



Massachusetts Coal Ash Disposal and Reuse

Plant	Owner	Landfills	Ponds
Mount Tom	FirstLight Power Resources Services, LLC	yes	3
Somerset Station	Somerset Power LLC/closed 2010		4
Brayton Point	Dominion Energy New England, LLC		closed
Salem Harbor	Dominion Energy New England, LLC		closed
West Springfield	Consolidated Edison		
Canal	Mirant Corporation		

Amount of coal ash generated per year: 300,000 – 600,000 tons annually.

Information on Massachusetts Coal Ash Ponds

Number of Coal Ash Ponds: Seven ponds at two plants.ⁱ

Age of Ponds: Most of the ponds in Massachusetts were built decades ago. One pond is at least 85 years old, one pond is 40 years old, four ponds are at least 26 years old, and one pond is 7 years old.ⁱⁱ The advanced age of these ponds makes it unlikely that they have critical safeguards like liners and leachate collection systems.

Information on Massachusetts Coal Ash Landfills

Mount Tom operates an onsite fly ash landfill. The other plants store coal ash onsite, dispose of ash in offsite landfills, and sell fly ash for reuse.

Damage from Coal Ash in Massachusetts

Proven Damage Cases: According to the U.S. EPA damage case assessment, proven damage cases in Massachusetts include:ⁱⁱⁱ

- **Salem Acres Site, Salem, MA.** Disposal of fly ash and other wastes in an unlined landfill contaminated groundwater with arsenic and chromium above drinking water standards. The site was placed on Superfund’s National Priority List, the list of the most dangerous Superfund sites, in 1986.^{iv}
- **City of Beverly/Vitale Brothers Fly Ash Pit, Beverly, MA.** A sand and gravel pit was used as a fly ash landfill from the 1950s to the 1970s. Fly ash from the site eroded into a nearby swamp, stream and drinking water reservoir, resulting in several feet of fly ash on the bottom of a large area of the reservoir. The stream and underlying groundwater were contaminated with metals, including arsenic and selenium. Fugitive dust from the landfill contaminated air with arsenic at concentrations of 2 parts per billion. A state-ordered cleanup was completed in 2007.

Potential Damage Cases: According to the U.S. EPA damage case assessment, potential damage cases in Massachusetts include:^v

- **K.R. Rezendes South Main Street Ash Landfill, Freetown, MA.** A fly ash landfill in a former sand and gravel quarry contaminated groundwater with selenium, sulfate, manganese, iron and aluminum. Contaminated groundwater flowed to the Assonet River, potentially endangering aquatic life. The landfill was closed in 2001 by a town bylaw.
- **Dominion Brayton Point, Somerset, MA.** Coal combustion waste and oil combustion waste were disposed onsite in unlined landfills and ponds. The waste contaminated groundwater with numerous metals, including arsenic, cadmium, chromium, manganese, nickel and vanadium. Heavy metals endangered aquatic life in the adjacent estuary, and the Massachusetts Department of Environmental Protection (MADEP) took an enforcement action to require cleanup and closure of the leaking ponds and landfills.^{vi}

Additional Damage Cases:

- **Dominion Salem Harbor Station, Salem, MA.** Leaking unlined coal ash and oil ash ponds contaminated groundwater flowing into Salem Harbor with high levels of metals, including cadmium and vanadium. Cleanup orders by MADEP resulted in closure of the ash ponds.
- **Rezendez Fly Ash Fill Site, Freetown, MA.** Fly ash was dumped directly into groundwater at a “structural fill” site in an abandoned sand and gravel pit. Filling was terminated by a 2001 town bylaw, but the ash was never removed from the pit.

State Law Deficiencies

- The Massachusetts Solid Waste Act, Chapter 111, s. 150A, specifically exempts coal ash from solid waste regulations. The use of coal ash as fill or for any commercial or industrial purpose (or when stored for such use) does not need approval from the local board of health and is not regulated by the Department of Environmental Protection.
- Chapter 111, s. 150A also currently exempts the disposal of coal ash in a monofill (single waste landfill) from solid waste regulations, including the requirement to obtain approval from local boards of health.

Coal Ash Recycling

- **Dominion Brayton Point, Somerset, MA.** Following the state enforcement action, which forced closure of its onsite landfills and ponds, Brayton Point installed a carbon burnout project that permits over 90% recycling of the ash produced by the plant. See <http://www.heraldnews.com/business/x332636188/Brayton-Point-awarded-for-its-fly-ash-recycling>.

For more information:

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ⁱ U.S. EPA and United States Department of Energy (U.S. DOE). *Coal Combustion Waste Management at Landfills and Surface Impoundments, 1994-2004* (August 2006).

ⁱⁱ *Id.*

ⁱⁱⁱ U.S. EPA. *Coal Combustion Waste Damage Case Assessments* (July 9, 2007).

^{iv} http://yosemite.epa.gov/r1/npl_pad.nsf/f52fa5c31fa8f5c885256adc0050b631/C8A4A5BEC0121F048525691F0063F6F3?OpenDocument.

^v U.S. EPA. *Coal Combustion Waste Damage Case Assessments* (July 9, 2007).

^{vi} Brayton Point Administrative Consent Order (ACO-BO-00-2002, undated), Brayton Point Administrative Consent Order Timetable, August 22, 2006.