

Department of Legislative Services
 Maryland General Assembly
 2024 Session

FISCAL AND POLICY NOTE
Third Reader

Senate Bill 536

(Senator Jackson)

Education, Energy, and the Environment

Economic Matters

**Environment - Nuclear Power Plants - Emergency Preparedness (Radiation and
 Emergency Preparedness and Protection Act)**

This bill establishes the Radiation Emergency Response Program in the Maryland Department of the Environment (MDE) and related duties for MDE. The bill establishes two annual fees (a \$300,000 fee and a \$60,000 fee, which may be adjusted annually for inflation) that must be paid by the owner of a nuclear power plant for each nuclear power plant owned. The fees must be remitted to MDE by July 1, 2024, and by each July 1 thereafter. One of the fees is directed into the Radiation Emergency Response Fund, a new special fund established by the bill, to support the program. MDE must transfer the other fee to the Maryland Department of Emergency Management (MDEM) for radiological emergency response preparedness activities. **The bill takes effect June 1, 2024.**

Fiscal Summary

State Effect: No effect assumed in FY 2024; it is assumed the first fees are paid on July 1, 2024. Special fund revenues for MDE increase by \$600,000 annually beginning in FY 2025 from fees; special fund expenditures increase correspondingly. No overall impact on MDEM, as discussed below.

(in dollars)	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
SF Revenue	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000
SF Expenditure	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000
Net Effect	\$0	\$0	\$0	\$0	\$0

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

Local Effect: The bill does not directly affect local government operations or finances.

Small Business Effect: None.

Analysis

Bill Summary:

Statement of Policy and Findings of the General Assembly

The bill specifies that it is the policy of the State to (1) protect the public from (1) unnecessary and harmful exposure resulting from a nuclear incident and (2) protect the public against adverse health effects resulting from nuclear incidents and mitigate the impacts of nuclear incidents by establishing a state of readiness through emergency preparedness.

The bill also establishes a finding of the General Assembly that the nuclear industry should bear the costs associated with developing and implementing plans to prepare for and mitigate the impacts of nuclear incidents.

Radiation Emergency Response Program

MDE must administer the program and serve as an “off-site response organization.” MDE must also serve as the lead State agency for protective actions for all nuclear incidents within the State.

Under the program, MDE must (1) prepare a technical emergency radiation response plan for incorporation into the State Emergency Management Program; (2) respond to emergencies that involve a nuclear power plant; (3) participate in the Federal Emergency Management Administration’s (FEMA) Radiological Emergency Preparedness Program activities, as applicable; and (4) procure specialized supplies and equipment for responding to emergencies that involve a nuclear power plant.

Fees Paid by Nuclear Power Plant Owners and the Distribution of the Fees

By July 1, 2024, and by each July 1 thereafter, the owner of a nuclear power plant must pay the following fees to MDE for each nuclear power plant owned: (1) a fee of \$300,000 for the operational costs of the Radiation Emergency Response Program; and (2) a fee of \$60,000 for radiological emergency response preparedness. MDE is authorized to adjust the fees annually for inflation, as specified; however, the fees may not be increased by more than 3% in any given year.

MDE must transfer the fee of \$60,000 (adjusted for inflation, if applicable) collected from a nuclear power plant to MDEM for radiological emergency response preparedness activities. The other fee must be paid into the Radiation Emergency Response Fund.

Radiation Emergency Response Fund

The stated purpose of the Radiation Emergency Response Fund is to support the costs of developing and implementing the Radiation Emergency Response Program. The fund, which is administered by MDE, consists of the fees collected from owners of nuclear power plants that MDE retains, money appropriated in the State budget to the fund, interest earnings, and any other money from any other source accepted for the benefit of the fund.

The fund may only be used for developing and implementing the Radiation Emergency Response Program, including for administrative expenses. Money expended from the fund for the program is supplemental to and is not intended to take the place of funding that otherwise would be appropriated for the program.

Key Definitions

“Nuclear incident” means any occurrence, including an extraordinary nuclear occurrence, or series of occurrences at a nuclear power plant with the potential for causing bodily injury, sickness, disease, death, loss of or damage to property, or loss of use of property resulting from the radioactive, toxic, explosive, or other hazardous properties of the radioactive material used by a nuclear power plant or stored on its property.

“Nuclear power plant” means any facility capable of producing electricity using nuclear energy (1) that is located in the State or with an emergency planning zone (specifically, a plume exposure pathway emergency planning zone) that includes any area of the State and (2) for which MDE participates in planning and response activities related to the facility. The term includes a facility with one or more nuclear power reactors that (1) has spent nuclear fuel stored onsite; (2) has not been fully dismantled and decommissioned in accordance with applicable federal law and regulations; or (3) has not been granted license termination by the U.S. Nuclear Regulatory Commission (NRC).

“Off-site response organization” means a state, local, or tribal governmental organization responsible for carrying out emergency response functions during a nuclear incident.

Current Law:

Federal Regulation of Nuclear Power Plants

The regulation of nuclear power plants is the primary responsibility of NRC. NRC is responsible for reviewing the safety and safeguards of nuclear power plants and, among other things, must (1) monitor, test, and recommend upgrading of systems designed to prevent substantial health or safety hazards; (2) evaluate methods of transporting special nuclear and other nuclear materials and of transporting and storing high-level radioactive

wastes to prevent radiation hazards to employees and the general public; and (3) develop contingency plans for dealing with threats, thefts, and sabotage relating to special nuclear materials, high-level radioactive wastes, and nuclear facilities.

State Emergency Preparedness and Response to Nuclear Incidents

MDEM is the coordinating agency for all hazard emergency preparedness, response, and recovery, and is responsible for certain elements of emergency preparedness, planning, response, and recovery for radiological and nuclear incidents, including those at fixed nuclear power plants. MDEM is currently responsible for planning and executing exercises under the FEMA-required Radiological Emergency Preparedness Program, including all documentation and logistics associated with mandated annual exercises, providing training for all MDEM staff and State Coordinating Function representatives for fixed nuclear power plant emergency responses, training FEMA exercise evaluators on Maryland response protocols, and conducting communication drills.

If an incident leading to a release of radiation were to occur at either of the two nuclear power plants in the area, MDEM would open and staff the State Emergency Operations Center to coordinate the direction and control of the disaster and to coordinate all efforts involved in Maryland's response. The lead agency responsible for much of the decision making in any such large radiation emergency, however, is MDE. MDE's Emergency Response Division (ERD) prepares for and responds to emergencies involving oil and hazardous chemical spills, nuclear power plant incidents, and other environmental crises. ERD exists to protect public safety and the environment through careful planning, training, and expert application of emergency response mechanisms to minimize impacts on human health and the environment.

State Fiscal Effect: MDE is already engaged in emergency preparedness and response activities as they relate to nuclear power plants. According to MDE, as part of its Radiological Emergency Preparedness Program, MDE maintains an Accident Assessment Center, which is used during exercises and emergencies to coordinate and support response activities. In addition, MDE also maintains an Emergency Operations Center; in recent years, the center has served as an alternative to the State's Emergency Operations Center discussed above, while MDEM awaits completion of its new facility. MDE currently has two staff dedicated to radiological emergency preparedness activities. Nevertheless, the bill establishes the program in statute, explicitly defines its activities, and establishes a new – and increased – funding source for the program, as discussed below.

Maryland Department of the Environment

Special fund revenues to the Radiation Emergency Response Fund in MDE increase by \$600,000 annually beginning in fiscal 2025 due to the bill's imposition of a \$300,000 fee

on the owners of two nuclear power plants (the Calvert Cliffs Nuclear Power Plant and the Peach Bottom Nuclear Generating Station). Although the bill authorizes MDE to adjust the fee annually for inflation, as specified, this analysis assumes that MDE does not do so – at least in the five-year period covered by this fiscal and policy note. To the extent that MDE chooses to adjust the fee for inflation in any given year, special fund revenues increase further.

Although Calvert Cliffs is the only nuclear power plant operating in Maryland, the Peach Bottom facility in Pennsylvania must also pay the fees imposed under the bill because Peach Bottom is situated within less than 10 miles of the Maryland border, meaning that Maryland lies within the emergency planning zone for Peach Bottom.

MDE advises that, from 2018 through 2022, it had an agreement in place with Exelon Corporation (now Constellation Energy) for Exelon to provide funding for radiological emergency preparedness activities. MDE advises that the annual payments it received from Exelon totaled approximately \$380,000, the last of which was received in May 2022; since then, MDE advises that it has not received or accepted any funding from Constellation Energy related to its nuclear power plants. According to MDE, the payments from Exelon helped to fund positions for two full-time staff members that focus on emergency preparedness activities. However, MDE advises that by the end of fiscal 2024, the last of the funds provided by Exelon will be exhausted.

MDE intends to use the special fund revenues generated by the bill and directed to the Radiation Emergency Response Fund to (1) pay for the two existing staff that work on radiological emergency preparedness activities to the extent there are no other available funds to cover the costs of those positions; (2) potentially hire additional staff, as needed; and (3) purchase additional personal protective equipment and more advanced radiological monitoring equipment for the program. The bill specifies that the fund may only be used for developing and implementing the program, including administrative expenses. This analysis assumes that MDE spends all available special funds each year under the program. Accordingly, special fund expenditures increase by \$600,000 annually beginning in fiscal 2025.

Maryland Department of Emergency Management

In addition to the fees described above, MDE also collects an annual fee of \$60,000 from the owner of each nuclear power plant for radiological emergency response preparedness. Pursuant to the bill, MDE must transfer those fees to MDEM. Accordingly, beginning in fiscal 2025, \$120,000 in such fees are collected each year and transferred to MDEM.

MDEM advises, however, that the bill has no overall impact on its finances because the bill, as it pertains to MDEM, largely codifies current practice. MDEM advises that it

currently receives payments of \$120,000 annually from Constellation Energy to support its radiological emergency response preparedness activities. MDEM further advises that the fee established by the bill will replace the existing payment it receives. MDEM currently has one full-time staff member dedicated to its radiological emergency response preparedness activities and does not anticipate a change in its staffing needs as a result of the bill. Accordingly, the bill has no overall impact on MDEM's operations or finances.

Additional Comments: The Power Plant Research Program within the Department of Natural Resources released a comprehensive [report](#) on nuclear power in Maryland in January 2020.

Additional Information

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

Designated Cross File: HB 680 (Delegates T. Morgan and J. Long) - Economic Matters.

Information Source(s): Maryland Department of Emergency Management; Maryland Department of the Environment; Public Service Commission; Department of Natural Resources; Department of Legislative Services

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