A practical, sustainable way forward on coal ash

Digging up coal ash basins could cost $20 billion

But capping them in place leaves worries for groundwater

Engineers have thoughts on how best to handle the problem; let's listen to them

State officials are struggling to decide what should be done with the more than 100 million tons of coal ash stored in Duke Energy's unlined basins.

BY CHRIS HARDIN

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There is an easier and more practical way to handle over 100 million tons of coal ash stored in Duke Energy's unlined basins in North Carolina. The solution to what continues to be a very contentious and confusing issue may rest with the professional engineers, contractors and beneficial use companies who will actually do the work.

From my perspective as a professional engineer working full-time on coal ash impoundment closures nationwide, and as a farmer working part-time with sustainable agriculture and environmental groups, I can see several pieces missing from the public debate.

It may come as a surprise, but there is a lot of common ground between the people actually doing the work: the regulators, the day-to-day workers for the environmental groups, and even the power company engineers. What appears missing with the debate is a common-sense view that incorporates different solutions, good business sense, and an understanding of what has been done in other states.

Let's consider a few of the options that have been proposed:

▪ What happens if we dig up all the coal ash, and move it to a lined landfill by 2024 as required by the Coal Ash Management Act (CAMA)?

Moving this amount of industrial waste byproduct has never been done before, and would require over 600,000 rail cars and/or over 6 million roundtrip truck

loads. This scenario would also require treatment and discharge to the rivers of over 8 billion gallons of water. The cost, based on real numbers from similar projects, would be staggering – at least $20 billion. Do we really think this cost will be picked up by the utility and its shareholders, without passing a significant portion on to the ratepayers?

▪ What happens if we leave it all alone, drain and cap-in-place the coal ash that is located in the unlined ash basins of North Carolina? As a landowner who depends on my groundwater, I would have some concern about this being the only approach that is considered. As a practical and experienced remediation engineer, I know that there are ways to enhance the cap-in-place closure method in a manner that would be equally or more protective of human health and the environment. These may include selective excavation, in-place solidification, installing water lines for nearby residents, and down-gradient slurry walls.

Instead of engaging in more debate, more policy making and more uncertainty, it seems reasonable to suggest a few simple changes to CAMA to keep things moving forward:

▪ Instead of reviving the Coal Ash Management Commission, consider creating a Key Stakeholder Working Group that includes technical and construction representatives from one main riverkeeper group, one main citizens' group, the key N.C. Department of Environmental Quality regulators and the engineers from Duke Energy who are actually developing the closure plans.

▪ Accept the recently completed classifications as Intermediate, but allow or require consideration of other options for remediation that are equally protective to human health and the environment.

▪ Allow the time frame for remediation of all the Intermediate classified ash basins to be extended for up to 15 years, if the ash is being excavated for beneficial reuse, and if groundwater is protected during the interim. The timeframe and approach could be evaluated by professional engineers experienced with coal ash remediation and beneficial reuse.

Chris Hardin is a registered professional engineer, with over 20 years experience in environmental remediation, organic farming and sustainable development.