

Department of Legislative Services
 Maryland General Assembly
 2024 Session

FISCAL AND POLICY NOTE
First Reader

Senate Bill 1122
 Rules

(Senator Jackson)

Environment - Coal Combustion By-Products

This bill establishes various requirements for owners or operators of coal combustion by-products (CCB) units and related requirements for the Maryland Department of the Environment (MDE) and the Power Plant Research Program (PPRP) in the Department of Natural Resources (DNR). The bill generally requires the closure of CCB units by September 30, 2034, except as specified. Owners or operators of CCB units must (1) submit various reports related to disposal sites, surface water discharges, and groundwater monitoring, protection, and restoration; (2) submit a plan relating to the replacement of water supplies for specified residences; (3) conduct a drinking water supply survey, submit a related report, and conduct sampling and analysis as required; and (4) provide alternate, temporary, and permanent replacement of water supplies as specified. The bill also establishes an advisory council to advise MDE and PPRP on matters related to CCB storage and its impact on the health and safety of neighboring communities.

Fiscal Summary

State Effect: General fund expenditures for MDE increase by \$137,400 in FY 2025; future years reflect annualization and inflation. General/special fund expenditures for DNR increase by \$125,000 in FY 2025 and by \$50,000 annually thereafter. State expenditures (multiple fund types) may increase, potentially significantly, beginning as early as FY 2025 for any State agencies that own/operate CCB units (not shown below). State revenues are not anticipated to be significantly affected.

(in dollars)	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Revenues	\$0	\$0	\$0	\$0	\$0
GF Expenditure	137,400	158,600	165,600	172,900	180,400
GF/SF Exp.	125,000	50,000	50,000	50,000	50,000
Net Effect	(-)	(-)	(-)	(-)	(-)

Note:() = decrease; GF = general funds; FF = federal funds; SF = special funds; - = indeterminate increase; (-) = indeterminate decrease

Local Effect: Local expenditures may increase, potentially significantly, beginning as early as FY 2025 for any local governments that own/operate CCB units. Local revenues are not directly affected. **This bill may impose a mandate on a unit of local government.**

Small Business Effect: Potential meaningful.

Analysis

Bill Summary: Except as otherwise provided, the bill must be interpreted in a manner consistent with 40 CFR Part 257 (federal regulations that are discussed under the Current Law section of this fiscal and policy note).

Definitions

“Beneficial use” means the use of CCBs in a product that (1) provides a functional benefit; (2) replaces a product available on the market that is made from virgin materials; and (3) meets all applicable standards.

“Coal combustion by-products” means the residue generated by, or resulting from, the burning of coal. It includes fly ash, bottom ash, boiler slag, pozzolan, and other solid residuals removed by air pollution control devices from the flue gas and combustion chambers of coal-burning furnaces and boilers, including flue gas desulfurization sludge and other solid residuals recovered from flue gas by wet or dry methods.

“Coal combustion by-products unit” means any landfill or surface impoundment in which CCBs have been stored, including any CCBs below the unit boundary.

“Encapsulated beneficial use” means a beneficial use that binds CCBs into a solid matrix and minimizes the release of the by-products into the environment. It includes the use of CCBs (1) as filler or lightweight aggregate in concrete; (2) as a raw material in the production of, or as a replacement of, cement components in concrete or bricks; (3) as filler in plastics, rubber, and other products; and (4) in wallboard production.

Report on Disposal Sites

By September 30, 2025, the owner or operator of a CCB unit must submit a report to MDE and PPRP detailing the location and contents of any disposal sites, including (1) monofill and mixed fill areas; (2) the local of natural and synthetic liners; (3) nonash waste; and (4) any other information that MDE determines will aid in the deconstruction of the unit by recycling entities. The report must include either a latitude and longitude identification

of all disposal sites or a map containing specific geospatial identification for all disposal sites.

Reports Related to Surface Water Discharges and Groundwater Monitoring, Protection, and Restoration

Surface Water Discharges: By September 30, 2025, the owner or operator of a CCB unit must submit a report to MDE and PPRP of any known or suspected discharges of CCBs to surface waters from the unit, including seeps, direct discharges, indirect discharges, and toe drains. The report must include (1) the exact geolocation of each known or suspected discharge; (2) any water quality data relating to the discharges; and (3) any reports submitted to State or federal departments or agencies regarding the discharges.

Groundwater Monitoring, Protection, and Restoration: By September 30, 2025, the owner or operator of a CCB unit must submit a report to MDE and PPRP of all groundwater monitoring data collected on or adjacent to the unit. The report must (1) identify any current or previous groundwater monitoring sites and all water quality monitoring data collected from those sites; (2) include any groundwater monitoring data that demonstrates any known or potential violations of State or federal water quality standards; and (3) include the exact geolocation of any groundwater monitoring wells. If no groundwater monitoring data exists, the owner or operator must conduct a review of State and federal water quality standards and provide an explanation of why no groundwater monitoring data exists.

By January 31 each year, the owner or operator of a CCB unit must submit a groundwater protection and restoration report to MDE. The report must include a summary of all groundwater monitoring, protection, and restoration activities related to the unit for the immediately preceding calendar year.

Drinking Water – Survey, Report, and Drinking Water Supply Wells

Drinking Water Supply Survey and Report: By September 30, 2025, the owner or operator of a CCB unit must conduct a drinking water supply survey that (1) identifies all drinking water supply wells within one-half mile down-gradient from the CCB unit; (2) identifies any source water protection areas for drinking water supplies within one-half mile down-gradient from the CCB unit; and (3) includes any available information on the location, construction details, uses, and ownership of the drinking water supply wells referenced above. By December 31, 2025, the owner or operator of a CCB unit must submit a report on the completed survey to MDE and PPRP.

Required Sampling and Analysis: Within six months of receiving a report from the owner or operator of a CCB unit on a drinking water supply survey, MDE must (1) make a determination on which drinking water supply wells the owner or operator of the CCB unit

is required to sample from, including the frequency and duration of any sampling and (2) notify the owner or operator of the determination. In making such a determination, MDE must select drinking water supply wells where data regarding groundwater quality, flow, and depth provides a reasonable basis for the prediction that the quality of water in the well may be adversely affected by the presence of the CCB unit.

Within six months of receiving notice from MDE, an owner or operator of a CCB unit selected by MDE must initiate sampling and water quality analyses of the drinking water supply well; however, the owner or operator of the CCB unit must first obtain permission from the owner or occupant of the property on which the drinking water supply is located. The owner of the property on which a drinking water supply well is located may elect to have an independent third party carry out any required sampling or analysis, as specified. The owner or operator of a CCB unit must pay for the reasonable costs of any sampling or analysis that is required.

Temporary Replacement of Water Supplies: If the analysis described above indicates that water from a drinking water supply well exceeds groundwater quality standards, the owner or operator of the CCB unit must replace the well with an alternate supply of (1) potable drinking water within 24 hours of receipt of notice from MDE that the alternate water supply is necessary and (2) water that is safe for other household uses within 30 days of receipt of notice from MDE that the alternate water supply is necessary.

Permanent Replacement of Water Supplies: By December 1, 2024, the owner or operator of each CCB unit must submit a plan, containing specified information, to MDE regarding the unit's proposed permanent replacement of water supplies for specified residences (discussed in more detail below). Within 60 days after receiving a plan, MDE must approve, approve with amendments, or deny the plan. If a plan is denied, the owner or operator of the CCB unit must resubmit a modified plan within 30 days.

Within 30 days of plan approval, the owner or operator of the CCB unit must notify all households identified in the approved plan of their eligibility for a permanent replacement water supply. The owner or operator of the CCB unit must supply the household with an alternate supply of potable drinking water until the household has been provided with a permanent replacement water supply.

By October 15, 2025, the owner or operator of a CCB unit must establish permanent replacement water supplies for each residence (1) within a half-mile radius of the unit that has a drinking water supply well, except as specified, and (2) that has a drinking water supply well that is located in an area in which contamination resulting from the presence of CCBs is expected to occur, based on groundwater modeling and hydrogeologic, geologic, and geotechnical investigations of the area. In fulfilling these requirements, the owner or operator of a CCB unit must prioritize the connection of households to public

water supplies. However, a household may elect to receive a filtration system in place of connection to a public water system. Additionally, if MDE determines that connection of a particular household to a public water system would be cost-prohibitive, MDE may authorize the installation of a filtration system. The owner or operator of a CCB unit is responsible for maintenance of any filtration system that must be installed in accordance with these provisions.

These provisions may not be construed to require a household to connect to a public water system or receive a filtration system without the approval of the owner or occupant of the household.

Closure of Coal Combustion By-Products Units

Mandated Closure: By September 30, 2034, the owner or operator of each CCB unit that has not been closed in accordance with 40 CFR Part 257.D must close the unit by (1) removing all CCBs in accordance with any applicable federal standards and (2) using the CCBs for beneficial use or disposing of the CCBs in a landfill that includes a composite liner and leachate system that meets specified federal standards.

However, if MDE determines that there is a threat to public health due to the risk of CCBs affecting groundwater or drinking water sources, or any other public health concerns, the owner or operator of a CCB unit must close the unit by September 30, 2029.

MDE may extend the 2034 deadline for up to 25 years if (1) the owner or operator has an approved closure plan that redirects all CCBs for beneficial use and (2) MDE determines that the extension will not create a reasonable probability of adverse effects to human health and the environment.

Units Closed under 40 CFR Part 257.D: The owner or operator of each CCB unit that has been closed in accordance with 40 CFR Part 257.D must (1) monitor groundwater and surface water at the unit in accordance with a monitoring plan approved by MDE and (2) submit quarterly monitoring reports to MDE. If the monitoring demonstrates a violation of water quality standards, the owner or operator of the CCB unit must close the unit in accordance with the above provisions regarding the closure of other CCB units.

Reporting Requirements: On approval of a closure plan, and every two years thereafter, the owner or operator of a CCB unit must publish a report describing (1) the owner or operator's closure plan for each unit; (2) any progress to date; (3) the amount of CCBs that have been and are expected to be used for encapsulated beneficial use from each unit; (4) the amount of CCBs that have been and are expected to be diverted to landfills from each unit; (5) the utilization of transportation options and any transportation plan required under the bill (described below); and (6) any groundwater and surface water monitoring

results and any measures taken to address these results. The owner or operator of a CCB unit must publish the report online and submit the report to the Governor, the Secretary of the Environment, the Secretary of Natural Resources, the Commission on Environmental Justice and Sustainable Communities, the General Assembly, and specified committees of the General Assembly.

Transportation Plans: If the closure of a CCB unit requires CCBs to be removed, the owner or operator of the unit must develop a transportation plan to minimize the impact of transporting any CCBs on any neighboring property owners or occupants. In developing a transportation plan, the owner or operator of a CCB unit must consult with (1) the county or municipality in which the CCB unit is located and (2) any county or municipality within two miles of the CCB unit.

The plan must include (1) if transporting CCBs by truck, the frequency of trucks, proposed routes, and any measures to control noise, traffic impacts, safety concerns, and dust pollution and (2) potential alternative methods of transportation, including by train or by barge, if feasible.

The owner or operator of a CCB unit must make a copy of a transportation plan available online and provide notice of the plan's availability to the following persons or entities: (1) MDE; (2) the chief administrative officer of the county or municipality; (3) the Commission on Environmental Justice and Sustainable Communities; and (4) the Coal Combustion By-Products Community Advisory Council (established by the bill and discussed below). The owner or operator of a CCB unit must also publish notice of the transportation plan's availability in a newspaper of general circulation in the county or municipality.

Before adopting a transportation plan, the owner or operator of a CCB unit must allow for a period of public comment of at least 30 days and consider any comments received.

Local Workforce: When closing a CCB unit, the owner or operator of the unit must (1) identify options for employing local workers; (2) consult with a collective bargaining unit in the area on the furtherance of apprenticeships and other workforce training programs for local workers; and (3) prioritize the hiring of local workers.

Coal Combustion By-Products Community Advisory Council

The bill establishes the Coal Combustion By-Products Community Advisory Council to advise MDE and PPRP on all matters related to CCB storage and its impact on the health and safety of neighboring communities. MDE and DNR must jointly provide staff for the advisory council. Advisory council members may not receive compensation but are entitled to reimbursement for expenses, as specified.

Recovery of Costs from the State

An owner or operator of a CCB unit may not recover any costs from the State for any fines or penalties resulting from a violation of the bill.

Current Law:

Coal Combustion By-Products in General

“Coal combustion by-products,” as defined in § 9-281 of the Environment Article, means the residue generated by, or resulting from, the burning of coal. CCBs are produced primarily from the burning of coal in coal-fired power plants. CCB include fly ash, bottom ash, boiler slag, pozzolan, and other solid residuals removed by air pollution control devices from the flue gas and combustion chambers of coal-burning furnaces and boilers. CCB, which is also as referred to as coal ash and coal combustion residual, is regulated at both the State and federal level.

Federal Regulations

40 CFR Part 257 contains the criteria for the classification of solid waste disposal facilities and practices under the Resource Conservation and Recovery Act (RCRA). RCRA is a federal law that gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste.

According to PPRP’s 2017 [report](#) entitled *Maryland Power Plants and the Environment*, between 1980 and 2010, CCBs were excluded from the federal definition of “waste materials” by an amendment to RCRA. EPA proposed the first federal regulations of CCB disposal in June 2010 and published the final rule in April 2015. The final rule classifies CCBs (referred to as coal combustion residuals within the rule) as a nonhazardous waste subject to RCRA Subtitle D requirements for disposal. These requirements are primarily enforced at the state level. The federal rule also established monitoring requirements for CCB landfills. The rule affirmed the use of CCBs in encapsulated applications (such as concrete and wallboard) but placed restrictions on the use of CCBs in unencapsulated land applications. The use of CCBs to reclaim sand and gravel pits was specifically deemed a “disposal” activity and thus subject to landfill requirements for construction and monitoring. The federal rule took effect in October 2015.

PPRP notes that the 2015 federal rule does not address the millions of tons of coal ash that have been placed into unlined landfills, ponds, and structural fill sites that were closed before its enactment (also called “legacy sites”), which have the potential to impact groundwater and surface water resources.

State Management and Tracking of Coal Combustion By-Products

State Regulations of Coal Combustion By-Products: At the State level, the Code of Maryland Regulations (COMAR 26.04.10) governs the management of CCBs broadly. There are also regulations that specifically address the utilization of CCBs in surface coal mining and reclamation operations in abandoned coal mines (COMAR 26.20.24) and noncoal surface mine reclamation (COMAR 26.21.04).

There are restrictions on the generation, storing, handling, processing, disposal, recycling, and beneficially reusing of CCBs. Facilities where CCBs are disposed must be approved by MDE, and any new CCB disposal facilities must be permitted as an industrial waste landfill. Disposing of CCBs in an open dump is specifically prohibited. Storage for CCBs must meet a number of requirements, including that CCB is stored in a manner that prevents contact with waters of the State, and any storage system must be designed to contain CCB and CCB contaminants to prevent release into the environment.

Coal Combustion By-Products Management Fund: Chapter 480 of 2009 established a CCB Management Fund comprising fees collected by MDE on each ton of CCBs generated. The money generated from the fee must be used to administer and implement programs to control the disposal, use, beneficial use, recycling, processing, handling, storage, transport, or other requirements related to CCB management. The fee is adjusted annually to ensure that fee revenues approximate the cost of regulatory activities. However, the fee may not be imposed on CCBs that are (1) beneficially used, as determined by MDE or (2) used for mine reclamation in accordance with MDE regulations or regulations of the receiving state.

The Power Plant Research Program: Pursuant to its responsibilities under the Power Plant Siting Act of 1971, PPRP researches power plant impacts to Maryland's natural resources, including the Chesapeake Bay. In addition to surface water concerns, PPRP evaluates impacts to Maryland's ground water, air, land, and socioeconomics for proposed power facilities and transmission lines, both for new installations and for modifications to existing structures. This extends to tracking and evaluating CCB storage, use, and disposal sites across the State.

Relevant Enforcement Provisions

Pursuant to § 9-268 of the Environment Article, the provisions of §§ 9-334 through 9-344 of the Environment Article apply to any violation of the bill. The provisions of §§ 9-334 through 9-341 of the Environment Article establish enforcement procedures that govern (1) the ability of MDE to issue complaints, conduct hearings, issue corrective orders, and obtain injunctive relief and (2) judicial review of final decisions.

In addition to being subject to an injunctive order, § 9-342 of the Environment Article establishes a civil penalty of up to \$10,000 for a violation of applicable statute or any related rule, regulation, order, or permit. Each day is a separate violation. In addition, MDE may impose an administrative penalty of up to \$10,000 for each violation, but not exceeding \$100,000 total. Each day is a separate violation. An administrative penalty must be assessed with consideration given to several specified factors.

Under § 9-343 of the Environment Article, a person who violates any provision of or fails to perform any duty imposed by applicable statute, or who violates any provision or fails to perform any duty imposed by a rule, regulation, order, or permit adopted or issued under the statute, is guilty of a misdemeanor and on conviction is subject to a maximum fine of \$25,000 and/or imprisonment for up to one year for a first offense and a maximum fine of \$50,000 and/or imprisonment for up to two years for a subsequent offense. The person may also be enjoined from continuing the violation. Each day on which a violation occurs is a separate violation. In addition, a person is guilty of misdemeanor and on conviction is subject to a maximum fine of \$50,000 and/or imprisonment for up to two years if the person (1) knowingly makes any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained or (2) falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under the statute or any rule, regulation, order, or permit adopted or issued under the statute. Pursuant to § 9-344 of the Environment Article, the Attorney General is in charge of prosecuting and defending cases that arise on behalf of the State.

State/Local/Small Business Effect:

Maryland Department of the Environment Administrative Costs

MDE general fund expenditures increase by \$137,392 in fiscal 2025, which accounts for the bill's October 1, 2024 effective date. This estimate reflects the cost of hiring two geologists to (1) staff and establish the advisory council; (2) conduct some initial outreach to the regulated community; (3) review and evaluate CCB unit data and reports; (4) make determinations regarding required drinking water supply well sampling and provide oversight and plan review on various required actions related to providing alternate drinking water sources; (5) make determinations related to public health threats and any necessary CCB unit closures; (6) review and approve transportation plans, closure plans, and progress toward site closures (including on-site evaluations related to transporting CCB); and (7) generally implement the bill. It includes salaries, fringe benefits, one-time start-up costs, and ongoing operating expenses. The information and assumptions used in calculating the estimate are stated below:

- PPRP has identified 70 potentially affected CCB units located throughout the State, and anticipates that there are likely more; and

- MDE needs to immediately begin conducting some amount of outreach to establish the advisory council and generally implement the bill.

Positions	2.0
Salaries and Fringe Benefits	\$120,030
Operating Expenses	<u>17,362</u>
Total FY 2025 MDE Expenditures	\$137,392

Future year expenditures reflect full salaries with annual increases and employee turnover as well as annual increases in ongoing operating expenses.

This analysis assumes that general funds are needed to cover MDE’s administrative costs. MDE advises that the State CCB Management Fund is unlikely to have a sufficient balance to cover these expenditures. The revenue source for the fund is a fee on each ton of CCBs generated, which has been applicable to fewer generators over the years, as CCBs produced in the State have decreased. MDE advises that with the last coal-fired power plant being slated to close later this year, there will be no generators that meet the threshold to pay the fee.

Department of Natural Resources Administrative Costs

General/special fund expenditures for PPRP increase by \$125,000 in fiscal 2025 and by \$50,000 annually thereafter. This estimate reflects the costs associated with consulting expenses that PPRP incurs to (1) review various reports submitted by owners and operators of CCB units and (2) provide staff for the advisory council. According to DNR, PPRP has one employee currently focused on CCB and contracts with a consulting firm to provide additional support as needed.

In general, special funds from the Environmental Trust Fund (ETF) are used to fund PPRP’s operations. However, DNR indicates that general funds may be required to cover part of or all the expenses that PPRP incurs under the bill because the department anticipates that a revenue shortfall could materialize in ETF as soon as fiscal 2025.

Enforcement Provisions

The bill’s enforcement provisions are not anticipated to significantly affect State or local finances.

Effect on the Regulated Community

The bill has a significant impact on owners and operators of CCB units in the State. Affected entities could include State agencies, local governments, and potentially small

businesses. PPRP advises that it has identified 70 ash deposits in the State but anticipates that there are more. A potentially significant number of facilities also use CCBs in ways that may trigger the bill's requirements. For example, PPRP notes that CCBs have been used at municipal and industrial landfills as a daily cover material.

The bill establishes near-term impacts in the form of new and extensive reporting and planning requirements as well as requirements for owners and operators of CCB units to pay for water sampling and testing and to establish replacement water supplies and/or filtration systems for nearby residences. Further, in the long-term, the bill generally requires each CCB unit in the State to be closed by September 30, 2034, which includes the removal of all CCBs from the site. These requirements could easily cost owners and operators of affected units tens of thousands of dollars depending on the condition of the sites.

PPRP notes that there are sites in the State where CCB deposits have been capped and are essentially trapped under structures such as shopping centers or are used as a filler material to support roads or bridges. It is unclear if those sites also need to comply with the bill's requirement to remove all CCBs from the site, but compliance costs in those cases could easily be millions of dollars.

Additional Information

Recent Prior Introductions: Similar legislation has not been introduced within the last three years.

Designated Cross File: HB 1193 (Delegate Lehman, *et al.*) - Economic Matters and Environment and Transportation.

Information Source(s): Maryland Environmental Service; Harford and Montgomery counties; Maryland Department of the Environment; Maryland Department of Health; Department of Natural Resources; U.S. Environmental Protection Agency; Department of Legislative Services

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