

HB1331_FAV_McKay

Uploaded by: Delegate McKay Delegate McKay

Position: FAV



THE MARYLAND HOUSE OF DELEGATES
ANNAPOLIS, MARYLAND 21401

March 11, 2022

Environment and Transportation Committee

House Office Building, Room 251

Annapolis, Maryland 21401

Dear Chairman Barve and Vice Chair Stein and the Members of the Environment and Transportation,

My name is Delegate Mike McKay and it is a privilege to introduce HB1331 – The Coal Ash Recycling Act of 2022. This bill directs the development of a statewide facility that would be designated as recycling deposits for all coal ash active disposal sites. It requires that certain materials used in the State include coal ash as a component of the material; requiring materials used for the protection and stabilization of shorelines, precast concrete forms, castings and other nonstructural applications. It also requires all contractors licensed in the State to use and give preference to materials that include coal ash; requiring any person utilizing materials in the State that include coal ash to give preference to certain materials, hire local employees for certain work, and submit certain information; etc.

My legislative goals are to

1. Supply “Made in America” sustainable construction strategies in collaboration with private companies, academia, State and Federal agencies, building generational rural economic development clusters to meet the green infrastructure demands.
2. Public –Private Partnership (P3) networks like ‘Sustainable Material Management Maryland’ (SM3) program to implement sustainable initiatives with shovel-ready projects in legacy coal communities.
3. Create well paid, unionized, rural job opportunities in legacy coal communities through innovative Waste-to-Value projects in a robust Just Transition framework for Maryland and Appalachia.

This “green cement” can be used for non-structural applications, precast concrete forms and others types castings. In addition to these the by product can be use in the shoreline erosion and restoration programs for Maryland that are on the horizon. The program estimated cost is 27 billion over the next 20 year; similar coastal American projects are estimated at in excess of \$400 billion. Materials and expertise addressing these new demands add to critical infrastructure.

We have included two amendments for consideration and a slide show concerning coal in storage in the Chesapeake Bay Watershed.

[Type here]

Amendment One; Striking “Wind Turbine Foundations” and substitute “nonstructural Applications”

Amendment Two: Inserting “to the extent required by project specifications and consistent with sound engineering principals”.

In conclusion efforts in Western Maryland and Statewide pursuit of the development of low carbon beneficial uses of waste coal ash will align well with state objectives in innovation, the environment and a post-coal framework. Reducing the manufacturing of virgin cement and its associated greenhouse gas emissions will help to support the climate goals of our state, our region and around the world. The millions of tons of waste coal ash in storage could be processed for the benefit of Marylanders, creating needed building materials, project opportunities for students and new work force jobs throughout the region.

Thank you, I urge a favorable report.

Delegate Mike McKay

Serving Allegany and Washington Counties

HB1331_FAV_McKay_2

Uploaded by: Delegate McKay Delegate McKay

Position: FAV

Coal ash in storage in the Chesapeake Bay Watershed

Source: Maryland DNR GIS Project

Legend

Chesapeake Bay Watershed



Operating Power Stations



Decommissioned Power Stations



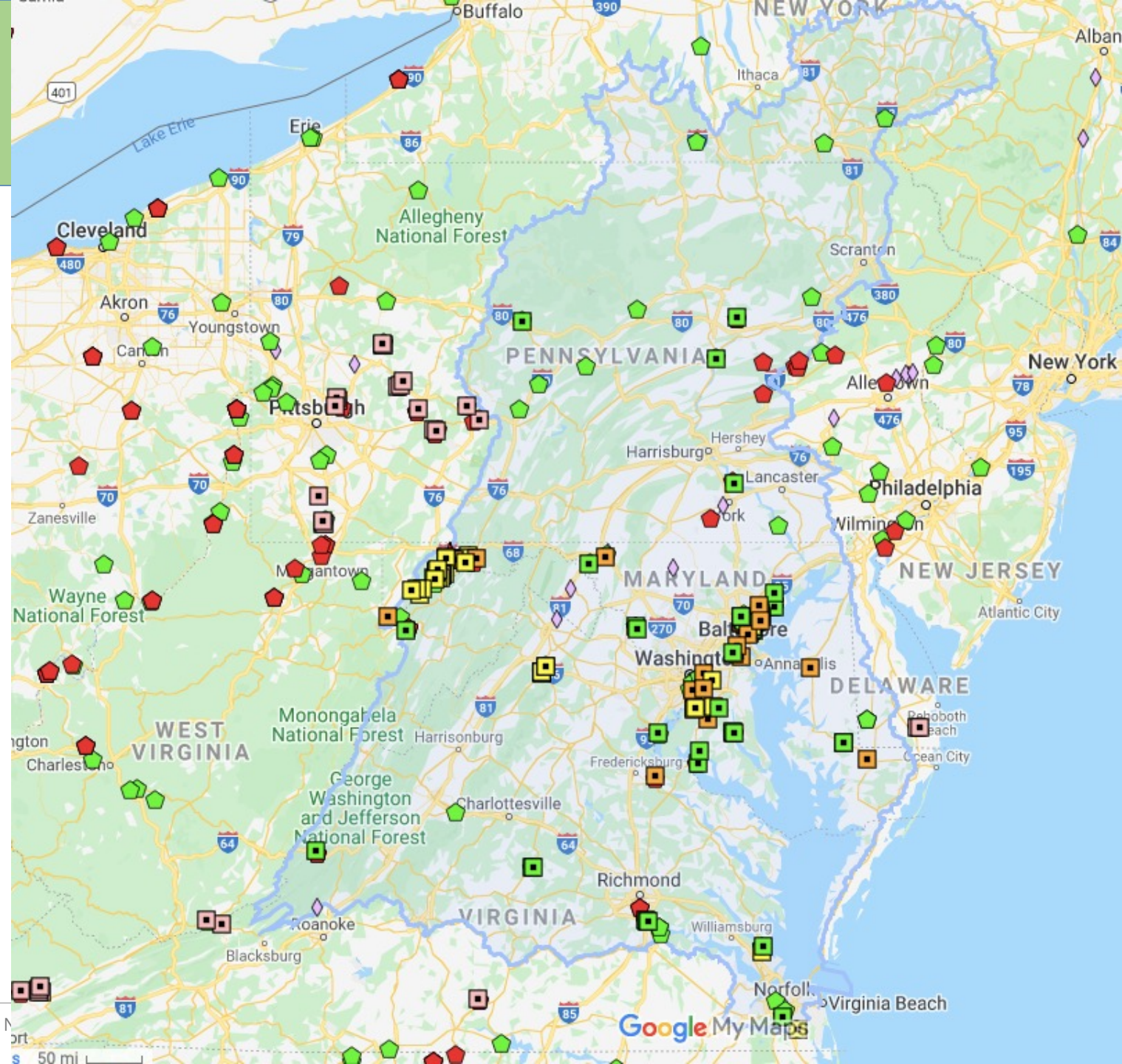
Coal Ash Storage Sites



Cement Plants



RURAL INNOVATION



Estimated Mid Atlantic Seawall programs to 2040

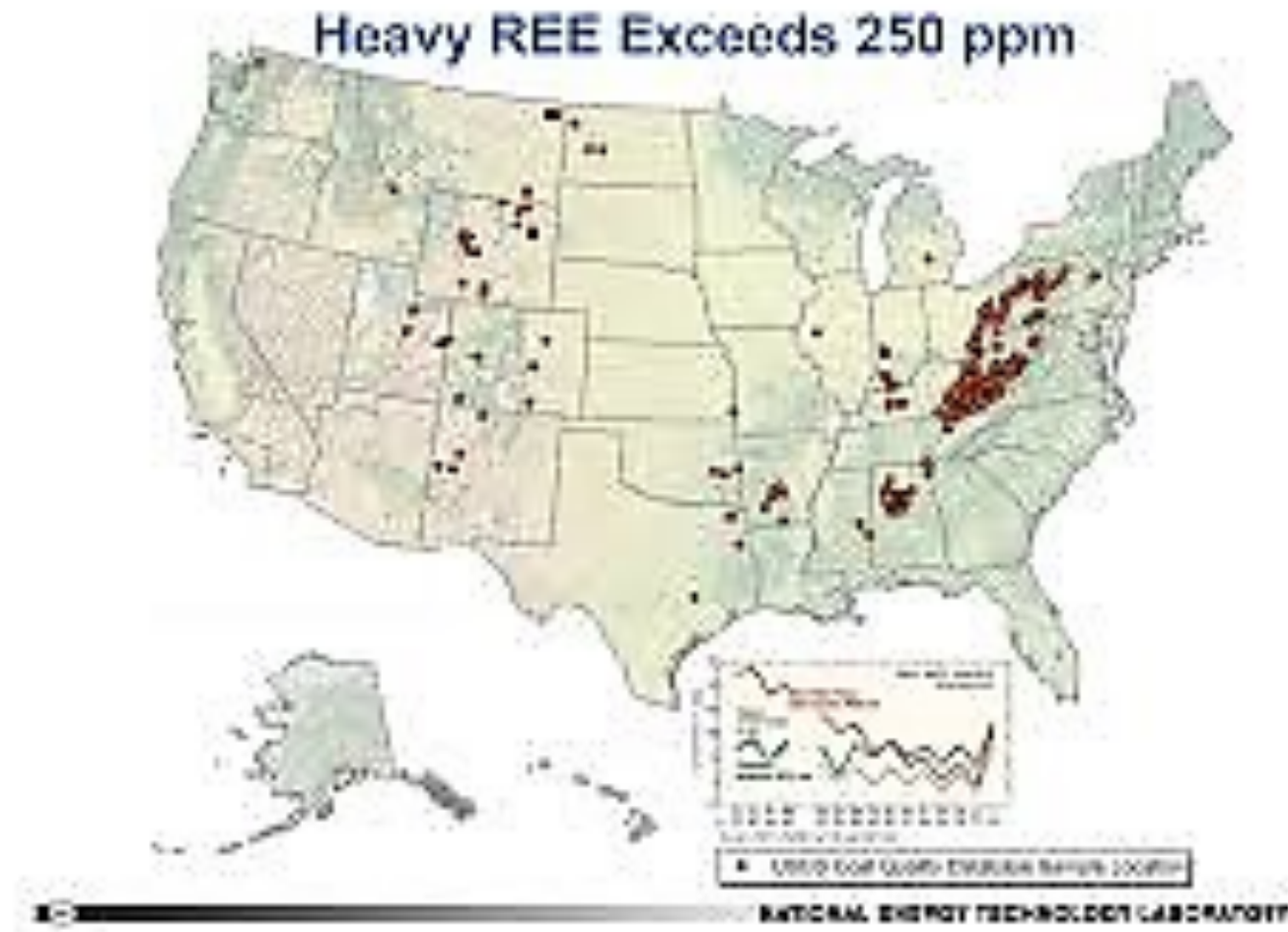


U.S. Expected To Pay Over \$400bn On Seawalls Up To 2040

Estimated expected cost of seawall construction in U.S. states up to 2040



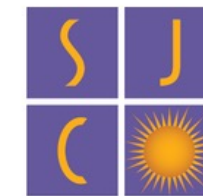
Why Western Maryland: Appalachian Coal & Coal Ash is rich in Rare Earth Elements



SonoAsh has made good progress with key achievements and a growing partner network

Achievements

- ✓ Performance benchmarks validated by 3rd party industry participants
- ✓ DoE Rare Earths grant participation secured in New Mexico & Wyoming
- ✓ Developed key partnerships in industry and government agencies
- ✓ Robust patents around key process technology (acoustic energy application)
- ✓ Solar Impulse Award (2020, United Nations) validated as an efficient solution
- ✓ Up & down stream commitments with major industry participants
- ✓ Positive engagement with Sierra Club
- ✓ **Maryland Industrial Partnership (MIP)** award winner, project underway Q1, 2022



High value, ultra-low carbon alternative cementitious material has been verified by Lafarge lab tests



Untreated Fly Ash
12% LOI 250 ppb Mercury



SonoAsh Product
<1% LOI <20 ppb Mercury¹

- ❖ Modified Physical and Chemical properties
 - ❖ Reduced carbon to LOI <1%
 - ❖ Modify the chemistry by reducing the Calcium, Sulfur and Ammonia
 - ❖ Ability to tune particle size
 - ❖ Nuisance metals removal - Mercury, Chromium, Selenium, Lead & Arsenic
- ❖ Industry verification
 - ❖ SonoAsh product surpassed test objectives established by, and tested at, the Lafarge concrete lab in Seattle, WA

Proposed_Amend_Sponsor_HB1331

Uploaded by: Delegate McKay Delegate McKay

Position: FAV

HOUSE BILL 1331
First Reading File Bill

Amendment No. 1

On page 2, in line 6, immediately preceding "THE", insert "TO THE EXTENT REQUIRED BY PROJECT SPECIFICATIONS AND CONSISTENT WITH SOUND ENGINEERING PRINCIPLES,".

Amendment No. 2

On page 2, in line 21, strike "FEASIBLE" and insert "REQUIRED BY PROJECT SPECIFICATIONS AND CONSISTENT WITH SOUND ENGINEERING PRINCIPLES,".

Amendment No. 3

On page 2, in line 29, strike "TWICE" and insert "ONCE".

Amendment No. 4

On page 3, in line 7, strike "SHALL" and insert "MAY".

Proposed_Amend_Sponsor_HB1331_2

Uploaded by: Delegate McKay Delegate McKay

Position: FAV



HB1331/983929/1

AMENDMENTS
PREPARED
BY THE
DEPT. OF LEGISLATIVE
SERVICES

01 MAR 22
09:39:33

BY: Delegate McKay

(To be offered in the Environment and Transportation Committee)

AMENDMENTS TO HOUSE BILL 1331

(First Reading File Bill)

AMENDMENT NO. 1

On page 1, strike beginning with “requiring” in line 5 down through “date;” in line 6.

AMENDMENT NO. 2

On page 2, in lines 11 and 12, strike “**WIND TURBINE FOUNDATIONS**” and substitute “**NONSTRUCTURAL APPLICATIONS**”; strike beginning with “**BEGINNING**” in line 13 down through “**(D)**” in line 20; and in line 23, strike “**(E)**” and substitute “**(D)**”.

On page 3, in lines 3 and 10, strike “**(F)**” and “**(G)**”, respectively, and substitute “**(E)**” and “**(F)**”, respectively.

HB 1331_CBF Coal Ash resuse - Support.pdf

Uploaded by: Doug Myers

Position: FAV



CHESAPEAKE BAY FOUNDATION

*Environmental Protection and Restoration
Environmental Education*

House Bill 1331

Coal Ash – Use, Recycling, and Management (Coal Ash Recycling Act of 2022)

Date: March 11, 2022

Position: **SUPPORT**

To: Environment and Transportation Committee

From: Doug Myers, Maryland Senior Scientist

Chesapeake Bay Foundation (CBF) **SUPPORTS** HB 1331, which would require the use of coal ash in certain concrete materials including those used as a support base for offshore wind energy turbines.

CBF applauds the safe re-use of a waste product to formulate useful products. We have reviewed the science of coal ash as an ingredient in concrete mixes and have determined doing so produces minimal risk to the marine environment from such uses. As the definition of coal ash limits it to that which is derived from coal burning in the state and Maryland's remaining coal fired power plants are phasing out, the provisions in this bill are not construed to perpetuate the burning of coal for energy production in Maryland.

In fact, by using the remaining stockpiles of coal ash, risk of catastrophic water pollution is avoided from uncontrolled releases like those documented in both Virginia and North Carolina. It is both practical and poetic, that the preference for use of coal ash-derived concrete in the support structures for offshore wind generation towers signals Maryland's commitment to the transition from fossil fuel to renewable sources of energy. CBF believes this bill sets the foundation for a cleaner energy future.

CBF urges the Committee's FAVORABLE report on HB 1331. For more information, please contact Robin Clark, Maryland Staff Attorney at rclark@cbf.org and 443.995.8753.

Maryland Office • Philip Merrill Environmental Center • 6 Herndon Avenue • Annapolis • Maryland • 21403
Phone (410) 268-8816 • Fax (410) 280-3513

The Chesapeake Bay Foundation (CBF) is a non-profit environmental education and advocacy organization dedicated to the restoration and protection of the Chesapeake Bay. With over 300,000 members and e-subscribers, including over 109,000 in Maryland alone, CBF works to educate the public and to protect the interest of the Chesapeake and its resources.

HB1331_MarylandAGC_McCulloch_FWA.pdf

Uploaded by: Champe McCulloch

Position: FWA

**HB 1331****Coal Ash - Use, Recycling, and Management (Coal Ash Recycling Act of 2022)
Environment and Transportation & Health and Government Operations
Committees****Position: Favorable with Amendments**

Maryland AGC, the Maryland Chapter of the Associated General Contractors of America, provides professional education, business development, and advocacy for commercial construction companies and vendors, both open shop and union. AGC of America is the nation's largest and oldest trade association for the construction industry. AGC of America represents more than 26,000 firms, including over 6,500 of America's leading general contractors, and over 9,000 specialty-contracting firms, all through a nationwide network of chapters. Maryland AGC believes that HB 1331 should be amended and, as amended, be given a favorable report.

HB 1331 mandates the use of coal ash from Maryland sources in shoreline stabilization, precast concrete, and concrete forms, castings, and wind turbine foundations. More specifically, it would require any off-shore wind project to give preference to cement materials that use coal ash. The broader objective is to help Maryland producers of coal ash to reduce their inventory of environmentally undesirable coal ash and generate a profitable market for the benefit of the producers and the communities in which they operate.

Coal ash is commonly used in concrete in a variety of construction projects. Its use has both advantages and disadvantages, so that the degree of coal ash included in concrete on a specific project application varies. Contractors rely on project specifications and engineering requirements to dictate the degree of use of coal ash. The burden of determining the extent to which coal ash will be used should not fall on contractors. The architects and engineers hired by the owner to create project design and engineering specifications determine the composition of the concrete, not the contractor. For example, MDOT contracts set material specifications, including concrete composition. As introduced, HB 1331 does not recognize this limitation. This can be cured by recognizing that contractors must conform to project and engineering specifications. An amendment to accomplish is attached.

HB 1331 also would require MDE to develop a program to track and manage the use of Maryland coal ash and would create a government operated coal ash disposal and recycling facility. As part of that effort, contractors would be required to make semi-annual reports to MDE on their use of coal ash. Particularly for small contractors, this is burdensome and should be limited to no more than annually. Moreover, the bill mandates MDE to request from a person using materials in the state that include coal ash "any information necessary" for the development and use of the tracking system. This is overly broad and places a potentially overwhelming burden on contractors using coal ash in concrete. Giving MDE the option of asking or not and imposing a test of reasonableness on the degree of the inquiry would protect against such a burden. Amendments to accomplish this are attached.

Accordingly, for the reasons set forth above, Maryland AGC respectfully urges HB 1331 be amended and, as amended, be given a favorable report.

Champe C. McCulloch
McCulloch Government Relations, Inc.
Lobbyist for Maryland AGC

HOUSE BILL 1331
First Reading File Bill

Amendment No. 1

On page 2, in line 6, immediately preceding "THE", insert "TO THE EXTENT REQUIRED BY PROJECT SPECIFICATIONS AND CONSISTENT WITH SOUND ENGINEERING PRINCIPLES,".

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On page 2, in line 21, strike "FEASIBLE" and insert "REQUIRED BY PROJECT SPECIFICATIONS AND CONSISTENT WITH SOUND ENGINEERING PRINCIPLES,".

Amendment No. 3

On page 2, in line 29, strike "TWICE" and insert "ONCE".

Amendment No. 4

On page 3, in line 7, strike "SHALL" and insert "MAY", and in line 8, following "INFORMATION", insert "REASONABLY".

HB 1331_MAA_UNF.pdf

Uploaded by: Rachel Clark

Position: UNF

CHAIRMAN:
Rob Scrivener
VICE CHAIRMAN
Brian Russell



SECRETARY:
David Slaughter
TREASURER:
Jeff Graf
PRESIDENT:
G. Marshall Klinefelter

March 11, 2022

Delegate Kumar P. Barve, Chair
House Environment and Transportation Committee
251 House Office Building
Annapolis, MD 21401

RE: HB 1331– UNFAVORABLE – Coal Ash – Use, Recycling, and Management (Coal Ash Recycling Act of 2022)

Dear Chairman Barve and Members of the Environment and Transportation Committee:

The Maryland Asphalt Association (MAA) is comprised of 18 producer members representing more than 47 production facilities, 24 contractor members, 24 consulting engineer firms and 41 other associate members. We proactively work with regulatory agencies to represent the interests of the asphalt industry both in the writing and interpretation of state and federal regulations that may affect our members. We also advocate for adequate state and federal funding for Maryland's multimodal transportation system.

House Bill 1331 requires all licensed contractors in the State to use and give preference to materials that include coal ash as a component of the material. It also requires coal ash to be included as a component in precast concrete and concrete used in forms, castings, and wind turbine foundations. Coal ash is defined as residual coal ash from the burning of coal.

Our concerns with this bill are two-fold. First, the bill uses the wrong terminology. The term coal ash is no longer used in the industry, and hasn't been for quite a long time. Coal ash is not used directly in concrete, but must first be processed to meet standards set by the American Society for Testing and Materials. Moreover, the industry already uses fly ash, which is the correct term, when it makes sense to include it in mixes. Second, we have always taken the position that the legislature should not be mandating the kinds of materials our industry should use, and feel this is best left to the experts in the field.

This bill could have unintended consequences, therefore respectfully we urge an unfavorable report on HB 1331. We thank you for your time and consideration.

Thank you,

A handwritten signature in dark ink, reading 'Marshall Klinefelter'. The signature is written in a cursive, flowing style.

Marshall Klinefelter
President
Maryland Asphalt Association

HB 1331_MTBMA_UNF.pdf

Uploaded by: Rachel Clark

Position: UNF



March 11, 2022

Delegate Kumar P. Barve, Chair
House Environment and Transportation Committee
251 House Office Building
Annapolis, MD 21401

RE: HB 1331– UNFAVORABLE – Coal Ash – Use, Recycling, and Management (Coal Ash Recycling Act of 2022)

Dear Chairman Barve and Members of the Environment and Transportation Committee:

The Maryland Transportation Builders and Materials Association (“MTBMA”) has been and continues to serve as the voice for Maryland’s construction transportation industry since 1932. Our association is comprised of 200 members. MTBMA encourages, develops, and protects the prestige of the transportation construction and materials industry in Maryland by establishing and maintaining respected relationships with federal, state, and local public officials.

House Bill 1331 requires all licensed contractors in the State to use and give preference to materials that include coal ash as a component of the material. It also requires coal ash to be included as a component in precast concrete and concrete used in forms, castings, and wind turbine foundations. Coal ash is defined as residual coal ash from the burning of coal.

Our concerns with this bill are two-fold. First, the bill uses the wrong terminology. The term coal ash is no longer used in the industry, and hasn’t been for quite a long time. Coal ash is not used directly in concrete, but must first be processed to meet standards set by the American Society for Testing and Materials. Moreover, the industry already uses fly ash, which is the correct term, when it makes sense to include it in mixes. Second, we have always taken the position that the legislature should not be mandating the kinds of materials our industry should use, and feel this is best left to the experts in the field.

This bill could have unintended consequences, therefore respectfully we urge an unfavorable report on HB 1331. We thank you for your time and consideration.

Thank you,

Michael Sakata
President and CEO
Maryland Transportation Builders and Materials Association

'22 HB 1331 Coal Ash DGS LOI ENT 3-11-22.pdf

Uploaded by: Ellen Robertson

Position: INFO

Larry Hogan
Governor

Boyd K. Rutherford
Lt Governor



OFFICE OF THE SECRETARY

Ellington E. Churchill, Jr.
Secretary

Nelson E. Reichart
Deputy Secretary

BILL: House Bill 1331 - Coal Ash-Use, Recycling, and Management
(Coal Ash Recycling Act of 2022)

COMMITTEE: House Environment and Transportation

DATE: March 11, 2022

POSITION: Letter of Information

Upon review of House Bill 1331 Coal Ash - Use, Recycling, and Management, the Maryland Department of General Services (DGS) provides these comments for your consideration.

Coal Ash is defined by the U.S. Environmental Protection Agency as: "Coal ash, also referred to as coal combustion residuals or CCRs, is produced primarily from the burning of coal in coal-fired power plants. Coal ash includes a number of by-products produced from burning coal, including fly ash, bottom ash, boiler slag, and flue gas desulfurization material".

This bill requires coal ash be used in the creation of certain construction materials in the State. It also charges DGS, in coordination with the Department of the Environment (MDE), to construct, operate, and maintain a coal ash disposal facility in the State. The associated costs for this facility are estimated to be almost \$1.2 million by 2026.

The incorporation of coal ash into construction materials may have multiple impacts on the State, DGS, and the public. Concrete made with coal ash may be more expensive than other concrete blends, thus potentially increasing the cost of construction materials. Coal ash concrete is weaker than other blends and would require more product to be purchased to achieve the necessary strength equivalent for construction while consideration must also be given to the potential health concerns posed by the use of coal ash.

While DGS is required, in coordination with MDE, to construct and operate a coal ash disposal and recycling facility it lacks the specialized expertise necessary to do so. DGS would incur additional costs to staff an estimated 10 new positions with the necessary expertise for the design, construction, and operation of such a facility.

For additional information, contact Ellen Robertson at 410-260-2908.



HB1331 - MTA - Coal Ash Recycling Act of 2022 - LO

Uploaded by: Molly O'Hara

Position: INFO

March 11, 2022

The Honorable Kumar P. Barve
Chairman, House Environment and Transportation Committee
251 House Office Building
Annapolis MD 21401

Re: Letter of Information – House Bill 1331 – Coal Ash – Use, Recycling, and Management (Coal Ash Recycling Act of 2022)

Dear Chairman Barve and Committee Members:

The Maryland Department of Transportation (MDOT) takes no position on House Bill 1331 but offers the following information for the Committee's consideration.

House Bill 1331 requires that certain materials, including concrete, use coal ash as a component and requires preference be given to materials that include coal ash.

The Maryland Department of Transportation Maryland Transit Administration (MDOT MTA) regularly oversees construction projects that include and surround high voltage rail; there are significant safety and cost concerns with mandating coal ash usage in projects in the vicinity of high voltage rail. The MDOT MTA has historically rejected coal ash concrete because suppliers are often unable to provide a full chemical breakdown of the material and confirm that it contains 0% Fe₂O₃ and includes higher concentrations of Al₂O₃ and SiO₂. Coal ash concrete that does not contain this chemical makeup has been shown to increase the conductivity of the concrete and allows stray current propagation. Not only does this pose a severe safety risk for the public, but it also requires more frequent repair and replacement as concrete without this chemical makeup experiences corrosion due to moisture and salt.

Additionally, House Bill 1331 does not define the type of "coal ash" to be used. Coal ash includes both bottom ash and fly ash. Currently, the Maryland Department of Transportation State Highway Administration (MDOT SHA) and the Maryland Transportation Authority (MDTA) only use fly ash in concrete mixes. Bottom ash does not meet the American Standard Test Method (ASTM) or the American Association State Highway and Transportation Officials (AASHTO) specifications. Bottom ash also has a higher moisture content and different performance properties than can be potentially harmful to the environment.

The Maryland Department of Transportation Maryland Port Administration (MDOT MPA) oversees the construction of several infrastructure projects at the Port of Baltimore's public marine terminals in which coal ash is not a component used by the Port's construction vendors. It would not only be costly to incorporate coal ash into infrastructure project materials, but House Bill 1331 may result in higher costs for concrete without coal ash due to the proposed legislation discouraging purchase of the product, resulting in significant financial and supply chain impacts.

The Honorable Kumar P. Barve
Page Two

Prior to the implementation of House Bill 1331, it may be beneficial to conduct a study on the use of this material, its costs, and any possible effects it could have on State projects.

The Maryland Department of Transportation respectfully requests the Committee consider the information when deliberating House Bill 1331.

Respectfully submitted,

Pilar Helm
Director of Government Affairs
Maryland Department of Transportation
410-865-1090