

EXECUTIVE SUMMARY

The U.S. Environmental Protection Agency (EPA) is on the road to resolving a 30-year old question—how to ensure the safe disposal of the second largest industrial waste stream in the nation under the Resource Conservation and Recovery Act (RCRA). Past administrations have dodged this question through avoidance and delay. The catastrophic collapse of the TVA dam in December 2008, however, makes delay and avoidance no longer an option. In the face of one of the greatest environmental disasters in U.S. history, with houses torn from their foundations and 20-foot ash-burrows still floating in the Emory River, EPA Administrator Lisa Jackson in January 2009 rightly committed to regulatory action under RCRA.

At issue, however, is the precise regulatory approach. Somewhere on the path to federally enforceable regulations, EPA lost its way. Now stalled at a fork in that road, the Agency has published a “co-proposal.” In this co-proposal, EPA requests comment on two extremely different options. The first is to regulate ash as a “special waste” under subtitle C, with federally enforceable minimum standards applicable in every state. The second is to regulate coal ash as a non-hazardous waste under subtitle D of RCRA with standards states are under no obligation to adopt and which cannot even be enforced by EPA.

While this 230-page comment letter will help to complete the record, the choice is already clear. The subtitle C alternative is the only option consistent with the best available science and with the law. In these comments we provide EPA with lengthy documentation responsive to the factors that the statute directs EPA to consider under both sections 8002(n) and 3001(b) of RCRA. We address first the eight study factors of the Beville Amendment’s section 8002(n), followed by the subtitle C listing factors established pursuant to section 3001(b).

Our comments and the expert appendices attached provide extensive information about volumes and nature of the waste, the significant risk to human health and the environment, the gross deficiencies of current state regulatory programs and the substantial documented damage that has occurred throughout the U.S. from mismanaged ash. Congress requires that EPA examine the volume, toxicity, damage, current regulation and current mismanagement of coal ash—these are described in detail in our comments and the accompanying expert appendices. We also face squarely the question of whether subtitle C standards would have an impact on recycling, as well as the likely cost of compliance, as these are also among the “Beville” factors.

While the amount of information we provide to the Agency is extensive, it supports a few salient points critical to EPA’s decision making:

- ***Damage from Coal Ash is Serious, Pervasive and Mounting***

Damage cases (sites with documented groundwater or surface water contamination) have increased 17-fold since 1999 to 137 sites, even in the absence of any investigation on the part of EPA to find additional sites. These sites have poisoned drinking water, destroyed entire fish populations, killed scores of livestock, created myriad superfund sites, sickened families and destroyed livelihoods. They include leaks, major spills, and the pervasive contamination of underground drinking water sources. The contamination includes toxic metals at concentrations hundreds of times above safe drinking water standards and involve some of the most toxic

chemicals known to man and aquatic life, including arsenic, cadmium, chromium, lead, mercury and selenium. The damage at most of the newly identified sites is largely unmitigated, and it represents present disposal practices, not just historical practices.

EPA has identified 67 sites that it has defined as either “proven” or “potential” damage cases, based largely on review of data brought to the Agency by environmental organizations. Our comments incorporate two reports that we have previously shared with the Agency and which identify an additional 70 sites that meet EPA’s damage criteria. Because our analysis was limited to selected states and the limited data available, we include evidence to show that contamination is highly likely at many other sites. Although evaluating the damage is one of EPA’s responsibilities in determining how to regulate coal ash, the Agency has done very little to seriously investigate the problem. If that continues to be the case, we hope that EPA will at least review the data that we have gathered and presented at our own expense, and determine whether these sites are as contaminated as the data suggest. In addition to these 70 well-researched sites, our comments identify dozens of more contaminated sites that require EPA’s evaluation and investigation.

• *Coal Ash Poses A Substantial Human Health Hazard*

EPA’s own risk assessments demonstrate the extremely high risk to human health from coal ash. Through ingestion of toxic metals and inhalation of particulates, coal ash contributes to heart disease, cancer, stroke and chronic lower respiratory disease. The extremely high risk of cancer from ingestion of arsenic, which is concentrated in the groundwater near many ash disposal sites, is a major factor in EPA’s risk assessment. Yet our comments demonstrate that this high cancer risk – 1 in 50 at some coal ash sites for people drinking contaminated water- is actually substantially underestimated. The leading arsenic experts in the country observe that the risk is underestimated by a factor of 17.5, through the use of an outdated cancer slope factor. Similarly, our comments show that the EPA’s risk assessment significantly underestimates the harm (hazard quotient) posed by lead by factor of 2-3 times. In light of this extremely high risk to human health, it is unreasonable and unacceptable for EPA to choose an option that does not effectively reduce this risk.

• *Coal Ash Poses A Serious Threat to the Environment*

One of coal ash’s most mobile toxins, selenium, is deadly at low concentrations to fish. Yet almost every one of the nation’s hundreds of unlined coal ash dumps sits near a river, stream or lake. The loading of selenium to these waterways, by spills, seeps, surface discharges or groundwater pathways has poisoned dozens of aquatic environments and killed or impaired fish, amphibians, and the wildlife that feed on them. Selenium bioaccumulates, so this damage is deadly and long lasting. New data submitted in these comments, in fact, indicate that the dredged river at the site of the TVA disaster may have been given the “all clear” sign generations too soon.

• *State Regulations are Grossly Deficient in the Majority of States*

Our thorough analysis of the state regulations reveals that the majority of states fail to

require essential safeguards for landfills and surface impoundments disposing of coal ash, including liners, groundwater monitoring, leachate collection, dust controls and financial assurance. The majority of states fail to prohibit the placement of coal ash in water tables, wetlands, unstable areas and floodplains. EPA's own analyses of state regulatory programs in 2005, 2006 and 2010 reveal that states have not improved their regulations to close these gaps over the last decade. EPA even acknowledges that, based on entrenched state resistance to regulating ash, the Agency expects only 48 percent of the total coal ash generated in the US to be governed by stricter state regulation, if these regulations are not made mandatory under subtitle C. Moreover, we include in our comments a thorough, up-dated analysis of state regulations in 37 states, comprising over 98 per cent of the coal ash generated nationally. Our analysis reveals a far grimmer picture of state regulatory programs than is contained in EPA's analyses.

• *Environmental Justice Concerns Must Be Addressed*

The environmental justice implications of EPA's decision are extremely significant. By EPA's own admission, coal plants—which are usually accompanied by coal ash ponds and landfills—are disproportionately located in low-income communities. Almost 70 percent of ash ponds in the U.S. are in areas where household income is lower than the national median. Yet even more striking and disturbing environmental justice implications are found when the predicted impact of EPA's subtitle D option is considered. Using EPA's own prediction of which states will not adopt the subtitle D guidelines— which states will ignore minimum federal standards for coal ash disposal facilities — it is crystal clear that poor communities and communities of color will be significantly disproportionately hurt.

From an environmental justice perspective, the contrast between the two options is stark and disturbing. In view of the national disparity found by EPA, a federal coal ash rule that applies equally in all parts of the country is necessary to alleviate the disparate impacts of ash disposal under the present patchwork of state laws. EPA must reject a disparate impact on vulnerable populations and promulgate a subtitle C rule, which ensures equal protection under the law for every community in this nation. Failing to take this course of action would be a clear violation of the intent of presidential Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*.

• *The Benefits Greatly Outweigh the Costs of the Rule*

The data show that the electric power industry can easily afford the modest compliance costs associated with subtitle C regulation, which will have a negligible affect on operating costs, and no effect on the availability of power, according to the National Electricity Reliability Council. Even assuming all costs are passed on to consumers, the rule would result in a one-time rate increase of between 0.5 and 1%, even in coal dependent states like Indiana, Pennsylvania, and Ohio.

Unfortunately, EPA has failed to account for the value of safer standards for coal ash by failing to “monetize” them. Our comments identify benefits that EPA has failed to quantify, and therefore effectively ignored in its economic analysis. These include the avoided cost of lawsuits and damage claims related to spills and fouled drinking water, bringing municipal water to wells

that are no longer usable, restoring ecosystems contaminated with heavy metals, and premature death and disease from exposure to wind-blown particles from ash dumps.

We agree that responsible recycling, especially applications that encapsulate ash in products like cement and wallboard, offer both economic and environmental benefits. But EPA has made life much harder for itself by greatly inflating the value of recycling, and then including a scenario in which those benefits disappear due to the “stigma” of subtitle C regulation. EPA’s proposal assigned an annual value of nearly \$23 billion to life cycle benefits of recycling, based on assumed reductions in fine particle pollution from cement kilns and wallboard plants, and to big energy savings in both sectors. Our comments show that the true value is closer to \$1 billion, based on the Agency’s own data and information from other federal agencies. Recycling can save money, to be sure, but wildly inflated values distort the debate and hide what may be the biggest reason to recycle coal ash: avoiding the cost of disposal.

• ***Stigma is Not Properly the Basis for EPA’s Decision***

Stigma has been the watchword of the opposition to subtitle C, but it has no place in the center of this debate. No evidence has been offered to support dire industry predictions, and historical market evidence proves the falseness of their assumptions. Our comments discuss in detail the nature and history of the hazardous waste recycling market and why recycling will increase under more stringent subtitle C regulations. It would be contrary to law to base a decision on the unproved, unfounded and irrational fears proffered as fact by those who wish not to be regulated. Once EPA opens this door, it will never be able to close it; the Agency will be overwhelmed by hypothetical scenarios untethered to reality every time it even thinks about setting a health or safety standard.

In sum, the data flow in one direction only. Considering the factors mandated by Congress, it is unlawful and unreasonable for EPA to choose an option that will apply to less than half of this immense and highly dangerous waste stream. In light of the best scientific data and the applicable law, EPA cannot ignore the continued mismanagement of over 70 million tons of toxic coal ash each year. In light of the deadly dangers it poses to the nation’s health, and particularly to our most vulnerable communities, regulation under subtitle C is required.