Testimony of Eric Schaeffer
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Before the House Subcommittee on Environment and the Economy
Regarding EPA's 2014 Final Rule: Disposal of Coal Combustion Residuals from Electric Utilities

January 22, 2015

Thank you for inviting me to testify at today's hearing on EPA's final standards for the regulation of coal ash disposal sites. My name is Eric Schaeffer, and I am Director of the Environmental Integrity Project, a nonprofit organization dedicated to more effective enforcement of our environmental laws. Working with other nonprofits, we obtained much of the groundwater monitoring data from state files that the Environmental Protection Agency reviewed when developing this rule.

My testimony can be summarized as follows:

- The record developed since EPA's rule was proposed nearly five years ago confirms that leaking coal ash sites have contaminated groundwater at many locations, and that unstable or poorly maintained ash ponds can lead to catastrophic spills like the one from Duke's Dan River plant less than a year ago. The Agency has confirmed that at least 157 coal ash ponds or landfills have contaminated groundwater or otherwise increased the risk of harm to health or the environment. In EPA's words, "...this is the largest number of damage cases in the history of the [Resource Conservation and Recovery] program."

- The cost of cleaning up spills and leaking dumpsites has already snowballed, with six companies reporting liabilities that exceed $10 billion. That will continue to happen if federal standards are not effective in containing this pollution and keeping the problem from getting worse.

- Congress should examine the problem that EPA's new rule attempts to address before deciding whether the Agency has found the right solutions. That means taking a hard look at the evidence that has been gathered, analyzed, and placed in the record over the past six years. But it should also mean taking the time to hear from people most affected when coal ash pollutes their groundwater or is disgorged into a local river.

I would be glad to answer specific questions about EPA's new rule if time permits. It includes some useful features, such as standards for siting and maintaining the safety of impoundments, minimum monitoring requirements and a welcome emphasis on public disclosure of data about the condition of coal ash sites. At the same time, it leaves significant gaps in the safety net that ought to be repaired. These include the failure to require cleanup whenever boron or manganese exceeds health based standards, since these pollutants are frequently found in concentrations far above health-based standards in groundwater or surface water near coal ash sites. Some of the "deadlines" in the rule, which allow up to 15 years to complete closure of coal ash impoundments larger than 40 acres, mean that people next to these sites will have to live with this contamination for a very long time.

The Subcommittee may want to compare the extended deadlines in EPA's final rule to the requirements of the law that North Carolina enacted in August of 2014. That statute, which had Duke Energy's support, puts ash ponds on a much faster track for closure and cleanup than EPA's new standard.

The Agency has confirmed that at least 157 coal ash landfills or surface impoundments have contaminated groundwater or surface water with one or more pollutants at levels that exceed federal health or water quality based standards, or otherwise significantly increased actual or potential harm to human health of the environment. In EPA's words, "this is the largest number of damage cases in the history of the [Resource Conservation and Recovery Act] program." The Agency adds that additional sites are likely to be contaminated that have not yet been identified due to lack of monitoring data.

The groundwater affected by these sites is not safe to drink, and may not be for many years. At some of these sites, contaminated plumes discharge directly to creeks or rivers, threatening harm to fish or wildlife. Unless we are willing to treat these aquifers and our nation's waterways as private sewers – rather than a natural resource that should be available for future generations to enjoy – this polluted groundwater will have to be cleaned up one way or another.

At other sites, ash or sludge has dropped through sinkholes that open up underneath landfills or ponds built on top of unstable karst formations. For example, TVA discovered in 2010 that waste was draining through a sinkhole near the southern edge of a brand new sludge disposal area, causing dramatically elevated selenium concentrations in underlying groundwater (up to 412 ug/L, almost ten times higher than the maximum contaminant level (MCL) of 50 ug/L), and ultimately discharging to the Clinch River. TVA dewatered the area in January 2011 and discovered additional sinkholes.

EPA's consulting engineers determined that a dam break at more than 40% of coal ash impoundments would either result in probable loss of human life (at sites with a "high hazard" rating) or widespread environmental and economic losses (significant hazard sites). The collapse of one of Duke Energy's ash impoundments less than a year ago dumped 39 million tons of coal ash and 27 million tons of contaminated wastewater into the Dan River in North Carolina. That spill came after Duke Energy assured EPA – in a letter dated October 5, 2009 – that: "We are confident, based on our ongoing monitoring, maintenance, and inspections that each of our ash basins has the structural integrity necessary to protect the public and the environment."

EPA's review also confirmed that too many states lack the authority to require power companies to take reasonable steps to keep coal ash contaminants out of the environment. The Agency determined that some states have no regulations at all for coal ash or scrubber sludge, while others exempt disposal of these wastes from most of the requirements that apply to other waste sites. Several states that

generate some of the largest volumes of coal ash do not even require monitoring of some of the most persistent and dangerous contaminants at disposal sites. And those laws that are on the books mean nothing unless they are enforced. At a number of polluted sites, states moved to enforce their own rules only *after* they were notified that frustrated local citizens intended to file their own lawsuit if the state failed to act. While waiting for EPA to get this final rule to the finish line, the cost of responding to spills and leaks at coal ash sites has continued to climb. Just six companies reported on their quarterly or annual disclosures to the Securities and Exchange Commission in 2014 that they expect to spend more than $10 billion to clean up spills or contaminated groundwater and to switch to safer dry disposal methods. These SEC disclosures come from TVA, Duke Energy, First Energy, Santee Cooper, NRG and Exelon, and the liabilities they report are unrelated to EPA's rulemaking. Rather, they reflect the cost of responding to spills that made front page news, to enforcement actions, and in Duke Energy's case, to state legislation adopted in the wake of the Dan River catastrophe.

These costs will only grow if EPA's rule cannot be implemented in time and keep groundwater contamination from spreading or reduce the chances of another expensive accident. Without federal action to guide cleanup within a reasonable time, these sites will rapidly lose their economic value and so will nearby residential or commercial properties in the pathway of that pollution. Nobody wants to buy contaminated groundwater or a dam that is unstable and unsafe.

Before deciding on a course of action, I would respectfully request that this Subcommittee hold hearings to investigate what caused the failure at Duke's Dan River facility, and why the company's confidence in its own self-policing proved to be unfounded. I would also urge the Subcommittee to hear from some of the people who live near these damaged coal ash sites, and let them tell you about the impact that has had on their quality of life and the value of their homes, and share their experience trying to get EPA, state agencies, or companies to respond to their complaints over many years.

Their concerns are real. Hundreds of these witnesses turned out and told their stories at the hearings EPA held on its proposed rule in Washington and in the field. I am not sure how many of them have ever appeared before this Subcommittee, but hope you will take the time to hear their voices.

Thank you again for the opportunity to testify.

The Price of Coal Ash Mismanagement
Cost of Spill Response, Ash Pond Cleanup & Switch to Dry Disposal As Disclosed to the Securites & Exchange Commission

Company	Total Cost (Millions)	Cost Category	Itemized Cost ($Millions)	Cost Description	Source
Duke Energy	3877 to 4102	Dan River Spill	20	Duke Energy Carolinas has incurred approx. $20M to date in repairs and remediation expenses related to the Feb. 2, 2014 Dan River Spill. While this includes the cost of remediation work identified by EPA (completed July 2014), it does not include an estimate of expenses related to future regulatory directives, natural resource damages, pending and future litigation, and long-term environmental impact costs. There is also an ongoing grand jury investigation related to the spill and all fourteen of the North Carolina facilities with ash basins, but no estimate has been made with respect to potential liabilities.	Duke Energy Corp., Quarterly Report (Form 10-Q), at 49-50, 52 (Sept. 30, 2014)
		Closure & disposal costs related to NC Coal Ash Act	3432	Following passage of the 2014 North Carolina Coal Ash Management Act, Duke also recorded Asset Retirement Obligations (AROs) for coal ash ponds in North and South Carolina, valued at $2026M and $1406M respectively. The ARO amount is based on estimated ash basin closure costs for each of Duke's 32 ash basins located at 14 plants in North Carolina, and an ash basin at a plant in South Carolina. The Act requires Duke to close ash impoundments at Asheville, Sutton, Riverbend, and Dan River stations by Aug. 1, 2019.	Duke Energy Corp., Quarterly Report (Form 10-Q), at 56 (Sept. 30, 2014)
		Conversion to Dry Ash Handling	425 to 650	The Act further requires conversion to dry ash handling at active plants not retired by Dec. 31, 2018, and requires conversion to dry bottom ash handling at active plants by Dec. 31, 2019, or retirement of active plants. Total costs to comply with requirements of the Act to convert todry fly ash and dry bottom ash (not including AROs recorded as of 2014) are estimated between $425M and $650M.	Duke Energy Corp., Quarterly Report (Form 10-Q), at 120 (Sept. 30, 2014)
		Groundwater Contamination/ CWA Claims	unknown	Both citizen groups and the State of North Carolina have filed suit against Duke Energy Carolinas and Duke Energy in state court, alleging groundwater violations and violations of the CWA which occurred at various facilities prior to the Dan River spill. No estimate has been made regarding liabilities from these actions. There are also five cases currently pending in NC federal courts, contending that the state enforcement actions do not adequately address the issues raised in the NOIs related to the Riverbed, Sutton, Cape Fear, H.F. Lee, and Buck plants. Duke has not quantified potential liabilities related to these claims.	Duke Energy Corp., Quarterly Report (Form 10-Q), at 51-52 (Sept. 30, 2014)
Tenessee Valley Authority (TVA)	2661 to 3161	Kingston Ash Spill	1121	In September of 2009 environmental cleanup costs associated with the 2008 Kingston Spill were estimated to total $1.1B, to be amortized over 15 years. $1.1B has been spent on cleanup activities through Sept. 30, 2014, and remaining liability is estimated at $21M. These costs and estimates do not include penalties, other than those collected by TDEC in June 2010, natural resource damage claims, future lawsuits and claims, or future environmental impact costs.	Tennessee Valley Authority, Annual Report (Form 10-K), at 101, 141 (Sept. 30, 2014)
		Kingston Ash Spill - Civil Penalty	12	In 2010, TVA paid a $10M penalty to TDEC related to the Kingston Ash Spill, and committed to undertake environmental projects valued at $2M to make up the total penalty amount.	Tennessee Valley Authority, Annual Report (Form 10-K), at 101 (Sept. 30, 2014)
		Kingston Ash Spill - Private Claims	28	TVA also deposited $28M with the federal court in the Eastern District of Tennessee in exchange for a global settlement of private claims related to the Kingston Ash Spill.	Tennessee Valley Authority, Annual Report (Form 10-K), at 141 (Sept. 30, 2014)
		Conversion to Dry Ash Handling	1500 to 2000	TVA expects to spend an additional $1.5B to $2B to convert its wet coal ash and gypsum facilities to dry storage collection facilities.	Tennessee Valley Authority, Annual Report (Form 10-K), at 34 (Sept. 30, 2014)

Santee Cooper/ South Carolina Public Service Authority	359.8	Asset Retirement Obligation	359.8	In 2013, South Carolina Public Service Authority ("Authority") recorded an Asset Retirement Obligation of $359.8M pertaining to ash ponds.	Santee Cooper, Revenue Obligations (Series 2014), at I-24 (Oct. 17, 2014)
		Retirement & Pond Closure	unknown	In November 2013 two lawsuits by environmental groups pertaining to the Grainger Ash Pond were settled. The plaintiffs had sought injunctive relief, civil penalties, and costs and attorneys fees, though the ultimate settlement "did not require the Authority to make any payments to the litigants." The company reports that it is in the process of retiring units at Grainger and Jeffries generating stations, and intends to "properly close the ash ponds by excavation and beneficial use of the ash." While no cost estimate is provided, the $359.8M ARO reported above presumably includes a portion of this cost.	Santee Cooper, Revenue Obligations (Series 2014), at 42, 44, I-24 (Oct. 17, 2014)
First Energy	397.8	Closure & Groundwater Monitoring	397	In December 2012, a modified Consent Decree between PA DEP and FG (subsidiary of First Energy) was entered requiring FG to discontinue disposal at LBR, conduct monitoring studies, and submit a closure plan for the LBR CCB impoundment by Dec. 31, 2016. The closure plan was estimated to cost $234M in environmental and post closure costs. In response to a notice of deficiency from PA DEP, FG increased its ARO for LBR by $163M in 2013. The final closure plan requires complete closure within a 12-year period, and bonding for 45 years of closure and post-closure activities, but does not require active dewatering of the CCBs. It does require a groundwater assessment for arsenic and abatement if certain conditions are met.	First Energy, Quarterly Report (Form 10 Q), at 47 (Sept. 30, 2014)
		Civil Penalty	0.8	The CD imposed an $800,000 civil penalty.	First Energy, Quarterly Report (Form 10 Q), at 47 (Sept. 30, 2014)
		Liability Related to Reuse of Coal Ash	unknown	In January 2013 the Bruce Mansfield Plant announced a plan for beneficial use of CCBs for mine reclamation in LaBelle, Pennsylvania. This plan is subject to a citizen suit alleging violations of RCRA's beneficial reuse rule with respect to coal ash.	First Energy, Quarterly Report (Form 10 Q), at 47 (Sept. 30, 2014)
		Private Damage Claims	unknown	Approximately 61 individuals have filed lawsuits in federal court alleging property damage, bodily injury, and emotional distress related to the LBR CCB impoundment. First Energy has made no estimate of possible liability related to these claims.	First Energy, Quarterly Report (Form 10 Q), at 47 (Sept. 30, 2014)
NRG/GenOn	49.5	Pond Closure	47	MDE has sued GenOn over violations of the CWA and Maryland's Water Pollution Control Law occurring at three facilities: Faulkner, Brandywine, and Westland. In April 2013 MDE and GenOn entered into a Consent Decree (CD) settling violations at all three facilities. The CD required installation of synthetic caps on closed cells at all three facilities, for which $47M has been reserved.	Genon Energy, Inc., Annual Report (Form 10-K), at 125-26 (Dec. 31, 2013)
		Civil Penalty	2.5	The CD also imposed a $1.9M civil penalty for past violations, and a $0.6M penalty for prospective violations while GenOn implements the settlement.	Genon Energy, Inc., Annual Report (Form 10-K), at 125-26 (Dec. 31, 2013)
		Site Remediation	unknown	The CD also requires remediation of the sites, for which no estimate is available yet.	Genon Energy, Inc., Annual Report (Form 10-K), at 125-26 (Dec. 31, 2013)
Exelon Corporation	41	Remediation & Penalty Liability from Constellation Merger	35	A 2007 CD between Constellation and MDE settled claims related to groundwater contamination at a third party facility licensed to accept fly ash. The CD required remediation of groundwater contamination, replacement of drinking water supplies in the vicinity of the site, monitoring of groundwater, and payment of a $1M penalty. Exelon merged with Constellation around 2012 and assumed its liabilities. In 2013, Exelon reported that prior to the merger with Constellation, the latter had actually recorded liabilities of approx. $30M to comply with the MDE CD, with an additional $3M recognized through purchase accounting. In 2013, the company increased its reserve by $2M based on updated estimate of future remediation costs.	Constellation Energy Group, Annual Report (Form 10-K), at 137 (Dec. 31, 2011) Exelon Corporation, Annual Report (Form 10-K), at 391 (Dec. 31, 2012) Exelon Corporation, Annual Report (Form 10-K), at 398, 404 (Dec. 31, 2013)
		Site Remediation & Pond Closure	6	Rossville Ash Site (owned by Constellation) was entered into the Maryland Voluntary Cleanup Program in 2010 and is currently going through the process to remediate the site and receive closure from MDE. Exelon estimates the cost to close the site to be approx. $6M.	Exelon Corporation, Annual Report (Form 10-K), at 398, 404 (Dec. 31, 2013)
		Private Groundwater Contamination Claims	unknown	A private party has also asserted groundwater contamination claims relating to the Maryland fly ash disposal site, for which the company has not offered an estimate of liability.	Exelon Corporation, Annual Report (Form 10-K), at 391 (Dec. 31, 2012)