

Department of Legislative Services  
Maryland General Assembly  
2014 Session

FISCAL AND POLICY NOTE

House Bill 1373 (Delegate Niemann)  
Environmental Matters

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**Environment - Permits to Construct or Materially Alter an Incinerator -  
Limitations on Issuance**

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This bill prohibits the construction of a specified incinerator within three miles of the boundary of a “protected location,” as defined by the bill. Likewise, the Secretary of the Environment is prohibited from issuing a permit to construct or materially alter such an incinerator in those areas. Additionally, the bill alters an existing exemption for an incinerator operating as a resource recovery facility on January 1, 1997, from restrictions on the operation, construction, reconstruction, replacement, expansion, and material alteration or extension of an incinerator, or the issuance of permits for such activities.

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**Fiscal Summary**

**State Effect:** Special fund revenues decrease, likely minimally, as the Maryland Department of the Environment (MDE) collects fewer fees associated with the issuance of the various permits needed to construct or materially alter an incinerator. Expenditures (all funds) may be indirectly impacted to the extent that the bill results in changes in waste management costs for State agencies generally; the nature, timing, and extent of any such impact cannot be estimated.

**Local Effect:** Local finances related to waste disposal are significantly affected to the extent the bill prohibits the construction or alteration of proposed or existing incinerators. Local expenditures for waste management may be indirectly affected. **This bill may impose a mandate on a unit of local government.**

**Small Business Effect:** Meaningful.

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## Analysis

**Bill Summary:** The bill alters an existing exemption for an incinerator operating as a resource recovery facility on January 1, 1997, from restrictions with respect to the operation, construction, reconstruction, replacement, expansion, and material alteration or extension of an incinerator, or the issuance of permits for such activities, such that a facility operating by that date is only exempt under the bill if any proposed new activity affecting such a facility will result in a *reduction* in emissions, discharges to waterways, or impacts to surrounding communities, human health, or the environment. Additionally, the bill alters existing limitations on the siting of an incinerator by removing the term “or operate,” such that the limitations only pertain to the construction and, with respect to permit issuance, the material alteration of an incinerator, but not to the continued operation of the facility.

The bill defines a “protected location” as (1) a preschool, elementary, or secondary school; (2) a day care center or other type of child care facility; (3) a hospital or health clinic (which is not defined by the bill); (4) a nursing home or convalescent care facility; (5) a church, synagogue, temple, mosque, or other place of worship; (6) an athletic facility or a recreation center; (7) an athletic or a recreation field or area; or (8) a federal, State, or local park.

The bill’s provisions only apply to an incinerator that burns 250 tons or more of municipal solid waste (MSW), fuel derived or created from solid waste, or medical waste, and that is subject to federal regulations of certain large solid waste combustors. The bill, however, does not specify a timeframe within which that amount of waste must be burned in order for the bill to apply. The bill does not apply to a crematorium or an incinerator used solely to dispose of dead animals.

Finally, the bill establishes the method for measuring distance between boundary lines.

**Current Law:** Solid waste acceptance facilities are permitted by MDE. A solid waste acceptance facility means any sanitary landfill, incinerator, transfer station, or plant whose primary purpose is to dispose of, treat, or process solid waste. Siting and other land use or zoning criteria for proposed solid waste acceptance facilities are the responsibility of local jurisdictions. Applicants obtain local approvals prior to applying to MDE for a permit.

The Secretary of the Environment may not issue a permit to construct or operate a municipal waste incinerator for the disposal of solid waste within one mile of an elementary or secondary school; this includes the issuance of other permits that may be incidental to the construction or operation of an incinerator project. However, these restrictions may not be construed to prohibit the operation, construction, reconstruction,

replacement, expansion, and material alteration or extension, or the issuance of any permits needed for such activities, for an incinerator that was operating as a resource recovery facility on January 1, 1997.

**Background:** Generally, there are two types of incinerators: (1) MSW incinerators used for waste disposal and energy generation and (2) medical waste incinerators used to dispose of hospital wastes.

Incinerators are pervasively regulated under State and federal environmental and public health laws due to their wide-ranging effects on various environmental media and community resources. For example, one MSW incinerator facility may utilize water resources, discharge both air and water pollution, and produce solid and potentially hazardous waste. Several agencies, including MDE, the Department of Health and Mental Hygiene, the Public Service Commission, and the Department of Natural Resources' Power Plant Research Project are involved in permitting, regulatory enforcement, and research activities related to incinerators.

According to the Energy Recovery Council, 86 waste-to-energy facilities were operating in 24 states in 2010, including 3 facilities in Maryland. According to MDE data, as of January 1, 2012, three waste-to-energy/MSW incinerators were operating in the State, as well as three solid waste incinerators and two medical waste incinerators. The three MSW incinerator facilities (located in Baltimore City and Montgomery and Harford counties), in addition to handling thousands of tons of MSW per day, had a nameplate electricity generation capacity of 139.4 megawatts and produced nearly one-half of all Tier 1 renewable energy credits under the Maryland Renewable Energy Portfolio Standard in 2012.

Additionally, MDE has made final determinations to issue permits for a proposed waste-to-energy facility in Frederick County. MDE issued permits and approvals, effective February 21, 2014, that require the proposed facility to meet all applicable environmental laws and regulations for air emissions, water discharge, and refuse disposal. The permits and approvals are for a proposed facility to be located near an existing industrial park in Frederick County. The permit applicant is the Northeast Maryland Waste Disposal Authority (NMWDA) and the operator is a private company. The proposed facility is designed to incinerate MSW, biosolids, and scrap tires to meet the long-term solid waste disposal needs of Frederick and Carroll counties and produce approximately 55 megawatts gross/45 megawatts net of electricity.

MSW incinerators have been hailed for their waste disposal and renewable energy attributes, but are also widely regulated due to the various environmental impacts of such facilities. For example, MSW incinerators contribute to the environmental deposition of mercury, dioxin, furan, and other toxic metals and organic compounds. Nevertheless, since U.S. Environmental Protection Agency (EPA) regulation under federal solid and

hazardous waste laws began in the early 1990s, emissions of these toxic pollutants have fallen dramatically. Finally, while some consider MSW incinerators to be an important means to reduce the emissions of greenhouse gases, such reductions may only occur in regions where MSW is primarily managed through the use of landfills (rather than other forms of solid waste management such as recycling and composting) and where electricity is primarily generated by traditional coal-fired power plants (rather than from sources with fewer emissions).

Recycling is generally considered the most environmentally optimal method of solid waste management under the EPA municipal solid waste management hierarchy. From the top of the hierarchy to the bottom, in order of most preferred to least preferred, EPA lists (1) source reduction and reuse; (2) recycling and composting; (3) energy recovery including anaerobic digestion; and (4) treatment and disposal.

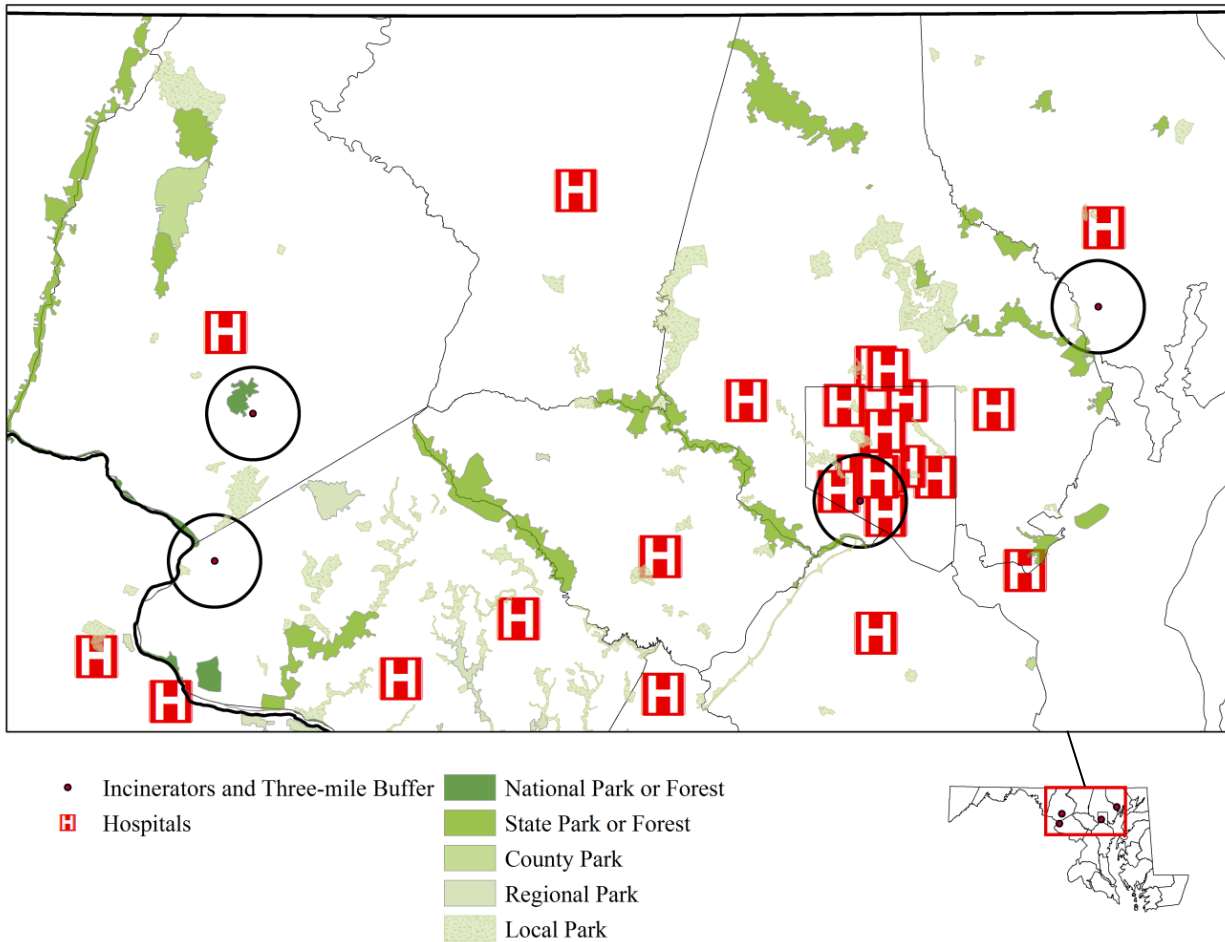
According to the most recent data available from MDE, in 2011, nearly 30% of all MSW accepted by facilities permitted in Maryland was accepted by eight incinerators. Nearly all of the solid waste accepted by these incinerators was disposed of at the three major MSW incinerators located in Baltimore City and Harford and Montgomery counties. These three facilities are subject to the federal regulations of large MSW incinerators specified in the bill, and are, therefore, subject to the bill's restrictions pertaining to the material alteration of an incinerator.

#### *Zero Waste and Maryland Climate Change Plan*

Pursuant to the Greenhouse Gas Reduction Act of 2009 (Chapters 171 and 172), MDE published a final greenhouse gas reduction plan in July 2013. The extensive plan includes numerous strategies, programs, and initiatives that, in combination, are projected to achieve a 25% reduction of greenhouse gas emissions from 2006 levels by 2020. One of the major strategies included in the plan is a “zero waste” initiative, which is estimated to provide 8.7% of the emissions reductions – the fourth largest component of the plan. According to the plan, zero waste is a concept that calls for the near complete elimination of solid waste sent to landfills or incinerators for disposal, and where, instead, the vast majority of Maryland's solid waste is reused, recycled, composted, or prevented through source reduction. Waste-to-energy is recognized as a “bridge technology” and deemed generally preferable to landfilling.

**Local Fiscal Effect:** As shown in **Exhibit 1** below, the locations of the four existing or proposed and permitted MSW incinerators are within three miles of at least one protected location under the bill. Thus, both existing and proposed facilities could be affected by the bill's limitations. Additionally, given the broad definition of a “protected location,” the bill's three-mile buffer, and the many other geographic and engineering constraints involved in locating an MSW incinerator, it may be difficult or impossible to construct a new MSW incinerator in the future under the bill's provisions.

**Exhibit 1**  
**Three-mile Buffer Around Each Proposed, Permitted, or Existing MSW Incinerator**



Source: Maryland Department of the Environment; Department of Information Technology; ArcGIS Online; Department of Legislative Services

Note: The map only reflects the location of national, State, and local parks and hospitals, and does not include the numerous other facilities and areas included in the definition of a “protected location.” As shown, there is at least one hospital or park within three miles of each proposed or existing MSW incinerator.

Beginning on October 1, 2014, the proposed MSW incinerator in Frederick County is subject to the bill’s construction prohibition. NMWDA advises that about \$10.0 million has been expended to date to prepare to construct the proposed MSW incinerator. Thus, local government revenues and expenditures are significantly affected for Frederick and Carroll counties, assuming the proposed MSW incinerator would otherwise be built in the absence of the bill and able to operate in accordance with existing financial and county solid waste management plans.

NMWDA further advises that the bill may require the eventual closure of the three existing MSW incinerators in Maryland as each facility may be unable to obtain necessary permits. The closure of any existing MSW incinerator before the intended closure date is likely to result in substantial fiscal and operational impacts for the jurisdictions that partially or wholly own or operate the facilities. Fiscal impacts may include accelerated closure costs, significant diminishment in the value of major capital assets, foregone operating revenues, including revenues tied to the repayment of debt, and potentially greater alternative waste disposal costs. The Department of Legislative Services advises that it is unclear whether or when the bill may affect any of the three existing facilities, which, as noted, are located within three miles of a protected location.

For other local jurisdictions statewide without an ownership interest or operational stake in the MSW incinerators, waste management expenditures may also increase to the extent that the bill interferes with existing waste management practices and less costly alternatives are not available, as well as to revise county waste management plans.

**Small Business Effect:** The bill may result in a meaningful adverse impact on any small businesses that operate or service MSW incinerators regulated by MDE. To the extent that future construction associated with constructing or modifying incinerators is prevented by the bill, small construction and engineering contractors are also adversely affected. In addition, small businesses generally may pay higher fees to the extent a jurisdiction's solid waste disposal costs increase under the bill. However, the bill may have a meaningful beneficial impact on small businesses engaged in other forms of waste disposal.

**Additional Comments:** As noted, the bill alters an existing exemption, for an incinerator operating as a resource recovery facility on January 1, 1997, from restrictions on the operation, construction, reconstruction, replacement, expansion, and material alteration or extension of an incinerator, or the issuance of permits for these activities, such that a facility operating by that date is only exempt under the bill if any proposed new activity affecting the facility will result in a *reduction* in emissions; discharges to waterways; or impacts to surrounding communities, human health, or the environment. However, the bill does not define "reduction" and it is uncertain how this provision may be interpreted. While it is likely that a plain reading of this provision is that the proposed new activity affecting the facility must result in a reduction in emissions, discharges, or impacts from the facility relative to prior levels, other reasonable interpretations exist. As just one example, a proposed activity may increase emissions or discharges at the facility, but may reduce impacts in the wider community as part of a new county waste management plan or initiative that provides broader positive environmental or public health benefits measured on a communitywide basis relative to what would have happened in the absence of the activity.

## Additional Information

**Prior Introductions:** A bill with similar provisions, HB 1427 of 2010, was referred to the House Rules and Executive Nominations Committee, but no further action was taken. Its cross file, SB 514, received an unfavorable report from the Senate Education, Health, and Environmental Affairs Committee.

**Cross File:** None.

**Information Source(s):** Kent and Worcester counties, Town of Berlin, Department of Natural Resources, Maryland State Department of Education, Maryland Department of the Environment, Department of Health and Mental Hygiene, Maryland Association of Counties, Maryland Municipal League, Northeast Maryland Waste Disposal Authority, U.S. Environmental Protection Agency, Energy Recovery Council, Department of Legislative Services

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