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SB 893 (2024)

Position of the MD State Funeral Directors Association: UNFAVORABLE

- The Bill would prohibit the construction and operation of crematories, is arbitrary and w/o basis, and would seriously harm both small businesses and consumers throughout the state.
- Consumers now choose cremation at a rate of about 52% in MD, and it is continuously increasing. By 2027, MD projections are 58%, and by 2045, 80%. See attachment from CANA, the Cremation Association of North America. **CANA further concluded that MD crematories were already at or near capacity.**
- **In response to increasing consumer demand, funeral establishments have invested, and continue to invest, substantial investment in new facilities**. These crematories are extensively regulated and permitted by the MD Department of the Environment.
- Consumers choose cremation because of personal choice, or because it is often less expensive than traditional burial.
- **This bill, if passed, will ensure that individuals who prefer cremation will pay substantially higher costs**. With increasing demand, and an inadequate supply of crematories to meet demand, consumers will be required to wait for cremations for much longer periods, additional days or weeks. And MD law requires that these deceased must either be embalmed, or placed in refrigeration. See Health-General Article, section 5-513(b). A delay of only a week will increase costs by many hundreds of dollars.
- **At the same time, this bill would substantially harm funeral homes and crematories in MD.** Funeral homes have spent considerable sums to construct crematories, and to seek regulatory approval for new crematories, in response to consumer demand. Costs can easily run $200,000 or more, for permitting, zoning approval, and the machinery itself, plus additional building space to house it. While some language in the bill suggests it would apply only to new crematories, opponents of cremation will seize on bill language to contend that MDE may not issue renewals to many existing crematories, which could lead to shutdowns, when new, increased capacity is needed.
- **Finally, the bill is completely arbitrary in its restrictions, and would prevent the state's environmental expert, MDE, from applying objective scientific criteria to the crematory permitting process**. That process is quite extensive, takes into account the individual circumstances of each crematory for a permit, and places appropriate restrictions on MDE permits in order to protect public health and safety.

ATTACH. 1

US Crematory Capacity

The Cremation Association of North America (CANA) conducted a study (March 2019) to determine the capacity for crematory businesses in the United States. CANA collected ten or more years of the following data:

- Total numbers of state cremations (Source: Vital Statistics departments)
- Total number of crematory licenses (Source: Business licensing authority and/or environmental regulatory authority)

CANA has been unable to find a reliable source to find the total number of cremators (machines) under the rooftop of each licensed crematory (rooftop). The number of machines, even estimated, is a critical metric to determine capacity. However, even the rooftop comparison is useful to estimate statewide capacity.

After interviewing manufacturers and data analysis, CANA settled on two assumptions that guide the work:

1) Benchmark of 350 cremations per low-volume rooftop resulting in an average 1.4 cremations per day. Benchmark of 750 cremations per high volume business, resulting in an average of 3 cremations per day. The benchmarks factor in downtime for maintenance and repairs and staff turnover.

2) Each rooftop has an average of 1 machine. Few businesses in most states have higher volume requiring more than one machine, so that the numbers of those rooftops is typically insignificant, with certain exceptions. One of those exceptions is states with anti-combo restrictions, where there is a distinct separation in ownership between funeral homes and cemetery/crematory operations.

The following formula was used to develop estimated statewide capacity:

[Total cremations]/[total rooftops] = Capacity

Maryland Cremation Statistics and Projections:

2021	2022	2027	2032
50.7%	52.1%	58.0%	63.1%

Maryland is projected to reach 80% cremation around 2045

As of 2022, Maryland reports 38 licensed crematories for humans. Pet crematories are not included in this number.

Capacity Calculation: Maryland (2022 cremation rate = 52.1%)

2022: Total deaths = 55,518

2022: Total cremations = 28,898

2022: Total rooftops = 38

2022 Total machines = 50 (estimated)

Total capacity per licensed rooftop = 577 - 761 cremations annually

The rough calculation above reveals that Maryland is at risk for having too little cremation capacity in pre-pandemic times. The number of machines under each rooftop is a critical data point to further study the problem.

Methodology

A typical cremation process requires 2-4 hours per cremation depending on the age, technology and manufacturer. The older the machine, the longer the cremation process, because cool down between cases is required. Maryland crematories employ a variety of machines so an average time of 3 hours per cremation is used for this example. Therefore a typical 8 hour shift per work day could handle 3 cremations. (It is standard practice to allow cool down for the final cremation of the day to occur overnight. And the next work day starts with removing those remains before charging the first case of the day).

Given 252 working days a year and 3 cremations a day in a 8 hour work day, then the maximum capacity of a machine would be 756 cremations annually. Factor in maintenance and special cases, i.e. overweight cases, infants, highly varnished caskets, witnessed cremations, and that number declines.

After analysis of the rooftop capacity, estimated machine capacity, and calculating the total cremations possibly in a workday per machine, the conclusion is that Maryland crematories were at or near capacity in 2022, the most recent year CANA has data.

Deaths do not occur evenly distributed over the course of the year, so it is highly likely that some crematories were beyond capacity at certain months throughout the year. When a crematory operates beyond capacity, wait times for grieving families increases and refrigerated storage can increase costs for families.

ATTACH. 2

CANA

The CANA Perspective on Particulate Emissions and Mercury: An In-Depth Look at a Global Controversy

For years, The Cremation Association of North America (CANA) has witnessed the concern surrounding cremating human remains and the corresponding release of primarily two emissions: particulate matter (PM) and mercury (Hg). PM can be defined as solid particles suspended in a gas as a byproduct of all combustion processes, including cremations. Mercury on the other hand, is derived from the use of silver amalgam in dental fillings that is released into the environment during the cremation process. A task force was developed by CANA to further investigate the issues; the results of the investigation are included in this report.

Particulate emissions (PM) are released into the environment in many ways, including through residential and commercial fuel-based heating — through cars, trucks, restaurant grills and fireplaces. None of these common community sources of PM have any emission controls to reduce, monitor or limit PM emissions. Crematories, however, have emission controls as part of their design to limit the amount of PM entering the atmosphere.

According to the U. S. Environmental Protection Agency (USEPA), there are many ways mercury emissions are released into the air. Some of these common sources include municipal incinerators, the breaking of used fluorescent tube lamps, dental facilities, production and disposal of batteries, household trash disposal and residential heating. USEPA lists the operation of crematories as one of the lowest sources of Hg emissions. Mercury emissions from cremation are very low and they are not regulated by any environmental agency. Under the Clean Air Act, the USEPA reviewed and updated national air-quality standards for all types of possible pollutant sources, including crematories. This review considered all possible pollutants including PM and mercury. As a result, crematories were not considered for any further federal regulation. CANA surveyed various crematories throughout the United States — Virginia, Georgia, Illinois, Washington, Florida, Indiana, Kentucky, California, Wisconsin and New York were just a few states to respond. CANA asked if there has ever been an air-quality or environmental agency in these areas that raised a concern regarding the release of mercury emissions from their crematories: The unanimous answer was no.

The American Dental Association (ADA), which oversees and regulates dentists in the United States, reports that since 1990 the use of silver amalgam has dropped from a 68-percent usage rate to 30 percent. The ADA attributes this decrease to the patients' preferences for natural-looking non metallic dental fillings. Moreover, continuous changes in dental practices, as the durability of other cavity-filling materials are proven, continues to lessen the already minimal amounts of Hg being released.

Furthermore, the Indianapolis Office of Environmental Services has responded to this growing concern by performing crematory emissions studies to determine if a source would be required to obtain an air permit. The group concluded that, although Hg from silver amalgam is certainly released, in reality, emissions are quite small, below the minimum levels of all criteria pollutants and Hazardous Air Pollutants.

The USEPA also states that crematories statistically represent 0 percent of the total inventory for national mercury emission rates, according to their Best Point Estimates. Based on actual data

collected in 1999, when presumably more people still had silver amalgam fillings, all the U.S. crematories combined produced a total of only 238 pounds or 108 kilograms of Hg.

Actual tests performed for USEPA at the Woodlawn Crematorium by representatives of the Midwest Research Institute in New York, and published by the USEPA, have determined the amounts of Hg released to the environment. The tests show that in a total of nine cremations, two were suspected of not containing any silver amalgam whatsoever. They contend that the stack testing at the Woodlawn facility was considered to be representative of all crematoria operations and, therefore, a reliable source for developing an uncontrolled emission factor for use in estimating potential emissions from all crematoria. The conclusion is that the average mercury release of nine cremations yielded 0.456 grams or 0.0010 pounds of Hg per body. In addition, the average Hg release for the seven cremations believed to contain silver amalgam fillings yielded only 0.584 grams or 0.0013 pounds per body.

Further testing by Pelican Scientific in the United Kingdom measured Hg in crematoria emissions and submitted the results to The Department of Environment, Food and Rural Affairs and the Scottish Environmental Protection Agency. Both agencies accepted the tests as having been conducted in compliance with testing standards. The first test, conducted during October 2006 at the Craigton Crematorium in Glasgow, Scotland, involved 23 cremations under normal operating conditions:

- 10 remains were suspected of not having silver amalgam fillings whatsoever.
- The average Hg release per cremation of more than 23 cremations yielded 0.128 grams or 0.0003 pounds per body.
- The average Hg release per cremation for the 13 cremations believed to contain silver amalgam fillings yielded 0.227 grams or 0.0005 pounds per body.

The second test, conducted September 2007 at the Linn Crematorium in Glasgow involved 31 cremations under normal operating conditions:

- 21 remains were suspected of not having silver amalgam fillings whatsoever.
- The average Hg release per cremation of more than 31 cremations yielded 0.323 grams or 0.0007 pounds per body.
- The average Hg release per cremation for the 10 cremations believed to contain silver amalgam fillings yielded 1.001 grams or 0.0022 pounds per body.

This information confirms that the Hg emissions information located in the USEPA National Emissions database is accurate for determining the Hg impact of cremations; and based on significant and unbiased testing, Hg emissions from crematories are not deemed sufficient to be regulated.

All the data available has already prompted notable environmentalists to draw realistic conclusions in regard to the emissions of Hg. Environmental Scientist Alexis Cain, of the Chicago office of the Environmental Protection Agency said, "I don't think it's a risk to people who live in the vicinity of crematoriums."

Two specific practices target the reduction of Hg emissions into the atmosphere via cremations. CANA recommended that neither of these directives be mandated:

- The first measure would be the installation of filtration systems or "bag houses" to the cremation equipment. There is no guarantee that these filtration systems will prevent the release of Hg into the environment, not to mention that they are extremely cost-prohibitive.
- The second measure suggests that teeth containing silver amalgam should be pulled prior to the cremation process. CANA considers this an act of mutilation and such an act would violate the respectful manner in which cremationists perform their duties. The notion that teeth-pulling would even be suggested implies that some individuals are not approaching this matter with objective insight. The misguided fear of mercury emissions clouds the realistic

assessment of their environmental impact. Our decisions should be based on the soundness of the data collected and intellectually interpreted.

The most extensive cremation equipment emissions research ever undertaken confirms that the design and operation of typical North American crematories provides significantly better emissions than regulations required, and even exceeds expectations with the older operating systems.

Summing up the matter, Samantha Wetzler, M.D., a medical examiner in the Tidewater Virginia region, said, "There are so many variables, and so many sources of mercury both to people and the environment, of which none have been eliminated ... not fish, amalgams, coal plants, industrial emissions and the breaking of light bulbs. It seems that regardless of what studies one does, no one will be able to predict these things, and pointing a finger at a crematory as one source that must be stopped seems ridiculous and frivolous. A neighbor putting a fluorescent bulb into the trash rather than recycling it properly will create more concrete hazards for the community than any amounts crematories will ... but policing of peoples' trash is not in the plans."

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CANA is the recognized authority for all information, education, products, services and support for cremation. Founded in 1913, CANA is an International organization of over 1,300 members, composed of cemeterians, cremationists, funeral directors, industry suppliers and consultants. CANA's purpose is to actively lead and support the providers of cremation services and to promote memorialization. This is accomplished through the highest standards of ethics, education and consumer information. CANA's members support and adhere to the following principles: integrity and ethics; excellence; professional development and education; and leadership and innovation. For more information about CANA, visit www.cremationassociation.org.