

# Coal Ash Piles Up

TENNESSEE EVENT HIGHLIGHTS ISSUE // BY RICHARD SCHLESINGER

THE THUNDEROUS COLLAPSE OF AN 80-ACRE coal ash pond at the Kingston, Tenn. TVA plant last December was the lead story on the evening news across the country. Suddenly, the public was aware that coal ash is a major environmental concern. Actually, that's hardly news. The U.S. Environmental Protection Agency has been studying the health and environmental impact of coal combustion waste for almost 30 years, but it never caught the public's attention. Until now.

In 1980, Congress charged the EPA with preparing a detailed study of the health and environmental impact of coal ash and reporting back within two years. Almost 20 years later, the EPA submitted its report, which was followed by a public comment period, and in March 2000, it concluded that coal ash was, in fact, a hazardous material and should be federally regulated. Two months later, however, following intense lobbying by the industry, the EPA reversed that position, stating that coal combustion waste did not warrant regulation as a hazardous waste under the provisions of the Resource Conservation and Recovery Act.

There's no question that the substances found in coal ash are dangerous. Following the Kingston collapse, *The New York Times* reported that in just one year, the plant's byproducts included 45,000 pounds of arsenic, 49,000 pounds of lead, 1.4 million pounds of barium, 91,000 pounds of chromium and 140,000 pounds of manganese. And that's just what was deposited in one year; the Kingston holding pond had been growing – to 65 feet in height – over decades.

Nor was that pond an isolated instance. The number of landfills and surface impoundments vary according to the source. *The Times* mentioned upward of 1,300 impoundments. The EPA says there are approximately 300 surface impoundments, such as the Kingston one, and an additional 300 landfills scattered across 46 states. Whatever the actual count, the total coal ash deposited is,

according to EPA figures, 131 million tons per year, up from less than 90 million in 1990. Part of the increase is because of increased efficiency in capturing airborne pollutants, and part is because of the increased demand for electricity.

Coal ash is either stored or put to beneficial use in concrete, road base and gypsum board, among other uses. Storage is either in landfills or in ponds. Wet storage is by far the cheapest way of disposing of coal ash, mixing it with water and either sluicing it to nearby rivers or streams or letting it flow into ponds. Dry storage can be accomplished in aban-



An aerial view shows the aftermath of a retention pond wall collapse at the Tennessee Valley Authority's Kingston Fossil Plant in Harriman, Tenn. (AP Photo/Wade Payne, File)

andoned mines or in surface impoundments, but it must then be conditioned with a little water to suppress dust. Dry storage is far more labor intensive and costly. Adding to the cost, landfills

generally have to be lined or positioned over clay; ash ponds are not usually lined.

Whether or not all of the waste is chemically soluble and therefore capable of polluting groundwater is still not well understood. But while industry, government and public interest groups agree the waste needs to be regulated, there's little agreement about how to do it. Tisha Petteway, a spokeswoman

Subscribe Online to *EnergyBiz*

for the EPA, said that “states are increasingly applying their regulatory authority as new units are introduced,” and she reiterated the claim the EPA made in May 2000, that state regulatory programs have made significant improvements in regulating management of coal combustion wastes. The agency does, however, acknowledge that, in light of the TVA disaster, “there are important questions regarding impoundment integrity and associated impacts on surface waters.”

Jeff Stant, the director of the coal combustion waste initiative at the Environmental Integrity Project, an environmental advocacy group, takes a radically different stance. “States having authority and states acting on that authority to develop regulations and enforce those regulations is like night and day,” he said. He pointed to a Texas regulation that stipulates that “if waste passes a five-minute leach test the waste ceases to be a waste, and you don’t even have to tell the state you generated it, much less where you’re putting it.”

Stant argues that, far from protecting the population, state regulation of coal combustion waste has been all but useless, with one or two exceptions, including New York and California. Most states, in fact, if they have any regulations at all for coal ash, treat it simply as solid waste, in the same category as household garbage. Bill Dunham, legislative counsel for EarthJustice, an environmental lobbying organization based in Washington, echoed Stant’s sense of outrage. “From our perspective, the federal government has completely abdicated its duty to protect public health and the environment,” he said. “This waste is toxic, it’s not regulated at all, and we’ve had over 60 proven spills across the country and it’s leached into groundwater at 600 or so sites and the federal government has done nothing.”

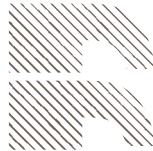
While acknowledging that coal ash needs to be regulated, James Roewer, executive director of the

Utility Solid Waste Activities Group, which represents energy industry operating companies, insists that it doesn’t warrant federal regulation. “The only construct we have for federally enforceable standards is as hazardous waste, and this material isn’t hazardous waste,” Roewer said. He said he believes states are best at protecting their unique environments. He insisted that no one-size-fits-all regulation could work, because pollution from coal ash sites is largely a function of climate, geography and geology. As an example, he mentioned a utility in Kansas that was criticized for disposing of its coal combustion waste in an unlined landfill. Because Kansas has relatively little rainfall, he said, there is no need to line the facility. “Not every facility needs a liner since not every landfill generates leachate.”

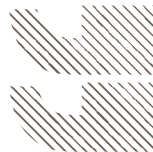
While the utilities Roewer represents may not favor federal regulation, some that operate across state lines, such as AEP, take an approach that may not be far from what federal regulation would actually mean. Rather than meeting different disposal standards in each state in which it operates, AEP adopts the most stringent regulations as imposed by the various states and uses these as the standards across their operating footprint. “Because we operate in 11 states, we use the most stringent

requirements of each state, and we operate all of our dams in accordance with these. That gives us one set of rules,” said AEP spokeswoman Melissa McHenry.

Congress, spurred by public outrage over the Kingston disaster, is again joining the debate over how to regulate coal ash and who should enforce the regulations. Rep. Nick Rahall (D-W.Va.), chairman of the House Committee on Natural Resources, has introduced legislation to at least in part regulate coal ash on a federal level, and Sen. Barbara Boxer (D-Calif.) has announced hearings on the issue in the U.S. Senate. Meanwhile, the Environmental Integrity Project’s Jeff Stant is optimistic that the Obama administration will be more sympathetic to federal regulations. And there’s another factor that’s likely to enter the debate. An article published in the December 2007 issue of *Scientific American* notes that “ounce for ounce, coal ash released from a power plant delivers more radiation than nuclear waste shielded via water or dry-cask storage.” That’s bound to turn up the heat a few degrees.



This waste is toxic, it’s not regulated at all, and we’ve had over 60 proven spills...



**NewsFlash**

**TEXAS USES MORE POWER**

Texans consumed 1.7 percent more electricity in 2008 than in 2007, according to the Electric Reliability Council of Texas. At the same time, U.S. demand for power fell, according to the *Dallas Morning News*.

Wind power accounted for 4.9 percent of Texas generation last year, up from 2.9 percent in 2007.

www.energycentral.com