



ENVIRONMENTAL REVIEW COMMISSION

April 22, 2014

Room 643 of the Legislative Office Building

The Environmental Review Commission (ERC or Commission) met on Tuesday, April 22 at 1:30 P.M. The meeting was held in Room 643 of the Legislative Office Building. Representative Ruth Samuelson presided.

Members present were: Senator Brent Jackson, CoChair, Representative Mike Hager, CoChair, Senator Austin M. Allran, Senator Andrew Brock, Senator Bill Cook, Senator Fletcher L. Hartsell, Jr., Senator Gene McLaurin, Senator Ronald Rabin, Representative Rick Catlin, Representative Jimmy Dixon, Representative Pricey Harrison, Representative Chuck McGrady, Representative Chris Millis, and Representative Roger West. Dr. Jeff Warren, Senate Senior Policy Advisor; Emily Wilson, House Senior Policy Advisor; Mr. Jeff Hudson, Commission Counsel, Ms. Jennifer McGinnis, Commission Counsel, Mr. Jeff Cherry, Commission Counsel; Ms. Jennifer Mundt, Commission Analyst; Ms. Mariah Matheson, Research Assistant; Lindsey Dowling, Rebecca Matthews, Tori Bragg, and Towers Mingledorff, Commission Clerks; and Sergeants-At-Arms Garland Shephard, Larry Elliott, Anderson Meadows and Steve Wilson. (Attachments #1 and #2).

Notice was sent to members and interested parties via e-mail on April 3, 2014. A copy of the notice is included in the attachments to these minutes as Attachment #3. A copy of the agenda for the meeting is included in the attachments to these minutes as Attachment #4.

Call to Order, Minutes Approval and Introductory Remarks

Rep. Samuelson called the meeting to order and welcomed members, staff, and visitors in attendance. She introduced Sergeant-at-Arms. She also gave directions for the sign-up sheet regarding the hour-long public hearing portion. She explained each person has an allotted time of three minutes, and it might be beneficial to collaborate with others to share time so that there are minimal repeats and everyone is heard.

Rep. Samuelson gave an overview of the ERC meeting. She explained the goal of the meeting is to provide an update on Dan River and the cleanup. The meeting will also provide a context for the types of issues and concerns to be aware of for coal ash remediation. There will be no voting on particular legislation, and the goal of this meeting is to walk away with an understanding of the types of issues, the context and concerns faced for when they are looking at legislation. The format included presentations, questions of clarification, then after all the

presentations, it was opened for general questions. After that there was the public comment period. Additionally, Rep. Samuelson added that, with Mr. Tom Reeder with water resources, we are hearing from Mr. Dexter Matthews on the solid waste issue.

Rep. Hager put forth that this legislative body is here as a deliberative body that drives long-term solutions that will look after public and the water supply and economy. He said they are here to be methodical and solution-driven.

Rep. Samuelson reminded the members that the question and discussion is geared toward what they hear today, not other legislative proposals.

Report from Commission Counsel

Mr. Jeff Hudson, Commission Counsel, commented on a couple of things to keep in mind looking coal ash issues. Mr. Hudson mentioned there is ongoing litigation regarding groundwater contamination cleanup rules of the Environmental Management Commission. There is litigation over the application of those rules to coal ash facilities. It was handed down to the Wake County Superior Court in March and several parties filed a notice of appeals to the North Carolina court of appeals; so, they are continuing to monitor that litigation as it applies to coal ash facilities. Second, he commented that at the federal level, as the U.S. Environmental Protection Agency (U.S. EPA) is working on proposals following the coal ash incident in Kingston, TN, in 2008. They are working on two proposals, treating coal ash as hazardous and as solid waste. He said the U.S. EPA has been sued to make a final decision, and they are under a court order to make a decision by the end of the year.

Department of Environment and Natural Resources

Mr. Tom Reeder

Rep. Samuelson introduced Mr. Tom Reeder, Director of Division of Water Resources, Department of Environment and Natural Resources (DENR), who briefly reviewed what has happened on coal ash regarding the Dan River site, including remediation, sampling, analysis, long-term monitoring plan, and enforcement activity. A copy of Mr. Reeder's PowerPoint presentation is included in the Handouts as Attachment #5. The following questions were asked:

Sen. McLaurin asked if they found evidence of any piping underneath the pond at any coal ash pond site.

Mr. Reeder responded that they found evidence of corrugated metal piping being used in risers and pipes that go out to the discharge point, but not piping underneath the pond like at Dan River.

Sen. McLaurin followed up regarding the corrugated metal piping.

Mr. Reeder clarified the corrugated metal risers are used when the pond gets so high and the water spills out into the spillway and the discharge point. They are being surveyed by video camera.

Rep. McGrady asked if each of the 14 sites DENR has found has groundwater contamination of some sort.

Mr. Reeder confirmed that there is some level of groundwater contamination at every coal ash facility.

Rep. Harrison thanked him for his presentation and asked if it is possible to open National Pollutant Discharge Elimination System (NPDES) permits at the ten other sites, not just the four prioritized sites.

Mr. Reeder said it's possible and it's part of the comprehensive look they are taking at all the coal ash facilities.

Rep. Harrison asked for a confirmation that these four sites are the prioritized sites and they are only considering the other ten.

Mr. Reeder confirmed that they are.

Rep. Samuelson thanked Mr. Reeder for explaining the various abbreviations.

Mr. Dexter Matthews

Representative Samuelson recognized Mr. Dexter Matthews, Director of Division of Waste Management, DENR, to elaborate on how they might be using coal ash as solid waste.

Mr. Matthews said he didn't prepare a presentation but can answer questions that they might have.

Rep. Samuelson said they appreciate his spontaneity.

Mr. Matthews said in North Carolina the ash disposed of in basins or removed from lagoons in basins is not described as solid waste under current state statutes, but it is considered solid waste under federal statutes. So, U.S. EPA regulations would cover ash whether generated as dry or wet and removed from ponds. If they try to regulate ash as wet, then the issue of capacity at landfills comes into play. Duke Energy currently has eight active landfills permitted by the Division of Waste Management, but two are landfills specifically for other waste. The other six active landfills that Duke Energy has permitted receive dry coal ash in the state and were permitted for that capacity. He looked at some of the published volumes of ash that is currently in ponds across the state and tried to compare it to the permitted capacity amount. The amount of ash in ponds, if it were removed and proposed for disposal in amounts that Duke Energy has constructed, would dwarf that permitted capacity. Duke Energy has additional capacity at their landfills where they could place liners, but if you build all of that capacity out and then propose to pull ash out of ponds and into the lined landfills it would still far exceed that permitted capacity. If you removed the remaining waste off site to a different landfill, it would probably reduce the current constructive capacity of about 15% across the state. Municipal solid

waste landfills aren't required to take ash, so the facility would have to agree to receive the ash. If you converted from wet to dry ash you have the issue of the currently generated waste you'd have to find capacity for, which would be 1 million cubic yards per year. The wet ash now generated as dry would also be about 1 million cubic yards per year. So you'd need to find capacity for that and the wet ash generated as dry. We don't have that number but a reasonable guess would be another million cubic yards per year. So you'd need to find capacity for 2 million cubic yards. There is a great deal of permitting capacity if you were trying to remove ash from ponds that currently exist. It would take some time for that capacity to be permitted in the state. The following questions were asked:

Rep. McGrady asked if DENR can't permit a landfill that is already contaminating groundwater. He clarified that his question is about capping coal ash ponds in place, and if under current law, we could permit a coal ash landfill in place, or if we need to change the law to allow for that.

Mr. Matthews answered that you could monitor the performance of a landfill that would be permitted at this type of site by having two liners. You'd sample leakage through the first liner to make sure you weren't exceeding leakage rates. If you are exceeding leakage rates you have the potential of groundwater contamination by the secondary liner. So you'd be using data from the liners themselves to make sure you weren't impacting groundwater. So yes, it could be done.

Rep. McGrady asked how much of an idea we have of how much coal ash waste (wet or semi dry or in ash form) is out there right now.

Mr. Matthews answered that in published data from Duke Energy, he has seen 102 million and 108 million cubic yards in the ponds. He said we are currently generating 1.2 million cubic yards annually of dry ash for disposal.

Rep. McGrady asked that, aside from treating this as a waste that we would put in municipal landfills, what the other options are.

Mr. Matthews answered that currently most waste is disposed of in industrial landfills. He said the permitting of a site at a utility is, in his opinion, much easier than permitting an offsite industrial landfill. He said you would have local government approval for an offsite landfill. And you also have the issue of truck traffic leaving the site with the waste.

Rep. Samuelson asked Rep. McGrady if Mr. Matthews answered his first question.

Rep. McGrady said the answer to the question, as he understood it, was fine.

Rep. Harrison asked if she heard Mr. Matthews say that 1.2 million of the coal ash is recycled.

Mr. Matthews said no, that's the amount disposed of annually as dry ash.

Rep. Harrison asked how they determine if the coal ash is suitable for recycling.

Mr. Matthews said there were federal studies on how the material is being used. There is a primary use in concrete in the state and recycled in cement blocks. He said he isn't aware of studies that show problems with it.

Rep. Harrison confirmed that we rely on industry standards for recycling coal ash, not any state regulations.

Mr. Matthews confirmed they don't have regulations for recycling, only if it's stored in the ground or disposed of.

Rep. Samuelson asked about a proposal to take an existing site, drain it, put a liner on it, and put something on top of it, which might be more coal ash before you cap it, or not. If all those existing sites are leaking per Mr. Reeder's comments, how would you monitor an existing site that has a layer on top of it?

Mr. Matthews answered that monitoring between the two liners would be used if you were capping the landfill and placing a new landfill on top to receive waste. The monitoring between the two liners is how you would determine the performance of the liner to keep it from leaving the new landfill. He said they have seen a reduction in the contaminants from the bottom ash beneath the landfill because you're cutting off the discharge through the ash and into groundwater. Each site needs to be looked at individually, but they've seen improvements in doing that.

Rep. McGrady asked what the primary difference is between municipal, industrial, combustible product landfills, Duke Energy combustible product landfill, and structural fills. He also asked where the coal ash should go to protect the public's drinking water.

Mr. Matthews explained the difference between landfills: municipal receives household type wastes, and they are the highest regulated solid waste; industrial landfills are every type except municipal; the difference in a general industrial and coal combustion landfill is that the coal combustion landfill actually is one where you cap an old pond and place dry ash in the pond, which calls for a double liner.

Rep. McGrady asked what the difference is between the coal combustible landfill and the Duke Energy combustible coal ash fill.

Mr. Matthews answered that the industrial and coal combustion landfill is one that would go on a dry pond. And if it does it has to meet design requirements for double liner and performance monitoring of the liner. If it's on an area not on a pond, it's just an industrial type landfill. These landfills are lined.

Rep. McGrady asked if we have any real idea how much ash is used for structural fill and if, when used as a structural fill, we aren't talking about lining or monitors.

Mr. Matthews answered that we do have an idea of an amount of dry ash that does go and has gone into industrial fills. He said it doesn't require a liner, there are standards for separation from ground water, it's an engineered type of fill so it has to meet compaction rates, there are buffers in the rules, and there is no permit. So, they have to meet those requirements and submit

them to the division when they are planning to put structural fills in place. Once completed it has to be recorded so the property owner knows it's there. One of the areas they have looked at are the structural fills on the dry ash side and if the regulations need to be adjusted. The U.S. EPA will address the fills in view of their proposal when they come out with their regulations in December 2014. One area that needs to be adjusted is how much can be used for a structural fill before you get a permit.

Rep. Catlin asked if existing permits allow you to permit a new landfill over an area that already has existing groundwater contamination.

Mr. Matthews answered that he knows of no regulation that prohibits them from doing that.

Rep. Catlin asked how long it would take at a perfect location to build a new landfill for coal ash, including the permitting process.

Mr. Matthews answered that if it's on the utility site he would estimate a year to 18 months. If it were off the utility site, he would estimate several years to go through the process.

Rep. Dixon asked if we take one of these existing coal ash ponds and dry it out, should that stop ground water contamination.

Mr. Matthews answered that, if the ash remained in place, you would have to cut off discharge and put a cap on the pond to cut off discharge. You'd need certain technology to prevent groundwater from pulling contaminants in the ash.

Rep. Harrison asked if he was talking about coal combustion landfills and if that is something we specifically permit, and if it is just for dry ash.

Mr. Matthews said it was placed in statutes that instructed it specifically be over a closed pond, and we do permit those.

Rep. Harrison then asked if he has a definition of what is considered a large structural fill.

Mr. Matthews said there is a definition of structural fill in their rules. The volume of material you're talking about being disposed of impacts the ground water. He said it'd be reasonable to set limits on the amount that could be used as a structural fill absent of a permit.

Rep. Harrison asked if there are still environment justice considerations in the landfill statute, like the provision in the 2007 comprehensive landfill legislation ([Solid Waste Management Act of 2007](#)), or if they were repealed in House Bill 74 ([Regulatory Reform Act of 2013](#)).

Mr. Matthews answered that they have to comply with [Title VI of the Civil Rights Act](#), and that's what the statute clarification says in the Regulatory Reform bill.

Rep. Samuelson thanked Mr. Matthews for being there and answering questions.

Duke Energy

Mr. Paul Newton

Rep. Samuelson welcomed Mr. Paul Newton, President, Duke Energy (North Carolina). Mr. Newton thanked the Commission for giving him the opportunity to speak, and he gave an update on the progress at Dan River and an overview of the coal ash management strategy. He also discussed additional details about what the implementation of their strategy will be in regards to cost and time. He apologized for the coal ash release and said he has seen employee dedication addressing the strategy, and he assured that they are doing what it takes to make this right. His PowerPoint presentation and his letter to the Governor are in the Handouts listed as Attachment #6 and Attachment #7.

Sen. Cook thanked him for the presentation and asked if he could describe the monitoring wells around these ash ponds and the process used to be sure ground water stays safe.

Mr. Newton responded that each ash basin is surrounded by monitoring wells. They report the results of the monitoring three times a year to DENR, who has regulations that allow Duke Energy to direct activities if they find incursion.

Sen. Brock asked if Mr. Newton could speak to the water quality of what comes in and what flows out of the Buck Station ash basin.

Mr. Newton responded that a mixture of water and ash went to a primary basin, the first settling pond for ash. Then water transfers to a secondary basin, where any ash in the secondary basin settles. Finally, the water goes into the polishing pond, at which point it's tested before it goes into the Yadkin River. By the time that water leaves any of the ash basins, it's within permitted limits, and it's no harm to environment.

Sen. Brock thanked him for being good stewards of the environment.

Sen. McLaurin thanked him for the presentation and asked what they are doing to assure that we are taking care of the coal ash at the active seven locations.

Mr. Newton responded that standards have changed, and they are confident those stations are being managed in a way that protects the environment and public safety. Most of the ash being created, is going into a lined landfill if not going to a structural fill solution like Asheville.

Sen. McLaurin asked about the seven other ponds that are operating, if the plan is for them to go to lined landfills.

Mr. Newton said not necessarily, but they will be converted or retired, which eliminates the risk of a water problem.

Sen. McLaurin commented that the timetables are, in his opinion, too lengthy, and the public is expecting to see a quicker resolution and closure strategy.

Mr. Newton responded that he appreciates that, Duke Energy gets that pressure, and he said if there is any way to expedite the process, they will do that.

Rep. Harrison thanked him for his presentation and courtesies extended when they visited a fill site. She asked if in the seven plants that still produce coal ash that 67% is still used beneficially.

Mr. Newton said it's a fact from 2013, and it seems to be a positive trend.

Rep. Harrison said she is concerned for the preference for capping, and capping in place an unlined pond with toxins might be problematic with groundwater contamination, like at Blues Creek in 2010. Mr. Newton confirmed capping in place with a synthetic liner may not be the answer for every ash pond. He said they are not biased towards capping in place except that it saves money, but if it's not suitable for the groundwater, then they won't do this method. He said he is not familiar with problems in 2010 at Blues Creek. Rep. Harrison asked if the other ponds at Cape Fear are lined or capped and lined. Mr. Newton said they aren't lined or capped and lined. Rep. Harrison asked about the monitoring wells at these sites that Duke Energy and DENR are inspecting. Mr. Newton answered that yes, we have monitoring wells at all our sites, and we are reporting results, and the results are publicly available and part of the ash closure strategy report at the end of the year and a later more comprehensive engineering and closing recommendation report.

Rep. McGrady thanked him and acknowledged the responsiveness of Duke Energy to questions he has asked. He then asked, with respect to reuse options, if he is to assume that, as in Asheville airport, that is the way structural fill will be handled by Duke Energy. Mr. Newton responded that he is not sure whether there will be a uniform standard for all structural fills. If reuse is appropriate and safe for groundwater, then it's an okay option.

Rep. Dixon commented that we all have, many generations have, enjoyed very economical electricity. He may be only one in here who remembers when electricity came into the home for the first time. He said we are now faced with an enormously complicated situation, that if we deal with the facts, is going to be difficult enough. His advice is that we approach this in the matter it appears to be headed towards now, with very good thought, and he'd encourage people to try to approach this in a matter that is best for citizens of North Carolina. He said folks of North Carolina deserve our best effort from where we are today without a lot of dialogue about why we got here.

Rep. Samuelson commented that with calculations of the permitting process, we are talking about 5-6 years of total process. She then referenced the beneficial use talk and said she is curious to know efforts Duke Energy is using to investigate other uses and technologies on the market. Mr. Newton said Tony Mathis at Duke Energy is specifically responsible for looking at reuse opportunities for coal ash, and he can provide Mr. Mathis' contact information for questions.

Sen. Brock commented that one of those uses is not our free coffee in the back.

Sen. McLaurin asked about the Cape Fear discharge and if it was under normal process they follow. Mr. Newton responded that it is within our permit to do proper maintenance in those ponds. They had corrugated metal risers entirely submerged under water, and they needed to lower water level to safely do maintenance, and it was in their permit, and our response will reflect communications with DENR for thumbs up to do that maintenance. The water that went into that river was same quality of the water that had always been going into the river. There was no contamination or ash in that river. He said Duke Energy is respectfully asking DENR to rescind that violation. Sen. McLaurin thanked him and said being proactive in those situations is always better through consulting with DENR in advance.

North Carolina Utilities Commission

Mr. Edward Finley, Jr.

Rep. Samuelson introduced Mr. Edward Finley, Jr., Chairman, North Carolina Utilities Commission, and Mr. Christopher Ayers, Executive Director, Public Staff, North Carolina Utilities Commission, to explain how the Utilities Commission will address rate recovery. Mr. Finley's PowerPoint presentation is included in the Handouts as Attachment #8. He told Rep. Samuelson that they could answer questions after Mr. Ayers spoke.

Mr. Christopher Ayers

Rep. Samuelson gave the floor to Mr. Ayers, who explained who the Public Staff is, its role, and how they address cost recovery in cases before the Utilities Commission. He said it is separate from the Utilities Commission, and it represents the using and consuming public in matters that come before the Utilities Commission. The Public Staff is guided by the principle that rates must be just and reasonable, which means that when they make a decision to incur costs, there must be proof and the costs must be reasonable. They investigate requests for rate increases and are responsible for directing the Utilities Commission for rates. The Public Staff conducts a comprehensive investigation of the Utilities Commission regarding rate cases. In this they follow statutes, look at what is known/should have been known, and then the investigation determines whether decisions were prudent and whether costs were reasonable. The Utility is accountable for what it should have known but isn't punished for lack of hindsight. Following an investigation, the Public Staff makes recommendations to the Utilities Commission. The Public Staff can serve to alter the rate base, but ultimately the Utilities Commission makes the decision. He then gave examples of reasonable and prudent decisions in the past. He said the Public Staff analyze on behalf of consumers to make sure the Utilities Commission is acting in a reasonable and prudent manner.

Sen. Brock asked Mr. Ayers if they would they seek to get their information before one of these issues and if that is public information. Mr. Ayers said it depends on the project and situation. The Utility will undertake a significant project, where there may be questions of prudence or reasonableness of cost, and the Utility may come in to sit with public staff, give an overview of what they're thinking, and get their reaction. Ultimately, there is nothing to recover until money is spent. Sen. Brock asked about the schematics of the project and if they are available with blueprints and if it is public information. Mr. Ayers said the blueprint and documentation reside with the Utility, so it is not public information, unless they choose to make them available or on file with the Utilities Commission. Sen. Brock mentioned the cost basis of making decisions and mentioned the uncertainty of financial investments of a company; his concern is that business decisions are made by the regulatory system, not by the market. Mr. Ayers said they look at projects as they are brought before the Commission and evaluate reasonableness at the time they are proposed. It's never been the public staff's practice to oppose everything on principle because there is a great deal of value in regulatory predictability and certainty. We are careful in terms of what we assess as reasonable and prudent. Mr. Finley added that what they allow companies to recover is after they've spend it.

Rep. Harrison thanked them for their presentations. She asked if, when you're figuring these rate cases out, how other states handle it come into play? Mr. Finley said they follow generally what happens in other states but use North Carolina statutes and specific evidence in their cases.

Rep. Samuelson asked if the utilities in South Carolina are owned by the state? Mr. Finley said South Carolina Electric and Gas Company (SCANA) is a publicly owned utility. There is a co-op that is owned by its members. Rep. Samuelson asked if, at this point, they anticipate the need for any legislative exemptions or riders based on what you know now on what could come before you. Mr. Finley said that if this legislature wants to tackle cost recovery for coal ash removal and clean up, it takes decision-making process off Utilities. If not, they will handle it how they handle other costs, and there is no rider per se that they could allow. Rep. Samuelson asked Mr. Ayers if they have the tools they need to protect the public. Mr. Ayers responded that any attempt would recover cost would occur through a general rate case. A rider or other legislation might expedite it; as of now, those costs would be recovered through a general rate case, which would be sufficient.

Commission Discussion

Sen. Rabin commented that he appreciates all the presentations. He said that this is a comment more than a question, and he would defer it to writing.

Public Comment Period

Rep. Samuelson introduced the public comment period and introduced Ms. Molly Diggins, who has been asked to start the public comment period. She has been given 10 minutes to speak. Everyone else has 3 minutes in the allotted hour. The Sergeant-at-Arms will hold up a sign, and will cut off speakers if they go over.

Ms. Molly Diggins, State Director, North Carolina Chapter of the Sierra Club, thanked the Commission for the opportunity to speak. She said the crisis is a great challenge to address and referenced the collaborative effort the General Assembly made in 2002 with the Clean Smokestacks Act, which contributed to a reduction in air pollution driven by a timetable set by the General Assembly, with a bipartisan vote and supported by the utilities. She said it is helpful to keep past successes in mind as we address this situation. She said North Carolina has more than 30 wet coal ash ponds at 14 sites around the state. These pits are frankly little more than unlined holes in the ground in close proximity to our waterways. These pits were constructed in the 1960's before passage of the Clean Water Act before modern waste disposal standards. Waste facilities have been required to close or upgrade, but little has changed in how we dispose of wet coal ash. The table provides additional information on how we manage waste in North Carolina, and she thanked DENR for preparing the chart. None of State standards apply to wet coal ash ponds, even though they are intended to address same risks. Despite being a Fortune 500 company, Duke Energy has successfully advocated for and been allowed to manage its wet coal ash waste as if the clock stopped half a century ago. As the people of North Carolina look to this legislature for a solution there are three things we would encourage you to consider as essential components to any legislation. We are counting on you to prevent the problem from getting any worse. We ask that you hold Duke Energy accountable and put that commitment into statute. Second, any real solution must have a timeline with a fixed date to close out all 33 wet coal ash ponds and remove ash to dry lined storage away from water. We very much appreciate that Senator Apodaca has indicated legislation in senate will include such a timetable. Third, criteria must be provided for prioritizing wet coal ash ponds for closure. The sites most immediate threat to water should be closed first. We would encourage the legislature to set minimal standards based on scientific data for closure. Moving coal ash will eliminate threat to ground and surface water. Closure standards should only allow alternatives if Duke Energy or anyone else can adequately demonstrate that those alternatives will be just as effective at protecting water supplies as removing contaminated sites. We need to bring coal ash under the state's current waste management laws. North Carolina is the only state that doesn't treat wet

coal ash as solid waste. The legislature needs to be sure that it is clear in law that what comes out of a wet pond is managed as waste. Structural fills are also inadequately regulated. At a minimum, liners and groundwater monitoring are basic requirements that should be added to law as coal ash used as structural fill. In the Asheville airport, the standards are put forward by Asheville, and do not exist in state or federal rules. As we move forward it's our hope that North Carolina will adopt a regulatory program that requires permit for all forms of coal ash disposal including structural fill and one which will afford adequate opportunity for public comment on permits and timely public access to info. Transparency and involvement are key to trust. Dan River has opened our eyes that we need to deal with the problem now. Take effective action in the short session to protect communities and water. Thank you for the opportunity to speak, and I would be remiss if I did not add Happy Earth Day. Her comments are included in the handouts as Attachment #9 and Attachment #10.

Mr. Sam Perkins, Catawba RiverKeepers, thanked the Commission for having him. He referenced his long line of family history in North Carolina, and he has family in Danville, VA., who always believed you do something once and you do it right. He said he came to talk about the capping method and how he doesn't think that is the best approach. He said it is an easy pathway for contamination and structurally there are inevitable failures regarding safety and structural factors. He said he is happy to take anyone willing to see the sites. His PowerPoint is in the attachments to these minutes as Attachment #11.

Ms. Amy Adams, Appalachian Voices, thanked the Commission for having her. She introduced herself as the former Division of Water Quality Regional Supervisor, and she is currently a campaign coordinator. She said she came to speak on the impact on communities and Duke Energy coal plant neighbors. She said we cannot forget the people who live knowing toxins leak into ground and surface waters. She mentioned people who have experienced health issues like cancer and asthma supposedly from being near coal ash. The EPA has found that living near these sites can increase chances of diseases, especially if you live near an unlined wet pond and you get your drinking water from a well. She said this describes every one of the 14 communities in North Carolina living next to coal plants. She said prolonged exposure is the most detrimental to health, and toxic metals can cause a variety of ailments to the body. She said we need to encourage strong legislation that can help these people be free of their worries.

Mr. Dean Hesterberg, Professor of Soil Science at NC State University, thanked the Commission for allowing him to speak. He is the lead author on the report assessing the impacts of the Dan River spill on the agricultural basin. He said they did water quality measurements and calculations based on how much metal was in the water, and they could make an assessment of the water considering soil protection and impacts on agriculture. With respect to long-term planning and assessing the situation for coal ash, he asked the Commission to consider that there are a lot of uncertainties with the release of heavy metals in ash in different environments. He

referenced the Tennessee Valley Authority (TVA) ash spill on how metals are released from ash under different geochemical conditions, and it varies quite a bit. His main point was to emphasize that solutions to the problems as they have been recognized should be science and engineering based. And, he said, from a chemistry perspective, it's likely the solutions will be site-specific.

Mr. David Buchwalter introduced himself as an Eco-toxicologist at North Carolina State University. He said his work focuses on understanding trace metals and their bioaccumulation and basic food webs. As this body addresses these issues, he wanted to avail himself if there is any technical information he can help with. Rep. Samuelson asked him to make sure that staff had his contact information.

Ms. Anne Ellis introduced herself as an educator with Rowan-Salisbury schools and an educator at Duke Energy. She taught public school for 15 years after working in environmental labs, and she currently teach at Horizons Unlimited, an operator of Rowan-Salisbury schools. She referenced her 5th grade program, in which she teaches on a 400-acre nature preserve. She takes her students out in the fall and spring to experience eco systems and notice the implications of them. Her philosophy is to provide experimental, experiential, and inquiry-based learning. She said that without this nature preserve, students would be at a loss. They have an 18-year partnership with Duke Energy, and the ecology there is diverse, healthy and flourishing. Duke Energy has been a friend and educator to them. The impact of making a change to the ash pond combined cycle would be devastating to plant and animal species.

Ms. Therese Vick, Blue Ridge Environmental Defense League, said she has a history of working with landfill communities. Present solid waste landfills were never designed for hazards presented. Lined landfills are not long-term because leakage and contamination are inevitable. Many landfills will not warranty beyond 5 years. Transferring coal ash can have disproportionate impact on communities, and the EPA has said all landfills will eventually leak. Furthermore, most are located in disenfranchised communities. Union Town, Alabama, provides an example of when companies dump in solid waste landfills. The town has suffered intense complications and issued a Title six lawsuit against the state. Duke Energy should keep coal ash in salt stone disposal units on their property at coal plants rather than transferring waste and liability to someone's back yard. Her comments are included in the handouts as Attachment #13.

Ms. Deborah Ferruccio, private citizen, worked on solid and hazardous waste issues and said she is upset that the focus of Duke Energy and DENR is in coal ash ponds and pits that exist. Her concern is cleaning up Roanoke River, in addition to the other sites Duke Energy said they are cleaning. The water from Dan River flows into Carr River, which is a source of drinking water for millions. This body is going to be derelict at something that is going to cost the state millions and Duke Energy in the long run.

Rep Samuelson asked if Ken Furruccio is yielding his time, and he yields. Ms. Ferruccio continues to talk about toxic dosages. If we can put coal ash into structural things like concrete, why not take coal ash and put it into concrete blocks that become the entombment? She referenced a company, Enviro, that makes these things. She asked that they put Roanoke River basin as a top priority and that they make it the emergency crisis that it is. It needs a full comprehensive clean up. Her comments are included in these attachments as Attachments #14, #15, #16, #17, and #18.

Mr. Paul Crissman, private citizen, said he once spoke as staff in the Division of Waste Management. He said he appreciates the attention paid to this subject and look forward to the work that will be done. He urged the Commission to do four things and to be comprehensive when looking at legislation: He said to look at all the waste elements, not just the ponds, but the universe of sites; set goals and timetables that will address these issues; establish monitoring wells that will not require waste removal and require frequent reporting from state agency; don't forget to put treasure where you see value and importance. He said that agencies require staff to do this, so adequately fund and staff the state agency to do this task.

Mr. Mike Pucci introduced himself as the Vice President of the Roanoke River Basin Association. The Roanoke River Basin, which Dan River is a part of, was the largest body of drinking water in North Carolina. It is the largest supply for military in North Carolina and strategic to nine counties north and east of Raleigh, who draw survival from their reputation of water. The water supply from Neuse River will not be sufficient for future growth projections, and demand for water will outstrip local supply, and Roanoke will be the closest source. Last year we ended a four-year campaign at the basin to stop uranium mining and milling because of its potential to destroy the river as a vital resource. Officials listened to the voices of citizens and concerns of North Carolinians and declined to move forward with uranium mining because of its threats and the river's reputation. He asked to please take bold action to force immediate cleanup of Roanoke River because it is probably leaking into Kerr Lake. Consider putting them under dissent decree. His comments are included in the handouts as Attachment #19.

Rep. Samuelson thanked him for his work on the uranium mining legislation.

Mr. Ryke Longest introduced himself as an enforcement attorney for 14 years doing environmental enforcement. He said this agency has the legal tools to take strong enforcement action, so now we need an exercise of leadership. We established this government to conserve blessings of our liberty for our future. This crisis is a long time brewing from inadequate action, funding and authority. Leadership has to make hard choices. Duke Energy has the money available to have this taken care of by the company. In the 1970's the North Carolina government was very much behind the principle that the polluter must pay. Clean water is

something we can't manufacture, and it's extremely important to us for survival, and it won't be suitable for future generations.

Mr. Mike Girolami has comments in the handouts listed as Attachment #20.

Commission Discussion and Announcements

After hearing no more questions Rep. Samuelson adjourned the meeting at 4:20 PM. That is the last meeting before the legislative short session.