basin A
-  Subject Property



Based on USGS The National Map Topo Basemap.  
 Contour Interval Equals 10 Feet.  
 Parcel Boundary is courtesy of MassGIS and is approximate.

**Tighe &  
Bond**

