

**For Immediate Release**



**Contact: American Coal Ash Association**  
Thomas H. Adams, Executive Director  
Office: 720-870-7897 Mobile: 720-375-2998  
[thadams@aca-usa.org](mailto:thadams@aca-usa.org)  
[www.acaa-usa.org](http://www.acaa-usa.org)

## **Analysis of New Federal Government Data Shows Coal Ash Comparable to Residential Soils**

**June 6, 2012, Washington, D.C.** — A new report analyzing the most up-to-date U.S. Government information available about the constituents of coal ash concludes that the concentrations of metals in the material, with few exceptions, are below environmental screening levels for residential soils and are similar in concentration to common dirt.

**“Coal Ash Material Safety – A Health Risk-Based Evaluation of USGS Coal Ash Data from Five US Power Plants”** uses scientific methods to demonstrate that coal ash does not qualify as a hazardous substance based on its composition and it also should not be classified as hazardous on a human health risk basis.

“Anti-coal environmental activists consistently refer to coal ash as ‘highly toxic’ and ‘hazardous to your health’ with no regard for how those unsupported descriptions damage the environmentally beneficial recycling of the material,” said Thomas H. Adams, executive director of the American Coal Ash Association, which sponsored the report. “This scientific analysis, taken with other reports, conclusively shows that coal ash is safe and comparable to other common materials. Its use as a recycled material should be encouraged, not disparaged.”

The report utilizes recently published U.S. Geological Survey (USGS) data on the constituents of coal ash collected from five power plants in Alaska, Indiana, New Mexico, Ohio, and Wyoming. The data represent a broad spectrum of coal types and environmental conditions. The data showing what metals are present in coal ash were then evaluated using scientifically accepted methods for determining human health risks and were compared to residential soil screening levels established by the U.S. Environmental Protection Agency (EPA).

“Comparing coal ash constituents to residential soil screening levels is the most environmentally conservative approach possible,” said the report’s author, Lisa JN Bradley, PhD, DABT. “This analysis estimates exposure to children who live on top of a coal ash pile 24 hours a day. Even under these unrealistic conditions, the metals contained in coal ash do not

rise to a level that warrants more than a screening level evaluation using U.S. EPA established guidelines.”

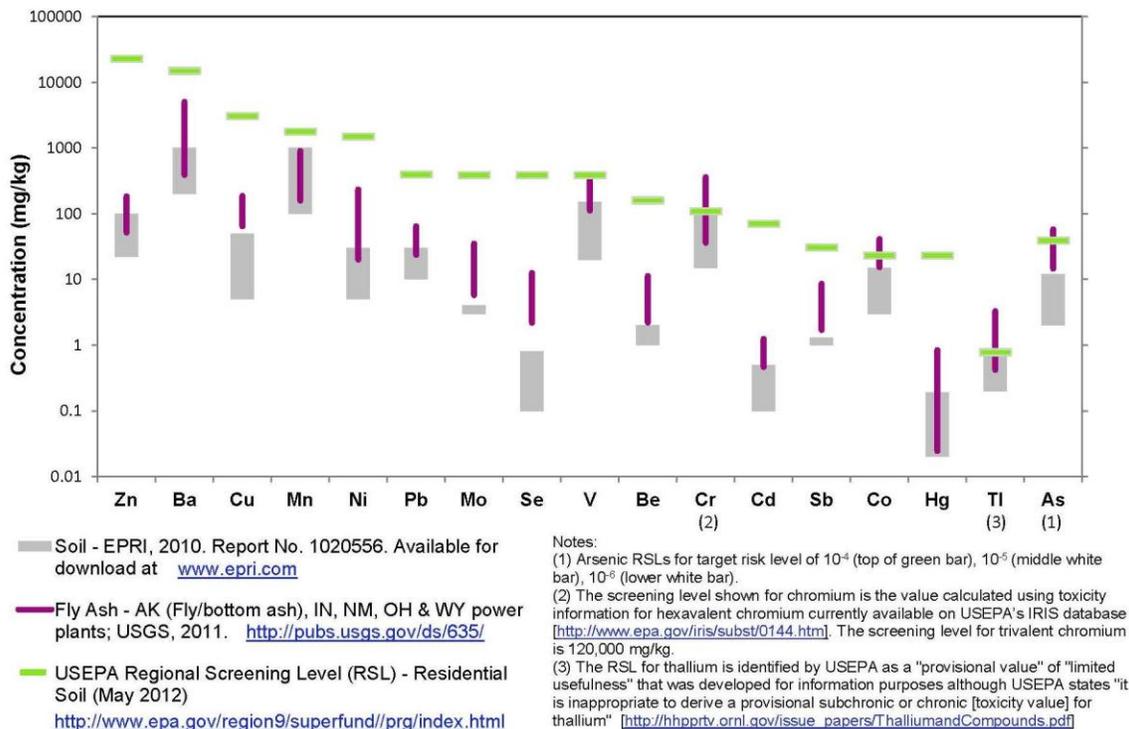
Dr. Bradley’s report contains detailed analysis of the coal ash from each of the five power plants for which the new government data is available. Comparisons are made to the levels of metals in background soils based on previous USGS data that was compiled by the Electric Power Research Institute in 2010.

Cumulative data for all of the locations is represented in the two charts that follow – one showing the concentrations of metals in fly ash and the other compiling the data for bottom ash.

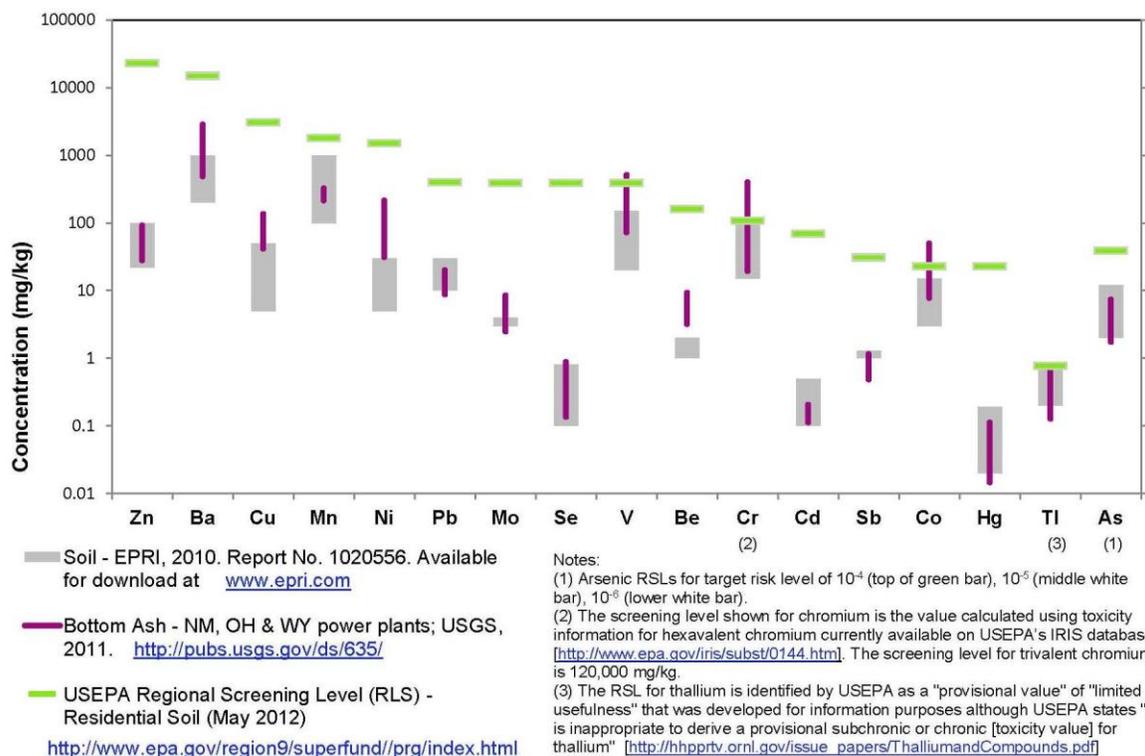
The charts show the range of metals concentrations in coal ash on vertical purple lines compared to the range of metals concentrations in background soils on vertical gray bars. In most cases, the ranges are similar.

The metals concentrations are also compared to residential soil screening levels which are represented by green bars. These risk based screening levels developed by EPA are considered protective of a child’s health, including sensitive subgroups, over a lifetime of daily exposure. In almost all cases, metals concentrations are below levels of concern.

**Comparison of 10<sup>th</sup> and 90<sup>th</sup> percentile USGS Database Constituent Concentrations in Fly Ash and Background Levels in US Soils to the USEPA Regional Screening Levels for Residential Soils**



**Comparison of 10<sup>th</sup> and 90<sup>th</sup> percentile USGS Database Constituent Concentrations in Bottom Ash and Background Levels in US Soils to the USEPA Regional Screening Levels for Residential Soils**



The data are consistent with findings of two previous EPA Reports to Congress (in 1988 and 1999) and two previous EPA Regulatory Determinations (in 1993 and 2000) that hazardous waste regulation of coal ash “is not warranted.”

“Just because some environmental activists continue to seek a ‘hazardous waste’ designation for coal ash is not an indication that science has somehow changed,” said Adams. “This analysis using up-to-date information conclusively shows that coal ash is comparable to other common materials and can be used in productive ways. Describing coal ash as ‘toxic’ is reckless, inaccurate and damaging to our economy and environment.”

Recycled coal ash is a vital ingredient in transportation construction. A recent study by the American Road and Transportation Builders Association concluded that coal ash use in concrete road and bridge construction will save more than \$100 billion over the next 20 years through reduced cost of construction materials and increased concrete durability achieved by using coal ash.

Coal ash recycling in the United States declined in 2010 – reversing a decade of growth of a practice that conserves energy and natural resources, reduces greenhouse gas emissions, and safely keeps ash out of landfills and disposal ponds. Regulatory uncertainty from a protracted

EPA coal ash disposal rulemaking and stigma associated with the unsubstantiated portrayal of coal ash as “toxic” were major factors in the decline.

### **About the Study Author**

Dr. Lisa Bradley is a Vice President and Senior Toxicologist/Risk Assessor with AECOM, a global provider of professional technical and management support services in engineering and allied fields. She has a Ph.D. in toxicology from the Massachusetts Institute of Technology, is certified by the American Board of Toxicology, and has 25 years of experience in risk assessment and toxicology consulting. She is the global risk practice technical lead for AECOM, and a group leader for AECOM’s Women’s Leadership Collaborative.

### **About Coal Ash Recycling**

Historically, almost half of America’s electricity has been generated by burning coal. Generating that much electricity produces large volumes of coal ash — the generic term for several solid materials left over from the combustion process.

There are many good reasons to view coal ash as a resource, rather than a waste. Recycling it conserves natural resources and saves energy. In many cases, products made with coal ash perform better than products made without it. For instance, coal ash makes concrete stronger and more durable. It also reduces the need to manufacture cement, resulting in significant reductions in greenhouse gas emissions. About 11 million tons of greenhouse gas emissions were avoided by using coal ash to replace cement in 2010 alone.

Major uses of coal ash include concrete, gypsum wallboard, blasting grit, roofing granules, and a variety of geotechnical and agricultural applications.

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***The American Coal Ash Association was established more than 40 years ago, in 1968, as a trade organization devoted to recycling the materials created when we burn coal to generate electricity. Our members comprise the world's foremost experts on coal ash (fly ash and bottom ash), and boiler slag, flue gas desulfurization gypsum or "synthetic" gypsum, and other "FGD" materials captured by emissions controls. While other organizations focus on disposal issues, ACAA's mission is to advance the management and use of coal combustion products in ways that are: environmentally responsible; technically sound; commercially competitive; and supportive of a sustainable global community.***