



Company Folder E-7

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March 25, 2014

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MAR 26 2014

Clerk's Office
N.C. Utilities Commission

Chairman Edward S. Finley, Jr.
North Carolina Utilities Commission
4325 Mail Service Center
Raleigh, NC 27699-4325

Dear Chairman Finley:

We at Duke Energy care deeply about North Carolina and the health and safety of our communities. I am writing to affirm my commitment to working with you and other leaders throughout the State to fully address the events of the past several weeks, as well as reach sound, responsible solutions for how we manage coal ash in our state.

As CEO of a public utility, I have the privilege of helping North Carolinians meet their energy needs for their businesses and their everyday lives. I am also responsible for ensuring that we operate safely and without incident. And when accidents occur, I take ownership for our response and how we implement lessons learned to continually improve how we operate and serve our communities. Our families and loved ones live in these communities. Our future is closely linked to the future of the communities we serve.

As I wrote to Governor McCrory and Secretary Skvarla, North Carolina Department of Environment and Natural Resources (NCDENR), on March 12, 2014, we are developing and implementing a disciplined, fact-based approach to evaluating long-term solutions for ash basins at the Company's retired Dan River plant, as well as to ensure safe monitoring and management of all our ash basins. Each power plant site is unique, and the long-term solutions require analysis of trade-offs, risks and costs. Drinking water from the Dan River has remained safe and the river has returned to normal water quality levels.

With the high priority this calls for, we are moving aggressively to update, expand and accelerate our actions:

- We have established an internal strategic task force, with deep expertise, to oversee the comprehensive engineering review of every Duke Energy ash basin, as well as to implement near-term actions and develop longer-term solutions system wide. This team is directly accountable to me.
- We have engaged independent, third-party engineering experts to complete an assessment of all of our ash basins. We have asked for this work to be completed by May 31, 2014, and immediate action will be taken to address any identified issues.

- After securing the required permits, we plan to move ash at three retired plants, accelerate closure of an additional basin, convert to dry ash handling at all remaining facilities in North Carolina and begin dewatering the other retired basins.
- We have begun preliminary engineering to assess a broad range of potential options for management of our remaining ash basins. We expect to complete this work by the end of 2014.

We are pleased with the progress we are making and are moving forward with the implementation of the near term actions outlined in our previous letter to Governor McCrory and Secretary Skvarla, including actively pursuing landfill and storage solutions and converting to all dry fly ash handling. The independent engineering review is underway.

Ash management is an energy industry issue that will be impacted by upcoming EPA regulations, some of which are expected in December 2014. We have dedicated teams in place and are ready to respond to any new or updated regulations. Our work will continue with all stakeholders, including regulators, to find solutions that position North Carolina and the other states we serve for the future. Attached to this letter you will find a fact sheet with details about Duke Energy's coal ash basins and management program as well as some industry facts on coal ash management.

Duke Energy has a long and proud history in North Carolina. We have 13,000 employees and thousands of contractors throughout the State and provide energy that fuels homes and businesses. I am proud of what we do for North Carolina and we will uphold our commitments to the State.

Duke Energy remains firmly committed to working together with the State of North Carolina, the North Carolina General Assembly, the North Carolina Utilities Commission and all of our federal and state regulators to make this right. We will keep you updated as we achieve key milestones. We share a common goal to ensure the safety and well-being of our communities across the state, and we at Duke look forward to continuing to do our part.

Sincerely,



Lynn J. Good
President and Chief Executive Officer

Attachment

Coal Ash in North Carolina



According to the U.S. Energy Information Administration, about 37 percent of all electricity generated in the United States comes from coal. In the Carolinas, Duke Energy produces about 28 percent of its electricity from coal, and that number is expected to drop to 25 percent by 2015.

All coal naturally contains inorganic matter from the rocks and minerals in the coal seam where it was mined. Coal-fired power plants burn coal to make steam, and the steam turns turbines to generate electricity. When that coal is burned, the inorganic matter in the coal becomes coal ash. Coal ash has been accumulating at sites throughout the United States for more than nine decades.

Different types of coal ash

Coal combustion results in two forms of ash:

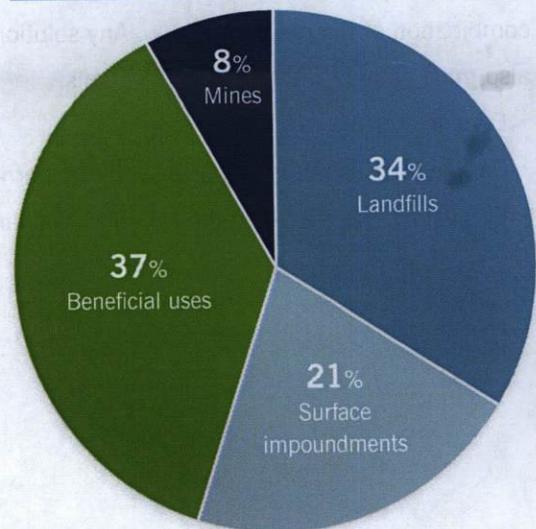
- Fly ash — a fine material similar to the consistency of talcum powder. Fly ash accounts for about 78 percent of the coal ash generated annually in the United States.
- Bottom ash — a coarser material collected from the bottom of coal-fired boilers.

In addition to fly ash and bottom ash, some power plants also produce synthetic gypsum as a byproduct. This happens at coal-fired plants that have emissions-control equipment called scrubbers installed to remove sulfur dioxide emissions.

A state and national issue

- Duke Energy has approximately 102 million tons of coal ash stored in North Carolina in 33 ash basins. According to the U.S. Environmental Protection Agency (EPA), there are approximately 676 ash basins throughout the United States.
- The head of EPA's waste office testified in February 2013 that "coal ash is one of the largest waste streams generated in the United States," with almost 136 million tons generated in 2008. Approximately 46 million tons are landfilled; 29 million tons are disposed of in surface impoundments, such as ash basins; 50 million tons are beneficially used; and 11 million tons are placed in mines.

Destinations of coal ash generated in the US



Storage, monitoring and safety

If the ash is not being reused or recycled, it can be stored dry in landfills or in water in ash basins. Duke Energy has already transitioned its larger coal-fired units to store fly ash in dry landfills and has multiple measures in place to safely and effectively manage the ash that is stored in basins. For example:

- **Ash dam inspections:** Inspections are conducted by company engineers and government regulators every year and by independent third parties every five years.
- **Surface water monitoring:** We routinely sample upstream and downstream of our coal-fired power plants.
- **Groundwater monitoring:** We have voluntarily monitored groundwater at our plants for years, expanding those efforts in 2010.
- **Fisheries monitoring:** We also sample fish tissue annually at several sites near our coal plants across North Carolina to monitor the health of aquatic life.

Closing ash basins

Electric utilities have several options when closing ash basins. Ultimately, the solution for basins is based on site-specific factors and may include a combination of the methods below. Any solution also must comply with federal regulations.

- Beneficial use
- Capping the ash with soil or a synthetic barrier
- Excavating and relocating the ash to a lined landfill

Reuse and recycling

Fly ash, bottom ash and synthetic gypsum are often grouped together and called coal combustion products, and the EPA has affirmed that these products are safe to reuse. In 2012, more than 51.9 million tons of these products were beneficially reused in the United States. In 2013, Duke Energy produced approximately 3.3 million tons of coal combustion products at its North Carolina plants, and almost 74 percent of those products were reused or recycled.

Fly ash can be reused in concrete products and projects, including roads, bridges and buildings. It also can be used as structural fill such as embankments or trenches that are built when native soil at a site or a roadway is not strong enough to support a structure. Bottom ash is often used to replace sand or gravel and can be used to manufacture concrete blocks, along with structural fills and embankments.

The synthetic gypsum from coal plant scrubbers is often used for wallboard manufacturing. About 40 percent of the gypsum wallboard manufactured in the United States uses synthetic gypsum from coal-fired power plants. In fact, the gypsum from the Roxboro Plant in Person County, N.C., is used at a wallboard manufacturing facility that was built next to the plant because of the nearby supply of synthetic gypsum.

Sources:

- Electric Power Research Institute
- Edison Electric Institute
- American Coal Ash Association
- U.S. Energy Information Administration
- Industrial Resources Council
- Duke Energy statistics