NORTH CAROLINA
PUBLIC STAFF
UTILITIES COMMISSION

November 6, 2019

Ms. Kimberley A. Campbell, Chief Clerk
North Carolina Utilities Commission
4325 Mail Service Center
Raleigh, North Carolina 27699-4300

Re: Application of Dominion Energy North Carolina for Adjustment of Rates and Charges Applicable to Electric Service in North Carolina
Docket No. E-22, Sub 562
Docket No. E-22, Sub 566

Dear Ms. Campbell:

Attached for filing are the Proposed Additional Findings, Evidence, and Conclusions of the Public Staff in the above-referenced docket.

By copy of this letter, I am forwarding a copy to all parties of record by electronic delivery.

Sincerely,

Electronically submitted
s/ Layla Cummings
Staff Attorney
layla.cummings@psncuc.nc.gov

Attachment

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-22, Sub 562
DOCKET NO. E-22, Sub 566

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of Application of Dominion Energy North Carolina for Adjustment of Rates and Charges Applicable to Electric Service in North Carolina In the Matter of Petition of Virginia Electric and Power Company, d/b/a Dominion Energy North Carolina for an Accounting Order to Defer Certain Capital and Operating Costs Associated with Greensville County Combined Cycle Addition	)))))))))))))	PROPOSED ADDITIONAL FINDINGS, EVIDENCE, AND CONCLUSIONS OF THE PUBLIC STAFF

ADDITIONAL FINDINGS OF FACT

Recovery of CCR Costs

1. Since its last rate case, DENC has incurred significant costs to comply with existing and new legal requirements relating to its management of coal ash. These legal requirements mandate, on a site-specific basis, corrective action as necessary and closure of the majority of coal ash impoundments and landfills at the Company's coal-fired power plants in Virginia and West Virginia.

2. DENC has culpability for both (1) non-compliance with environmental regulations that are meant to protect groundwater and surface water from contamination by Coal Combustion Residual (CCR) constituents, and (2) past management of coal ash that has resulted in a risk of future contamination that the Environmental Protection Agency (EPA) and the Virginia legislature have determined requires costly new management and closure requirements.

3. DENC kept inadequate records of its groundwater monitoring activity and its exceedance reports prior to the federal CCR Rule. It is appropriate to require DENC to maintain complete records of all environmental management activity and test results in the future, and to make such records promptly available to the Public Staff and Commission upon request. Environmental test reports must be provided to the Public Staff and Commission in whatever format is reasonably requested by those agencies.

4. On a North Carolina retail jurisdiction basis, the actual CCR impoundment closure costs DENC has incurred during the period from July 1, 2016, to June 30, 2019 ("Deferral Period"), amount to $21.8 million, including a return during the Deferral Period.

5. It is reasonable and appropriate to use annual compounding rather than monthly compounding for the deferred CCR costs during the Deferral Period.

6. Under the circumstances of this case, a sharing of costs between ratepayers and shareholders is appropriate in light of the culpability of the Company for environmental contamination. A sharing is also appropriate in light of the magnitude and nature of the costs.

7. To achieve equitable sharing, it is reasonable and appropriate to remove from rate base the CCR costs incurred during the Deferral Period.

8. To achieve equitable sharing, it is reasonable and appropriate to amortize CCR costs from the Deferral Period over 18 years to achieve a 60%-40% sharing of costs between ratepayers and shareholders, with shareholders responsible for 40% of costs.

9. It is appropriate to require DENC to vigorously pursue claims for insurance coverage of coal ash remediation costs, where justified by their insurance policy coverage. All insurance proceeds received or recovered by DENC from the existing and potential insurance claims should be placed in a regulatory liability account until the Commission enters an order directing DENC regarding

the appropriate disbursement of the proceeds. The regulatory liability account should accrue a carrying charge at the net-of-tax overall rate of return authorized for DENC in this Order.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 1–3

The evidence supporting these findings of fact and conclusions is contained in the Application, Form E-1, the direct and rebuttal testimony of DENC witness Williams, and the direct testimony of Public Staff witness Lucas.

DENC has relied upon coal-fired power plants throughout its history, and depends upon coal-fired generation today. Coal ash, also known as coal combustion residuals, or CCRs, is a byproduct of coal-fired generation. Since the 1930s, the electric generating industry has deposited and stored coal ash in unlined coal ash impoundments, and such impoundments were constructed and used at the Company's coal-fired generating units.

The EPA has studied CCRs and their proper management and handling since the 1980s and began moving forward on comprehensive regulation of CCRs in the last ten years. In 2010, the EPA issued proposed rules regarding CCRs. The EPA's final rule—the Coal Combustion Residuals Rule (CCR Rule)—was promulgated on April 17, 2015. Virginia also incorporated the CCR Rule into its solid waste regulations, and the Virginia legislature passed legislation concerning coal ash in 2017, 2018, and 2019. The CCR Rule, Virginia's revised solid waste regulations, and the Virginia legislation introduced new requirements for the management of coal ash. DENC must comply with these new requirements, which mandate, on a site-specific basis and for the majority of the Company's coal ash impoundments and landfills at the Company's coal-fired power plants in Virginia and West Virginia, groundwater monitoring, corrective action as necessary, and closure.

Summary of the Evidence

DENC DIRECT TESTIMONY

The operational details of DENC's coal ash expenditures incurred from July 1, 2016, through June 30, 2019, were described by Company witness Williams. He stated that DENC is seeking recovery of CCR compliance costs, and that "the coal ash at DENC's sites are the byproduct of decades of efficient and reliable energy generation for its customers." (T Vol. 5, p 78).

Witness Williams described the Company's coal-fired electric generation facilities, the Company's past CCR storage and disposal practices, and the history of applicable regulations for coal ash management. (*Id.* at 83-88). He stated that "[t]he Company's ash handling practices have included a combination of management options over time, which have been consistent with the industry standard and regulatory requirements." (*Id.* at 85). Witness Williams also generally discussed the requirements of the CCR Rule, the EPA's Effluent Limitation Guidelines, or ELG Rule, and Virginia legislation affecting closure of impoundments and other aspects of CCR management. (*Id.* at 79-83).

Witness Williams then described the actions taken at each of the Company's coal-fired generating facilities since July 1, 2016, to comply with federal and state regulatory requirements. (*Id.* at 89-93). Specifically, with regard to Possum Point, witness Williams explained that the facility has five CCR impoundments: Ash Ponds A, B, C, D, and E. (*Id.* at 85). All five impoundments were "inactive" under the CCR Rule, and "[a]sh ponds meeting the definition of 'inactive' were recommended to close within three years or otherwise be subject to long-term monitoring and other costly provisions of the CCR Rule." (*Id.* at 89). The Company therefore moved to close them by excavation. (*Id.*) Excavation of Ponds A, B, C, and E was completed in 2018, and the Company consolidated those ponds into Pond D. (*Id.*) He added that the Company could not yet proceed with the closing of Pond D because of the moratoriums created by the Virginia legislature. (*Id.*)

He then explained that the Bremo facility has three CCR impoundments: the East Ash Pond, West Ash Pond, and North Ash Pond. (*Id.* at 86). The East and West Ash Ponds qualified as "inactive" under the CCR Rule, and the Company therefore began closure by excavation in 2015, consolidating those ponds into the North Ash Pond. (*Id.* at 90). He added that the Company could not yet proceed with the closing of the North Ash Pond because of the moratorium created by the Virginia legislature. (*Id.*)

Witness Williams stated that the Chesterfield power station has two CCR impoundments, the Lower Ash Pond and the Upper Ash Pond, and that the CCR Rule requires closure of both impoundments. (*Id.*) The Company has begun to close the Lower and Upper Ash Ponds. (*Id*.) Chesterfield still operates a coal-fired power station, and transitioned from wet to dry ash handling in 2017 to comply with the CCR Rule and the ELG Rule. (*Id*.) For storage of the dry ash, the Company constructed an onsite landfill that began receiving CCRs in 2017. (*Id.*)

Witness Williams then described the Chesapeake Energy Center, which has two CCR impoundments: an original ash pond and a bottom ash pond. (*Id. at* 87). It also has a lined landfill that has stored fly ash since approximately 1985. (*Id*.) Both the bottom ash pond and the landfill were built within the footprint of the original ash pond. (*Id*.) The original ash pond, the bottom ash pond, and the landfill will be closed pursuant to a Memorandum of Agreement between the Company and the Commonwealth of Virginia. (*Id.* at 90-91). He added that closure options were on hold because of the moratorium created by the Virginia legislature. (*Id.* at 91).

Witness Williams next explained that the Virginia City Hybrid Energy Center (VCHEC) has a lined CCR landfill, and that the Company began installing wells and monitoring groundwater in May 2016 to comply with the CCR Rule. (*Id.*) Likewise, the Yorktown facility has a lined CCR landfill on adjacent property owned by the Company. *(Id*. at 89). The Company began closure in 2017, and witness Williams stated that the rest of the landfill will be permanently closed in 2019. (*Id.* at 88).

The Clover facility has a lined landfill and two flue-gas desulfurization (FGD) settlement basins for settling wastewater solids prior to disposal in the landfill. (*Id.*)

Under the CCR Rule, the Company was required to close both FGD basins. (*Id.* at 92). The FGD basins were excavated beginning in 2017, and are being retrofitted with liners that are compliant with the CCR Rule. (*Id*.)

Lastly, witness Williams explained that the Mount Storm facility has a lined Phase A and Phase B landfill. (*Id.* at 88). The facility also had five low-volume wastewater treatment ponds—the Pyrite Pond and Ponds A, B, C, and D—that did not meet the liner requirements of the CCR Rule. (*Id.* at 92). These ponds were closed by excavation and consolidated into the Phase B landfill. (*Id*.) The Company is nearing completion of the construction of a new pyrite pond and two low-volume wastewater treatment ponds with CCR Rule-compliant liners in the location of the former impoundments. (*Id.* at 92-93).

Witness Williams testified that the Company's actions to close its ash facilities have been reasonable and prudent. (*Id.* at 93). When asked on cross-examination about the reasoning behind the Virginia legislation requiring closure-by-excavation of coal ash impoundments at the Bremo, Chesapeake, Chesterfield, and Possum Point facilities, witness Williams stated that he could not comment on why the Virginia legislature chose to mandate excavation, and that the Company's "information on our current condition of groundwater . . . shows that there are not currently risks to off-site human health or the environment." (*Id.* at 147-149). When asked if there are on-site impacts from coal ash impoundments, witness Williams acknowledged that there are such impacts. (*Id.* at 162-163).

Witness Williams was also asked on cross-examination whether the Virginia legislation required the Company to provide alternative water supplies off-site, and he replied that "[it required us to do an evaluation of those potential sites . . . and address water." (*Id.* at 161). He further noted that the Company has provided alternative water supplies and offers for reimbursement of water connections to residents near the Possum Point facility, and acknowledged that there is ongoing litigation brought by neighboring property owners alleging contamination of drinking water wells from the Possum Point facility. *(Id.)*

INTERVENOR TESTIMONY

Public Staff witness Lucas recommended an equitable sharing of the Company's CCR management costs. In conjunction with Public Staff witness Maness, he specifically recommended that 40% of the coal ash related costs should be paid by the Company's shareholders, and the remaining 60% be paid by ratepayers. (T Vol. 6, p 110).

He first noted that the equitable sharing recommendation is not based on the prudence standard, which would have resulted in a 100% disallowance of imprudent costs. (*Id.* at 113). Witness Lucas explained that the Public Staff conducted an equitable sharing analysis rather than a prudence review because "some impacts are not clearly imprudent or reasonable," "estimating historic costs to remediate environmental impacts would be speculative," and "the incomplete records of DENC and the challenge of reconstructing all the Company's decision-making on CCR management make it difficult, if not impossible, to conduct a prudence review." (*Id.* at 184-85). On cross-examination, witness Lucas confirmed that he had not identified any specific CCR-related costs that the Company incurred or undertook between July 1, 2016, and June 30, 2019, that were imprudent or unreasonable. (*Id.* at 298-99).

Rather, the Public Staff's equitable sharing recommendation is based in part on culpability for environmental contamination (*Id.* at 113), and in part on the magnitude and nature of the costs, as discussed by Public Staff witness Maness. Witness Lucas stated that it would be unreasonable to charge ratepayers for all the Company's CCR-related costs where the Company, and not the ratepayers, is culpable for those costs. (*Id.* at 186). Specifically, he stated that "DENC has culpability for non-compliance with environmental regulations that are meant to protect groundwater and surface water from contamination by CCR constituents," (*Id.* at 112) and that "DENC's past management of coal ash has resulted in a risk of future contamination that EPA and the Virginia legislature have determined requires costly new management and closure requirements." (*Id.* at 112-13).

Witness Lucas discussed a set of historic academic, industry, and regulatory documents that "demonstrate that, by the early 1980s, the electric generating industry knew or should have known that the wet storage of CCR in unlined surface impoundments was detrimental to the quality of surrounding groundwater and surface water." (*Id.* at 141-42). Specifically, he discussed a 1979 report published by a research group from Arthur D. Little, Inc., and the Industrial Environmental Research Laboratory of the EPA that found that CCRs stored in "[w]et impoundments have the potential for contributing directly to groundwater contamination," and that lining impoundments would minimize such contamination. (*Id.* at 142). Witness Lucas then described the 1982 Manual for Upgrading Existing Disposal Facilities (EPRI Manual), published by the Electric Power Research Institute (EPRI), which stated that the use of surface impoundments "has fallen into disfavor with the EPA." It further stated that "[w]hile groundwater can be protected and leachate generation can be minimized with sound engineering design and site operation, monitoring of groundwater and leachate, is nevertheless necessary to provide convincing proof of a safe disposal practice." (*Id.*) Witness Lucas then testified that in 1988, the EPA issued a report to Congress in which it described how the use of liners, leachate collection systems, and groundwater monitoring had increased in the preceding years. (*Id.* at 143-44). To illustrate this trend, he provided the following language from the 1988 report:

> Only about 25 percent of all facilities have liners to reduce off-site migration of leachate, although 40 percent of the generating units built since 1975 have liners. Additionally, only about 15 percent have leachate collection systems; about one-third of all facilities have ground-water monitoring systems to detect potential leachate problems. Both leachate collection and ground-water monitoring systems are more common at newer facilities.

(*Id.* at 143).

He further stated that Dominion had failed to improve its CCR management practices despite the evolving knowledge of the risk of unlined CCR storage at the time. (*Id.* at 144). "[A]s publications from 1979 and later warned of the risks of CCR constituents leaching into groundwater from unlined storage ponds, DENC and other utilities should have installed comprehensive groundwater monitoring well networks to determine if the risk was materializing at their ash ponds." (*Id.*) He added that the Company had a duty to comply with groundwater quality standards regardless of accepted industry practice, noting Virginia and West Virginia's groundwater regulations and anti-degradation policies. (*Id.* at 185). He explained that both Virginia and West Virginia have anti-degradation policies that require, broadly, that the quality of state waters be maintained. (*Id.* at 125-26). Later, when asked during redirect examination, he read the anti-degradation policy from the Virginia Administrative Code into the record:

> If the concentration of any constituent in groundwater is less than the limit set forth by groundwater standards, the natural quality for the constituent shall be maintained. Natural quality shall also be maintained for all constituents, including temperature, not set forth in groundwater standards. If the concentration of any constituent in groundwater exceeds the limit in the standard for that constituent, no addition of that constituent to the naturally occurring concentration shall be made.

(*Id.* at 306).

Witness Lucas stated that the Company had never installed voluntary groundwater monitoring wells at its coal-fired generating facilities, and had only installed wells when required by state regulators. (*Id.* at 175). He testified that groundwater monitoring began at different dates for different sites, with monitoring beginning in the 1980s for some impoundments, in 2000 for impoundments at the Bremo facility, and as late as 2016 for historic Possum Point Ponds A, B, and C, as shown in Lucas Exhibit 1. (*Id.* at 175). He added that "DENC did not engage in comprehensive groundwater monitoring until even later," as shown in Lucas Exhibit 1. (*Id.*)

Witness Lucas confirmed on cross-examination that the Public Staff had not in the 1970s, 1980s, 1990s, or 2000s recommended that the Company install comprehensive groundwater monitoring, told the Company that its CCR management was not “sufficiently modern,” or told the Company that it was not “sufficiently mitigating environmental impacts from its CCR impoundments or landfills.” (*Id.* at 299-300). Witness Lucas explained that “the Company, to my knowledge, didn’t try to recover any costs like we’re doing today that were created by groundwater contamination.” (*Id.* at 299).

Witness Lucas then testified regarding exceedances of groundwater standards at the Possum Point facility in the 1980s, and discussed subsequent regulatory actions at that facility. (*Id.* at 145-157). He explained that the facility had installed groundwater monitoring wells in 1985 as required in its National Pollutant Discharge Elimination System (NPDES) permit, and that samples from those wells had detected exceedances of groundwater standards in the vicinity of Ponds D and E. (*Id.* at 145). Those exceedances resulted in a Special Order between the Virginia Department of Environmental Quality (VA DEQ) and the Company, which required further assessment of the contamination and an evaluation of remediation options. (*Id.*)

He also provided testimony regarding historic groundwater exceedances at the Chesapeake and Chesterfield facilities, as well as the Chisman Creek superfund site, which witness Lucas explained was a property where a private contractor disposed of coal ash from the Yorktown facility.[1] (*Id.* at 157-163). Witness Lucas explained that the coal ash was disposed of in abandoned sand and gravel borrow pits between 1957 and 1974, and in 1980, when a neighboring well owner reported discolored water, the State Water Control Board found elevated levels of trace metals in groundwater, surface water, and soils. (*Id.* at 162-63). Later, in 1986 and 1988, the EPA signed Records of Decision with objectives for remediation of the site. (*Id.* at 163). Witness Lucas stated that these historic site investigations and exceedances "have shown evidence of degradation of the natural groundwater quality as a result of the Company's coal ash disposal practices." (*Id.*) He then testified that because of a lack of historical records concerning decisions made to construct new CCR units or modify existing units, that the "Company is not able to demonstrate, with the records it has available, that it fully accounted for and mitigated the risks of CCR contamination in prior decades of CCR disposal and management." (*Id.* at 165).

Next, witness Lucas discussed groundwater contamination reported by the Company, and presented charts and maps of groundwater exceedances at each facility for the years 2017 and 2018 in Lucas Exhibits 12, 13, and 14. (*Id.* at 176-79). He specifically noted 548 groundwater exceedances[2], and explained that there will likely be additional exceedances reported due to inactive CCR surface

[1] Witness Lucas also briefly discussed exceedances at the Company's Yorktown facility, which he explained were "the result of current or historical activities upgradient of the land and facility wells." (T Vol. 6, p 162).

[2] Witness Lucas explained in his direct testimony that groundwater standards under the CCR Rule can differ from those adopted by Virginia and West Virginia. The standards in the CCR Rule are based on national MCLs established by the EPA and are health-based.

impoundments now being required to collect and report groundwater monitoring data under the CCR Rule. (*Id.* at 178-79). He also explained on redirect examination that as the Company caused the groundwater to be degraded through leaching from its ash basins, it was in violation of the anti-degradation policies of Virginia and West Virginia. (*Id.* at 306-07). Lastly, Witness Lucas noted that "[t]he lifetime compliance record for the Company's CCR impoundments is incomplete due in part to the lack of data retained by DENC," and that the Public Staff believes the Company had additional exceedances of groundwater standards at its CCR impoundments "over a long period of time." (*Id.* at 179-180).

With respect to the Company's records, witness Lucas testified that the Company was unable to locate a number of historical NPDES/Virginia Pollutant Discharge Elimination System (VPDES) permits and groundwater monitoring reports, and provided a list of missing documents. (*Id.* at 168-172). He also testified that the records the Company was able to provide were not in a useful format, and that it was not possible with the Company's records "to identify all groundwater exceedances caused by CCR over the life of the Company's CCR units." (*Id.* at 170-71). Witness Lucas also referenced a stipulation between the Company and the Public Staff, admitted as Lucas Exhibit 9, wherein the Company acknowledged its inability to provide historic records pertaining to groundwater for its coal-fired generating facilities, as well the fact that "it is not feasible to reconstruct a complete history of exceedances from Dominion's existing records." (*Id.* at 172).

In concluding his discussion of the Public Staff's equitable sharing recommendation, witness Lucas testified that the costs the Company has incurred for CCR management are related to groundwater contamination and environmental degradation. He stated that the CCR Rule and Virginia Senate Bill 1355 (2019), or the CCR Excavation Act, "were enacted in response to environmental contamination caused by CCR surface impoundments," and that the coal ash related costs the Company is seeking to recover are to comply with requirements that are "designed specifically to remediate ash basin environmental impacts that arose before the enactment of the CCR rule." (*Id.* at 182). According to witness Lucas:

> DENC created the risk of coal ash contamination, their original disposal of CCR has led to actual environmental contamination in several instances, their original disposal of CCR poses an ongoing contamination risk that requires expensive remediation in the judgment of the EPA and the Virginia legislature, and ratepayers will not receive any additional electric service for this costly remediation.

(*Id.* at 185).

When asked during cross-examination why the Public Staff's sharing recommendation in this case differs from those in the recent Duke Energy Carolinas, LLC (DEC), and Duke Energy Progress, LLC (DEP), rate cases—specifically, why the Public Staff has found DENC to be less culpable than DEC and DEP—witness Lucas responded that DENC has not been found guilty of criminal negligence for its environmental impacts, has not had significant state regulatory enforcement actions, and that there is less evidence at this point of the extent of impacts that were present in the DEC and DEP rate cases. (*Id.* at 265).

Lastly, witness Lucas was asked on cross-examination whether the Public Staff are environmental regulators. (*Id.* at 275). He responded that they are not and referred to a Public Staff response to a data request that stated the following: "The Public Staff is not a regulator. It is a consumer advocate working in a regulatory forum. . . . However, the costs of environmental compliance or the costs of non-compliance which the Company seeks to recover from ratepayers are within the jurisdiction of the Public Staff . . . ." (*Id.* at 285-86). Witness Lucas was also asked about testimony submitted by a Public Staff engineer, Evan D. Lawrence, in a docket for an application for a Certificate of Public Convenience and Necessity for an Electric Merchant Plant, in which Mr. Lawrence stated that "the Public Staff does not have particular expertise in the area of impacts of electric generation on the environment." (*Id.* at 282-83). Witness Lucas explained that the cited testimony was taken out of context, and was unrelated to cost recovery or a rate case. He further explained that Mr. Lawrence's testimony dealt with a certificate of public convenience and necessity for construction of a solar photovoltaic merchant electric generating facility, and that the purpose of his testimony was to discuss compliance of the application with applicable requirements, to discuss any concerns with the application, and to make a recommendation on the application to the Commission. (*Id.* at 283-84).

DENC REBUTTAL TESTIMONY

DENC witness Williams' rebuttal testimony primarily addressed the position of Public Staff witness Lucas. He first generally addressed the Public Staff's position that the Company should not be allowed to recover all of its CCR costs because of culpability. (T Vol. 7, p 52). He stated that it is "unclear how the Public Staff can argue that the Company is culpable, while at the same time acknowledging that it cannot identify a specific action that the Company could have taken." *(Id.)*

Witness Williams then testified that the proper issue before the Commission is whether the CCR costs that the Company incurred from July 1, 2016, through June 30, 2019, were reasonable and prudent. (*Id.* at 55). He noted that the Public Staff has not determined that any of the Company's costs to comply with the CCR Rule or state regulatory requirements were unreasonable or imprudent, and that the Public Staff has not recommended any specific disallowances of the Company's CCR costs. (*Id.* at 56). He concluded that the Company should therefore be allowed to recover its CCR-related compliance costs. (*Id.* at 56).

Witness Williams further argued that the Public Staff's equitable sharing recommendation is arbitrary, not tied to any specific costs, and not tied to any finding of unreasonableness or imprudence. (*Id.* at 56). He stated that the Public Staff is replacing the prudency standard with a "new standard" of culpability, and that "[t]aking a hindsight approach, the Public Staff scrutinizes DENC's decades-old CCR management decisions to manufacture a disallowance of present-day costs." (*Id.* at 56-57). He testified that "allowing or encouraging the Public Staff to take on the role of a hindsight environmental regulator – particularly by revisiting decades-old records and decisions – would promote inefficiency and inconsistency within the utility industry." (*Id.* at 62).

Witness Williams then discussed the role of the Public Staff and the Commission. He stated that his "understanding is that the Public Staff and the

Commission are not environmental regulators," and that it is therefore improper for witness Lucas to criticize the Company's historical CCR practices. (*Id.* at 57). He noted previous testimony in which witness Lucas stated that "'[i]t would not be mismanagement' for a utility to follow the directives of environmental regulators," and stated that "[w]itness Lucas' testimony in this case far exceeds his and the Public Staff's expertise and is unreliable." (*Id.* at 59).

He also testified that because the Company could find no instance prior to 2016 in which the Public Staff had raised concerns regarding groundwater or surface water issues related to the Company's CCR management, that "it would have been reasonable to assume that the Public Staff did not have any concerns or did not otherwise believe that the Company's CCR management practices were imprudent or unreasonable." (*Id.* at 57-59). He argued that "[f]undamental principles of fairness and due process dictate that the Company should be able to rely on the Public Staff's prior position and not be subject to second-guessing decades later." *(Id.*at 59).

Witness Williams also responded to witness Lucas' criticisms of his ability to provide testimony on the Company's historical CCR management, and provided an overview of his experience and role with the Company. He explained that he is a professional geologist with twenty years of experience in groundwater remediation and waste management, including five years at VA DEQ before joining the Company in 2015. (*Id.* at 60-61).

Witness Williams then summarized witness Lucas' criticisms of the Company's past CCR management practices and responded to witness Lucas' contention that the electric generating industry knew or should have known that unlined CCR impoundments were contaminating groundwater and surface water. (*Id.* at 62-65). He argued that the studies cited by witness Lucas do not "condemn or suggest the elimination of the use of unlined impoundments," and that the Public Staff "omitted findings and other reports that would provide additional context." (*Id.* at 64). He stated that unlined surface impoundments "are not by their very existence 'detrimental' to groundwater and nearby surface water," and that "even if impacts are discovered, that does not mean that any material harm to the environment has occurred or is likely to occur." (*Id.* at 65).

Witness Williams provided a summary of the history of the EPA's approach to regulating CCR, concluding that the Company "responded reasonably and appropriately to evolutions in industry practices and regulatory approaches for CCR management." (*Id.* at 66-73). He stated that in the EPA's 1999 Report, the EPA "could not identify any particular actions the Company or industry should have taken to mitigate the risks from existing large surface impoundments." (*Id.* at 71). On cross-examination, witness Williams read the following language from the 1999 EPA Report into the record:

> In addition to regulatory permits, the majority of states are now able to require siting controls, liners, leachate collection systems, groundwater monitoring, closure controls, daily or other operational, cover and fugitive dust controls. EPA believes the use of such controls has the potential to mitigate risks, particularly groundwater pathway risks, and co-managed waste disposals.

(*Id.* at 128-29).

He added that while the EPA did "identif[y] ways to manage risk that the states were using for sites going forward," that those methods were not for sites that were already constructed. (*Id.* at 129). Witness Williams also read the following language from the 1999 Report into the record on cross-examination:

> An examination of the geographic distribution of new lined surface impoundments suggests that liner requirements in several states have changed. The change from unlined to lined surface impoundments appears concentrated in the states of Georgia, Illinois, Indiana, Kentucky, Missouri, and Texas. These states account for 44 percent of the active co-management surface impoundments in the EPRI survey. In these six states, only six, or 15 percent, of the impoundments opened before 1982 are lined. On the other hand, all the impoundments opened since 1982 are lined.

(*Id.* at 134-35).

Witness Williams next was asked about the 2000 EPA Regulatory Determination, which states that "groundwater monitoring, at a minimum, is a reasonable approach to monitor performance of the unit and a critical first step to identify damage." He responded that by the year 2000, the Company was conducting groundwater monitoring at all of its impoundments, except for Possum Point Ponds A, B, and C. (*Id.* at 135-36).

He further argued that the Company's environmental regulators have continued to reissue permits for the Company's facilities every five years, "confirming and reasserting that we are in compliance with the Virginia standards." (*Id.* at 106-07). Witness Williams then was asked to read from Williams Cross-Examination Exhibit 1, an Executive Order requiring a review of the VA DEQ, in addition to the resulting report. (*Id.* at 107-111; T Vol. 8, Official Exhibits, Public Staff Williams Cross-Examination Exhibit 1). He noted that the Executive Order states that funding has decreased "significantly" for the agency, and that it asked for a review of the agency's permitting programs to (1) confirm that they are protective of human health and the environment, and (2) assess the enforceability of the agency's permitting activity to determine if changes are needed. (T Vol. 7, pp 108-110). He also acknowledged that in 2013, the Director of the VA DEQ disclosed a gift from the Company to attend the Masters tournament. (*Id.* at 113).

Witness Williams also argued that while VA DEQ had broad authority to require groundwater monitoring, the agency had "determined that any required remedial actions should be commensurate with the risks posed by the potential impacts." (*Id.* at 75).

On cross-examination, he read the following excerpt from the 1998 VA DEQ guidance on groundwater monitoring requirements in NPDES/VPDES permits:

> In summary, the authority exists for items such as groundwater monitoring, facility upgrades, and response to groundwater contamination, and groundwater remediation to be required. The VPDES permit regulation contains similar citations as the BPA permit regulation. However, as noted above, this is still a controversial issue for VPDES permitting and currently subject to a number of lawsuits.

(*Id.* at 138).

Witness Williams also testified that "Mr. Lucas does not explain why VA DEQ and WV DEP's [West Virginia Department of Environmental Protection] judgment regarding the necessity for and scope of groundwater monitoring should be ignored." (*Id.* at 79). He explained how the Company would respond to an exceedance at one of its facilities and stated that the Company had always complied with the requirements of its environmental regulators. (*Id.* at 80-81). When asked by the Commission whether the Company had ever received any civil penalties related to CCR handling, witness Williams could not confirm that the Company had not. (T Vol. 8, pp 65-66). He also stated that VA DEQ's position, as late as 1998, was that "extensive monitoring networks were not an appropriate starting point for assessing potential groundwater impacts at surface impoundments." (T Vol. 7, pp 79-80). On cross-examination, he read into the record the following language from the 1998 VA DEQ Guidance: "Obviously, if [earthen dams are] unlined, there would be much greater potential for groundwater contamination to occur." (*Id.* at 140).

Witness Williams also disagreed with Witness Lucas' contention that the Company should have installed comprehensive groundwater monitoring in order to determine whether the risk of contamination was materializing at their coal ash impoundments. (*Id.* at 78). He argued that witness Lucas did "not specify when or to what extent the Company should have taken further action to monitor groundwater," and that he "is attempting to establish an arbitrary, hindsight-based standard that is not based on any reasonable principles or criteria." (*Id.* at 78). He stated that "it is much easier to judge the Company's decades-old actions [with] hindsight than it is to grapple with those decisions in the context they were made." (*Id.* at 100). He further argued that "[e]ven if the Public Staff could identify alternative actions the Company should have taken in response to additional monitoring," it would not be able to demonstrate—and did not in Mr. Lucas' testimony demonstrate—how those alternative actions would have impacted the costs in this case. (*Id.* at 81-82). He concluded that the Company's compliance with VA DEQ's and West Virginia Department of Environmental Protection's (WV DEP) groundwater monitoring requirements was reasonable and prudent. (*Id.* at 82).

At the hearing, witness Williams was asked by the Commission whether, if the Company has complied with the law and that is all it has done, it has acted prudently, with no further inquiry required. (T Vol. 8, p 13). He responded that, as it pertains to this case, compliance with the law "is a key factor to prudence," but acknowledged that there are other factors. (*Id.* at 13-14). When similarly asked if it is the Company's position that doing the bare minimum for compliance is proof that the Company has been reasonable and prudent, he responded that the Company has to make decisions based on "providing reliable, affordable power," and that "an aspect of that is what's legally required and typically what has to be justified in any sort of future rate proceeding." (T Vol. 7, pp 122-23).

Witness Williams next responded to witness Lucas' contention that the Company, as an industry leader, was at least partly responsible for establishing the industry standard it cites to justify its past management practices. (*Id.* at 82-83). He acknowledged that the Company had disposed of CCR over time consistent with industry standards, and argued that witness Lucas "[did] not define what the industry standard should have been." He stated that, because witness Lucas did not contend that the Company's compliance with the industry standard was imprudent or unreasonable, his argument is not relevant. (*Id.* at 82). He further stated that:

> Mr. Lucas seems to be suggesting that DENC should have moved well ahead of accepted science, regulatory requirements, and industry practice and began taking unspecified measures to prevent any and all groundwater quality issues, without regard to the cost of those measures, how those measures would have impacted the Company's ability to provide reliable and uninterrupted electric service, whether sufficient and proven technology existed at the time to address the conditions at each site, or whether groundwater quality issues posed any risk to human health or the environment.

(*Id.* at 82-83).

Witness Williams was asked by the Commission about the 1982 EPRI Manual for upgrading existing CCR disposal facilities. He stated that he first reviewed the document in connection with the current proceeding, but that the Company had been a member of EPRI and "those making the decisions at the time would have likely had access" to the Manual. (T Vol. 8, pp 14-15). He further explained that the EPRI Manual says that "perhaps the most important consideration . . . is a determination of whether the site needs to be upgraded at all." (T Vol. 7, p 114). He continued on to say that "it should not be presumed that an old site must be upgraded to conform with the guidance" in the EPRI Manual. *(Id.)* He then acknowledged that the first step toward identifying deficiencies and assessing risk at a given site would be to conduct groundwater monitoring, and stated that the Company had "followed the State's recommendations" for installing groundwater monitoring wells. (*Id.* at 115). When asked if it is the Company's position that "in the absence of a regulatory directive to correct deficiencies, it would have been imprudent to take action when a site has the potential to cause contamination," witness Williams responded:

> I struggle with the idea that we would have read this manual . . . and would have decided to take a drastic action, very costly, and come before this Commission or other commissions in Virginia to request significant cost recovery on something that, at that point in time, there was no clear justification that it was needed.

(*Id.* at 115-16). He testified that, if the Company had hypothetically taken action to upgrade its CCR impoundments in the early 1980s, contamination would have occurred anyway. (*Id.* at 116-18, 121-22). He added that the Company, "as a utility tasked with providing reliable, affordable power . . . ha[s] to weigh what the prudent decision is at each site." (*Id.* at 118).

Witness Williams was also asked at the hearing about language in the EPRI Manual that addressed whether compliance with regulatory requirements is sufficient for assessing potential disposal site deficiencies. (T Vol. 8, pp 16-18). Specifically, the EPRI Manual stated that "[p]otential deficiencies in utility waste disposal practices may be defined by two sets of standards," (1) "[t]he disposal practice does not comply with specific federal and/or state regulatory requirements," and (2) "[t]he site has the potential to contaminate the environment." (*Id.* at 17). The manual then stated that:

> [t]his seemingly redundant statement is important to any assessment of disposal site deficiencies. Identification and correction of regulatory deficiencies do not necessarily preclude the possibility of past or future environmental degradation by the site. Conversely, known degradation cannot be corrected by simply conforming to regulations.

(*Id.* at 17). When asked if he agreed with this statement, witness Williams stated that he could not agree in entirety to it, as "the specific characteristics of individual sites would need to be applied." (*Id.* at 17-18).

Witness Williams also addressed witness Lucas' testimony on environmental degradation at the Possum Point, Chesapeake, Chesterfield, and Yorktown facilities. He disagreed with the assertion that reports of groundwater degradation demonstrated that the Company knew or should have known of the risks of CCR disposal in unlined impoundments, and failed to mitigate those risks. (T Vol. 7, p 83). He stated that "Mr. Lucas is wrongly conflating impacts (exceedances) with harm (risks)," and that none of the reports cited by witness Lucas that showed groundwater degradation at the Company's facilities "indicated any risk to offsite human health or ecological receptors" or "demonstrate mismanagement by the Company." *(Id.)* He further stated that the Company took "appropriate action" at each site when follow-up measures were required by VA DEQ. (*Id.* at 83-84). When asked whether coal ash contains constituents that are a risk to human health and the environment when they exceed certain concentrations in groundwater, witness Williams responded that "[m]any things in this world contain constituents that could be harmful at certain levels," and that "[t]he important thing" is how they are managed and monitored. (*Id.* at 126-27).

Witness Williams also disagreed with witness Lucas' testimony that the Company violated the 1989 Special Order at Possum Point, arguing that the Special Order was cancelled because the Company had "met its compliance obligations." (*Id.* at 84-85). On cross-examination, when asked whether a 1992 letter from the State Water Control Board indicated that conditions of the Special Order were still in progress at that time, he again stated that the Order itself, as well as its conditions, had all been terminated. (T Vol. 8, p 8). He also acknowledged that he was unaware that the EPA had cited Possum Point as a "proven damage case" in a 1999 report. *(Id.)*

With regard to Chesapeake and Chesterfield, witness Williams stated that the Company had conducted groundwater monitoring and complied with corrective action when required by regulators. (T Vol. 7, p 85). With regard to Yorktown, Witness Williams stated that the chloroform contamination was attributable to off-site conditions, not the Company's CCR disposal. *(Id.)* With regard to contamination at the Battlefield Golf Club and Chisman Creek superfund site, witness Williams stated that those sites are not relevant to this proceeding. (*Id.* at 86). He argued that the Battlefield Golf Club is not owned by DENC, that the Company did not own or control the disposal pits at Chisman Creek when the contamination occurred, and that the environmental conditions at those sites are not relevant to this case. (*Id.* at 86-87).

In response to Witness Lucas' discussion of groundwater exceedances at the Company's facilities, witness Williams stated that "[e]xceedances alone are not evidence of mismanagement, wrongdoing, or environmental harm." (*Id.* at 85). He stated again that the Company "has taken every action required by VA DEQ and WV DEP," and that the regulators "focused on whether the exceedances were causing, or had the potential to cause harm to, any on- or off-site receptors to determine whether mitigation measures were necessary." (*Id.* at 85-86).

When asked on cross-examination about the 548 exceedances reported by the Company, as reflected in Lucas Exhibits 12 and 13, he stated that exceedances under the CCR Rule do not drive any corrective action, but rather necessitate moving into the next phase of monitoring. (T Vol. 8, pp 8-9). Witness Williams acknowledged on cross-examination that maximum contaminant levels (MCLs), on which some of the exceedances reported by the Company and reflected in witness Lucas' exhibits were based, are promulgated based on the protection of human health. (*Id.* at 10). He added that many of the 548 exceedances are the result of repeated sampling of the same constituent in the same monitoring well. (*Id.* at 12). He also confirmed that since those 548 exceedances were reported, the Company has reported additional exceedances for its inactive CCR impoundments. (*Id.* at 11).

Witness Williams also responded to witness Lucas' testimony that summarized litigation against the Company related to CCR. Mr. Williams stated that litigation against the Company is not relevant to this case, and discussed specifically the Fourth Circuit case concerning arsenic contamination at the Chesapeake facility. (T Vol. 7, pp 88-89). He stated that while arsenic contamination from the facility's CCR impoundments was found to have reached surface waters, the trial court had not found evidence of injury to health or the environment. (*Id.* at 89).

Witness Williams also testified regarding witness Lucas' testimony on the difficulty of obtaining records from the Company. He stated that "[t]hese accusations are false," and that the Company "worked tirelessly and in good faith" to produce the requested documents. *(Id.).* He added that "[w]hile now claiming that the Company's discovery responses and production were incomplete, the Public Staff never filed a motion to compel." (*Id.* at 90). He discussed witness Lucas' testimony that records concerning a seep mitigation report from Chesterfield, findings of non-compliance, and the Chisman Creek site, should have been produced in discovery, but were not, by explaining why they were not produced and describing the Public Staff's testimony as misleading. (*Id.* at 90-92). When asked by the Commission about the circumstances that led VA DEQ to require groundwater monitoring at specific facilities, witness Williams responded that he did not have that information. (T Vol. 5, pp 125-27).

Witness Williams next addressed Mr. Lucas' testimony that the Public Staff had inadequate information, based on a lack of records, to evaluate the Company's environmental compliance history. Witness Williams disagreed and stated that while the Company was unable to locate annual groundwater reports dating before the year 2000, it did provide a spreadsheet with historical groundwater monitoring results for each site. (T Vol. 7, p 92). He later added that it was "surprising" that the Public Staff stated that it could only present Company exceedances from 2016 through 2018, as the Company "actually provided spreadsheets of all groundwater monitoring going back into the '80s . . . ." (T Vol. 8, p 9). He also noted that "DENC's environmental regulators, with all of the data available to them, did not see a sufficient environmental justification for requiring DENC to change its CCR management practices." (T Vol. 7, p 93).

He further stated that witness Lucas' assertion that the historical groundwater data may show additional exceedances "is speculation, is not scientifically supported, and is not consistent with the regulatory record." (*Id.* at 94). He added that the recent groundwater exceedances reported in compliance with the CCR Rule "confirms that there is no impact to public health from DENC's CCR facilities," explaining that "[w]hile the results do demonstrate local elevated concentrations, those concentrations are within DENC's property boundaries." *(Id.)*

Witness Williams also addressed Witness Lucas' testimony that the Company did not produce "proposals, cost-benefit analyses, budgets, environmental studies, engineering plans, permit applications, and/or other planning documents" documenting the Company's construction of CCR impoundments and landfills in the 1980s. (*Id.* at 95). He described the Public Staff's criticism of the lack of such records as "simply a distraction" because the Public Staff's investigation did not include a prudence review. (*Id.*) When similarly asked by the Commission whether he was aware of any historic risk analyses, options analyses, cost-benefit analyses, or other decision-making documents related to coal ash, witness Williams responded that he had not identified any such documents. (T Vol. 8, pp 25-30).

In concluding his testimony, witness Williams emphasized that while the Company's CCR-related costs are significant, it "has minimized those costs to the degree that it can while still fully complying with its new environmental compliance obligations." (T Vol. 7, p 97). He added that "the viability of the Company depends on its ability to reliably recover unavoidable, yet prudently and reasonably incurred, costs," and that if the Public Staff's position on CCR costs is adopted in this case and applied in the future, it "would create an unpredictable and unhealthy regulatory environment for utilities and their customers." *(Id.)*

<u>**Discussion and Conclusions**</u>

1. <u>Evolving Knowledge of CCR Risks</u>

One argument underpinning the Public Staff's equitable sharing recommendation is that the Company knew or should have known in past decades that its unlined coal ash impoundments had the potential to contaminate groundwater and surface water.[3] As argued by the Public Staff, where the Company knew or should have known of the risks of its CCR management practices and did not take appropriate steps to assess and mitigate those risks, such as installation of a comprehensive system of monitoring wells, then the Company has culpability for the coal ash costs it is seeking to recover in this proceeding.

In his testimony, Public Staff witness Lucas discussed a series of historical documents that showed a growing industry awareness of the risks of unlined surface impoundments, as well as a trend toward risk assessment and mitigation.

[3] As discussed elsewhere in this Order, the Public Staff also bases its equitable sharing recommendation on:

(1) DENC's culpability for actual groundwater contamination, as shown by 548 exceedances;
(2) DENC's culpability for costs due to future risks of contamination – costs that are necessary to comply with the standards of the CCR Rule and the Virginia Coal Ash Excavation Act; and
(3) The magnitude and nature of CCR costs that will not provide any additional electric service to customers.

(T Vol. 6, pp 141-44). The first of these documents was a 1979 report that found that the storage of CCRs in wet impoundments had the potential to contaminate groundwater and that lining impoundments would minimize such contamination. (*Id.* at 142). This was followed by the 1982 EPRI Manual, which stated that the use of surface impoundments had "fallen into disfavor with the EPA" and that groundwater monitoring is necessary to demonstrate safe CCR disposal. (*Id.)* Then, in 1988, an EPA Report to Congress described how the use of liners, leachate collection systems, and groundwater monitoring had increased in the preceding years. (*Id.* at 143-44).

The evolving awareness of the risk of CCR storage and disposal and trend toward assessment and mitigation continued, and in a 1999 Report to Congress, EPA stated that the use of control measures such as liners and groundwater monitoring "has the potential to mitigate risks, particularly groundwater pathway risks . . . ." (T Vol. 7, pp 128-29). Of note, the 1999 EPA report also documented the exclusive use of liners in six states beginning in 1982:

> An examination of the geographic distribution of new lined surface impoundments suggests that liner requirements in several states have changed. The change from unlined to lined surface impoundments appears concentrated in the states of Georgia, Illinois, Indiana, Kentucky, Missouri, and Texas. These states account for 44 percent of the active co-management surface impoundments in the EPRI survey. In these six states, only six, or 15 percent, of the impoundments opened before 1982 are lined. On the other hand, all the impoundments opened since 1982 are lined.

(*Id.* at 134-35). Lastly, in 2000, the EPA reiterated that groundwater monitoring, "at a minimum, is a reasonable approach to monitor performance of the unit and a critical first step to identify damage." (*Id.* at 135-36).

In rebuttal testimony, Company witness Williams took issue with the Public Staff's discussion of historical documents. But he did not assert that the Company did not know or did not have reason to know of the risks associated with unlined impoundments. Instead, he argued that "[n]one of the handful of articles cited condemn or suggest the elimination of the use of unlined impoundments." (*Id.* at 14). The Commission notes that the Public Staff did not describe those documents as a condemnation, nor did it argue that they recommended the outright elimination of unlined impoundments. Rather, the Public Staff stated that they "demonstrate that, by the early 1980s, the electric generating industry knew or should have known that the wet storage of CCR in unlined surface impoundments was detrimental to the quality of surrounding groundwater and surface water." (T Vol. 6, pp 141-44).

After a careful review, the Commission finds that the historical documents demonstrate that by 1979 there was a known risk of groundwater contamination from ash stored in unlined surface impoundments. One after another, these historical documents discuss the risks of storing coal ash in unlined surface impoundments and cite groundwater monitoring and liners as measures for assessing and reducing the risk of environmental contamination. Further, evidence of this growing industry awareness is supported by the trend noted above toward risk assessment in the form of groundwater monitoring and risk mitigation in the form of liners.

The Commission also finds that the Company knew or should have known about these documents as early as 1979, but certainly by the release of the EPRI Manual in 1982. Company witness Williams acknowledged during cross-examination that the Company had been an EPRI member and that "those making the decisions at the time would have likely had access" to the EPRI Manual. (T Vol. 8, pp 14-15). It would have been unreasonable for DENC not to have kept current with industry, EPRI, and EPA publications on the subject of coal ash disposal.

Company witness Williams further argued that the Public Staff did not provide context for the historical documents in witness Lucas' testimony, and that it had "omitted findings and other reports that would provide additional context." (T Vol. 7, p 64). In the testimony that followed, witness Williams listed several regulatory actions and documents related to the listing of CCRs as a solid waste under the Resource Conservation and Recovery Act (RCRA),[4] "much of which" he

[4] The Commission notes that Company witness Williams' description of the Bevill Amendment mischaracterizes the amendment. First, Williams stated that the amendment excluded CCR from regulation as a hazardous waste under RCRA. But as stated in Public Staff witness Lucas' testimony, the amendment exempted CCRs from regulation as a hazardous waste "until further study and assessment of risk could be performed." (T 6, p 6 at fn 1). This is an important distinction. Furthermore, witness Williams wrongly concluded that the Bevill Amendment showed that "CCR was considered by the EPA to be non-hazardous solid waste." (T 7, p 16). It is important to distinguish between an act of Congress and an act of an administrative body such as the EPA. Congress, as it did in this case, delegates to administrative agencies decision-making that requires their specific expertise. Here, Congress excluded CCRs from regulation under Subtitle C of RCRA pending further study by the EPA of the appropriate regulatory treatment of such waste. The resulting 1988 EPA Report to Congress, 1993 Regulatory Determination, 1999 EPA Report to Congress, and 2000 Regulatory Determination issued by the EPA can appropriately be used to assess the EPA's thoughts on CCR. An amendment passed by Congress cannot.

contended were omitted from the Public Staff's testimony.[5] (*Id.* at 65-73). The Commission notes that several of these same documents proffered by the Company to provide "additional context" were discussed during cross-examination of either witnesses Williams or Lucas and convincingly demonstrated both an awareness of the risks of unlined impoundments and the growing trend toward groundwater monitoring and liners, supporting the Public Staff's argument. (T Vol. 6, pp 143-44; T Vol. 7, pp 128-29, 134-36). In addition, the Commission finds that no evidence presented by the Company in this proceeding provided additional context that would contradict the assertion that the Company knew or should have known of the risks of its coal ash storage practices by the early 1980s.

In rebuttal, witness Williams also replied to the Public Staff's argument that the Company knew or should have known about the risks of unlined CCR impoundments by stating that "unlined surface impoundments are not by their very existence 'detrimental' to groundwater and nearby surface water," and that "many site specific and regional factors must be considered to evaluate potential impacts to water quality from surface impoundments." (T Vol. 7, p 65). Witness Williams continued on to state that even if there are impacts, "that does not mean that any material harm to the environment has occurred or is likely to occur." *(Id.)* The Commission agrees with these factual statements, but finds they do not eliminate the Company's culpability for initially ignoring risks of storing coal ash in unlined

[5] Company witness Williams stated that "much of" this regulatory history was omitted from the Public Staff's testimony, but the Commission notes that all but one of the documents discussed by Williams was also discussed in the direct testimony of Public Staff witness Lucas. (*See* T Vol. 6, pp 113-14).

impoundments – risks the Company either knew or should have known by the early 1980s. Proper risk management does not depend on actual harm materializing; instead, risk management should anticipate and prevent the risks from materializing rather than ignore the risks until legal requirements force costly remediation activity. Notably, witness Williams does not assert that there was no risk of environmental degradation from unlined impoundments.

In addition to the historical documents detailed above, there were specific instances of actual environmental contamination that illustrated the risks of storing coal ash in unlined impoundments. As explained by the Public Staff, groundwater monitoring wells installed at the Possum Point facility in 1985 pursuant to the facility's NPDES permit detected violations of groundwater standards in the vicinity of Pond D and Pond E, resulting in a Special Order requiring further assessment of contamination and an evaluation of remediation options. (T Vol. 6, p 145).

Public Staff witness Lucas also discussed the Chisman Creek superfund site, at which coal ash generated at the Company's Yorktown facility had been disposed of in abandoned sand and gravel borrow pits between 1957 and 1974, causing groundwater, surface water, and soil contamination. (*Id.* at 162-63). This contamination was first noted by a neighboring well owner in 1980 and was subsequently investigated by the State Water Control Board, with EPA Records of Decision following in 1986 and 1988 with objectives for remediation. *(Id.)* It is apparent to the Commission that the Company should have known — given this actual evidence of environmental contamination both at its Possum Point facility and stemming from coal ash generated at its Yorktown facility and disposed of in unlined pits off-site — of the risks of contamination posed by unlined coal ash impoundments. DENC's actual experience at those locations provided knowledge of risk in the 1980s in addition to the knowledge in the historical documents.

The Company asserted that the Chisman Creek site is irrelevant to this proceeding because the Company did not own or control the disposal pits at Chisman Creek when the contamination occurred. (T Vol. 7, pp 86-88). The Commission disagrees. Ownership and control of the Chisman Creek site are not at issue here—rather, the contamination of groundwater at Chisman Creek, as well as at Possum Point, informed the Company of the very real risk associated with its coal ash disposal at these and other coal-fired power plants.

2. <u>Company Records and Witness</u>

Historical information pertaining to the Company's past management of coal ash is fundamental to the equitable sharing argument proffered by the Public Staff. In support of its argument, the Public Staff has offered evidence in the form of historical reports and manuals showing industry standards, practices, and knowledge, and documents showing groundwater contamination at the Company's facilities and at a superfund site where the Company's coal ash was disposed. It also presented evidence showing 548 exceedances reported since the CCR Rule became effective.

The Public Staff testified, however, that it was unable to obtain information from the Company that would allow it to form a complete picture of the Company's past coal ash management. For example, Public Staff witness Lucas stated that the Company was unable to provide groundwater monitoring reports for any of its facilities prior to the year 1999, as well as for select years after 1999, and that the Company could not locate a number of its past NPDES permits. (T Vol. 6, p 170).

Likewise, the Public Staff testified that the historical groundwater data it did receive from the Company was not in a format "that would allow for a full review of the history of groundwater exceedances." (*Id.* at 170-71). Witness Williams disagreed, and argued that the Company had provided the Public Staff with a spreadsheet with historical groundwater monitoring results for each site. (T Vol. 7, p 92). He later reiterated that it was "surprising" that the Public Staff had stated that it could not provide a picture of the Company's groundwater exceedances prior to 2016 when the Company had provided spreadsheets going back to the 1980s. (T Vol. 8, pp 9-10). The Commission finds witness Williams' statements to be inconsistent with the Company's stipulation with the Public Staff, in which the Company stated:

> The Company, however, is unable to create a spreadsheet or table that represents whether or not the Company exceeded groundwater standards during the operation of the coal ash impoundments up to the time of CCR Rule monitoring. The Company represents that, based on the records currently in the Company's possession, developing the summary spreadsheets is practically infeasible and could mischaracterize the data. For example, because the Company's spreadsheets containing historic groundwater monitoring data contain only raw data, it would be inappropriate—without the critical additional information on applicable background levels and other contextual information (such as groundwater monitoring plans, permits, and well maps for each sample period)—to characterize the data as representing an exceedance (or not) of a standard in effect at the time. There may or may not have been additional groundwater exceedances caused by coal ash over the life of the impoundments that the Company cannot determine

> because it is not feasible to reconstruct a complete history of exceedances from Dominion's existing records.

(T Vol. 6, Official Exhibits, Public Staff Witness Lucas Exhibit 9).

The Company's inability to locate and provide historical documents and records concerning its past coal ash management practices is compounded by the fact that its primary witness on the matter of coal ash, witness Williams, only joined the Company in 2015. While witness Williams laid out his qualifications as a geologist with almost twenty years of experience in groundwater remediation and waste management (T Vol. 7, pp 60-61), such experience does not provide him with personal knowledge specific to the Company's past coal ash management practices.

Witness Williams stated several times during the evidentiary hearing that he had relied upon conversations with other Company employees for historical knowledge pertaining to coal ash management, but such conversations were demonstratively insufficient in the context of this proceeding. (*See, e.g.*, T Vol. 8, pp 27-30). Indeed, beyond the Company's inability to provide adequate historical records to the Public Staff, witness Williams was unable to explain what prompted the requirement for groundwater monitoring at certain facilities. (T Vol. 5, pp 125-27). Nor did he have any knowledge of historic risk analyses, cost-benefit analyses, or other decision-making documents related to coal ash. (T Vol. 8, pp 25-30). Nor could he confirm that the Company has not received any civil penalties related to CCR handling. (*Id.* at 65-66). Witness Williams was able to discuss the Company's more recent coal ash management and its response to the CCR Rule, but was unable to adequately discuss the facts of the Company's past coal ash management in his testimony and in response to questions during the evidentiary hearing.

The Company in its testimony has attempted to refute the Public Staff's equitable sharing argument, but has in fact failed to provide credible evidence to support its position. Certainly, neither witness Williams nor the Company's historical records could speak to how the Company responded to industry knowledge over time. Nor was the Company able to provide the Public Staff or the Commission with sufficient information to form a complete picture of the Company's past coal ash management practices and environmental compliance record.

The Company has filed a general rate case before the Commission and has the burden of proving that it should recover the costs that it is seeking from ratepayers. The Commission finds that not only has the Company failed to produce evidence or a witness who can speak from direct personal knowledge regarding the Company's past coal ash management practices and environmental compliance — which form the basis for the costs the Company is requesting to recover — but the Company also was unable to locate and produce records that would allow the Public Staff and other intervenors to conduct a thorough investigation.

Due to the Company's failure to retain or produce records or provide a witness with sufficient knowledge to testify regarding historical decisions made by the Company, the Commission finds it is appropriate to require the Company to maintain complete records of all environmental management activity and test results in the future, as it pertains to its coal ash management program, and to make such records available to the Public Staff and the Commission upon request. Any data collected by the Company in the course of its environmental compliance program going forward, including environmental test reports, must be provided to the Public Staff and the Commission in whatever format is reasonably requested by those agencies.

3. Culpability for Environmental Contamination

In this case, as in the recent DEP and DEC general rate cases, the Public Staff advocated for an equitable sharing of coal ash basin closure and environmental corrective action costs. The Public Staff stated that its recommendation is based on the Company's culpability for past environmental contamination and the costs to address risks of future contamination, as well as the magnitude and nature of the costs. The Commission has carefully weighed the evidence and finds that the Company is culpable for groundwater contamination at its sites.

DENC witness Williams argued that the Company "has historically managed its CCR responsibly in compliance with industry standards and with state and federal regulations." (T Vol. 7, p 54). Witness Lucas, however, presented evidence that the Company had 548 exceedances of groundwater quality standards at its coal ash storage disposal sites. Further, that data was limited to 2017 and 2018 exceedances—those reported once the CCR Rule provisions requiring installation of groundwater monitoring wells and public reporting of exceedances took effect. (T Vol. 6, Official Exhibits, Public Staff Witness Lucas Exhibits 12-14).

The Commission finds that the groundwater exceedances documented by the Public Staff show statistically significant exceedances over natural background levels, MCLs, and/or groundwater protection standards that are attributable to the migration of contaminants from the Company's coal ash disposal sites. Specifically, Public Staff Lucas Exhibit 12 summarizes the Chesapeake Industrial Landfill exceedances since 2017, documenting 58 exceedances, and Public Staff Lucas Exhibit 13 summarizes exceedances at the remaining coal ash storage sites since 2017, documenting a total of 490 exceedances.[6] (T Vol. 6, Official Exhibits, Public Staff Witness Lucas Exhibits 12-13).

The Commission agrees with the Public Staff that "[t]he picture of DENC's groundwater compliance is far from complete." (T Vol. 6, p 178). While the Company did provide historical monitoring data prior to 2017, the data were not useful in reconstructing a history of CCR exceedances at the ash ponds as discussed below. The data also did not include monitoring results for the Company's inactive ash ponds. (*Id.* at 179).

In a stipulation between the Company and the Public Staff, presented as Public Staff Lucas Exhibit 9, the Company admits that "it is not feasible to

[6] Exhibits 12 and 13 were presented separately because the Chesapeake Landfill is not subject to the CCR Rule. There is similar monitoring data to compare at Chesapeake, however, because the Company signed an MOA with the VA DEQ to do monitoring in compliance with the CCR Rule at the site. *See* T Vol. 5, p 91.

reconstruct a complete history of exceedances from Dominion's existing records." (T Vol. 6, Official Exhibits, Public Staff Witness Lucas Exhibit 9). The Commission finds the stipulation to be an admission by the Company that it has not retained pertinent groundwater monitoring records and that it did not (or could not) use historical raw data to identify trends or compare measurements to applicable historical standards or background levels in a manner that would have allowed it to determine the impacts of its CCR units on the surrounding groundwater.

Furthermore, the Commission finds that the Company's failure in the 1980s to install comprehensive groundwater monitoring at its coal ash storage sites, and to use the data that could have been obtained from comprehensive monitoring to manage the risk of contamination, does establish culpability. As admitted by Company witness Williams, the Company has never installed a single groundwater monitoring well at its coal ash facilities that was not specifically mandated by an environmental regulator. As shown in Lucas Exhibit 1, the timing of the installation of wells at the Company's facilities, as well as the number of wells installed, varied widely. The first impoundment to receive a monitoring well was Possum Point's Pond D in 1985. The Bremo Power Station, however, did not receive any monitoring wells until the year 2000, and at that time only installed two. Later, in 2016, the Company installed wells for the first time at Possum Point Ponds A, B, and C. From an examination of Lucas Exhibit 1, it is evident that the Company did not begin comprehensive groundwater monitoring until required to do so under the CCR Rule, as the number of wells jumped from 177 in 2015 to 327 in 2018. As the EPA notes in the preamble to the CCR Rule, "once monitoring is put in place, new damage cases quickly emerge." Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals From Electric Utilities, 80 Fed. Reg. 21,301 at 21,455 (Apr. 17, 2015).

After careful review, the Commission agrees with the Public Staff that the Company did not take appropriate management steps to obtain and track groundwater monitoring data in a manner that would be useful to assess or prevent environmental contamination at its coal ash sites. With the risk of groundwater contamination from unlined ash basins being known since the late 1970s and early 1980s, the Commission finds that the Company effectively "put its head in the sand" by not engaging in comprehensive monitoring and developing detailed site assessments that would have identified whether the contamination risk was materializing. Without that information, the Company could not mitigate the contamination at an earlier time.

Despite the evidence of 548 exceedances in 2017 and 2018, put forward by the Public Staff and obtained from the Company's own data, the Company insists that its exceedances of groundwater quality standards are merely "impacts" and do not constitute harm to the environment. Witness Williams stated that "[t]he existence of exceedances does not mean that the Company did not mitigate risks. Mr. Lucas is wrongly conflating impacts (exceedances) with harm (risks). Virginia's groundwater regulations and remediation requirements are focused on mitigating harm, not impacts." (T Vol. 7, p 83). The Commission disagrees.

Groundwater quality standards, which the Company admits to exceeding at all its sites, even when taking into account background levels, are based on MCLs or the EPA's groundwater protection standards. Those are health-based standards calculated specifically based on their risk to human health and the environment. Groundwater quality exceedances are therefore both an impact and a risk to human health and the environment. In fact, the Company's coal ash was responsible for two of the proven damage cases[7] the EPA considered in 1988 and 1993, according to the 1999 EPA Report.[8] An exceedance that has not yet reached a "receptor" like a drinking water well still poses a risk of health and environmental impacts as the plume of contamination spreads over time. The contamination may or may not be "naturally attenuated" before reaching a receptor. As Public Staff witness Lucas stated on cross-examination, "Dominion doesn't own the groundwater and it doesn't even own the groundwater underneath its power plants." (T Vol. 6, p 290).

The Company's argument that its contamination does not affect receptors off-site is also not persuasive. Virginia and West Virginia regulations both include an anti-degradation policy that prohibits contamination of the groundwater, and neither state has an exception for contamination that stays within the Company's

[7] The 2000 EPA Regulatory Determination explained that "[p]roven damage cases were those with documented MCL exceedances that were measured in the ground water at a sufficient distance from the waste management unit to indicate that the hazardous constituents had migrated to the extent that they could cause human health concerns." (T Vol. 8, Official Exhibits, Company Rebuttal Exhibit JEW-4, p 12 of 25). The 1999 EPA Report (T Vol. 8, Official Exhibits, Public Staff Williams Cross-Examination Exhibit 2), identifies Possum Point and Chisman Creek as being among the proven damage cases resulting from CCRs.

[8] T Vol. 8, Official Exhibits, Public Staff Williams Cross-Examination Exhibit 2, Volume 2, Table 3-22., p 3-48-49.

property boundaries. *See* 9 VAC 25-280-30; .W Va. CSR 60-5-1 et seq.; W. Va. CSR 47-2-4.

The Company further argued that its actions were prudent because it followed the direction of state environmental regulators. As evidence of the regulator's position over time, witness Williams presented the VA DEQ's 1998 policy memorandum on groundwater monitoring and testified that "environmental regulators did not believe that installing extensive monitoring networks was necessary or appropriate for all sites." (T Vol. 7, Official Exhibits, Company Rebuttal Exhibit JEW-5; T Vol. 7, p 80).

This is a flawed argument. The VA DEQ never required DENC <u>not</u> to install monitoring wells or take corrective action at earlier dates. VA DEQ apparently gave DENC latitude in how to manage coal ash risks to avoid degrading groundwater quality, especially in the earlier years, but that is not the same as preventing DENC from engaging in reasonable risk management.

Moreover, the Public Staff presented evidence that the VA DEQ may have had challenges enforcing its own groundwater regulations. The Company points to the 1998 VA Guidance Memorandum (T Vol. 7, Official Exhibits, Company Rebuttal Exhibit JEW-5) as proof that the regulatory agency had broad authority to require groundwater monitoring. (T Vol. 7, p 25). However, on cross-examination, witness Williams also read into the record a passage from that document indicating that VA DEQ's authority to require groundwater monitoring was controversial and the subject of litigation. (T Vol. 8, p 138; *See also* T Vol. 7, Official Exhibits, Company Rebuttal Exhibit JEW-5, p 14 of 108).

The Public Staff's cross examination of witness Williams raised questions about the funding and resources of the Virginia DEQ. Specifically, a comprehensive review of the agency's permitting, monitoring, and enforcement activities indicate that the agency is short on funding for permitting and enforcement:

> Since DEQ was formed in 1993, the agency's funding has decreased significantly. Since 2001 DEQ's general fund appropriations have been reduced by $37 million per year, and 74 positions have been lost. Most of DEQ's permit fees are set in code and have not been raised in recent years, even as permitting complexity and volume have increased. Further, the percentage of DEQ's operations supported by the general fund has decreased from 40 percent to 20 percent, leaving the agency more reliant on limited permit fees and federal funds.
>
> This has resulted in significant cuts to DEQ services and programs, impacting the Commonwealth's capacity to monitor and reduce pollution, develop or update critical environmental regulations, process permits, and engage with the public. This report discusses progress on ongoing initiatives and makes recommendations for action in the areas of ensuring protection of our air, water and lands, improving public engagement, and increasing efficiency and responsiveness in permitting. These recommendations will require identifying additional resources and authorities for the agency.

(T Vol. 7, p 110; *see also* T Vol. 8, Official Exhibits, Public Staff Williams Cross-Examination Exhibit 1, Final Report, p 1).

The Commission also disagrees with the Company's argument that following the state environmental regulators' directives is sufficient evidence that its coal ash management was reasonable and prudent. While the Commission agrees that it is reasonable and prudent for a utility to follow state agency directives, that is not the end of the analysis into whether the Company should recover its costs. The Commission finds the 1982 EPRI Manual instructive here: "[p]otential deficiencies in utility waste disposal practices may be defined by two sets of standards," (1) "[t]he disposal practice does not comply with specific federal and/or state regulatory requirements," and (2) "[t]he site has the potential to contaminate the environment." (T Vol. 8, p 17). The EPRI Manual then stated that:

> [t]his seemingly redundant statement is important to any assessment of disposal site deficiencies. Identification and correction of regulatory deficiencies do not necessarily preclude the possibility of past or future environmental degradation by the site. Conversely, known degradation cannot be corrected by simply conforming to regulations.

(Id.). The Company is fixated on its adherence to the demands of its environmental regulators. It has not attempted to address, however, the second, distinct set of standards—whether a coal ash unit has the potential to contaminate the environment. When confronted with this distinction, witness Williams merely stated that "the specific characteristics of individual sites would need to be applied." And yet, the Company has been unable to provide any historic analyses assessing these specific characteristics that would allow the Commission to determine whether the Company had acted responsibly based on such a set of facts.

In sum, the Commission concludes that the Company's duty was to comply with the state's groundwater quality standards and anti-degradation policies—not just the demands of its regulators—to prevent the contamination of the groundwaters, and that it failed to do so.

The Commission finds that the Public Staff has presented sufficient evidence to conclude that environmental contamination from CCRs exists at all of the Company's coal ash disposal sites. The Company's coal ash impoundments pose a risk of future contamination that has required costly clean-up and closure to date and will require the further closure and excavation of ponds as mandated by the Virginia General Assembly. It is reasonable to conclude that the Virginia Coal Ash Excavation Act was enacted because the Virginia legislature viewed DENC coal ash basins as creating an unacceptable risk of future contamination. The Commission should not and need not determine if excavation of all coal ash sites, above and beyond the requirements of the CCR Rule, is necessary to protect groundwater. What matters is that the Commonwealth of Virginia deemed expensive remedial action necessary, and it is reasonable to infer that the Virginia legislature would not have enacted the excavation requirement if DENC had not contaminated groundwater and created a risk of future contamination.

The Company bears culpability for not complying with state environmental regulatory policy to avoid degradation of groundwater. The Company created the risk of coal ash contamination, their original disposal of CCR has led to actual environmental contamination in several instances, their original disposal of CCR poses an ongoing contamination risk that requires expensive remediation in the judgment of the EPA and the Virginia legislature, and ratepayers will not receive any additional electric service for this costly remediation.

Further, the Company's culpability is enhanced because (1) DENC did not install comprehensive groundwater monitoring wells until years after the contamination risk was known or should have been known, and (2) DENC record-keeping of exceedances prior to the CCR Rule was inadequate.

4. Hindsight Analysis

In rebuttal, the Company testified that the Public Staff was inappropriately conducting a hindsight review (T Vol. 7, pp 56-57, 78), and argued that "it is much easier to judge the Company's decades-old actions . . . than it is to grapple with those decisions in the context they were made." (*Id.* at 100). The Commission notes two things, however. First, the evolving knowledge of the risks of CCR storage in unlined impoundments detailed by Public Staff witness Lucas does not use present-day knowledge to reflect upon past decisions. Instead, as the Commission believes is appropriate, evidence of contamination risk is based on historical documents and actual Company experience (exceedances) that was known or should have been known at the time DENC failed to install comprehensive groundwater monitoring.

Second, even without regard to the Company's failure to install comprehensive monitoring in earlier years, the present number of exceedances is relevant and acceptable evidence for purposes of equitable sharing. It is important to understand the distinction between a prudence review—which the Public Staff is not conducting here, and under which hindsight analysis would not be appropriate—and an equitable sharing review, which does not preclude a hindsight analysis. Indeed, the Company's past CCR management, regardless of what the Company actually knew at the time, resulted in environmental degradation that has led to the costs the Company is attempting to recover from ratepayers in this proceeding. Even in the absence of an imprudence finding, factors such as the Company's culpability for those costs, and, as the Public Staff stated, the "magnitude and nature" of those costs, form the basis of an equitable sharing determination. Certainly, this Commission has in the past ordered an effective equitable sharing of costs in the context of abandoned nuclear units, despite no finding of imprudence, based on the impact of those costs on ratepayers.

5. Role of the Public Staff and the Commission

The Company argued that the Public Staff should not make recommendations regarding coal ash cost recovery based on its investigation and evaluation of the Company's compliance with environmental laws and regulations. The Company made much of the fact that the Public Staff is not an environmental regulator and accused the Public Staff of improperly assuming such a role. The Company also insisted that if the Public Staff's role did not involve evaluating the Company's historical management practices at the time when those decisions were made, then the Public Staff cannot "argue now that its role involves second-guessing the decisions of the Company and its environmental regulators decades later." (*Id.* at 9).

First, DENC witness Williams asserted that witness Lucas' testimony in this case "far exceeds his and the Public Staff's expertise and is unreliable." The Public Staff rebutted this assertion by presenting witness Lucas's qualifications on redirect examination. (*See* T Vol. 6, Official Exhibits, Public Staff Lucas Redirect

Exhibit 1, pp 289-290). The Commission finds that Mr. Lucas has sufficient qualifications to provide competent testimony regarding the Company's environmental compliance history. Mr. Lucas's education and experience include a master's degree in environmental engineering and significant experience working in environmental compliance and economic regulatory positions throughout his career. Furthermore, the Commission finds that Mr. Lucas gave persuasive testimony on the stand regarding how the Public Staff's investigation was conducted by evaluating the Company's own data and reported exceedances of groundwater standards.

As further justification for his assertion that Mr. Lucas lacks expertise, Mr. Williams cited the affidavit of Public Staff Engineer Evan Lawrence in an Electric Merchant Plant (EMP) docket proceeding for the approval of a Certificate of Public Convenience and Necessity (CPCN), which is initial permission to construct a facility, in which Mr. Lawrence stated that "the Public Staff does not have particular expertise in the area of impacts of electric generation on the environment." (T Vol. 6, Official Exhibits, DENC Lucas Cross Exhibit 2; xzT Vol. 7, Official Exhibits, Company Rebuttal Exhibit JEW-3). The Commission finds this argument misplaced, as CPCN proceedings and rate case proceedings are different in nature. Prior to the construction of a facility and in addition to obtaining a CPCN from the Commission, an EMP must obtain environmental and local siting permits from other government agencies with the authority to permit and enforce environmental laws and regulations. There is a process in place through which the Commission requests that the North Carolina State Clearinghouse solicit comments from state agencies, including the NC DEQ among others, regarding whether there are any impacts from the project that the Commission should be aware of in its review. In the affidavit of Mr. Lawrence, the Public Staff was properly recognizing that the environmental review and permitting of the facility prior to construction is a function of the state environmental regulator and the Public Staff appropriately deferred to NC DEQ's expertise in those matters. Additionally, EMPs do not seek cost recovery for expenses related to environmental compliance. In a rate case proceeding, on the other hand, costs related to environmental compliance and non-compliance do fall within the Public Staff's investigative duties. The Commission finds unpersuasive the Company's argument that Mr. Lawrence's testimony in this proceeding is an admission by the Public Staff that it does not have environmental expertise to review coal ash expenditures.

Next, DENC witness Williams asserted that Mr. Lucas and the Public Staff are "assuming the role of an after-the-fact environmental regulator" and supplanting their judgement for that of the VA DEQ and the WV DEP. (T Vol. 7, p 54). He further stated that his "understanding is that the Public Staff and the Commission are not environmental regulators." (*Id.* at 57). The Commission agrees with the following testimony of witness Lucas given from the stand:

> The Public Staff is not a regulator. It is [. . .] a consumer advocate working in a regulatory forum. Neither the Public Staff nor the Commission create or enforce environmental regulations on coal storage or [. . .] disposal. However, the costs of environmental compliance or the costs of non-compliance which the Company seeks to recover from ratepayers are within the jurisdiction of the Public Staff and the Commission. Quality of service and management prudence are also within the purview of the Commission and the Public Staff's review.

(T Vol. 6, pp 285-86). Pursuant to Chapter 62, the Public Staff has broad authority to investigate the Company's cost recovery requests in a general rate case.[9] On the question of whether or not the Public Staff is improperly assuming the role of environmental regulator, the Commission disagrees with the Company.

The Commission finds that the Public Staff has properly limited the scope of its review of the Company's environmental compliance with regard to its recommendation for cost recovery in this case. At no point does the Public Staff claim it has the jurisdiction to promulgate environmental regulations, the authority to issue or deny environmental permits, or otherwise enforce environmental regulations, which is the proper role of the environmental regulator.

The Commission has the authority and discretion to equitably share coal ash costs based on its findings that the Company did not comply with environmental regulations, that DENC contaminated groundwater, that DENC created a risk of future contamination that affects remediation costs, and that the magnitude and nature of CCR costs justify a sharing between ratepayers and shareholders. The Commission finds that the Public Staff is not "supplanting" the judgment of the environmental regulator, as the Company contends, but rather

[9] N.C. Gen. Stat. 62-15(d)provides:

> It shall be the duty and responsibility of the public staff:
>
> (1) Review, investigate, and make appropriate recommendations to the Commission with respect to the reasonableness of rates charged or proposed to be charged by any public utility and with respect to the consistency of such rates with the public policy of assuring an energy supply adequate to protect the public health and safety and to promote the general welfare;
>
> (2) Review, investigate, and make appropriate recommendations to the Commission with respect to the service furnished, or proposed to be furnished by any public utility; . . .

reviewing the Company's record of compliance pursuant to its statutory duty to investigate the Company's application in a general rate case and make recommendations to the Commission concerning cost recovery.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 4–8

The evidence supporting these findings of fact is found primarily in the direct and rebuttal testimony of DENC witnesses McLeod and Williams, direct testimony of DENC witness Mitchell, and direct and supplemental testimony of Public Staff witness Maness.

In direct testimony, DENC witness Mitchell stated that the enactment of the CCR Final Rule in April of 2015 created a legal obligation for the Company to close all of its inactive and existing ash ponds, and to engage in monitoring and corrective action as necessary. Virginia incorporated the CCR Rule into its Solid Waste Management Regulations on December 28, 2015. Additionally, legislation in Virginia enacted on March 20, 2019, requires the Company to move ash to lined landfills and to recycle 6.8 million cubic yards of ash from at least two sites. (T Vol. 4, p 176). DENC witness McLeod stated that the Company's proposed revenue requirement in this case includes recovery of expenditures made between July 1, 2016, and June 30, 2019 (Deferral Period) to continue compliance with state and federal regulations related to CCR at several DENC facilities. (*Id.* at 251). He and DENC witness Williams both testified that the CCR expenditures were prudently made and therefore should be recovered in rates.

Public Staff witness Maness described how the Company has made adjustments related to deferral of its CCR expenditures to a regulatory asset. Those adjustments include: (1) the elimination of CCR-related accounting entries made in the Company's books and records during 2019 or before for financial accounting purposes; (2) a pro forma adjustment to increase rate base to defer as a regulatory asset the CCR expenditures incurred in the Deferral Period; and (3) a pro forma adjustment to increase operations and maintenance (O&M) expenses to reflect the three-year amortization of CCR expenditures. (T Vol. 6, pp 209-210).

Witness Maness explained that for financial accounting purposes the Company has recorded its CCR expenditures as an Asset Retirement Obligation (ARO) liability, based on the requirements of Topic 410 (Asset Retirement and Environmental Obligations) of the Accounting Standards Codification (ASC 410) promulgated and maintained by the Financial Accounting Standards Board (FASB). (*Id.* at 210-211). At hearing, witness Maness explained that when an ARO is established for financial accounting, the Company makes estimates of future costs and then "they basically discount that to be the present value as of today, using an appropriate discount rate, and they put that on their financial statements for financial investor purposes as a liability." (*Id.* at 253). At the same time the Company establishes the ARO, it establishes an asset retirement cost (ARC) as an asset on its balance sheet. Next, to flow the ARC through expense over a period of time, the Company will depreciate it into the future in future financial statements using a depreciation method, or, if it's a retired asset such as a coal plant, the

Company writes it off to expense immediately. (*Id.* at 254). As an example, witness Maness stated:

> [I]n some cases, you may have an asset retirement obligation for a generating plant where the actual expenditures are not going to take place until many years into the future. So in that case, they will go ahead and record expenses -- they'll depreciate over the life of the plant. And they will incur those expenses at some future time, but they --or those expenditures, but they will be recording an expense as they go along without actually spending any cash at all. In other cases, you may have, such as we have for some of the coal plants involved here, plants that have already been retired. And so they still may not make those expenditures for some time into the future, but they will go ahead and immediately, for financial statement purposes, record the entire asset retirement cost related to that plant as an expense in the period in which it arises.

(*Id.* at 255-56).

Witness Maness explained that, in this proceeding, the Company has reversed the entries made on its books in association with the FASB-mandated CCR ARO liability and is proposing the deferral and amortization of actual expenditures during the Deferral Period. The Company followed a similar procedure for CCR expenditures in the 2016 DENC rate case. The Public Staff agreed in concept with the Company's deferral approach in 2016 and, at that time, entered a stipulation with the Company, which was approved by the Commission. The terms of the stipulation expressly stated that the stipulation did not prejudice the right of any party to take issue with the amount or treatment of any deferral of ARO costs in a future rate case proceeding. Given the magnitude of the costs involved in this proceeding, witness Maness stated that the Public Staff believes that continued deferral has been reasonable. (*Id.* at 214).

In this proceeding, witness Maness recommended the following adjustments to the Company's CCR expenditures:

1. Calculation of the return between July 1, 2016, and June 30, 2019, using annual compounding, rather than monthly compounding;

2. Amortization of the balance of deferred coal ash expenditures as of June 30, 2019, over a 19-year period [later updated to 18 years], rather than the 3-year period proposed by the Company; and

3. Reversal of the Company's inclusion of the unamortized balance of coal ash expenditures in rate base. This reversal, in conjunction with the 19-year amortization period, produces an equitable and reasonable sharing of the burden of coal ash expenditures between the Company's ratepayers and its shareholders.

(*Id.* at 215-16).

Witness Maness stated that the Company's recommended amortization period is too short for costs of the magnitude and nature of CCR costs. Further, his recommendation for a longer amortization period, when coupled with the exclusion of the unamortized balance from rate base, would result in an equitable sharing of the costs between shareholders and ratepayers.

Witness Maness stated that there are two general reasons why the equitable sharing of CCR costs is appropriate in the present case. The first reason is that some degree of equitable sharing is appropriate because DENC has culpability for past environmental contamination and for creating a risk of future contamination from coal ash as discussed by Public Staff witness Lucas. The second reason is that some level of sharing is appropriate and reasonable because of the magnitude and nature of the costs. (*Id.* at 218-19).

Witness Maness testified that equitable sharing of certain costs is appropriate without a specific finding of imprudence. He stated several reasons why equitable sharing is appropriate for CCR expenditures, including:

- The total amount of the costs is large (approximately $377 million on a system level and approximately $22 million on a North Carolina retail level), which amounts to approximately $179 per North Carolina retail customer, or $60 per year per North Carolina retail customer, before considering the impact of including the unamortized amount in rate base.
- DENC will be incurring significant additional costs in the future related to the CCR Excavation Act (Virginia Senate Bill 1355).
- The incurrence of these costs will not provide any benefits to customers in terms of additional electric service or improvements to service.
- The incurrence of CCR costs has not been the result of economic analysis that pointed toward an action that would be economically advantageous to ratepayers.
- And finally, he noted that the Commission has implemented equitable sharing in several past circumstances involving incurred costs that did not provide any future benefits to retail customers. (*Id.* at 220-22).

Witness Maness stated that the circumstances of this case, including the culpability of the Company and the magnitude and nature of the costs, as well as the levels of sharing approved by the Commission in past cases, led the Public Staff to its recommendation that shareholders bear 40% of the Deferral Period

CCR costs (which results in a 19-year amortization period based on the rate of return initially recommended by the Public Staff, or an 18-year amortization based on the stipulated rate of return). Witness Maness stated that the Public Staff would likely recommend some level of sharing of costs even in the absence of culpability due to the magnitude and/or nature of the costs involved.

The Public Staff's equitable sharing is achieved by first removing the unamortized amount of deferred expenses from rate base. As a result of that adjustment, the Company would not be allowed to earn a return from ratepayers on the unamortized balance while the deferred costs are being amortized.[10] The second step is to choose an amortization period that will result in a reasonable and appropriate sharing of the costs over time. (*Id.* at 222). Maness Late-Filed Exhibit 1 shows the sharing percentages achieved by five- and ten-year amortization periods, in addition to the 18-year amortization period recommended by the Public Staff in supplemental testimony.

Relying on advice of counsel, witness Maness testified that excluding deferred expenses or losses from rate base is legal under North Carolina law. The Public Staff's position is that the only costs the Commission is required to include in rate base pursuant to N.C. Gen. Stat. § 62-133(b)(1) are the public utility's property that is used and useful, or, in some circumstances, the costs of construction work in progress. Again relying on advice of counsel, witness Maness

[10] As discussed elsewhere in this Order, the Public Staff agrees with allowing recovery of carrying costs incurred between the beginning of the Deferral Period and the date rates approved in this proceeding become effective (when amortization begins).

stated that N.C. Gen. Stat. § 62-133(d) operates separately from N.C. Gen. Stat. § 62-133(b), and requires the Commission to "consider all other material facts of record that will enable it to determine what are reasonable and just rates." The Public Staff asserted that N.C. Gen. Stat. § 62-133(d) provides the Commission with discretion to authorize equitable sharing where appropriate to achieve reasonable and just rates. (*Id.* at 223).

Witness Maness explained that the Commission has approved equitable sharing in several past cases, including in the cases of plant abandonment losses. Specifically with regard to DENC, the Commission has found that a ten-year amortization period, with no return, was appropriate to fairly allocate the loss between the utility and the consumer for Surry Unit 3, Surry Unit 4, North Anna Unit 3, and North Anna Unit 4. (*Id.* at 223-25; *see* Docket No. E-22, Sub 273, *Seventy-Third Report of the North Carolina Utilities Commission*, pp 354-55). Furthermore, witness Maness incorporated by reference the North Carolina Supreme Court decision affirming the equitable sharing of costs between ratepayers and shareholders with regard to Carolina Power & Light Company's (CP&L) Harris plant cancellation costs. (T Vol. 6, pp 226-28; *see State ex. rel. Utilities Com. v. Thornburg*, 325 N.C. 463 (1989)).

Witness Maness testified that the Commission has also found that an equitable sharing of costs was appropriate for the environmental cleanup costs associated with manufactured natural gas plants (MGPs) in its October 7, 1994, *Order Granting a Partial Rate Increase* in Docket No. G-5, Sub 327. (T Vol. 6, p 228). The MGP sites were the subject of "investigations under environmental laws." The Commission ordered an equitable sharing for the environmental cleanup costs of Public Service Company of North Carolina, Inc., (PSNC) and specifically found:

> 29. The unamortized balance of MGP costs should not be included in rate base. The resulting sharing of clean-up costs between ratepayers and shareholders will provide PSNC motivation to minimize costs and to pursue contributions from other potentially responsible parties and insurers.

Order Granting a Partial Rate Increase, Docket No. G-5, Sub 327 at 6 (Oct. 7, 1994).

Turning to whether the CCR costs are used and useful, witness Maness explained that "used and useful" only applies to a utility's property and not to a utility's expenses incurred in the operation, maintenance, and disposal of that property. (T Vol. 6, pp 229-30). Witness Maness argued that the CCR costs deferred are not "property used and useful" under N.C. Gen. Stat. 62-133(b)(1) because (1) most of the costs in this case were incurred for operating expenses, and (2) the Commission authorized deferral of those expenditures to a regulatory asset. In particular, he testified that:

> (1) In data responses to the Public Staff, the Company has stated that the vast majority of the CCR expenditures made from January 2015 through June 2019 would be charged to expense if the FASB and FERC USOA [Federal Energy Regulatory Commission Uniform System of Accounts] ARO accounting requirements did not exist.
>
> (2) Even for those items that might be capitalized costs of property in the absence of the FASB and FERC USOA ARO accounting requirements, the Company has itself chosen to request a regulatory accounting and ratemaking method that does not explicitly account for any coal ash compliance costs, either in the past or in the future, as the capitalized costs of

> property, but instead accounts for them as expenses, with a proposed regulatory asset intended to provide for the recovery of expenses incurred in the past. Although the Company could have chosen to propose following a different method, whereby it might specifically identify capital costs separately and include them in rate base, depreciating them over their useful lives, while accounting for other expenses on an ongoing basis, it did not. Instead, the Company has proposed to utilize an accounting and ratemaking model that accounts for and recovers the coal ash cleanup costs as expenses on an as-spent basis, without specific identification of, or accounting for, any costs as plant in service or other property.

(*Id.* at 231-32).

Next, witness Maness addressed the issue of whether the classification of the deferred CCR costs as "working capital" is appropriate. Witness Maness stated, in his opinion, the classification is a matter of convenience and the "proposed deferred coal ash compliance costs are expenses incurred in the past that the Company proposes to recover in the future; they have nothing to do with the Company's forward-looking obligation to provide utility service." (*Id.* at 232). To clarify the appropriate scope of working capital, witness Maness provided the following description from Charles F. Phillips, Jr. in his treatise on utility regulation:

> Working capital – the funds representing necessary investment in materials and supplies, and the cash required to meet current obligations and to maintain minimum bank balances – is included in the rate base so that investors are compensated for capital they have supplied to a utility.

(*Id.*; *See* Charles F. Phillips, Jr., *The Regulation of Public Utilities, Third Edition* (1993), p 348). Since the CCR deferred costs neither enable nor facilitate the provision of current or future utility service, consistent with the Charles Phillips definition, witness Maness asserted that those costs cannot be classified in substance as "working capital" and thus are not required to be included in rate base.

Witness Maness testified that when a return is denied on coal ash costs, the degree of sharing is a function of the length of the amortization period: "as the delay in the recovery period increases, the utility's financing costs increase, and the burden of the loss of the time value of money on the ratepayers decreases." (T Vol. 6, p 234). To achieve a sharing that results in ratepayers bearing approximately 60% of the present value of deferred costs at the net-of-tax overall rate of return witness Maness recommended, in his direct testimony, a 19-year amortization period. (*Id.* at 235).

Witness Maness stated that the 60%-40% sharing ratio is a qualitative judgment that the Public Staff believes is reasonable and appropriate based on the magnitude and nature of the costs and the extent of DENC's culpability for coal ash environmental contamination, as addressed in the testimony of witness Lucas. (*Id.*) The recommendation for a lesser sharing burden on investors in this case than was recommended in the recent DEC and DEP rate cases (approximately 50%-50% sharing) is based on the lesser extent of DENC environmental contamination determined by witness Lucas.

Witness Maness additionally stated that the Public Staff would very likely recommend some level of sharing even in the absence of environmental culpability, due to the magnitude and/or nature of the costs. (*Id.* at 237-38). In DENC's Sub 532 general rate case, the Public Staff agreed to an amortization period of five years with the unamortized balance included in rate base. However, at that time the total paid-to-date system costs were only 22% of the system-wide Deferral Period CCR costs at issue in this case. Additionally, as described by witness Lucas, there was almost no evidence in the Sub 532 record of environmental problems created by DENC's coal ash storage facilities in contrast to the present case. (*Id.* at 238-39).

In rebuttal testimony, DENC witness McLeod responded to the Public Staff's recommended accounting adjustments for the deferred CCR expenditures. He stated that the Company is seeking $21.9 million in CCR ARO costs for the North Carolina retail jurisdiction (based on $376.7 million of system-wide CCR ARO costs) incurred in the Deferral Period. (*Id.* at 663, n 1). Witness McLeod testified that the costs are associated with ARO activities at seven different power stations during the period July 1, 2016, through June 30, 2019, and have been deferred to a regulatory asset pursuant to the Commission's directives in the 2016 DENC rate case. (*Id.* at 662-63).

With regard to witness Maness's three recommended adjustments, DENC witness McLeod accepted witness Maness' recommendation to use annual compounding rather than monthly compounding for financing costs incurred during the Deferral Period. (*Id.* at 667). The Company disagreed, however, with the Public Staff's adjustments to achieve an equitable sharing. Witness McLeod stated that neither Mr. Lucas nor Mr. Maness identified any specific CCR ARO costs as imprudent or unreasonable. (*Id.*).

Witness McLeod argued that "the appropriate regulatory standard for denial of cost recovery is a finding that a specifically identified cost has been imprudently incurred or that the level of cost incurred is unreasonable," whereas "relying on 'qualitative' sharing of prudent and reasonably incurred costs is not an appropriate method for determining cost recovery." (*Id.* at 669).

Witness McLeod explained that the unamortized CCR ARO regulatory asset balance is included in the working capital section of rate base, which provides for recovery of those costs along with associated financing costs until they are recovered from customers. This was the approach taken in the 2016 DENC rate case (Docket No. E-22, Sub 532). Witness McLeod argued that the Commission found those expenditures in the 2016 case used and useful for the DENC's customers. (*Id.* at 668-69).

At the hearing, witness McLeod confirmed the Company's data response stating that the vast majority of the CCR expenditures were for services and labor and would have been charged to O&M expenses in the absence of GAAP/FERC ARO accounting requirements. (*See* T Vol. 7, Official Exhibits, Public Staff Paul McLeod Cross-Examination Exhibit 1). He also confirmed another data response that stated roughly 98% of the CCR costs in the Deferral Period would have been booked as O&M but for GAAP/FERC accounting requirements. (T Vol. 7, pp 9-11; *see also* T Vol. 7, Official Exhibits, Public Staff Paul McLeod Cross-Examination Exhibit 2).

In addition, witness McLeod agreed that $209 million of the total $390.4 million total CCR expenditures were incurred at non-operational coal plants. (*See* T Vol. 7, Official Exhibits, Public Staff Paul McLeod Cross-Examination Exhibit 2). Further, witness McLeod stated that in the absence of deferral permission, he assumed the Company would have written off the CCR expenditures to expense during the time they were incurred. (T Vol. 7, p 12).

Witness McLeod described as “unfounded” the assertion of witness Maness’s that there is Commission precedent for equitable sharing. (T Vol. 6, p 689). Specifically, witness McLeod stated that the Commission has found abandoned nuclear plant costs not to be used and useful, whereas the CCR expenditures have been used and useful in providing utility service. Witness McLeod noted that the Commission found in the recent DEP and DEC rate cases that the CCR repositories were and continued to be used and useful and were not abandoned. (*Id.*)

With regard to MGPs, witness McLeod argued that “[MGP] costs differ from coal ash disposal costs, both in terms of the time that elapsed between the actual usage of the facility and the environmental related cost recovery, and in terms of ownership.” (*Id.* at 689-90). Witness McLeod testified that the MGPs can be distinguished because the remediation costs were incurred and proposed for recovery more than 40 years after the facilities were retired and MGP facilities have had multiple owners that were potentially responsible parties for some of the MGP remediation costs. (*Id.* at 674-675). Additionally, witness McLeod notes that MGP costs were also found not to be used and useful. (*Id.* at 690).

Next, witness McLeod responded to witness Maness's argument that the CCR expenditures are not true working capital. He referred to the North Carolina Supreme Court decision in *State ex. rel. Utils. Comm'n v. Virginia Elec. & Power Co.*, 285 N.C. 398, 2016 S.E.2d 283 (1974) (*VEPCO*)[11], for the conclusion that funds booked as working capital, and furnished by investors, qualified for rate base treatment. (*Id.* at 679). Witness McLeod asserted that because "DENC appropriately accounted for coal ash basin closure costs in the working capital section of rate base and such funds were paid for by investors, they are considered 'used and useful' and the Company is entitled to earn a return." (*Id.*)

Additionally, witness McLeod explained that a 19-year amortization period as proposed by the Public Staff is not in the best interest of ratepayers because delayed recovery of costs puts pressure on future rates as the Company continues to incur significant additional CCR expenditures. If the 19-year amortization proposal is adopted, witness McLeod noted that there will be overlapping vintages of amortizations across future rate cases. (*Id.* at 680). Witness McLeod also noted that the Commission has twice rejected lengthy amortization periods proposed by the Public Staff in the most recent DEC and DEP rate cases and authorized recovery of CCR ARO costs over five years with a return on the unamortized balance. (*Id.* at 682-83).

With regard to the Public Staff's rationale that the Commission should adopt lengthier amortization periods for extremely large costs, witness McLeod stated

[11] VEPCO is an abbreviation for Virginia Electric and Power Company, the official corporate name of the electric utility doing business in North Carolina as DENC.

that there is no definition for "extremely large" costs and the recommendation "subjects the state's utilities to a cost recovery standard that is unknowable." (*Id.* at 683-84).

Witness McLeod testified that the Commission has allowed the recovery of extremely large costs when those costs are not the result of new generation, including transmission lines, storm restoration costs, and contract termination fees that are not related to new generation. (*Id.*). Mr. McLeod stated that while the Company continues to believe a three-year amortization period is just and reasonable, the Company does not oppose a five-year amortization period. (*Id.* at 685).

In supplemental testimony, Public Staff witness Maness adjusted his sharing recommendation amortization period from 19 years to 18 years based the *Agreement and Stipulation of Partial Settlement* entered into between the Public Staff and DENC and filed in this docket on September 17, 2019. (*Id.* at 246). The overall rate of return agreed to in the stipulation affects the number of years of amortization need to achieve the sharing. Due to the increase in the rate of return from that initially recommended by the Public Staff, the amortization period necessary to achieve an approximate 60%-40% sharing decreased to 18 years. The sharing percentage is approximate: 18 years produces a ratepayer sharing of 59.212%, which is the closest to 60% sharing that can be achieved using the stipulated rate of return and whole years without the ratepayer portion exceeding 60%. (*Id.* at 247).

Discussion and Conclusions

1. Return During Deferral Period

DENC has calculated a return on the deferred CCR expenditures for the Deferral Period, and that return is part of the $21.8 million[12] of deferred CCR costs. The Commission finds a return during the Deferral Period and up to the effective date of new rates approved in this Order, at the Company's previously authorized weighted average cost of capital, is reasonable in the circumstances of this case. The Public Staff did not oppose a return during this deferral period. Such a return may reduce the incentive for DENC to apply for more frequent rate cases to avoid regulatory lag. While accruing a return during the Deferral Period does not help with short-term cash flow, it does mean the Company ultimately does not experience lost carrying costs if it delays a new rate case. Furthermore, the Commission's decision on equitable sharing can be made independent of the return accrued during the Deferral Period.

2. Annual Compounding Versus Monthly Compounding

The Commission finds that the annual compounding approach recommended by the Public Staff (with which the Company has agreed in its rebuttal testimony filed in this proceeding) is more reasonable than monthly compounding for the return during the Deferral Period. Annual compounding, as explained by Public Staff

[12] As shown in Maness Supplemental Exhibit 1, after calculating the Deferral Period balance to be amortized based on the stipulated cost of capital, and after changing from monthly to annual compounding of the return during the Deferral Period, the actual CCR cost for the Deferral Period as calculated by the Public Staff is $21,841,000. DENC did not object to or challenge the calculation of this amount.

witness Maness, results in the Company realizing a return that corresponds to the weighted average cost of capital approved in the Company's last general rate case, whereas monthly compounding would produce a higher amount of return.

3. Equitable Sharing Versus Return on the Unamortized Balance of CCR Costs

The major difference in this proceeding between the Company and the Public Staff is whether "equitable sharing" of deferred CCR costs, with its interrelated components of removal of the deferred costs from rate base and choice of an appropriate amortization period, should be adopted by the Commission. The Public Staff recommended a 60%-40% sharing between the Company's ratepayers and shareholders (with shareholders bearing the 40%), based on the reasons that (1) such an approach is within the Commission's discretion under N.C. Gen. Stat. § 62-133(d), and (2) its specific recommendation of an 18-year amortization period coupled with exclusion of the deferred costs from rate base (which achieves this specific level of sharing) is appropriate and necessary in order to establish rates that are reasonable and just.

One of the reasons set forth by the Company in its objection to the Public Staff's recommendation is that the Public Staff does not identify any specific costs as imprudently incurred or unreasonable. According to the Company, such identification is necessary to meet "the appropriate regulatory standard for denial of cost recovery," and a general finding of culpability for non-identified costs, and a resulting "qualitative" sharing does not meet the appropriate standard. The Commission disagrees with the Company's argument. The role of the Commission in general rate case proceedings is to set rates that are fair and reasonable for the utility <u>and</u> its customers, within the parameters set forth in the North Carolina General Statutes. These parameters include the provisions of N.C. Gen. Stat. § 62-133(a), which provides that "the Commission shall fix such rates as shall be fair both to the public utilities and the consumer," and also N.C. Gen. Stat. § 62-133(d), which provides "[t]he Commission shall consider all other material facts of record that will enable it to determine what are just and reasonable rates."

These statutory provisions are in addition to the ratemaking formula in N.C. Gen. Stat. § 62-133(b). A total disallowance of certain costs under N.C. Gen. Stat. § 62-133(b), on the grounds that those costs are unreasonable, is subject to the prudence standard. The prudence standard examines whether the utility's actions and decisions were reasonable based on what it knew or should have known at the time of decisions, actions, or omissions that led to the costs in question.

In contrast, the exercise of Commission discretion under N.C. Gen. Stat. § 62-133(d), including a decision for equitable sharing, is lawful where "other material facts of record" justify an adjustment necessary to achieve "reasonable and just rates." Unlike the cost-oriented prudence standard under N.C. Gen. Stat. § 62-133(b), a rate-oriented equitable sharing decision under N.C. Gen. Stat. § 62-133(d) does not require the identification of particular or specific costs as resulting from an imprudent decision or act of the utility. Nor does the N.C. Gen. Stat. § 62-133(d) guideline of "other material facts of record" necessarily preclude an after-the-fact or hindsight review, such as environmental contamination results. N.C. Gen. Stat. § 62-133(d) allows for an equitable sharing when otherwise prudent costs would be unreasonable or unjust to include in rates. Because the equitable sharing option alters the normal practice of allowing prudent, and reasonable costs into rates, it should be applied only in unusual circumstances where material facts of record support equitable sharing as the way to achieve reasonable and just rates.

For purposes of this proceeding, the Commission finds that "other material facts of record" justify an equitable sharing of CCR expenditures from the Deferral Period. First, the Commission finds persuasive the rationale set forth by witness Lucas in his testimony; namely, that DENC's coal ash disposal practices have caused environmental contamination, and risk of future contamination, for which the Company has some degree of culpability. This finding of culpability for environmental contamination is appropriate under N.C. Gen. Stat. § 62-133(d) even in the absence of evidence of specific costs resulting from imprudence that would be disallowed under N.C. Gen. Stat. § 62-133(b).

Second, the Commission additionally finds persuasive the following reasons set forth by witness Maness: (1) the sheer size of the Deferral Period costs ($22 million on an N.C. retail level, or approximately $179 per customer); (2) the lack of any benefit from incurrence of these costs in terms of future electric service or improvements in electric service; and (3) the fact that the incurrence of CCR costs was not the result of an economic analysis by the Company that pointed toward a discretionary activity that would be economically advantageous to ratepayers. These reasons are consistent with the Commission's past decisions that order equitable sharing for large magnitude abandoned plant costs.

The Commission has approved equitable sharing several times in past cases, most often in the cases of nuclear and coal plants abandoned prior to commencing commercial operation. A specific example for DENC is the abandonment losses related to Surry Unit 3, Surry Unit 4, North Anna Unit 3, and North Anna Unit 4. In DENC's 1983 general rate case, Docket No. E-22, Sub 273, the Commission outlined its policy regarding the treatment of plant abandonment losses:

> The proper rate-making treatment of abandonment losses related to electric generating plants has been before the Commission in several cases and will continue to arise in future cases. The Commission has, therefore, undertaken to re-examine this important issue in order to develop a more consistent and equitable approach to it. The Commission's ultimate responsibility with respect to ratemaking is to fix rates for the service provided which are fair and reasonable both to the utility and to the consumer. G.S. 62-133(a); <u>State ex rel. Utilities Commission v. Morgan</u>, 277 N.C. 255, 177 S.E. 2d 405 (1970); <u>State ex rel. Utilities Commission v. Area Development, Inc.</u>, 257 N.C. 560, 126 S.E. 2d 325 (1962).
>
> Although the parties to this proceeding may disagree as to the proper amortization period to be utilized with regard to plant abandonment losses, they generally agree that Vepco should be allowed to recover the prudently invested cost of its abandonment losses through amortization over some period of time. The Commission, based upon the evidence presented, must determine what is a fair amortization period in order to fairly allocate the loss between the utility and the consumer. Thus, the Commission finds no appropriate basis for requiring an amortization period greater than 10 years for North Anna Unit 3. This Commission in Docket No. E-22, Sub 224, approved a 10-year amortization of Surry Units 3 and 4; in Docket E-22, Sub 257, the Commission continued the 10-year write-off of Surry Units 3 and 4 and approved the write-off of North Anna Unit 4 over a 10-year period; in Docket No. E-22, Sub 265, the Commission continued to allow Vepco a 10-year write-off for all three of said units. This Commission has consistently used a write-off period of 10 or fewer years for all major plant cancellations.
>
> Based upon a careful consideration of the evidence of record in this case, the Commission finds and concludes that a 10-year period is a

> reasonable period and should be used for the amortization of the North Anna Unit 3 cancellation costs. Furthermore, the Commission concludes that amortization of the losses resulting from Vepco's cancellation of its Surry Units 3 and 4 and North Anna Unit 4 should be continued over 10 years as previously ordered by the Commission. Utilization of a 10-year amortization period is proper and fair in this proceeding for the reason that such an amortization period, particularly when considered in conjunction with the Commission's decision as subsequently discussed, to allow Vepco no return on the unamortized balance, will serve to more reasonably and equitably share the burden of such plant cancellations between the Company's shareholders and its present and future ratepayers.
>
> Pursuant to the Commission's reexamination of the proper rate-making treatment of abandonment losses, the Commission has determined that it is neither fair nor reasonable to include any portion of the unamortized balance of such investments in rate base and, furthermore, that no adjustment should be allowed which would in fact have the effect of allowing the Company to earn a return on the unamortized balance. The Commission has concluded that this treatment provides the most equitable allocation of the loss between the utility and the consumer.

Seventy-Third Report of the North Carolina Utilities Commission, pp 354-55. The policy of exclusion from rate base was applied consistently from 1983 forward during the rash of nuclear plant cancellations by the large electric utilities of this State. The costs that were equitably shared in past cases were prudently incurred; the prudence of those costs did not require ratepayers to pay a return on the unamortized balance of the deferred costs.

This specific issue has also come before the North Carolina courts. In 1989 the North Carolina Supreme Court affirmed the Commission's decision that reasonable rates can include an equitable sharing between ratepayers and investors with regard to plant cancellation costs. In *State ex rel. Utils. Comm'n v. Thornburg*, 325 N.C. 463, 385 S.E.2d 451 (1989) (*Thornburg I*), the Attorney

General had sought exclusion of all abandonment costs related to the Harris Nuclear Plant. However, the Commission allowed amortization of the abandonment costs, with no return on the unamortized balance. The Court ruled that the Commission was acting within its discretion:

> [T]he Commission's order does not err as a matter of law in authorizing CP&L to continue to recover a portion of the cancellation costs of the abandoned Harris Plant as operating expenses through amortization. The Commission's determination was supported by several findings and conclusions. First, the Commission found that although "[t]his case must of course be decided on the basis of North Carolina statutes" the "majority of courts and commissions that have dealt with this issue have allowed ratemaking treatment of abandonment losses, usually as operating expenses." Second, the Commission concluded "that a liberal interpretation of the operating expense element of ratemaking so as to include the Harris abandonment losses is appropriate herein." Last, the Commission found further support for its conclusion was provided by N.C.G.S. § 62-133(d), which allows the Commission to consider all material facts in the record in determining rates.
>
> . . . .
>
> Last, we disagree with the Attorney General's contention "that strong policy considerations support the disallowance of [cancellation] expenses." We note that jurisdictions have generally dealt with the allocation of cancelled plant costs in one of the following three ways:
>
> (1) recovery of all of the costs from ratepayers, by allowing amortization of the investment plus a return on the unamortized balance;
>
> (2) recovery of all costs from shareholders through a total disallowance of recovery in rates, instead requiring the utility to write off the entire amount in a single year; or
>
> (3) recovery from ratepayers and shareholders through amortization of costs in rates over a period of years, with no return on the unamortized balance.
>
> . . . Strong policy considerations support the Commission and commentators who have concluded that method three is the best of the three alternatives in that it promotes "an equitable sharing of the loss between ratepayers and the utility stockholders."
>
> . . . .

> On this record, the Commission's continued use of method three is within the Commission's discretion, and this Court will not disturb that decision.

(*Id.* at 476, 480, 481).

Through the rebuttal testimony of witness McLeod, the Company argued that the prior Commission decisions regarding abandoned nuclear plants and MGPs are distinguishable from the case of deferred CCR costs: neither MGP cleanup costs nor nuclear plant abandonment costs resulted in "property used and useful," and MGPs had been owned by multiple parties, with remediation costs incurred many years in the past. Witness McLeod also noted that the Commission found CCR repositories in the recent DEP and DEC rate cases were and continued to be used and useful and were not abandoned. He noted that the Commission in DENC's 2016 general rate case proceeding likewise found deferred CCR expenditures to be used and useful for the DENC's customers, and the Commission also found CCR repositories used and useful in the recent DEP and DEC rate cases.

For purposes of this proceeding, the Commission finds that the "used and useful" distinction is not a meaningful or legal obstacle to equitable sharing, based on the following reasons.

First, the Commission's authority to order equitable sharing under N.C. Gen. Stat. § 62-133(d) overlays the ratemaking cost formula in N.C. Gen. Stat. § 62-133(b). In other words, even where property is "used and useful" under N.C. Gen.

Stat. § 62-133(b)(1), there may be unusual circumstances where denial of a return is appropriate under N.C. Gen. Stat. § 62-133(d).

Second, the basis for equitable sharing in the cases of both the costs of abandoned plants and the remediation costs associated with MGPs, turned on the fact that those costs had been deferred to a regulatory asset. The Court in *Thornburg I* accepted that the costs (which plainly were incurred for utility plant, albeit not used and useful) could be treated as operating expenses eligible for deferral and recovery through amortization. The change from utility plant to operating expenses, for ratemaking purposes, was effectuated through the deferral of those costs. The same is true for CCR expenditures. Once deferred, they acquire a different character than property used and useful under N.C. Gen. Stat. § 62-133(b). Thus, the "used and useful" concept is not applicable.

The inapplicability of the "used and useful" classification to deferred costs is further supported by the fact that DENC assumed the costs would have been written off if not deferred. (T Vol. 7, p 12). The purpose of deferring costs to a regulatory asset is to allow subsequent rate recovery of a cost that otherwise would not be recoverable – a circumstance that does not apply to "property used and useful" that may be added to rate base in a general rate case following the expenditures.

The inapplicability of the "used and useful" classification is also supported by Public Staff witness Maness, who testified that the deferred CCR costs at issue in this proceeding are not costs of property, used and useful or otherwise, due to the method of North Carolina retail recovery proposed by the Company (i.e., deferral to a regulatory asset). This analysis is in addition to his testimony that the inherent nature of the deferred CCR costs in this case is “operating expenses.” He explained that the Company chose to request the deferral of costs recorded in ARO accounting, and as regulatory assets the costs are accounted for not as “property used and useful” under N.C. Gen. Stat. § 62-133(b)(1), but instead as expenses, with a proposed rate recovery through amortization. Although the Company could have proposed a different method, whereby it might specifically identify capital costs separately and include them in rate base, depreciating them over their useful lives, while accounting for other expenses on an ongoing basis, it did not. Instead, the Company proposed to utilize an accounting and ratemaking model that accounts for and recovers the coal ash cleanup costs as expenses on an as-spent basis, without specific identification of, or accounting for, any costs as plant in service or other property. (*See* T Vol. 6, pp 230-32). The Commission agrees with this analysis of ratemaking accounting, as “property used and useful” does not need deferral to be recovered in rates.

Third, the evidence in this case demonstrates that over 98% of the CCR costs would be booked as O&M (operating expenses) if not for ARO accounting. For ratemaking purposes, the Commission should and does look at the nature of costs without regard to ARO accounting because, as verified by DENC’s witness, the effects of ARO accounting are eliminated for purposes of ratemaking for the North Carolina retail jurisdiction. (T Vol. 7, p 9). Thus, the vast majority of DENC’s

CCR expenditures were no less "operating expenses" than the abandoned plant costs in *Thornburg I*.

DENC's witness further testified that $209 million of the Deferral Period CCR expenditures were made at plants that were no longer operational. (*Id.* at 10). In this regard, they were no different from the MGP cleanup costs, where the Commission found "the MGP sites are not used and useful in providing gas service to current customers." No party questioned that the MGP sites had been "used and useful" when operational. The basis for the finding that they were not "used and useful" in 1994 at the time of Docket No. G-5, Sub 327, was that the sites were not providing gas service "to current customers." Likewise, the non-operational coal units of DENC are not providing electric service to their current customers.[13]

Fourth, the Company argued that deferred CCR costs are appropriately included in the working capital component of rate base, and thus are properly classified as "used and useful" property required to be allowed to earn a rate of return pursuant to N.C. Gen. Stat. § 62-133(b)(1). Witness McLeod stated that the inclusion of deferred CCR costs in working capital was the approach taken in the Company's 2016 rate case, and that the Commission found those expenditures in the 2016 case used and useful for DENC customers. Mr. McLeod also referred to the DEP and DEC rate case orders as citing the Court decision in *VEPCO* for the

[13] DENC's arguments about the long time between MGP retirement and the expenditure of MGP cleanup costs, and multiple owners of the MGPs, are not persuasive either. DENC's disposal of coal ash in surface impoundments began many decades ago, so the CCR remediation costs pose an unsolvable intergenerational equity issue just as MGPs did. And the fact that DENC owned its coal ash basins from the beginning actually adds to the Company's culpability, compared to MGPs where the utility was not the original owner but instead inherited a problem of someone else's making.

conclusion that CCR expenditures qualify as "property used and useful" because they are investor-furnished working capital.

Public Staff witness Maness, on the other hand, testified that the classification of deferred CCR costs as working capital is a matter of convenience, but in substance the deferred CCR costs are expenses incurred in the past that have nothing to do with the Company's forward-looking obligation to provide utility service, so they are not appropriately classifiable as cash working capital. He referred to the description of "working capital" in the treatise of Charles F. Phillips, Jr., on utility regulation, as previously quoted in this Order.

The Commission agrees with the Public Staff with regard to the classification of deferred CCR costs as working capital. The very title "working capital" strongly implies that it consists of funds and other assets that are expected to be necessary to do the work of providing utility service on an ongoing basis. This interpretation is supported by Dr. Phillips' description, which refers to materials and supplies and cash needed to meet "current obligations." Deferred CCR costs do not fit within this description; they are costs expended in the past, not awaiting expenditure currently or in the future, and thus are not needed to "meet current obligations."

Witness McLeod explained that DENC included the CCR costs in working capital because they were investor-supplied funds, and thus incurred a carrying cost until recovered. The essence of the Company's argument for a return on the unamortized balance of CCR costs incurred in the Deferral Period is that the costs were prudently incurred (*see* T Vol. 6, p 667), and that there will be a regulatory lag between the time these investor-supplied funds were spent and when they will be recovered in rates, thereby justifying their inclusion in "working capital" (*see* T Vol. 7, p 32). The Commission has reviewed in the present case the "working capital" argument for allowing a return on CCR costs, and rejects that argument both on the basis of witness Maness's testimony as discussed above, and upon further review of the *VEPCO* case.[14]

The portion of the Court's decision most relevant to the present case reads as follows:

> Like any other business, a public utility must at all times have on hand a reasonable amount of materials and supplies and a reasonable amount of funds for the payment of its expenses of operation. While Chapter 62 of the General Statutes makes no reference to working capital, as such, the utility's own funds reasonably invested in such materials and supplies and its cash funds reasonably so held for payment of operating expenses, as they become payable, fall within the meaning of the term "property used and useful in providing the service," as used in G.S. § 62-133(b)(1), and are a proper addition to the rate base on which the utility must be permitted to earn a fair rate of return.

VEPCO at 414-15, 206 S.E.2d 283, 295-96. The Court thus described "working capital" that qualifies for rate base under N.C. Gen. Stat. § 62-133(b)(1) as consisting of either "materials and supplies" or "*cash* funds *reasonably so held* for payment of operating expenses." (emphasis added). The DENC witness admitted

[14] The Commission is aware of its different reasoning and outcome in prior rate cases. The issue of equitable sharing is a policy judgment, and with respect to new costs in new rate cases the prior determinations are not adjudicative facts subject to issue preclusion, *stare decisis*, or res judicata. Likewise, the proper interpretation of a case like *VEPCO* is a legal conclusion, and this Commission may conclude differently from past decisions. The Commission is not bound by determinations made in past cases on the issue of equitable sharing of CCR costs.

that CCR costs are not "materials and supplies." (T Vol. 7, p 26). He further admitted they were not cash working capital. (*Id. at* 27-29). He indicated the CCR costs were a different type of working capital. (*Id.*)

While the Commission has no issue with the Company labeling CCR costs as working capital for its accounting purposes, this does not qualify those costs as "property used and useful" under the *VEPCO* decision. *VEPCO* identified only two types of working capital as entitled to rate base treatment – "materials and supplies" and cash working capital. According to the testimony of witnesses Maness and McLeod, the Deferral Period CCR expenditures do not fall into either of those categories.

DENC would have the Commission interpret *VEPCO* more broadly to include all types of working capital, based on the fact that carrying costs are incurred between the time the funds are spent and when they are recovered in rates. (*Id.* at 32). The Company quoted the most recent rate case orders for DEP and DEC as "finding" that:

> the Company appropriately accounted for coal ash basin closure costs in the working capital section of rate base, and as these funds were investor-furnished, not customer-furnished, VEPCO holds that they are "used and useful" [and] the Company is entitled to earn a return on those funds over the period in which the costs are amortized.

(T Vol. 6, p 679). The Commission does not follow that reasoning in the present case because (1) whether CCR costs are entitled to rate base treatment under N.C. Gen. Stat. § 62-133(b)(1) is a conclusion of law, not a finding of fact; (2) the Commission concludes that *VEPCO* only applies to working capital that is either materials and supplies or is cash working capital, and CCR costs are neither; and (3) there is long-established precedent for concluding that investor-supplied funds for prudently incurred costs do not *necessarily* get rate base treatment.

On this latter point, it is critical to note that the use of investor-supplied funds for prudently incurred costs did not create an entitlement to a return in the nuclear abandonment cases, or coal plant abandonment costs, or MGP cleanup costs. Nor does DENC's theory square with the regulatory treatment for some other types of costs ranging from the disallowance of 50% of top executive officer salaries to the disallowance of capacity payments DENC had to pay under Virginia law but that were higher than North Carolina's avoided cost rate. (*See State ex rel. Utilities Comm'n v. North Carolina Power*, 338 N.C. 412, 450 S.E.2d 896 (1994)). In sum, the fact that investors supplied funds that were prudently spent does not, by itself, make those funds "working capital" that is entitled to a return under N.C. Gen. Stat. § 62-133(b)(1) or the *VEPCO* decision.

Accordingly, based on the record as a whole, the Commission concludes that it is appropriate to treat the Deferral Period CCR costs proposed by the Company for amortization in this proceeding as deferred expenses, not the costs of used and useful property, for ratemaking purposes. Those costs are not "property used and useful," both because of their nature as operating expenses and also because they were deferred to a regulatory asset. This is legally consistent with the approach taken for the costs of abandoned nuclear construction, abandoned coal plants, and the costs of MGP remediation. The factors cited by the Public Staff in favor of equitable sharing – DENC's culpability for environmental contamination and the size and nature of costs that do not provide any new electric service or economic benefits to customers, warrant equitable sharing in this case.

4. The Public Staff's Position in the 2016 Rate Case and Past Commission Orders

In rebuttal testimony, witness Williams asserted that "[f]undamental principles of fairness and due process dictate that the Company should be able to rely on the Public Staff's prior position" regarding the ability of the Company to fully recover its coal ash expenditures. (T Vol. 8, p 9). That is, the Company argued that the Public Staff is estopped from making a recommendation for the disallowance of costs based on the Company's CCR management practices and environmental non-compliance because it did not raise those concerns in decades past. (*Id.* at 8-9). The Commission disagrees.

As an initial matter, the Commission finds no evidence in the record that the Public Staff had a position on the Company's coal ash remediation expenditures in the 1970s through the 2000s. Only with the 2016 rate case did the Company seek significant CCR environmental compliance costs.[15] Neither the Public Staff

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[15] In the testimony of witness Williams, DENC cites to a letter submitted in 2009 by the Public Staff, available at https://obamawhitehouse.archives.gov/sites/default/files/omb/assets/oira_2050/2050_102809-5.pdf. (T 7, pp 72-73). This letter supported the classification of CCR as non-hazardous waste under Subtitle D of RCRA rather than as Hazardous Waste under Subtitle C. The Commission submitted similar comments in the same EPA rulemaking docket (also available at the link above).This is not a position by either agency on DENC's CCR waste management practices, but rather a recognition of the potential impact to ratepayers if coal ash had to be immediately regulated as a hazardous waste. It would mean costly cleanup measures and the prohibition from use of CCR for beneficial reuse purposes.

nor the Commission issue environmental permits or standards; nor do they normally pre-approve management decisions and actions.[16]

Furthermore, this is not a situation where estoppel applies. Once a utility spends funds to address an environmental problem, and seeks recovery of those funds in rates, the Public Staff's investigation begins. As discussed above, the Public Staff's responsibility is to represent the using and consuming public with regard to rates and service, and it primarily does so through its investigations in rate cases. The Public Staff focuses its efforts on the costs that the Company has incurred, which in this case include costs for assessment and closure of coal ash storage and disposal facilities to correct existing groundwater contamination and to prevent future risk of groundwater contamination in accordance with the CCR Rule and Virginia law.

The assessment, corrective action, and closure costs to correct environmental contamination were first brought before the Public Staff and the Commission in DENC's 2016 general rate case. The Commission notes that the Company seemingly has contradictory arguments: on one hand, the Company sought to rely on the Public Staff's "prior position" in not opposing its coal ash management practices as a due process right and an entitlement to cost recovery, and on the other hand, the Company argued that the Public Staff does not have the expertise to make recommendations regarding coal ash management and it

[16] Some regulatory matters, such as CPCNs for new generation facilities and implementation of new Demand-Side Management and Energy Efficiency programs, require advance approvals from the Commission. Even in such matters, however, expenditures remain subject to review in subsequent proceedings.

should be the sole province of the environmental regulator to make such determinations. The Commission finds neither argument persuasive.

The first DENC rate case that dealt with CCR remediation and compliance cost recovery was the 2016 DENC general rate case. In that proceeding, the Public Staff entered into a settlement with DENC that included a five-year amortization of CCR costs with the unamortized balance included in rate base. The Public Staff distinguished its position in this case from the 2016 rate case based on the basis of both the magnitude of the costs involved, as supported by the testimony of witness Maness, and what was known at the time of the 2016 rate case regarding environmental contamination at DENC coal ash storage sites, as supported by the testimony of witness Lucas. The Public Staff stated in the testimony of witness Lucas that the Company only indicated a minor spill at Possum Point when asked in a 2016 data request in Docket No. E-22, Sub 532, whether there had been any findings by the VA DEQ regarding VEPCO's CCR facilities or closure activities. (T Vol. 6, p 188). In the direct testimony of witness Maness, the Public Staff stated that the costs in the 2016 proceeding represent only 22 percent of the costs in this proceeding. (*Id.* at 238).

In the present proceeding, the Public Staff has gathered and presented much more evidence regarding the Company's CCR management and groundwater contamination than it did in 2016, demonstrating the Company's culpability for environmental contamination caused by its CCR management practices. The Commission also recognizes that the greater magnitude of costs in this proceeding than in 2016, and the magnitude of the cost going forward that the

Company is now estimating to be an additional $2.5 billion, is a significant change in evidence from the 2016 DENC rate case.

Furthermore, the Commission agrees with the Public Staff that the 2016 general rate case does not have precedential value in this case. The stipulation and the Commission's order in Docket No. E-22, Sub 532, stated that the parties retained the right to challenge any future CCR costs in future proceedings. The Commission finds that it would be inappropriate to give the 2016 case precedential effect for the treatment of costs the Company is seeking to recover in this proceeding.

In addition, the Commission is not bound by the policy of *stare decisis* for decisions on cost recovery in prior rate cases, as each case involves new costs. The Commission's exercise of its ratemaking power as a legislative function, not governed by *stare decisis*, is well-established. For example, in past rate cases involving nuclear cancellation costs, the Commission changed its policy position from allowing a return on those costs to denying a return. As discussed in *Thornburg I*, the Commission had previously allowed the recovery of costs associated with cancelled nuclear units in a CP&L general rate case. (*Thornburg I* at 466). In a subsequent CP&L rate case, however, the Commission "reexamined the ratemaking treatment of abandonment losses in order to develop a more consistent and equitable approach," and decided that while amortization would be allowed, CP&L would not be permitted to earn a return on the unamortized balance. (*Id.*) The Commission's earlier decision allowing a return was not *stare decisis* for the latter case.

Likewise, in a 2013 order issued in a general rate case for Duke Energy Progress, LLC (DEP), the Commission changed its long-standing approval of the Summer Winter Peak and Average ("SWPA") cost-of-service methodology to the Summer Coincident Peak ("1CP") methodology. (*Order Granting General Rate Increase*, Docket No. E-2, Sub 1023 (May 30, 2013)). The Commission explained that "[p]rior to 1980, DEP used the 1CP method, but the Commission ordered the change to SWPA in the context of the Company's 1982 general rate case . . . ." (*Id.* at 90). The Commission in its 2013 Order reversed the policy decision it had made in the 1982 rate case and concluded that "the 1CP methodology is appropriate for use in this case . . . ." (*Id.* at 98.) The Commission's decision in an earlier DEP general rate case was not *stare decisis* for DEP's 2013 rate case.

The Commission concludes that each case should be decided based on its own facts and circumstances. In this case, there is substantial evidence of DENC's culpability for environmental impacts from its coal ash, along with the magnitude and nature of the costs, that justifies an equitable sharing of the costs. For the same reasons, the Commission is not bound by the Orders in the prior DEC and DEP rate cases, Docket Nos. E-7, Sub 1146, and E-2, Sub 1142, to follow the same policy analysis and achieve the same outcome in the present case.

5. <u>Level of Equitable Sharing</u>

Having determined that equitable sharing is an appropriate and reasonable approach to take, and can be lawfully applied to deferred CCR costs, the Commission must decide the level of sharing that results in reasonable and just rates. In his testimony, Public Staff witness Lucas explained a 60%-40% sharing of Deferral Period CCR costs, with shareholders bearing 40% of the costs, is reasonable and appropriate in contrast to the prior DENC rate case (Docket No. E-22, Sub 532), where the Public Staff recommended 100% of CCR costs be paid by ratepayers, and the most recent DEP and DEC rates cases (Docket Nos. E-2, Sub 1142, and E-7, Sub 1146) where the Public Staff recommended a 50%-50% equitable sharing.[17] (T Vol. 6, pp 187-89).

In the present case, the Public Staff documented significant environmental contamination caused by DENC's coal ash disposal; such evidence did not exist in the Sub 532 rate case of DENC. (*Id.* at 187). Additionally, witness Maness testified that the magnitude of costs in the prior case was only 22% of the CCR costs submitted in the present case. (*Id.* at 235-38). He noted that large magnitude costs that do not contribute to additional electric service have been equitably shared in past cases, with "in the neighborhood" of 30% of plant abandonment costs being assigned to shareholders even without culpability for environmental contamination. (*Id.*) The Commission finds that this evidence from witnesses Lucas and Maness constitutes "material facts of record" that support an equitable sharing in the present DENC case – evidence that was not in the previous DENC rate case. As the Commission noted in its order in the Sub 532 DENC case, that order was

[17] The Commission understands the 51%-49% recommendation of the Public Staff in the DEC case was not intended to differ from the DEP 50%-50% recommendation except for the purpose of keeping the amortization period at a whole number of years.

not precedent for future determinations of CCR cost recovery, and each case would have to be decided on its own facts and circumstances.

While not necessary to decide the present case, the Commission also finds the Public Staff has not been inconsistent with its recommendations in the DEP and DEC cases. As witness Lucas testified, Public Staff evidence in the DEP and DEC rate cases showed a higher level of utility culpability. Specifically, (1) DENC has not been found guilty of criminal negligence for its environmental impacts, (2) DENC has not had significant state regulatory actions taken against it, and (3) there is less evidence, at this point in time, of impacts of groundwater contamination.[18] (*Id.* at 188-89).

Company witness McLeod additionally argued that the Public Staff did not establish an objective standard for determining the 60%-40% sharing ratio. (*Id.* at 669-71). The Commission disagrees that an objective standard is required. Many issues before the Commission are decided on the basis of a qualitative judgment, as opposed to a rigid mathematical formula. Certainly the equitable sharing in the nuclear abandonment cases, and the MGP case of PSNC, were decided on the Commission's qualitative judgment of fairness, without use of any "objective" or quantitative formula. The Commission must weigh the facts and circumstances in each case to determine "reasonable and just rates," and in many situations the weighing process necessarily has a subjective element. The amortization period

[18] With regard to item (3), the Public Staff further stated that its recommendation may change in future proceedings as more information regarding DENC's environmental compliance is known, specifically groundwater monitoring that is being conducted and posted publicly in accordance with the CCR rule. *See* T Vol. 6, p 189.

of 18 years chosen in this case is the product of a decision that a 60%-40% equitable sharing is supported by a careful weighing of all the evidence, and consistent with the Commission's authority under N.C. Gen. Stat. § 62-133(d).

The Company also pointed out that there are many other types of large costs that are assigned 100% to ratepayers, such as transmission costs, storm costs, and various fees. The Commission finds the examples identified are all periodically incurred costs that do not have the unique nature of the CCR costs at issue here. The fact that some other costs are recovered entirely from ratepayers does not, in the opinion of the Commission, invalidate the decision to equitably share CCR costs. As shown with certain plant abandonment cases, there are circumstances where equitable sharing is lawful and appropriate for large magnitude costs that do not result in additional electric service. The fact that some other large magnitude costs are included for 100% recovery in rates does not invalidate the equitable sharing option in all circumstances.

The Company also argued that long amortization periods put pressure on the rates to be set in future rate cases, with overlapping amortization periods. The Commission finds the Company's reasoning flawed in this regard. The Company seems to be arguing that it is a benefit to ratepayers to make them pay costs earlier, which results in higher rates in the near term. It is difficult to see how that could be a benefit to ratepayers, unless one is concerned about intergenerational equity. In this case, the Commission believes that the importance of establishing equitable sharing outweighs concerns about overlapping amortization periods in future cases due to amortization period length.

The Commission has carefully considered the evidence presented in this proceeding, and concludes that the Company's shareholders should be assigned the responsibility to bear approximately 40% of the Deferral Period CCR costs. This decision takes into account the magnitude and nature of the CCR costs incurred by the Company, the responsibility and culpability of the Company with regard to environmental contamination and contamination risk from CCR, and the level of sharing that has been assigned to shareholders in past cases involving nuclear and coal plant abandonment losses where no culpability was attributed, which, as testified to by Public Staff witness Maness in this proceeding, has been in the neighborhood of 30% even without environmental culpability.

The Commission has also examined the method proposed by Public Staff witness Maness, as well as his calculation methodology as shown in the late-filed exhibits filed by the Public Staff. As a result, the Commission agrees that the amortization period necessary and appropriate to achieve a shareholder assignment of approximately 40% is 18 years, given the capital structure, embedded cost of debt, and return on common equity approved by the Commission in this proceeding, as set forth in the Evidence and Conclusions for Finding of Fact No. 8.[19]

Based on the Commission's findings and conclusions set forth herein, the Commission concludes that the reasonable and appropriate amortization expense

[19] The actual shareholder assignment achieved by an 18-year amortization period is 40.788%, which is the closest to the 40.000% target that can be arrived at using the stipulated rate of return and whole years without the shareholder portion falling below the target.

for the Deferral Period CCR costs is $6,090,000 per year, for an 18-year amortization period, and that no amount of unamortized Deferral Period CCR costs should be included in rate base.

<u>EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 9</u>

The evidence supporting this finding of fact and conclusions is contained in the direct testimony of Public Staff witness Lucas.

In his testimony, witness Lucas explained that the Public Staff investigated whether the Company has environmental or general liability insurance that would provide coverage for its CCR-related costs, and that the Public Staff reviewed notices, claims, and related documents sent by the Company to insurers that relate to CCR. (T Vol. 6, p 196). Based on the Public Staff's review, witness Lucas recommended that the Commission monitor the Company's existing and potential insurance claims. He stated that if any insurance proceeds are ultimately received or recovered, the Commission should require that the Company place all such proceeds into a regulatory liability account to either be disbursed back to ratepayers or to offset the costs to ratepayers of the Company's CCR-related costs. (*Id.* at 197).

The Commission finds and concludes that customers should benefit from any insurance proceeds recovered by DENC with regard to CCR remediation costs. DENC should be required to vigorously pursue claims for insurance coverage of coal ash remediation costs, where justified by its insurance policy coverage.

In accord with the reasoning in our January 23, 2018 Order in Docket No. E-2, Sub 1142, and our June 22, 2018 Order in Docket No. E-7, Sub 1146, the Commission concludes that if the Company exercises reasonable care in representing its ratepayers' interests in pursuing insurance claims, then the Company should be entitled to receive its full authorized carrying charges on the deferred account. DENC should be required to place all insurance proceeds ultimately received or recovered by DENC from the existing and potential insurance claims for costs related to CCR in a regulatory liability account and hold such proceeds until the Commission enters an order directing DENC as to the appropriate disbursement of the proceeds. In addition, the regulatory liability account shall accrue a carrying charge at the net-of-tax overall rate of return authorized for DENC in this Order.

IT IS, THEREFORE, ORDERED as follows:

1. DENC is required to maintain complete records of all environmental management activity and test results in the future as it relates to coal ash management and make such records promptly available to the Commission or the Public Staff upon request. DENC shall provide environmental test reports in whatever format is reasonably requested by those agencies.

2. DENC shall use annual compounding rather than monthly compounding for calculating the return on deferred CCR costs during the Deferral Period.

3. DENC shall remove from rate base the CCR costs incurred during the Deferral Period.

4. DENC shall amortize the CCR costs incurred during the Deferral Period over 18 years to achieve a 60%-40% sharing of costs between ratepayers and shareholders, with shareholders responsible for 40% of the costs.

5. DENC shall vigorously pursue claims for insurance coverage of coal ash remediation costs where justified by their insurance policy coverage. If any insurance proceeds are recovered, those proceeds shall be placed in a regulatory liability account until the Commission enters an order directing DENC regarding the appropriate disbursement of the proceeds. The regulatory liability account shall accrue a carrying charge at the net-of-tax overall rate of return authorized for DENC in this Order.

ISSUED BY ORDER OF THE COMMISSION.

This the ___ day of __________, 2019.

NORTH CAROLINA UTILITIES COMMISSION

Kimberly A. Campbell, Chief Clerk