

Testimony of Shari T. Wilson
Secretary of the Maryland Department of the Environment
Committee on Natural Resources
Subcommittee on Energy and Mineral Resources
Tuesday, June 10, 2008

**"How Should the Federal Government Address the Health and Environmental Risks of
Coal Combustion Waste?"**

Chairman Costa, and honorable members of the Committee, thank you for the opportunity to share Maryland's experience with coal combustion waste with you and, more importantly, for your interest in this very important issue.

We also greatly appreciate Congressman Sarbanes' interest and attention to issues surrounding the disposal of this by-product of producing energy from coal.

In 2006, the most recent year for which complete information is available from Maryland's Public Service Commission, coal generated 60.1% of the electricity generated in the State. In Maryland, there are five companies who generate coal combustion by-products at 9 facilities. Approximately 2 million tons of coal ash (fly and bottom ash) is generated annually from Maryland plants. Of that 2 million tons, approximately 1.6 million tons of coal ash is from the plants owned and operated by two companies, Constellation and Mirant.

In Maryland, the Maryland Healthy Air Act requires flue gas desulphurization equipment (known as "scrubbers") to be put in place by 2010 to reduce sulphur dioxide (SO₂) emissions by 80%. A second phase of requirements in 2013 will increase the emission reductions to 85%. That equipment, while reducing SO₂ emissions by over 200,000 tons will also increase the volume of scrubber sludge produced by 2.5 million tons. By 2013, therefore, facilities in Maryland will generate 4.5 million tons of CCWs.

As you are aware, coal combustion by-products are frequently reused. Currently, approximately 1 million tons, or one half of the coal ash produced annually, is beneficially used in Maryland. Fly ash can be reused for concrete manufacturing and in building material. It can also be used as structural fill in roadway embankments and development projects. (It can also be used in agricultural applications. While these are just a few of the reuse applications, there are many outstanding questions with regard to the safety of reuse.) For example, when used for structural fill, should liners be used; should there be defined distances between use of CCWs and potable water sources; should it be prohibited in shoreline areas such as the Chesapeake Bay Critical Area, source water protection areas, wetlands, or other areas of special concern; if used in agriculture, should it be applied to crops that are for human consumption. These are issues being examined as the State begins to develop a second phase of regulations to more effectively control reuse.

While reuse is the goal and preferred alternative, currently in Maryland, approximately half of the coal combustion by-products generated in Maryland are disposed of or used in mine reclamation. Maryland has 29 locations where these materials are disposed of or used in mine reclamation.

Currently, in Maryland, regulatory controls exist through mining and/or water discharge permitting authority, but the State currently does not have regulations that are specific to the management and control of CCWs.

At two of disposal sites, within the past year, the Department of Environment has taken legal action to require cleanup of groundwater or surface water contamination. This contamination results from the placement of 4 million tons at one site and 5.5 million cu/yds at a second site. The groundwater contamination at one site affected residential drinking water wells. As a result, the Department required groundwater remediation, provision of a temporary water supply and eventually a connection for residences to a public water supply. The severity of the situation resulted in the third largest civil environmental penalty in state history, a fine of \$1 million.

Prior to that action, the Department began to assess how it regulated the disposal of this material. We were concerned that the regulatory controls Maryland was using needed to be improved given the range of disposal sites and the varying geology and subsurface conditions in Maryland.

At that time on 2007, we were aware that the Environmental Protection Agency (EPA) had been working on regulations since 2000 to institute additional controls on the management of CCWs but had not finalized a proposal. The lack of any federal standard combined with the immediate need to better control disposal prompted Maryland to develop new regulations to strengthen controls on the management and disposal of CCWs. In a very short timeframe, within 8 months, Maryland proposed regulations for public review and comment at the end of 2007 and announced our intent to develop a second set of regulations dealing with the beneficial reuse of CCWs this year. At least two local governments in Maryland have also begun considering the extent to which they should institute, through their land use planning and zoning authority, additional controls.

Developing and implementing regulations such as these also present a new expense for the State. To address that issue, during the legislative session of the Maryland General Assembly, the Department proposed legislation to establish a fee to be paid by a generator of coal CCWs based on a per ton rate of CCWs generated annually excluding CCW that was beneficially reused. While the legislation was not enacted, there was general recognition of the need for the regulations and the need to pay for implementation. The Maryland Department of Environment continues to aggressively work on this important issue using the State resources available to us.

While, we do not believe it is necessary or appropriate to regulate this material as a hazardous waste, clearly, there is a need for more stringent management and control of CCWs in order to protect human health and the environment in Maryland.

We believe there is also a need for action at the federal level. First, a basic premise of the RCRA statute is to promote reuse. There are many opportunities for the federal government, through research, to more effectively assess reuse opportunities and, as a result, to significantly reduce the volume of material that must be disposed. Alternatives to disposal must be maximized to the greatest extent possible.

Second, we believe that the federal government should establish a minimum set of standards for land disposal such as requiring landfill type liners at non-mining reclamation sites as Maryland proposes to do. We are aware that other States, not just Maryland, are dealing with ground and surface water contamination issues from disposal. This is also an area where a threshold of consistency from state to state would be beneficial.

It is, however, critical to note, that with this issue a one size fits all approach will not work. It will not work due to the many variables that control safe disposal such as geology and groundwater characteristics. Each state must be able to tailor standards based on the type of ash generated, the characteristics of that ash, the land disposal methods used, the geology and groundwater conditions and many other characteristics that affect whether disposal is protective of public health.

Thank you for taking the initiative to inquire into this important issue and for the opportunity to share Maryland's perspective.