Department of Legislative Services

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FISCAL AND POLICY NOTE

Senate Bill 1097 (Senator Reilly)
Education, Health, and Environmental Affairs

Water Pollution Control and Abatement - Coal Combustion By-Products and Water Pollutants

This bill generally subjects coal combustion by-products (CCBs) to the current regulations and liability standards applicable to oil pollution by incorporating both oil and CCBs within the definition of a "water pollutant" and replacing references to "oil" with references to a "water pollutant" throughout the subtitle that generally applies to the prevention of oil pollution of waters of the State. In addition, the bill expands the responsibility of the Maryland Department of the Environment (MDE) from responding to emergency oil spills to responding to the *presence* of a water pollutant in the waters of the State. The bill expands the scope of persons that must pay a compensatory fee to the Oil Disaster Containment, Clean-Up and Contingency Fund; however, penalties and compensatory fees relating to CCBs must be used specifically for the containment, cleanup, removal, restoration, and mitigation of CCBs.

Fiscal Summary

State Effect: General and special fund expenditures increase substantially beginning in FY 2013 for MDE to hire additional personnel and procure equipment and environmental remediation contractor services to implement the bill's requirements; the increase in general fund expenditures will be less in future years as additional penalty and fee revenues are collected in the Oil Disaster Containment, Clean-Up and Contingency Fund. Under one set of assumptions, MDE expenditures increase by about $6.3 million in FY 2013, which accounts for the bill's effective date, and by more than $7.5 million annually thereafter. State expenditures (all funds) may increase to the extent that any State agency is responsible for a discharge or presence of a water pollutant. Special fund revenues increase substantially due to the collection of penalties and compensatory fees. Under one set of assumptions, special fund revenues increase by about $2.1 million in FY 2013, which accounts for the bill's effective date, from the collection of

compensatory fees, and increase by an additional but indeterminate amount due to the collection of significant civil and administrative penalties. Caseloads may increase for the Judiciary due to the bill's additional prohibitions and altered scope of judicial review, but they can likely be handled with existing resources.

Local Effect: Local government expenditures may increase significantly for any jurisdiction that incurs additional remediation costs or pays additional penalties or compensatory fees related to the discharge or presence of a CCB or other substance designated as a water pollutant. Local health department workloads and expenditures may increase significantly to respond to additional notifications of well tests that report the presence of specified chemicals. Local expenditures may also decrease to the extent that fewer environmental remediation costs are necessary in cases where remediation costs are now borne by other responsible parties. The expansion of existing criminal penalty provisions under this bill does not have a material impact on local finances or operations.

Small Business Effect: Meaningful.

Analysis

Bill Summary:

Definitions

"Coal combustion by-product" is defined with reference to an existing definition applicable to the State Coal Combustion By-Products Management Fund, except that the bill's definition also specifically includes coal mill rejects. Under the bill, a "water pollutant" means oil, CCBs, or any other substance determined by MDE to be a water pollutant.

The definition of a "person responsible for the discharge" is significantly expanded to include the generator of the discharged CCB, or the owner or generator of other water pollutants, as well as the owner, operator, or person in charge of the site or facility that discharges CCBs or other water pollutants. Currently, this definition generally includes only specified owners or persons in charge of specified oil facilities at the time or immediately before a discharge occurs, but not generators.

The bill also expands the current definition of a "discharge" to specifically include the *leaching* of a water pollutant, in addition to the currently defined means of transmission, which include the addition, introduction, leaking, spilling, or emitting of a pollutant. Also expanded is the definition of "management," such that in addition to storage or

discharge, management now also means directing or controlling operations at a site or facility related to the *placement* of a water pollutant.

The definition of "removal costs" is expanded to specifically include the cost of containment, capture, or treatment that are incurred after a discharge of CCBs has occurred.

Other Provisions

The bill expands on existing prohibition relating to the discharge of oil into waters of the State to include the discharge of a water pollutant into waters of the State.

The bill expands the scope of the compensatory fee that MDE must collect from a person responsible for a discharge to include persons responsible for the presence of a water pollutant in waters of the State. The fee must cover specified costs incurred by any person who responds to the discharge, leaching, or spillage of water pollutants with MDE authorization.

The bill expands the current scope of liability relating to oil spills to include persons responsible for the presence of a water pollutant in the waters of the State. The bill also requires the liable person to, in addition to paying damages, provide an uncontaminated water supply to a person whose water supply has been contaminated.

The bill modifies and expands existing requirements relating to the reporting of oil spills and discharges to MDE. In addition, MDE is required to notify the appropriate health department of a finding that a groundwater monitoring well sample taken from a private well located within one mile of a site where a water pollutant is stored, placed, or discharged contains specified chemicals or elements in excess of specified concentrations. The bill expands, from one-half mile to 3,500 feet, the area surrounding each site where a sample was taken for which MDE must provide notice to property owners. The bill also requires responsible persons to provide specified samples to MDE upon request by MDE or a local health department.

The inspection authority of MDE is also expanded to include inspection of specified property, facilities, sites, and records.

The bill requires MDE to prescribe regulations that require (1) adequate physical barriers and other measures to contain and prevent the discharge of CCBs; (2) inspection of sites on which CCBs are placed or stored; (3) detection of leaching and migration of CCBs; and (4) ongoing monitoring of the actual or threatened discharge of CCBs. The bill also makes other changes to the content of MDE's regulations governing water pollutants.

The bill also expands the opportunity for an aggrieved person to obtain judicial review under specified procedures to include review of the issuance, enforcement, nonenforcement, or noncompliance with an order or permit issued.

Finally, the bill expands the application of existing penalties relating to oil discharges to discharges of a water pollutant. The bill also specifies that it is not a defense to an action that the migration of a CCB through groundwater is accelerated due to existing groundwater conditions.

Current Law/Background: The State's environmental laws pertaining to both oil pollution and CCBs involve cross-media regulation from numerous divisions within MDE including the Land Management Administration, Air and Radiation Management Administration, Water Management Administration, and the Office of the Secretary's Emergency Response Division.

The Oil Control Program

As part of MDE's Land Management Administration, the Oil Control Program is responsible for coordinating oil pollution activities, including the development of regulations, enforcement, permitting, and complaint response with respect to the transportation, storage, and disposal of oil. In fiscal 2011, the Oil Control Program issued licenses and permits to 1,561 facilities; conducted 6,570 inspections to ensure that owners or operators are preventing, reducing, or remediating oil pollution; and provided direct oversight at 990 petroleum cleanups. In addition, MDE's Emergency Response Division received 2,079 oil spill reports and responded to 463 surface oil spill and chemical incidents. MDE also deposited about $5.7 million in oil transfer fees into the Oil Disaster Containment, Clean-Up and Contingency Fund and collected $185,387 in cost recovery payments and $73,628 in fines and penalties. Administrative, civil, and criminal penalties currently apply to oil pollution violations.

The program assesses the extent of water contamination from gasoline pollutants such as methyl tertiary-butyl ether (MTBE) and has been tracking MTBE concentrations in domestic water wells since 1999. Any wells with MTBE contamination above specified concentrations are provided potable water. Additionally, the program provides notification to property owners in High Risk Groundwater Use Areas who are within one-half mile of a new petroleum groundwater contamination site.

Regulation of CCBs

Generally, CCBs are noncombustible materials generated from burning coal. Current law defines a CCB as the residue generated by or resulting from the burning of coal and includes fly ash, bottom ash, boiler slag, pozzolan, and solid residuals removed by air

pollution control devices from the flue gas and combustion chambers of coal-burning furnaces and boilers.

In 2010, approximately 1.8 million tons of CCBs were generated in Maryland, primarily from eight power plants. This amount is anticipated to increase as a result of new environmental controls being installed at power plants to collect CCBs from the combustion process.

CCBs are currently either disposed of or beneficially used. According to MDE, uses of coal ash include mine reclamation, structural fill applications, or as a substitute for cement in the production of concrete. According to a 2012 report by the Department of Natural Resources, in 2010, 582,417 tons of CCBs were placed in five major disposal sites, while about 66% of CCBs were used in 10 major beneficial use projects in Maryland.

Under certain geologic conditions, certain types of coal ash can produce high concentrations of potentially toxic constituents (such as arsenic, boron, cadmium, iron, lead, manganese, selenium, sulfate, and thallium) in soil that may leach into surface or groundwater. According to a 2007 report by the U.S. Environmental Protection Agency (EPA), groundwater contaminated with CCB waste poses a substantial cancer risk. In addition, without proper controls, MDE reports that coal ash released into the air in large quantities can create a public nuisance and/or cause respiratory problems.

On December 1, 2008, new regulations developed by MDE for the handling of CCBs took effect. The regulations are comprehensive, imposing new requirements pertaining to the disposal of CCBs and their use in mine reclamation. Under the regulations, disposal facilities need to meet all of the same standards required for industrial solid waste landfills, such as leachate collection, groundwater monitoring, the use of liners, and routine analysis of CCBs. For noncoal mine reclamation sites using CCBs, the regulations also require the site to meet standards similar to those required for industrial solid waste landfills. In addition, for both disposal and the use of CCBs in noncoal mine reclamation, dust control measures must be implemented, post-closure monitoring and maintenance must be performed, and MDE may impose other requirements as part of the permitting process.

While the new regulations were not immediately enforced due to a lack of funding, Chapter 480 of 2009 established a Coal Combustion By-Products Management Fund comprising fees collected by MDE on each ton of CCBs generated. In fiscal 2011, $812,070 in fees were collected by MDE, which was slightly less than the $813,324 expended to support the State's CCB regulatory activities, which includes newly hired scientific, engineering, and other technical staff. The fee is adjusted annually to ensure that fee revenues approximate the cost of regulatory activities.

Chapter 717 of 2009 required MDE to submit regulations defining the beneficial use of CCBs to the Joint Committee on Administrative, Executive, and Legislative Review (AELR) by December 31, 2009. The draft regulations, which were submitted to the AELR Committee, defined beneficial use as the use of CCBs in a manufacturing process to make a product, or as a substitute for a raw material or commercial product, which, in either case, does not create an unreasonable risk to public health or the environment as determined by MDE. The definition specifically excludes the use of CCBs in a mining operation or in mine reclamation activities. However, the AELR Committee placed the regulations on hold, which were subsequently allowed to expire and have not been resubmitted. Other CCB regulations pertaining to the transport of CCBs took effect in October 2010.

Additional MDE regulatory development activity concerning the management of CCBs as solid waste is ongoing. According to MDE's website, a draft of these additional regulations may be ready in May 2012 or later, depending on federal action. In June 2010, EPA proposed to regulate for the first time coal ash. EPA is considering two possible options for the management of coal ash under the federal Resource Conservation and Recovery Act. Under the first proposal, EPA would list coal ash residuals as hazardous wastes, while the second proposal would regulate coal ash as a nonhazardous waste. The regulations are highly controversial as they would subject CCB disposal to additional federal oversight and enforcement and also because the new regulations may have the potential to disrupt ongoing recycling and beneficial reuse activities that had long been subject to a regulatory exemption under federal solid waste laws.

Water Pollution

The Water Management Administration within MDE issues permits to protect Maryland's water resources by controlling industrial and municipal wastewater discharges. Surface water discharges are regulated through combined State and federal permits under the National Pollutant Discharge Elimination System. Groundwater discharges are regulated through State-issued groundwater permits. A person must hold a discharge permit issued by MDE before constructing, installing, modifying, extending, altering, or operating an industrial, commercial, or recreational facility or disposal system, a State-owned treatment facility, or any other outlet or establishment, if the operation could cause or increase the discharge of pollutants into the waters of the State.

State Expenditures: General and special fund expenditures increase substantially beginning in fiscal 2013 for MDE to significantly expand its current Oil Control Program to apply also to the detection and remediation of damages caused by CCBs and potentially other water pollutants. This will likely require a significant number of additional positions to conduct inspections and enforcement activities, conduct outreach and education, coordinate with local health departments, undertake remediation and

oversee remediation activities of private contractors, bring and intervene in numerous legal actions each year, and enforce and collect penalties and compensatory fees levied under the bill.

A reliable estimate of the additional resources necessary to undertake a programmatic expansion of this magnitude cannot be made at this time. However, MDE has provided an estimate of costs under one set of assumptions, as described below, which may provide context. According to MDE, its expenditures may increase by about $6.3 million in fiscal 2013, which accounts for the bill's October 1, 2012 effective date. This estimate reflects the cost of hiring 38 additional staff to inspect, enforce, and otherwise implement the bill. The estimate includes salaries, fringe benefits, 20 additional inspection automobiles, equipment, and ongoing operating expenses. The estimate also reflects $3.8 million in additional contractual costs for environmental remediation services. The information and assumptions provided by MDE that were used in calculating the estimate are stated below:

- 1,000 new water pollution enforcement cases would be brought under the bill annually;

- 10% of these enforcement cases (100) would require MDE to take an action because the responsible party fails to make an adequate response;

- the average cost for an MDE-led remediation project is assumed to be $50,000, plus an average of $7,000 per remediation project in costs directly attributable to MDE technical and legal oversight; and

- the level of staffing needed to inspect, evaluate, and prosecute these additional cases and otherwise implement the program is similar in scope to the current oil control program and its enforcement activities.

Positions	38
Salaries and Fringe Benefits	$1,763,809
Contractual Remediation Project Costs	3,753,465
Equipment	207,740
Automobile Purchase and Operations	486,945
Other Operating and Start-up Costs	70,520
Total FY 2013 MDE Expenditures	**$6,282,479**

Future year MDE expenditures estimated by MDE (which range from $7.5 million in fiscal 2014 to $8.1 million in fiscal 2017) reflect annualization, full salaries with annual increases and employee turnover, as well as annual increases in ongoing operating expenses.

This estimate does not reflect any additional expenditures for other State agencies, which may be subject to additional environmental remediation project costs, and potentially penalty or compensatory fee liability. For example, the State Highway Administration (SHA) advises that fly ash is used as a recycled material in the manufacturing of materials used in road construction activities. While SHA currently inspects materials used for placement in these activities, it estimates that it would incur additional inspection costs of between $15,000 and $20,000 annually. Further, any contamination found to be the result of water pollutants leached from property owned or operated by SHA would result in additional costs for remediation projects, compensatory fees, or penalties.

The expansion of existing criminal penalty provisions under this bill is not anticipated to have a material impact on State expenditures, since MDE usually handles these cases civilly/administratively.

State Revenues: Special fund revenues increase substantially beginning in fiscal 2013 due to the collection of compensatory fees and civil and administrative penalties. Under the same MDE assumptions described above, special fund revenues increase by about $2.1 million in fiscal 2013, which accounts for the bill's effective date, from recovery of compensatory fees. In addition to the assumptions described above, this further assumes that half of the 100 responsible parties reimburse MDE for clean-up costs in cases where an environmental remediation is undertaken by MDE on behalf of the party; in the other half of such cases, it is assumed that MDE is unable to collect from the person responsible for the water pollution due to an adverse judgment in court, bankruptcy, or because the liable person cannot be found. The estimate does not account for an indeterminate but significant amount of special fund revenues from civil and administrative penalties that would likely be collected on an annual basis from MDE enforcement actions.

The expansion of existing criminal penalty provisions under this bill is not anticipated to have a material impact on State revenues.

Local Expenditures: Local government expenditures may increase significantly for any jurisdiction that incurs additional remediation costs or pays additional penalties or compensatory fees related to the discharge or presence of a CCB or other substance designated as a water pollutant. CCBs are beneficially reused in several applications, including use as a construction material for roads, cement, and roofing materials. To the extent that leaching of CCBs, or other substances that may be designated by MDE as a water pollutant at some point in the future pursuant to the bill's authority, are found to be related to the presence of water pollutants in the waters of the State, local governments may be liable for significant remediation costs, penalties, or compensatory fees.

Local expenditures may also decrease to the extent that fewer environmental remediation costs are necessary in cases where CCBs or other pollutants are found on locally owned property. To the extent the local government, with assistance from MDE, is able to identify the party responsible for the presence of the water pollutants, the bill may allow the jurisdiction to shift any remediation costs to the responsible party.

Local health department workloads and expenditures may increase significantly to respond to additional notifications of well tests that report the presence of specified chemicals. Among other actions, a local health department may be required to notify property owners in the proximity of any contamination found.

Small Business Effect: Small businesses generally may incur a meaningful increase in costs due to the expansion of environmental remediation liability resulting from the discharge or presence of CCBs or other substances designated as a water pollutant, and due to liability for penalties and compensatory fees. Conversely, small businesses could benefit from a meaningful decrease in costs associated with environmental remediation on their properties to the extent that any costs that would otherwise be incurred in the absence of the bill are remediated by MDE or by an identifiable responsible party.

The bill may have a meaningful beneficial impact on some environmental remediation and public health contractors, as well as small business law practices engaged in environmental or tort law.

Additional Comments: The bill may significantly interfere with MDE's enforcement of several existing State environmental laws, as well as federal environmental laws under delegated authority. This interference may result in difficulty enforcing other laws and could result in a violation of delegation agreements with EPA and other unforeseen ramifications.

Additional Information

Prior Introductions: None.

Cross File: None.

Information Source(s): Harford County, Baltimore City, Department of Natural Resources, Maryland Department of the Environment, Department of Health and Mental Hygiene, Judiciary (Administrative Office of the Courts), Maryland Department of Transportation, U.S. Environmental Protection Agency, Department of Legislative Services

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