

**Department of Legislative Services**  
Maryland General Assembly  
2024 Session

**FISCAL AND POLICY NOTE**  
**Third Reader - Revised**

Senate Bill 1028

(Senator Waldstreicher)

Education, Energy, and the Environment

Health and Government Operations

---

**Human Remains - Alkaline Hydrolysis and Natural Organic Reduction (Green Death Care Options Act)**

---

This bill requires the Office of Cemetery Oversight (OCO), in conjunction with the State Board of Morticians and Funeral Directors, to adopt regulations establishing a process for regulating (1) crematories that use “alkaline hydrolysis”; (2) “reduction facilities” that use “natural organic reduction”; and (3) “registered reduction operators.” The bill conforms the definitions of “cremation” and “crematory” across the Business Regulation, Health-General, and Health Occupations articles. The bill exempts a funeral establishment, crematory, or reduction facility from the requirement to maintain a body in a manner that provides for complete coverage of the body and prevents leakage or spillage during placement inside a contained chamber or vessel without an external visual exposure during the process of alkaline hydrolysis or natural organic reduction.

---

**Fiscal Summary**

**State Effect:** OCO and the board can adopt regulations and handle any additional workload with existing budgeted resources. OCO and board special fund revenues may increase minimally beginning in FY 2025 to the extent regulations are adopted and entities seek permits, certifications, or registrations to conduct natural organic reduction.

**Local Effect:** Local health departments may be required to monitor crematory and reduction facility compliance with regulations adopted under the bill. Revenues are not affected.

**Small Business Effect:** Potential meaningful.

---

## Analysis

**Bill Summary:** The definition of “authorizing agent” is altered to mean the individual who has legal authority to arrange for and make decisions regarding the final disposition of a dead human body, including cremation, *alkaline hydrolysis*, or *natural organic reduction*. “Cremation” means the disposition of a dead human body by means of incineration.

### *Alkaline Hydrolysis*

“Alkaline hydrolysis” means the process of reducing human remains using water, alkaline chemicals, and heat inside a watertight vessel to accelerate decomposition. “Hydrolyzed remains” means the bone fragments produced by the completion of alkaline hydrolysis.

The definition of “crematory” is altered to mean a building, portion of a building, or structure that houses the necessary appliances and facilities for cremation or *alkaline hydrolysis*.

### *Natural Organic Reduction*

“Natural organic reduction” means the contained accelerated conversion of human remains into soil. “Soil remains” means the soil produced at final disposition of a dead human body at a reduction facility by completion of natural organic reduction. “Human remains” does not include soil remains produced after the completion of natural organic reduction.

A person may not use or dispose of soil remains produced by natural organic reduction (1) on public or private property without the prior permission of the owner of the public property, the surviving owners of public record of the private property, or if the decedent was sole owner of the property at death, the authorizing agent; (2) by using the soil remains to grow food for consumption by humans or livestock; (3) by selling or reselling the soil remains to a third party; or (4) by combining or incorporating the soil remains into compost offered for sale to consumers or for commercial or agricultural purchasers.

Unless a funeral establishment or cemetery has otherwise agreed in writing, a reduction facility that produces soil remains is responsible for providing for the final disposition and disposal of the soil remains in accordance with written direction given by an authorizing agent.

Except for acts of gross negligence or reckless disregard, a practitioner or reduction facility operator is not liable for (1) transferring possession of soil remains at a reduction facility or (2) delivering soil remains to another location according to the written direction provided by the authorizing agent.

### *Natural Organic Reduction Facilities*

“Reduction facility” means a building, portion of a building, or structure that houses the necessary appliances, containers, and facilities for performing natural organic reduction. “Registered reduction operator” means an individual registered to operate a reduction facility as a sole proprietor or on behalf of a sole proprietor or a permit holder. “Engage in the operation of a reduction facility” means controlling or managing a reduction facility. “Engage in the operation of a reduction facility” does not include (1) the practice of funeral direction or the practice of mortuary science; (2) assistance in making decisions and filling out forms that are not directly related to natural organic reduction; (3) obtaining vital statistics, signatures, and other information necessary to complete a death certificate; (4) transportation of a body to the place of disposition; or (5) any other services regarding the disposition of a body that are not directly related to natural organic reduction.

Except as otherwise provided, an individual may not engage in the operation of a reduction facility, attempt to engage in the operation of a reduction facility, or provide or offer to provide natural organic reduction unless the individual is a registered reduction operator.

A registered reduction operator who engages in the operation of a reduction facility through a corporation, limited liability company, or partnership is subject to all the provisions that relate to engaging in the operation of a reduction facility.

### *Remains of Veterans*

As for cremated human remains, a licensed funeral establishment or crematory in possession of hydrolyzed remains that have been unclaimed for 90 days or more must follow the notification procedures related to veterans.

Likewise, a reduction facility in possession of human remains that are being processed by natural organic reduction must provide identifying information to a veterans service organization within five business days after natural organic reduction is initiated to determine if the soil remains are those of a veteran or eligible dependent. This requirement does not apply if an authorizing agent directs otherwise or a reduction facility reasonably concludes based on the identifying information or other evidence that a decedent does not qualify for disposition benefits associated with veteran status.

If the unclaimed soil remains are those of a veteran or an eligible dependent, the reduction facility may (1) transfer a portion of the soil remains not exceeding 300 cubic inches in volume to a veterans service organization that grants permission for the purpose of disposition and (2) if authorized by the cemetery owner, transfer the balance of soil remains to a cemetery or the owner of a woodland protected under the Forest Conservation Act (FCA).

If a veterans service organization does not take possession of a portion of unclaimed soil remains that qualifies for a plot in the State veterans' cemetery within 10 days after the reduction facility receives notification, the reduction facility must (1) notify the Maryland Department of Veterans Affairs (MDVA) of the status of the soil remains for the purpose of the appropriate disposition of the portion of soil remains; (2) transfer the portion of soil remains to MDVA for the purpose of appropriate disposition; and (3) if authorized by the cemetery or owner, transfer the balance of the soil remains to a cemetery or the owner of a woodland protected under FCA.

### *Required Regulations*

With the advice of the Advisory Council on Cemetery Operations, and after consultation with representatives of the cemetery industry, the Director of OCO must adopt rules, regulations, and a code of ethics for engaging in the operation of a reduction facility. In conjunction with the State Board of Morticians and Funeral Directors, the Director of OCO must establish a process for regulating reduction facilities that provides for (1) registration of reduction facility operators and reduction facilities and (2) applications, including certification of ownership and identification of individuals who will perform alkaline hydrolysis or natural organic reduction.

In addition, the Director of OCO must adopt regulations (and then the State Board of Morticians and Funeral Directors must adopt identical regulations) that:

- require a registered reduction operator to notify the authorizing agent in writing and before initiating natural organic reduction that a person who uses or disposes of soil remains is in violation of law;
- require a reduction facility to monitor and record written verification that the temperature during each instance of a natural organic reduction process attains a specified minimum internal temperature for a specified minimum period of time;
- establish appropriate standards for training and experience for the registration of reduction operators;
- prohibit the use of natural organic reduction in any instance in which the human remains are known, or reasonably suspected, to be embalmed or to have an infection, disease, or biological condition that renders the process of natural organic reduction, or the resulting soil remains, unreasonably unsafe, as specified;
- establish a mandatory contamination testing program for reduction facilities to ensure the safety of soil remains produced, including the following minimum program elements: (1) collecting routine material samples from soil remains for specified analysis; (2) recording and retaining the results of an analysis of samples from the soil remains conducted by an independent third-party laboratory to identify the presence of heavy metals or microbial pathogens, as specified; (3) conducting

an analysis for each production of soil remains to ensure that the soil remains contain less than 0.01 mg/kg dry weight of specific physical contaminants, as specified; (4) ensuring that no soil remains are released until the soil remains comply with each of the applicable contamination testing parameters; and (5) periodic reporting of testing results to appropriate State and local health authorities that have requested the results; and

- establish any other reasonable prohibition, rule, or requirement necessary to protect the public health and safety during the process of natural organic reduction.

**Current Law:** In Maryland, cremation is regulated either by OCO within the Maryland Department of Labor or the board within the Maryland Department of Health, based on ownership of the crematory. Specifically, OCO and the board each regulate facilities in which their registrants/permit holders or licensees hold majority ownership. Independent (or free-standing) crematories are subject to the jurisdiction of OCO. As part of their joint oversight of crematories, OCO and the board must adopt identical regulations.

Accordingly, “cremation” is defined identically under the Business Regulation and Health Occupations articles. Specifically, “cremation” means the process of reducing human remains to bone fragments through intense heat and evaporation, including any mechanical or thermal process. However, under the Health-General Article, “cremation” means the disposition of a dead human body by means of incineration.

Under the Business Regulation and Health Occupations articles, “crematory” means a building, portion of a building, or structure that houses the necessary appliances and facilities for cremation. Under the Health-General Article, “crematory” means a building in which cremations are performed.

Under the Health-General and Health Occupations articles, “authorizing agent” means the individual who has legal authority to arrange for and make decisions regarding the final disposition of a dead human body, including by cremation.

On taking custody of a body, a funeral establishment or crematory must maintain the body in a manner that provides for complete coverage of the body and prevents leakage or spillage except during (1) identification, embalming, or preparation of an unembalmed body for final disposition; (2) restoration and dressing of a body in preparation for final disposition; and (3) viewing during a visitation or funeral service.

### *Office of Cemetery Oversight*

OCO registers and regulates the cemetery and burial goods industry in the State. Crematories under the jurisdiction of OCO must hold a permit for the crematory business if the crematory is not a sole proprietorship, and a crematory operator must also be

registered with OCO. More specifically, OCO issues crematory permits to (1) a registered cemeterian or other permit holder who owns a greater or equal interest in a crematory operated in conjunction with a licensee of the board and (2) a crematory owner who does not hold a license, permit, or registration from either OCO or the board (*i.e.*, a free-standing or independent crematory).

### *State Board of Morticians and Funeral Directors*

The board is responsible for the credentialing, examination, licensure, and discipline of morticians, funeral directors, corporations, certain crematory operators, apprentices, surviving spouses, mortuary transport services, transporters, courtesy card holders, and holders of an executor license in Maryland. The board also licenses, permits, and inspects funeral establishments and specified crematories. The board issues crematory permits and crematory operator registrations to crematories if the majority interest in the crematory is held by a licensee of the board.

### *Joint Regulatory Duties*

In conjunction with OCO, the board must establish a process for regulating crematories that provides for (1) registration of crematory operators or issuance of permits for operating crematories and renewal; (2) applications, including certification of ownership and identification of individuals who will perform cremation; (3) registration or permit fees; (4) inspections and oversight; (5) grounds for discipline and penalties; and (6) complaints and hearings. The board and OCO must also adopt identical regulations, as specified, to ensure public health and safety.

### *Veterans Remains*

If a licensed funeral establishment or a crematory is in possession of cremains that have been unclaimed for 90 or more days, it must provide identifying information of the unclaimed cremains to a veterans service organization in order for the organization to determine if the unclaimed cremains are those of a veteran or an eligible dependent.

Within 45 days of receipt of the information, a veterans service organization must notify the licensed funeral establishment or crematory whether the cremains are those of a veteran or an eligible dependent and, if so, whether the veteran or eligible dependent is eligible for burial in a veterans cemetery. If the unclaimed cremains are those of a veteran or an eligible dependent, the licensed funeral establishment or crematory may transfer the cremains to a veterans service organization for the purpose of disposition of the cremains.

A licensed funeral establishment or crematory that acts in good faith is not civilly liable for transferring the unclaimed cremains of a veteran or an eligible dependent to a veterans

service organization for purposes of disposition. Likewise, a veterans service organization that acts in good faith is not civilly liable for receiving the unclaimed cremains of a veteran or an eligible dependent for purposes of disposition.

A licensed funeral establishment or crematory in possession of the unclaimed cremains of a veteran or an eligible dependent for which a veterans service organization has not taken possession is required to (1) notify MDVA of the status of the cremains and (2) transfer the cremains to MDVA for appropriate disposition.

**State Fiscal Effect:** The bill requires OCO and the board to jointly establish a process for regulating (1) crematories that use alkaline hydrolysis; (2) reduction facilities that use natural organic reduction; and (3) registered reduction operators. OCO and the board must adopt identical implementing regulations, and OCO must adopt additional regulations, as specified (which presumably the board must also adopt as they relate to public health and safety). This analysis assumes that any independent crematories that use alkaline hydrolysis or any independent reduction facilities must be regulated by OCO. Otherwise, crematories that use alkaline hydrolysis or reduction facilities are regulated either by OCO (if associated with cemeteries) or the board (if associated with funeral establishments).

OCO and the board currently charge the same fees for crematories: \$350 for both an initial and renewal crematory permit and \$300 for both an initial and renewal registration as a crematory operator. However, it is possible that the fee structure for a reduction facility or reduction operator will be different from the current fees. To the extent that *new* reduction facilities regulated by OCO apply for a facility permit and/or operator registration specifically to use natural organic reduction, special fund revenues increase beginning as early as fiscal 2025. To the extent existing crematories regulated either by OCO or the board expand their operations to use alkaline hydrolysis, special fund revenues may increase – but only if an additional fee is required.

Regardless, this analysis assumes that uptake of alkaline hydrolysis or natural organic reduction will be limited. Thus, any additional special fund fee revenues are assumed to be minimal, and any additional workload for OCO and the board can be handled with existing budgeted resources. *For illustrative purposes only*, OCO estimates that approximately 14 new facilities may seek a new facility permit and approximately 28 new operators may seek registration between fiscal 2025 and 2029. Under such assumptions, OCO special fund revenues increase by approximately \$20,000 over the five-year period to account for new facility registrations and renewals, and new reduction operator registrations and renewals.

**Small Business Effect:** Small business crematories may begin to offer alkaline hydrolysis as a means of cremation to their clients. Small business reduction facilities may be established to offer natural organic reduction as a means of cremation.

**Additional Comments:** The Maryland Department of the Environment (MDE) advises that, since alkaline hydrolysis and natural organic reduction methodologies are relatively new, crematories using alkaline hydrolysis and reduction facilities using natural organic reduction may be required to obtain an air quality permit to construct from MDE as well as permits from MDE's Water and Science Administration and/or Land and Materials Administration to address possible contaminated soil discharge.

---

### **Additional Information**

**Recent Prior Introductions:** Similar legislation has been introduced within the last three years. See HB 1060 of 2023.

**Designated Cross File:** HB 1168 (Delegate Kaiser, *et al.*) - Health and Government Operations.

**Information Source(s):** Maryland Department of Agriculture; Maryland Department of the Environment; Maryland Department of Health; Maryland Department of Labor; Department of Natural Resources; Department of Veterans Affairs; Maryland Association of Counties; Department of Legislative Services

**Fiscal Note History:** First Reader - March 4, 2024  
js/jc Third Reader - April 5, 2024  
Revised - Amendment(s) - April 5, 2024

---

Analysis by: Amberly E. Holcomb

Direct Inquiries to:  
(410) 946-5510  
(301) 970-5510