*Representing the Interests of America's Industrial Energy Users since 1978*

February 26, 2008

**VIA E-MAIL**

Stephen Pattison, Assistant Secretary
Maryland Department of the Environment
1800 Washington Blvd.
Baltimore, MD 21230
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**Re: Notice of Proposed Action on Coal Combustion Byproducts [07-320-P]; 36:24 Md. R. 2287-2291 (December 21, 2007)**

Dear Mr. Pattison:

The Council of Industrial Boiler Owners (CIBO) appreciates the opportunity to comment on the Maryland Department of the Environment (MDE) Notice of Proposed Action published in the Maryland Register proposing regulations related to the disposal of coal combustion byproducts (CCBs) in dedicated solid waste disposal facilities, the storage of CCBs, and the use of CCBs in coal and non-coal mine reclamation sites.

CIBO is a broad-based association of industrial boiler owners, architect-engineers, related equipment manufacturers, and university affiliates consisting of over 100 members representing 20 major industrial sectors. CIBO members own or operate facilities in every region and state of the country, with a representative distribution of almost every type of boiler and fuel combination currently in operation. CIBO was formed in 1978 to promote the exchange of information within industry and between industry and government relating to energy and environmental equipment, technology, operations, policies, laws and regulations affecting industrial boilers. Since its formation, CIBO has actively participated in the development of technically sound, reasonable, cost-effective energy and environmental regulations for industrial boilers. CIBO supports regulatory programs that provide industry with enough flexibility to modernize – effectively and without penalty – the nation's aging energy infrastructure, as modernization is the key to cost-effective environmental protection.

Most CIBO members operate industrial, commercial, and institutional units that produce coal combustion byproducts. CIBO member facilities will be directly and indirectly affected by any future action that may regulate CCBs.

## I OVERVIEW

In the Notice of Proposed Action, the Secretary of the Environment proposes to:

1. amend Regulations .02 and .04 under Code of Maryland Regulations (COMAR) 26.04.07 Solid Waste Management;
2. adopt new Regulations .01-.08 under a new chapter, COMAR 26.04.10 Management of Coal Combustion Byproducts;
3. adopt new Regulation .08 under COMAR 26.20.24 Special Performance Standards; and
4. adopt new Regulations .01-.12 under a new chapter, COMAR 26.21.04 Utilization of Coal Combustion Byproducts in Surface Mine Reclamation.

## II COMMENTS

### A. State Flexibility

CIBO supports the MDE efforts to establish requirements related to the processing, disposal, recycling, beneficial use, or other use of coal combustion byproducts; to establish requirements related to the use of CCBs in surface coal mining and reclamation activities, and abandoned coal mines; and to establish requirements pertaining to the use of CCBs in the reclamation of a non-coal surface mines.

CIBO members are strongly vested in the ability to work with their State regulators who are knowledgeable in the local geology, hydrology, groundwater, climatology, ecology, and other factors unique to the their State to develop management practices that incorporate where appropriate site-specific factors.

CIBO strongly advocates continued flexibility in State-developed CCB management programs that allow States to address the different climatic, geologic, and ecologic characteristics unique to each location. Improved State oversight, changing practices and knowledge gained from past practices have all led to greatly improved environmental protection. A joint US Department of Energy (US DOE) and US Environmental Protection Agency (US EPA) report, *Coal Combustion Waste Management at Landfills and Surface Impoundments 1994-2004*, suggests that States are working to ensure that CCB is properly managed. As contemplated by the US Congress in establishing the federalism structure of the Resource Conservation and Recovery Act (RCRA), States will continue to look to US EPA to provide leadership in addressing the proper management of CCBs.

### B. Liner Requirements

MDE's proposed regulation regarding the storage of CCBs, COMAR 26.04.10.05, states that CCBs may be "stored directly on the surface of the ground or in an *unlined* surface impoundment, pit, pond or lagoon" *with the authorization of the Department.* (MDE Regs., 12).

MDE's proposed regulation, COMAR 26.21.04, regarding the use of CCBs in noncoal surface mines, *requires the use of a liner* and leachate control system that meets certain minimum requirements in subsection 26.21.04.06.

MDE's proposed regulation regarding the use of Alkaline Coal Combustion Products (ACCBs) in surface coal mining and reclamation operations and in abandoned coal mines, COMAR 26.20.24.08, does *not require* the use of a liner but does require information on detailed information on how and where the ACCBs will be stored as part of the CCB Utilization Request Procedure. (MDE Regs., 29). Under the proposed regulation, CCBs must be alkaline in order to be used in surface coal mining reclamation operations and abandoned coal mines.

CIBO cautions that requiring mandatory liners for storage in all noncoal surface mines may be unjustified and inappropriate. Similarly, an unqualified requirement of alkalinity may not be appropriate.

US EPA worked with the full range of stakeholders to develop and publish in 1999 a Guide for Industrial Waste Management (EPA Guide), which covers a full range of industrial wastes. That workgroup included many industries, utilities, waste management industries, environmental groups, States, and others. With respect to residual waste management, the EPA Guide provides specific guidance. It establishes objectives for environmental protection and provides a reasonable, risk-based, tiered approach to managing waste. It includes site-specific factors for determining whether or not liners are needed, a critical path decision that CIBO strongly advocates be part of any State program.

The EPA Guide recognizes that all industrial wastes are not the same and each type must be carefully characterized to determine appropriate handling methodologies. This concept of variability among wastes is further supported by the independent evaluation of the variation of CCB characteristics undertaken by the National Academy of Sciences (NAS) in its Report "Managing Coal Combustion Residues in Mines." (NAS Report).[1] While the NAS Report focused on the practice of minefilling with CCW, the overarching issues of environmental impact are the same. CIBO suggests that MDE consider its contents in its consideration of the proposed regulations.

The mandatory use of liners in all noncoal surface mines is not called for based on data. Whether a liner is required should be based on the site characteristics and leaching characteristics of the CCBs. In many cases, the use of CCBs in selective non-coal mines is very similar to the use of CCBs in structural fills, which US EPA identified in its report to Congress as an acceptable use of CCBs. The NAS Report also did not reach the conclusion that liners were mandatory in all cases. The Report did recommend that the

[1] *See* National Academy of Sciences, National Research Council, Executive Summary for Report entitled *Managing Coal Combustion Residue in Mines* (2006), p. 5.

disposal of CCBs be subject to site-and material-specific performance standards, much as the Guide recommends.[2]

An unqualified requirement that only alkaline CCBs may be used in coal mine applications is also too narrow to account for all circumstances. Generally, alkaline ash is neutralizing in coal mines, which are normally acid in pH. However, on occasion, mines are alkaline, which would make this requirement unnecessarily restrictive. CIBO recommends MDEP provide a waiver for this and other requirements to account for this type of site-specific circumstance demonstrated through analysis.

Just as MDE requires TCLP analyses to dictate the management control strategies to be implemented for CCBs used in surface coal mining and reclamation operations in abandoned coal mines (See MD Regs., 25-26), CIBO recommends MDE adopt TCLP analyses for liner determinations in the context of noncoal surface mines.

It appears that some States have established criteria, for example, when TCLP results for CCBs are below drinking water standards by a certain factor (e.q., 10 times) then a liner may not be required and the CCBs may be used in a beneficial manner. Further, MDE has not made a comprehensive assessment of CCB sites with and without liners to determine impacts to the environment. Such an assessment would yield valuable data on which to base regulatory decisions.

The leaching characteristics of the CCBs should dictate the level of groundwater protection, the need for liners and the design of liners. The use of liners should not be a blanket requirement. Most states have utilized leaching tests to determine what level of ground water protection is required (liners, liner design or no-liners). In addition, this use of liners will require leachate treatment systems and the continued operations of these systems and related costs have not been identified or analyzed.

**C. CCB Placement Near Water**

With respect to Management of CCBs, MDE's proposed storage regulations direct that CCBs shall be stored "in a manner that prevents contact with precipitation and waters of this state." (MDE Reg., p. 12).

For utilization of CCBs in noncoal surface mine reclamation, the MDE Regulations state that CCBs "may not be placed in ground or surface waters and may not be placed within 3 feet of the regional groundwater table, unless the Department approves otherwise upon a demonstration that groundwater contamination will not occur." (MDE Reg., p. 38). Also relating to noncoal surface mine reclamation, the proposed regulations require a "liner system . . . to facilitate the collection of leachate generated from CCBs to prevent migration of pollutants to the adjacent subsurface soil, ground water, or surface water." (MDE Reg., p. 47).

While CIBO generally supports the proposition that CCBs should not be placed near water, CIBO cautions that it should not be adopted as an absolute rule. It is possible that the use of

[2] *See id.* at 9.

CCBs may not be problematic and may address other long-term environmental issues such as acid mine drainage abatement, mine fire controls, mine subsidence control, mine reclamation, reclamation of water-filled pits, and elimination of hazardous situations. MDE should preserve flexibility to address this issue in the context of site-specific analysis.

**D. Monitoring**

The MDE Regulations require a person who proposes to use CCBs in reclamation of noncoal surface mines to submit a monitoring plan to the Department for review and approval. (MDE Reg., p. 50)

Both US EPA and US Department of Interior Office of Surface Mining have provided guidance to States regarding the need for monitoring, frequency, and other parameters. CIBO recommends that MDE's monitoring regulations leverage these already existing efforts. In addition, MDE should precisely identify the extent of monitoring it intends to require for approval of a monitoring plan and seek public comment on that proposal.

## III CONCLUSION

CIBO supports sensible State regulation of CCB placement in all applications. As the NAS and US EPA have concluded, regulatory action must be directed toward protecting underground water sources, but provide for broad use of non-hazardous CCBs in beneficial applications.

If you have any questions, please contact me at 202-250-9042.

Sincerely yours,

*/s/ Robert D. Bessette*

Robert D. Bessette
President