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Duke Energy updates N.C. legislative commission on coal ash

RALEIGH, N.C. – Duke Energy’s North Carolina State President, Paul Newton, today spoke before the N.C. Joint Environmental Review Commission (ERC) on the company’s response to the Feb. 2 Dan River coal ash incident and its near-term and longer-term actions to address coal ash across the state.

“Duke Energy is committed to working with policymakers and regulators to implement both short- and long-term solutions to coal ash management in North Carolina,” said Newton.

Newton told the ERC the company takes full responsibility for the Dan River incident. He also discussed the significant steps Duke Energy has taken on the site and in the river since the company’s previous update to the ERC on Feb. 17. These include:

- Ongoing water sampling that demonstrates the Dan River has returned to normal water quality conditions, and drinking water remains safe.
- Removing an ash deposit near the Dan River site and preparations to begin removing an ash deposit behind the Schoolfield Dam near Danville in the coming weeks.
- Continuing to work constructively with federal and state experts from the U.S. Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service, Virginia Department of Environmental Quality and N.C. Dept. of Environment and Natural Resources (NCDENR) to monitor the river and evaluate additional remediation efforts.

Newton said as a result of Duke Energy’s recently completed \$9 billion power plant fleet modernization program, the company has retired more plants than any other time in its history. The company had always planned to permanently close its ash basins as it retires units, following existing industry norms and compliance expectations of state and federal regulators.

Immediately after the Dan River incident, the company engaged independent third-party engineering experts to assess all of the company’s ash basins by May 31, 2014, and immediate action will be taken to address any significant issues, Newton said.

The company also is preparing a comprehensive, longer-term ash basin strategy that involves intensive analysis at all of its coal plant sites that begins next month. That work

will be completed by the end of the year, with closure strategies recommended for each site.

Newton described the key guiding principles that will help determine site-specific closure strategies. Those include the proximity of the ash basins to downstream drinking water intakes and downstream groundwater sources used for drinking water. They also focus on community considerations (such as traffic), potential environmental and health impacts, cost-effectiveness and amount of time it takes to complete the project.

Cost estimates for Duke Energy's plans for ash (see chart at <http://www.duke-energy.com/pdfs/CoalAshPlanWaterfall.pdf>)

Newton said the combination of the company's previous plans, and its more recent actions outlined in its March 12 letter to N.C. Gov. Pat McCrory and NCDENR Secretary John Skvarla, are estimated to cost approximately \$2 billion to \$2.5 billion.

These plans assume the following costs and activities:

- The costs of excavating and relocating ash from the company's Dan River and Riverbend sites to a lined structural fill or lined landfill. Those costs are assumed for Sutton as well, while work is underway to determine the most appropriate closure approach.
- The costs to continue to move ash from the Asheville plant to a lined structural fill.
- The costs to convert three remaining coal units to dry fly ash systems.
- A hybrid "cap in place" closure approach for the company's remaining 10 coal plant sites in N.C. This provides for some excavation on sites to consolidate ash, with a synthetic barrier to keep ash dry and protect groundwater. Site-specific studies have been underway to determine the most appropriate closure method.
- Dry bottom ash handling at operating sites in N.C. This type of system transports bottom ash wet and then stores it dry.

Costs increase significantly to excavate and remove all ash from coal sites

Although excavating and relocating ash in basins is warranted at some sites, costs increase by \$4 billion to \$5.5 billion with a one-size-fits-all "excavate and remove" approach across the N.C. coal fleet, Newton said.

There is no available capacity at Duke Energy's existing lined landfills to receive excavated ash, so there would be a need to site, permit and construct new lined landfills or structural fills. The time to relocate basin ash to new lined landfills or structural fills would take approximately 20 to 30 years, Newton added.

Newton said if the company were also required to convert to all-dry ash handling systems, the costs would increase an additional \$1 billion to \$2 billion. These steps, added to the total excavate and remove approach, collectively would cost a total of \$7 billion to \$10 billion.

“The intensive analysis of our coal sites will continue during the rest of this year,” Newton said. “This work, combined with our guiding principles, will further inform closure strategies and related costs.”

“In our view, the best approach to manage coal ash for our customers and North Carolina lies somewhere along this spectrum, with steps that address ash at both retired and operating plants. We look forward to working constructively with our regulators to achieve prudent, environmentally sound and cost-effective solutions,” Newton added.

The costs outlined in Duke Energy’s plans are approximations subject to completing detailed engineering studies. They do not include costs associated with financing, inflation and increases in operating and maintenance expenses.

The management of coal ash is a national issue

According to the federal EPA, there are 676 ash basins in the U.S. and Duke Energy has 33 in North Carolina, about half of which are inactive. Fly ash accounts for about 80 percent of the ash produced, and bottom ash makes up the other 20 percent.

In 2013, Duke Energy produced 1.8 million tons of ash at its North Carolina plants and approximately 67 percent of this was reused or recycled beneficially in structural fill, cement, cinder blocks and other construction materials.

For more information about Duke Energy’s ash management activities, its plans at specific plants and its response to the Dan River incident, see <http://www.duke-energy.com/ash-management/>.

Headquartered in Charlotte, N.C., Duke Energy is a Fortune 250 company traded on the New York Stock Exchange under the symbol DUK. More information about the company is available at: www.duke-energy.com.

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