



Atlantic Shores Environmental Services, Ltd.

March 29, 2019

Ms. Amy Beatty
Community Service Director
City of Wilmington
Community Services Department
PO Box 1810
Wilmington, NC 28402

Reference: Report of Environmental Services
Cape Fear Regional Soccer Complex
205 Sutton Steam Plant Road
Wilmington, North Carolina
ASE Project No. 1395

Dear Ms. Beatty:

Atlantic Shores Environmental Services, Ltd. (ASE) is pleased to provide the following report for environmental services for the subject site. This proposal contains our understanding of the project, proposed scope of services, activity schedule, fee estimate and authorization requirement.

PROJECT INFORMATION

The Cape Fear Soccer Complex is an approximate 65.47 acre property formerly used as a municipal landfill. The site is located at 205 Sutton Steam Plant Road, Wilmington, North Carolina. The site was redeveloped into soccer fields under a North Carolina Brownfield Agreement between the site developer and the North Carolina Department of Environment Quality (DEQ). The City is in a due diligence period to acquire the property. Due to its proximity to the Sutton Energy Complex the City is researching potential risks from the coal ash stored on the Sutton site. The City has requested review of available documentation and collection of additional data to further review the potential risks.

COAL ASH MANAGEMENT ACT OF 2014 (SENATE BILL 729)

Prompted by the release of 39,000 tons of coal ash and 27 million gallons of wastewater into the Dan River in February 2014, the state legislation passed the coal ash management act of 2014.

The purpose of the Act :

- (1) prohibit recovery of costs related to unlawful discharges from coal combustion residuals surface impoundments;
- (2) establish a moratorium on certain rate cases;

- (3) create the **coal ash management commission** to review and approve coal combustion residuals surface impoundments classifications and closure plans and otherwise study and make recommendations on laws governing management of coal combustion residuals;
- (4) require **expedited review** by the department of environment and natural resources of any permit necessary to conduct activities required by this act;
- (5) establish various **reporting requirements** to the general assembly, including a quarterly report from the department of environment and natural resources on its operations, activities, programs, and progress with respect to its obligations under this act for coal combustion residuals surface impoundments;
- (6) **prohibit local government regulation** of management of coal combustion residuals or coal combustion products;
- (7) **prohibit construction** of new or expansion of existing coal combustion residuals surface impoundments effective October 1, 2014;
- (8) **prohibit the disposal** of coal combustion residuals into coal combustion residuals surface impoundments at coal-fired generating units that are no longer producing coal combustion residuals effective October 1, 2014;
- (9) **prohibit disposal of stormwater** to coal combustion residuals surface impoundments effective December 31, 2018;
- (10) require all electric generating facilities to **convert** to generation of dry fly ash on or before December 31, 2017, and dry bottom ash on or before December 31, 2020, **or retire**;
- (11) require the **assessment of groundwater** at coal combustion residuals surface impoundments;
- (12) require **corrective action** for the restoration of groundwater quality at coal combustion residuals surface impoundments;
- (13) require a **survey of drinking water supply wells** and replacement of contaminated water supplies;
- (14) require the identification, assessment, and correction of **unpermitted discharges** from coal combustion residuals surface impoundments;
- (15) require the department of environment and natural resources to, as soon as practicable, but no later than December 31, 2015, prioritize for the purpose of **closure and remediation coal combustion residuals surface impoundments**, including active and retired sites, based on these sites' risks to public health, safety, and welfare, the environment, and natural resources;
- (16) require owners of coal combustion residuals surface impoundments to **submit a proposed plan for closure** of all impoundments to the department of environment and natural resources;
- (17) require **closure and remediation** of certain coal combustion residuals surface impoundments as soon as practicable, but **no later than august 1, 2019**;
- (18) require the Department of Environment and Natural Resources to **establish a schedule and process for closure and remediation** of all coal combustion residuals surface impoundments based upon the department's risk assessment of these sites, baseline requirements set by the general assembly, evaluation of proposed closure plans submitted by impoundment owners, and input from the public and other stakeholders;
- (19) establish minimum statutory requirements for **structural fill** projects using coal combustion products and require the department of environment and natural resources to inventory and inspect certain structural fill projects;
- (20) place a **moratorium** on certain projects using coal combustion products as structural fill until august 1, 2015, and direct the department of environment and natural resources and the environmental management commission to study the adequacy of current law governing use of coal combustion products as structural fill and for beneficial use;
- (21) place a **moratorium** on the expansion and construction of coal combustion residuals landfills until august 1, 2015, and direct the department of environment and natural resources to assess the risks to public health, safety, and welfare, the environment, and natural resources of coal combustion residuals

surface impoundments located beneath these landfills to determine the advisability of continued operation of these landfills;

(22) **strengthen the reporting and notification requirements** applicable to discharges of wastewater to waters of the state;

(23) require certain emergency calls to be **recorded**;

(24) require **development of emergency action plans** for high and intermediate hazard dams and amend other dam safety law requirements applicable to coal combustion residuals surface impoundments;

(25) transfer solid waste rule-making authority from commission for public health to environmental management commission;

(26) amend compliance boundary provisions;

(27) provide for various studies;

(28) require the state construction office and the department of transportation to develop technical specifications for use of coal combustion products; and

(29) provide resources for implementation of this act.¹

Summary

The Coal Ash Management Act created an independent Coal Ash Management Commission (CAMC) to be located within the Department of Public Safety (DPS) whom will be responsible for:

(1) Review and approve coal ash impoundment classifications.¹

(2) Review and approve closure plans.

(3) Review and make recommendations on rules related to the management of coal ash.¹

(4) Undertake studies requested by the General Assembly.

The Coal Ash Management Act places new standards on the management of coal ash that were not applied prior to the act. Compliance boundaries for coal ash producing facilities pertaining to groundwater quality have also been amended. The act now states that if the operation of a disposal system results in an exceedance of groundwater quality standards beyond the compliance boundary, the permittee must undertake corrective action, prior to the act, the permittee was required to immediately remove the source of contamination (coal ash) if groundwater quality standards were exceeded beyond the compliance boundary.

Additionally, the Department of Environment Quality (DEQ) must propose classifications for all coal ash impoundments to initiate the clean-up of previously established impoundments. Impoundments must be classified as either high, intermediate, or low risk based on their “risk to public health, safety, and welfare; the environment; and natural resources.” Depending on the classification of the impoundment, the DEQ will consider a closure plan and then submit the plan to CAMC for final approval. The Act does not establish standards for classifying the facilities producing coal ash, however, the act does provide a list of factors that must be considered in determining whether an impoundment is high, intermediate, or low risk. Once an impoundment is classified to be closed, it must be dewatered and residuals must be removed and disposed of in a coal combustion residuals landfill, industrial landfill, or municipal solid waste landfill or used in structural fill or other beneficial uses.

¹ Senate Bill 729

2016 AMENDMENTS TO COAL ASH MANAGEMENT ACT (HOUSE BILL 630)

- Eliminates the Coal Ash Management Commission, the bill gives DEQ complete control over the risk classification of impoundments and approval of final closure plans.
- Requires a coal combustion residuals impoundment owner to provide a permanent alternative water supply to well owners within 1/2 mile of the compliance boundary around a coal ash impoundment and to well owners in areas where groundwater contamination associated with the impoundment is expected to migrate based on hydrogeologic studies.
- Maintains existing CAMA language prohibiting approval of a cap in place closure plan unless the plan will “prevent...post-closure exceedances of groundwater quality standards beyond the compliance boundary”, but adds an alternative closure standard that may be less protective of groundwater.
- The bill gives DEQ more power over final closure plans. In addition to removing oversight by the Coal Ash Management Commission, the bill allows DEQ to determine the final closure plan rather than simply approving or disapproving a plan proposed by Duke Energy.
- Eliminates the list of specific risk classification criteria in the 2014 law, leaving only general language on consideration of “risks to public health, safety, and welfare; the environment; and natural resources”.
- Repeals the statutory provisions related to the coal ash management commission;
- Modifies the closure requirements for coal combustion residuals surface impoundments under the coal ash management act of 2014;
- Modifies appointments to the mining commission and the oil and gas commission.

DUKE ENERGY’S COMPREHENSIVE SITE ANALYSIS/CLEAN-UP PLAN

- **L.V. Sutton Energy Complex Comprehensive Site Assessment (CSA) Update (January 31, 2018)**

The CSA Report was generated by Geosyntec Consultants from Charlotte, North Carolina. A copy of the CSA has been attached.

The Sutton Site began operation in 1954 and includes 137 acres with two coal ash basins (Basin 1971 and 1984). Basin 1971 is 40 feet deep and contains approximately 30-35 feet of ash. Basin 1984 was constructed near the original ground surface and has a clay liner. Approximately 6,320,000 tons of ash were stored in these basins prior to the start of removal of ash in 2016. In addition to these basins there are also two areas containing ash on the Sutton site, the Former Ash Disposal Area containing 840,000 tons of ash and a former process area (volume not documented in the CSA). A landfill was constructed adjacent to the ash basins to transfer the ash. Disposal of the ash into the landfill is currently occurring.

Discharge from the basins is permitted by the North Carolina Department of Environmental Quality Division of Water Resources under National Discharge Elimination System (NPDES) Permit No. NC001422.

Based on the data from the CSA, the coal ash is a source of groundwater impact on the Sutton Plant site. Review of Figure ES-1 of the CSA illustrates groundwater flow in the vicinity of the ash basins, former

process area and the former ash disposal area to be to the east or east southeast. However, groundwater flow east of Frederickson Road has been illustrated to flow east northeast toward Highway 421 and a small plume of groundwater impacts have migrated east past Fredrickson Road. Boron is the primary constituent detected in groundwater at concentrations greater than background concentrations and greater than the 2L standard near or past the compliance boundary. Some public water supply wells located east of the Sutton site have been impacted by Coal Ash constituents and have been abandoned. A new public water supply line has been extended into the area to accommodate the water needs in this area. However, as of the date of this report, some well owners are being supplied bottled water, pending a more permanent solution.

According to the CSA “the Site ash basins are currently designated as “ high” risk under CAMA, meaning that closure of the ash basins are required by 2019, however, the updated evaluation of risks has determined there are no unacceptable risks to human health or the environment due to groundwater, surface water, or sediment impacts.”

The primary source control (closure) method for the Sutton site has been determined to be excavation of the ash and groundwater extraction at the property boundary, which is reportedly ongoing at this time.

L.V. SUTTON ENERGY COMPLEX SITE CLOSURE PLAN (JUNE 4, 2018)

The Closure Plan was generated by Geosyntec Consultants from Charlotte, North Carolina. A copy of the Plan has been attached.

The Closure Plan includes the 1971 and 1984 basins and the Landfill. A total of 5,546,000 cubic yards of ash will be removed from the two basins. It does not appear that the material stored in the Former Ash Disposal Area and a former process area is addressed in this plan. The basin closure activities began on in July 2016 and are slated to be completed in February 2020.

The plan includes dewatering and utilizing appropriate equipment and methods to excavate and move the CCR to permitted off-site and on-site landfills. The volume of the on-site landfill was not documented on the Plan. Therefore it is not known how much material is being transferred to the onsite landfill and what is being transported to an off-site location.

During closure, sluiced water from the 1971 Basin to the 1984 Basin will be recirculated back to the 1971 Basin to limit the amount of groundwater recharge within the 1971 Basin.

Closure will be complete when groundwater monitoring concentrations do not exceed the applicable groundwater protection standard established pursuant to 40 C.F.R. § 257.95(h) for constituents listed in appendix IV to 40 C.F.R. Part 257.

APPENDIX IV TO PART 257—CONSTITUENTS FOR ASSESSMENT MONITORING

Common name ¹
Antimony
Arsenic
Barium
Beryllium
Cadmium
Chromium
Cobalt
Fluoride
Lead
Lithium
Mercury
Molybdenum
Selenium
Thallium
Radium 226 and 228 combined

¹ Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.

[80 FR 21500, Apr. 17, 2015]

DRAINAGE PATTERNS

According to Figure 2, the Cape Fear Soccer Complex sits at a relatively higher elevation when comparing it to the Duke Sutton Steam Plant and its surroundings. The soccer complex's topography ranges from approximately 9 meters above the National Geodetic Vertical Datum to approximately 5.5 meters. The gradient within the soccer complex slopes steeply downward towards the west and north, and gradually declines south. In general, groundwater movement in the Coastal Plain Physiographic Province is from higher to lower elevations. Therefore, the presumed direction of groundwater flow within the soccer complex is to the north, northwest, west, southwest and south directions.

The area between the Cape Fear Soccer Complex and Duke Sutton Steam Plant is approximately 5.5 meters above the National Geodetic Vertical Datum to approximately 3 meters. The gradient between the soccer complex and Duke Sutton Steam Plant declines southwest towards the Cape Fear River, therefore, drainage between the Cape Fear Soccer Complex and Duke Sutton Steam Plant will presumably flow down gradient towards the Cape Fear River.

The Duke Sutton Steam Plant's topography ranges from 11.5 meters above the National Geodetic Vertical Datum to approximately 3 meters. The Duke Sutton Steam Plant is a relatively flat tract of land with the exception of one large knoll in the northeast portion of the parcel. The gradient within Duke Sutton Steam Plant declines south and southwest towards the Cape Fear River. Therefore, the presumed direction of the groundwater flow within Duke Sutton Steam Plant will flow south and southwest down gradient towards the Cape Fear River. As discussed above, review of Figure ES-1 of the CSA illustrates groundwater flow in the vicinity of the ash basins, former process area and the former ash disposal area to be to the

east or east southeast, away from the Soccer Complex. However, groundwater flow east of Frederickson Road has been illustrated to flow east northeast toward Highway 421 and a small plume of groundwater impacts has migrated east past Fredrickson Road. Boron is the primary constituent detected in groundwater at concentrations greater than background concentrations and greater than the 2L standard near or past the compliance boundary.

ASE sampled the irrigation well servicing the soccer complex on February 18, 2019 and March 6, 2019. According to the well plate, the irrigation well is 10 inches in diameter and 50 feet deep with casing from 2 feet above ground surface to 35 feet below ground surface. The screened interval is from 50 feet below ground to 35 feet below ground surface. The well is incased with gravel from 30-50 feet with a screen interval of 35-50 feet.

The groundwater samples were laboratory analyzed for volatile organic compounds (VOCs), priority pollutant metals, nitrate-nitrite, ammonia, chloride, chemical oxygen demand (COD), and total organic compounds (TOC) at a North Carolina-certified laboratory.

Target analytes were not identified in the sample with the exception of the following: Two priority pollutant (PP) metals and nitrate-nitrite were detected in the groundwater sample at concentrations that were below the respective 2L drinking water standard. Zinc was identified at 149 ug/L, Nitrate-nitrite was identified at 0.28 mg/L and Chloride was identified at 4.4 mg/L.

PREVAILING WINDS

ASE produced three wind roses for the closest airports surrounding the Cape Fear Soccer Complex. The three airports are located in Wilmington, Southport, and Whiteville. Wilmington's airport is approximately 3.5 aerial miles southeast of the soccer complex. According to the Wilmington airport wind rose, the prevailing winds in Wilmington are out of the north-northeast and south-southwest.

Southport's airport is approximately 25.5 aerial miles south-southwest of the soccer complex. According to the Southport wind rose, the prevailing winds in Southport are out of the north and south-southwest. Whiteville's airport is approximately 42.5 aerial miles west of the soccer complex. According to the Whiteville wind rose, the prevailing winds in Whiteville are out of the north-northeast and south southwest.

The Cape Fear Soccer Complex is approximately 3,900 feet southeast of the Duke Sutton Steam Plant coal ash basins. Based on the available data, the prevailing winds do not favor wind dispersion from the Duke Sutton Steam Plant towards the direction of the soccer complex.

ASE had attached the five year average wind rose for each of the reviewed data points.

SOIL SAMPLING

ASE collected seven (7) surficial soil samples from the site using laboratory supplied jars and a stainless steel spoon. After being filled, the sample containers were labeled with the project name and number, the time and date of sample collection, the analyses to be performed, and the absence or presence of preservative. The filled sample containers were placed into an ice filled cooler to maintain the samples at approximately 4° Celsius. The samples were laboratory analyzed for 23 metals (TAL metals).

Three metals (arsenic, chromium and iron) were identified in the site soil above residential and/or protection of groundwater state regulatory standards. ASE has provided a summary of result in the attached Table I. A copy of the laboratory data has also been attached. The approximate locations of the soil samples have been illustrated on Figure 3.

Historic published data of coal ash analysis from the Sutton Plant was used for comparison to attempt to observe if there is a correlation between the two sampling sets. Based on the ash data, ASE used arsenic, barium, chromium, cobalt, and iron as preliminary markers for the coal ash. The average concentration of the coal ash for these markers are as follows:

Metal	Average Ash Concentration (mg/kg)	Average Soccer Soil Concentration (mg/kg)	% of Ash metal in soil sample	Pearson Coefficient
Arsenic	30.8	0.98	3.2%	-0.55
Barium	281.3	11.4	4.1%	-0.35
Chromium	14.1	3.6	25.5%	-0.42
Cobalt	9.6	0.66	6.9%	0.21
Iron	7,886.7	1576	20%	-0.28

If the compound was non detect in the sample, ASE used the method detection limit in the calculations of average concentration and in the Pearson correlation calculations. Percent distribution of the markers in the soils collected from the site does not support the deposition of coal ash to the site is occurring at a significant rate.

One of the most commonly used measures of correlation is Pearson Product Moment Correlation or Pearson's correlation coefficient. It is measured using the formula,

$$r_{xy} = \frac{n \sum xy - \sum x \sum y}{\sqrt{(n \sum x^2 - (\sum x)^2)(n \sum y^2 - (\sum y)^2)}}$$

The value of Pearson's correlation coefficient vary from -1 to +1 where -1 indicates a strong negative correlation and +1 indicates a strong positive correlation. The sample size for the ash is too small to conduct this test with statistical validity. However, ASE calculated the correlation coefficient by duplicating the ash sample set (x) and compared them to the soil sampling set (y).

Based on the modified Pearson's test results, the relationship between the metals in the ash and soil sample is a weak correlation.

ENGINEERING CONTROLS AND LURs

1. No water supply wells may be installed or used at the Brownfields Property.
2. No mining activities may be conducted on the Brownfields Property.

3. No disturbance, displacement or removal of soil in areas of the Brownfields Property is permitted without prior notification to and approval by DEQ. If disturbance is approved:
 - a. Would likely require sampling if disturbed.
 - b. May require off-site disposal as a regulated material.
 - c. Written reports would be required documenting the sampling, handling and disposal.
 - d. Reporting requirements: no later than seven (7) days following discovery of the disturbance, report the disturbance to DEQ in writing.
4. No activities which result in direct exposure to or removal of groundwater without prior sampling and analysis of groundwater in the area and approval from DEQ.
 - a. Such as dewatering activities, production wells, etc.
5. No basements and no fountains, ponds, lakes, swimming pools or other items, which are supplied, in whole or in part, by groundwater under the Brownfields Property may be constructed on the Brownfields Property. Reservoirs and ponds used exclusively for irrigation purposes and supplied by groundwater originating other than on the Brownfields Property (e.g., groundwater from adjoining properties and water from the City of Wilmington) may be constructed in areas of the Brownfields Property.
6. No groundwater derived from adjoining properties may be used at the Brownfields Property unless, prior to its initial use and no less frequently than once every six months thereafter, the owner of any portion of the Brownfields Property where such groundwater is proposed to be used satisfies DEQ that such groundwater does not exceed the groundwater standards contained in the North Carolina Administrative Code, Title 15A, Subchapter 2L, Rule .0202.
 - a. The off-site irrigation well requires sampling every six months.
7. Yearly notification requirement: “Within seven (7) days of each anniversary of the effective date of the Brownfields Agreement, the owner(s) of the Brownfields Property shall each submit a notarized Land Use Restrictions Update to DEQ”
 - a. Land Use Restrictions update (required in January of every year).
 - b. New Hanover County Ordinance.
 - c. The cap is functioning as required.
 - d. Record of any erosion, erosion repairs or other activities affecting the Land Use Restrictions or, if the Brownfields Property is in use, affecting the integrity of the cap.

CONCLUSIONS

The Sutton plant has been identified as a high risk facility under the Coal Ash Management Act and is in the process of closing their coal ash impoundments. The facility is excavating the impoundments, dewatering them and placing the waste into a permitted landfill immediately east of the current impoundments. It is not clear whether additional waste material has been or will be hauled off site.

Groundwater from the Sutton plant has been impacted by the presence of the ash on the Sutton property. Groundwater on the Sutton plant property primarily flows west or southwest, away from the Soccer complex. However, some of the impacted groundwater is documented to flow in an easterly direction. Documented impacts to the groundwater are located approximately one mile northwest of the soccer complex property. The area between the Cape Fear Soccer Complex and Duke Sutton Steam Plant is approximately 5.5 meters above the National Geodetic Vertical Datum to approximately 3 meters. The gradient between the soccer complex and Duke Sutton Steam Plant declines southwest towards the Cape Fear River, therefore, drainage between the Cape Fear Soccer Complex and Duke Sutton Steam Plant will presumably flow down gradient towards the Cape Fear River unless underground utility easements (if present) alter the assumed flow.

The irrigation well servicing the soccer complex has been sampled. Target analytes were not identified above drinking water standards. As per the Brownfield Land Use requirements, this irrigation well is required to be sampled every six months if it is used for on the site irrigation.

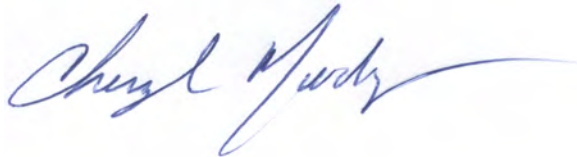
According to the Wilmington airport wind rose, the prevailing winds in Wilmington are out of the north-northeast and south-southwest. These wind directions would limit the potential for wind dispersion of the ash from the Sutton plant on the soccer complex site.

Three metals (arsenic, chromium and iron) were identified in the site soil above residential and/or protection of groundwater state regulatory standards. Historic published data of coal ash analysis from the Sutton Plant was used for comparison to attempt to observe if there is a correlation between the two sampling sets. Based on the reviewed data, a correlation does not appear to be present.

Our evaluation of site conditions has been based on our understanding of the project information, limited sampling locations and the data obtained during our field activities.

ASE appreciates the opportunity to provide our environmental consulting services to you on this project. If there are questions regarding this report, or a need for further information, please contact us at 910-371-5980.

ATLANTIC SHORES ENVIRONMENTAL SERVICES, LTD.



Cheryl J. Moody, REM, CIEC, CMRS
Principal Scientist



Brandon Scott Dobbs
Staff Scientist

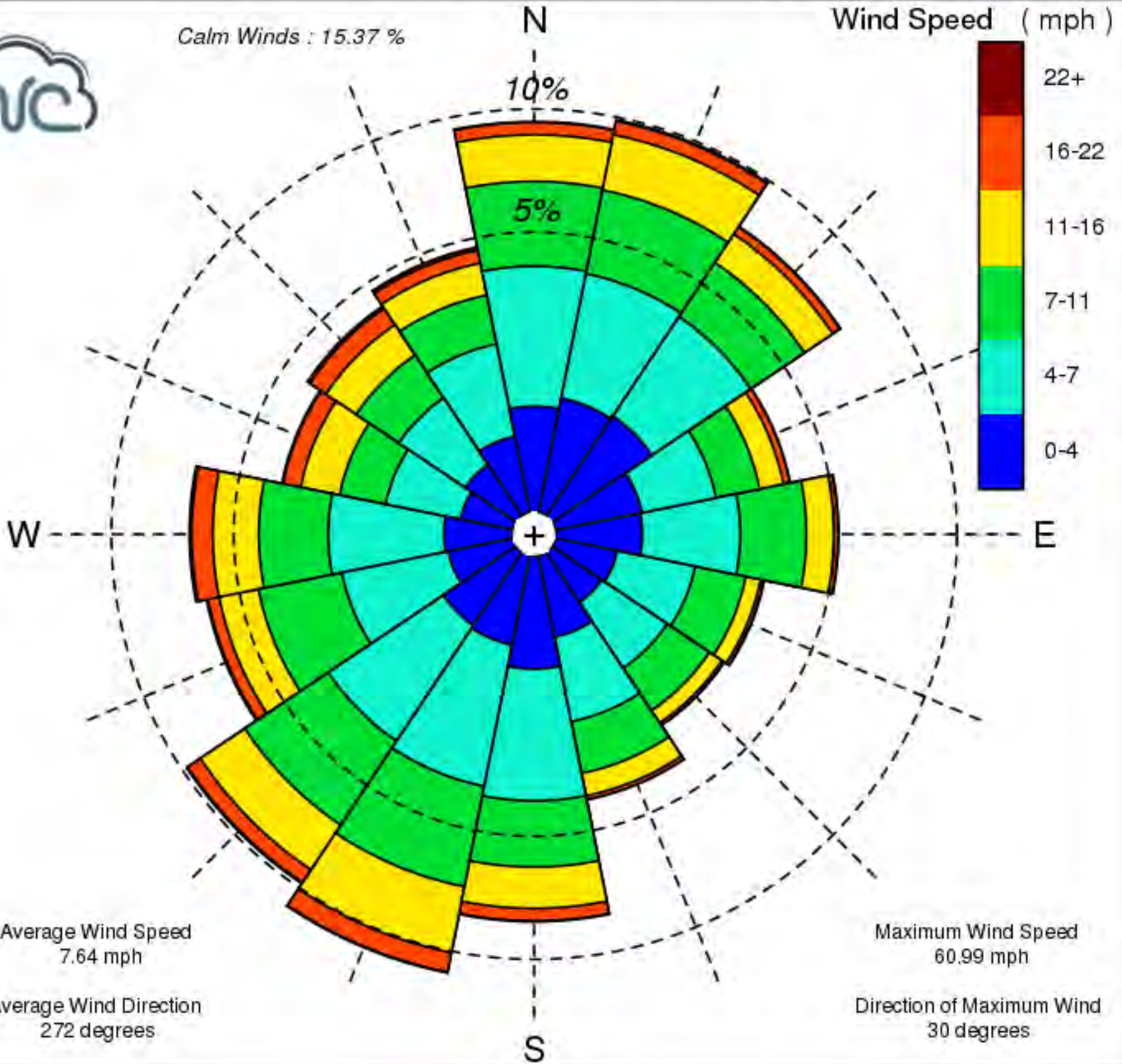
Enclosures: Wind Roses
 Table
 Figures
 Lab Data
 Supporting Documents

Wind Rose for New Hanover County Airport (KILM) Jan. 1, 2014 to Jan. 1, 2019



Calm Winds : 15.37 %

Wind Speed (mph)

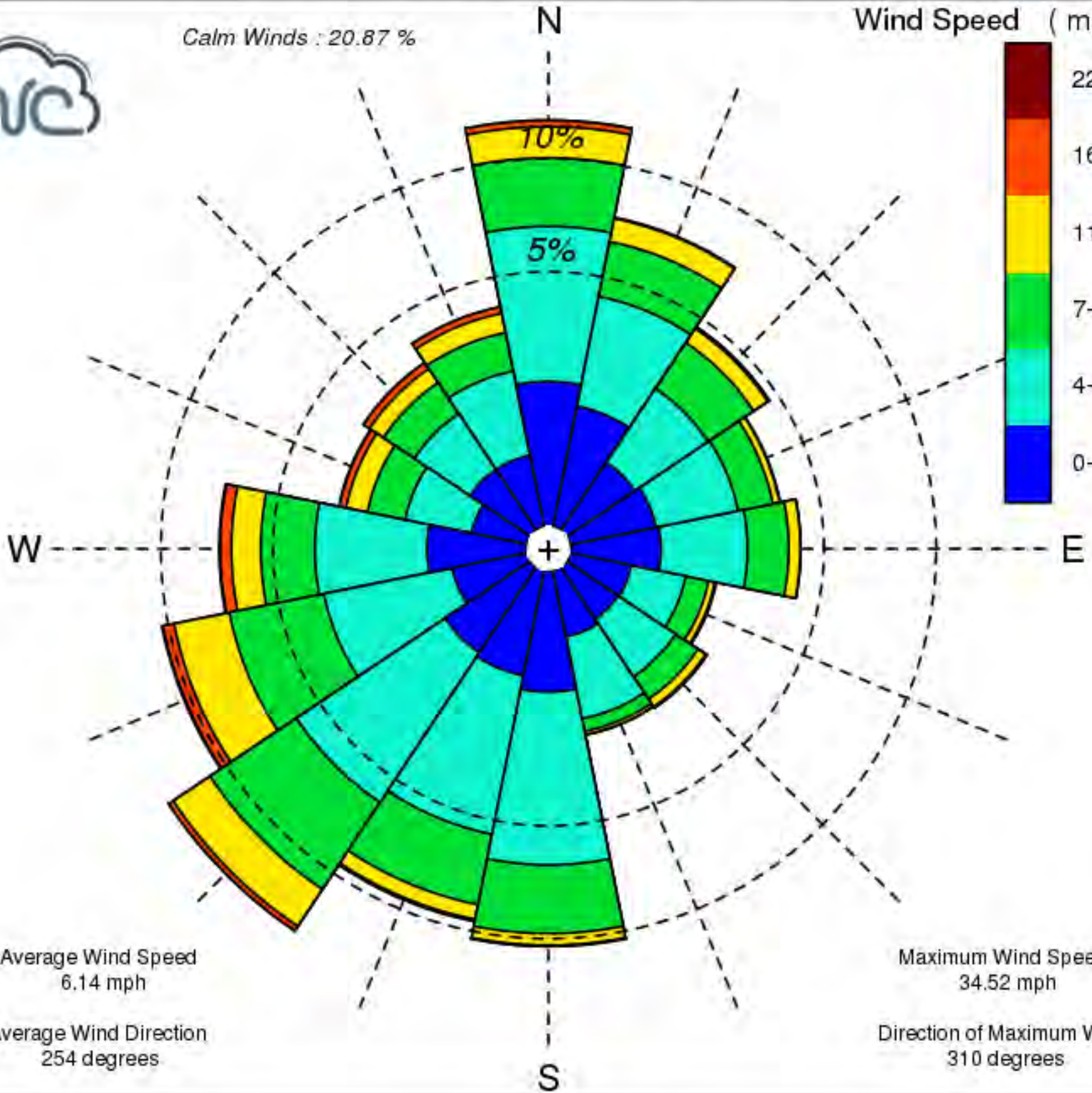
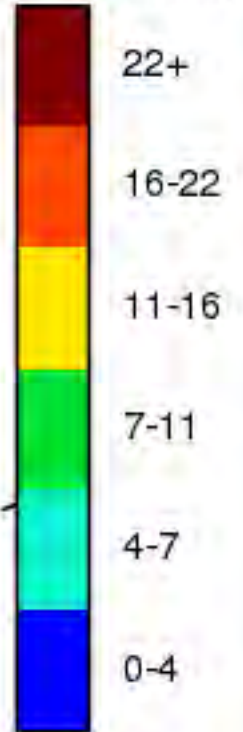


Wind Rose for Brunswick County Airport (KSUT) Jan. 1, 2017 to Jan. 1, 2019



Calm Winds : 20.87 %

Wind Speed (mph)



Average Wind Speed
6.14 mph

Average Wind Direction
254 degrees

Maximum Wind Speed
34.52 mph

Direction of Maximum Wind
310 degrees

Wind Rose for Columbus County Airport (KCPC) Jan. 1, 2017 to Jan. 1, 2019



Calm Winds : 40.54 %

Wind Speed (mph)

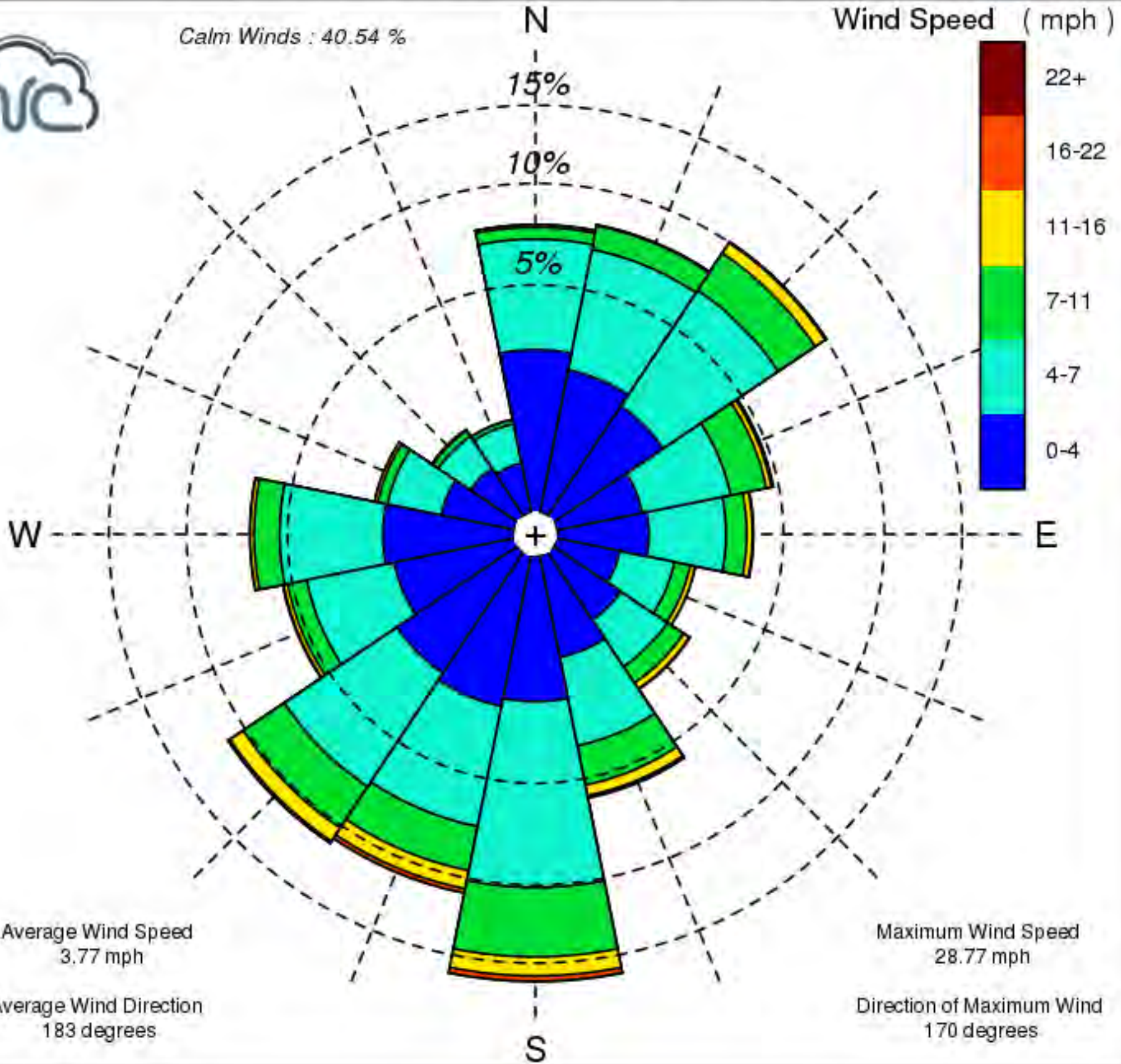


Table 1 - Soil Results and Ash Comparison

Analytical Parameter	Percent Moisture	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chloride	Chromium	Cobalt	Copper	Iron	Lead	Magnesium	
Reporting Units	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
Soil RSL - Industrial Health	NE	230,000	93	3	47,000	470	47,000	200	NE	NE	6.5	70	9,300	160,000	400	NE	
Soil RSL - Residential Health	NE	16,000	6.3	0.68	3,100	31	3,100	14	NE	NE	0.31	4.7	630	11,000	400	NE	
Soil RSL - Protection of Groundwater	NE	110,000	0.9	5.8	580	63	45	3	NE	NE	3.8	0.9	700	150	270	NE	
Sample ID	Sample Collection Date	Analytical Results															
Ash Samples - Sutton																	
AB-01 (3-5)*	3/28/15	26.6	4,460	<3.4	22.1	148	2.1	8.7 J	<0.4	997	<338	11.8	6.7	25.3	9,590	8.6	383
AB-01 (78-80)*	3/28/15	9.9	3,370	<2.8	16.8	92.9	0.62	7.2 J	<0.33	722	<276	7.1	2.5 J	8.4	5,110	3.6	285
AB-02 (3-5)*	3/26/15	45	19,600	<4.7	51.4	603	7.4	21.9 J	0.32 J	3,970	<457	23.4	19.5	67.8	9,860	25.5	1,410
ASE Soil Samples - Soccer Complex																	
SS-1	3/13/19	26.6	3,640	ND	1.8	11.4	ND	ND	ND	2,550	ND	4.7	0.64	6.6	2,110	12.4	255
SS-2	3/13/19	31.2	4,850	ND	1.5	11.4	ND	ND	ND	1,780	ND	5.5	0.97	3.8	2,810	7.8	403
SS-3	3/13/19	4.1	1,080	ND	ND	2	ND	ND	ND	157	ND	3.3	ND	2.1	847	4.3	51.4
SS-4	3/13/19	11	1,430	ND	ND	4.1	ND	ND	ND	532	ND	1.7	ND	1.4	1,100	1.6	111
SS-5	3/13/19	18.9	1,720	ND	ND	12.7	ND	ND	0.11	2,910	ND	2.8	0.5	3.9	909	6.6	243
SS-6	3/13/19	0.43	1,230	ND	ND	13.4	ND	ND	ND	3,790	ND	2	0.88	13	1,250	0.94	143
SS-7	3/13/19	5.6	2,060	ND	1.3	24.9	ND	ND	0.23	8,140	ND	5.4	0.72	12.6	2,020	11.3	289
Analytical Parameter	Percent Moisture	Manganese	Mercury	Molybdenum	Nickel	Nitrate (as N)	Potassium	Selenium	Silver	Sodium	Strontium	Sulfate	Thallium	Total Organic Carbon	Vanadium	Zinc	
Reporting Units	%	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
Soil RSL - Industrial Health	NE	5,600	9.7	1,200	1,800	NE	NE	1,200	ND	11,000,000	140,000	NE	2	NE	1,200	70,000	
Soil RSL - Residential Health	NE	380	2.3	78	140	NE	NE	78	ND	770,000	9,400	NE	0.16	NE	78	4,700	
Soil RSL - Protection of Groundwater	NE	65	1	7.1	NE	NE	NE	2.1	ND	NE	1,500	NE	0.28	NE	350	1,200	
Sample ID	Sample Collection Date	Analytical Results															
Ash Samples - Sutton																	
AB-01 (3-5)*	3/28/15	26.6	ND	0.16	4	13	<33.8	826	10.1	ND	<335	66.7	<338	<3.4	145,000	34.4	13.2
AB-01 (78-80)*	3/28/15	9.9	ND	0.015	3.2	5	<27.6	469	<2.8	ND	<227	57.9	<276	<2.8	7,130	15.7	8.2
AB-02 (3-5)*	3/26/15	45	ND	0.14	3.8 J	33.8	<45.7	2,480	12.2	ND	592	394	<457	<457	91,000	84.2	33.9
ASE Soil Samples - Soccer Complex																	
SS-1	3/13/19	26.6	34.5	ND	ND	1.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.8	17.1
SS-2	3/13/19	31.2	40	ND	ND	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.6	14.3
SS-3	3/13/19	4.1	7.4	ND	ND	1.9	ND	ND	ND	0.6	ND	ND	ND	ND	ND	3.1	6.9
SS-4	3/13/19	11	13.8	ND	ND	0.58	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.5	9.2
SS-5	3/13/19	18.9	47.3	ND	ND	1.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.8	25.9
SS-6	3/13/19	0.43	19.2	ND	ND	1.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.6	36
SS-7	3/13/19	5.6	58.2	ND	ND	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.7	59

Notes

Bold color highlighted concentrations indicate highest exceedance of the NCDEQ Preliminary Soil Remediation Goals based on USEPA Regional Screening Levels for soil, November 2017, for the category listed below:

- Soil RSL - Industrial Health
- Soil RSL - Residential Health
- Soil RSL - Protection of Groundwater
- Above more than 1 standard

mg/kg = milligrams per kilogram

NE = Not established

ND = No Data

S.U. = Standard Units

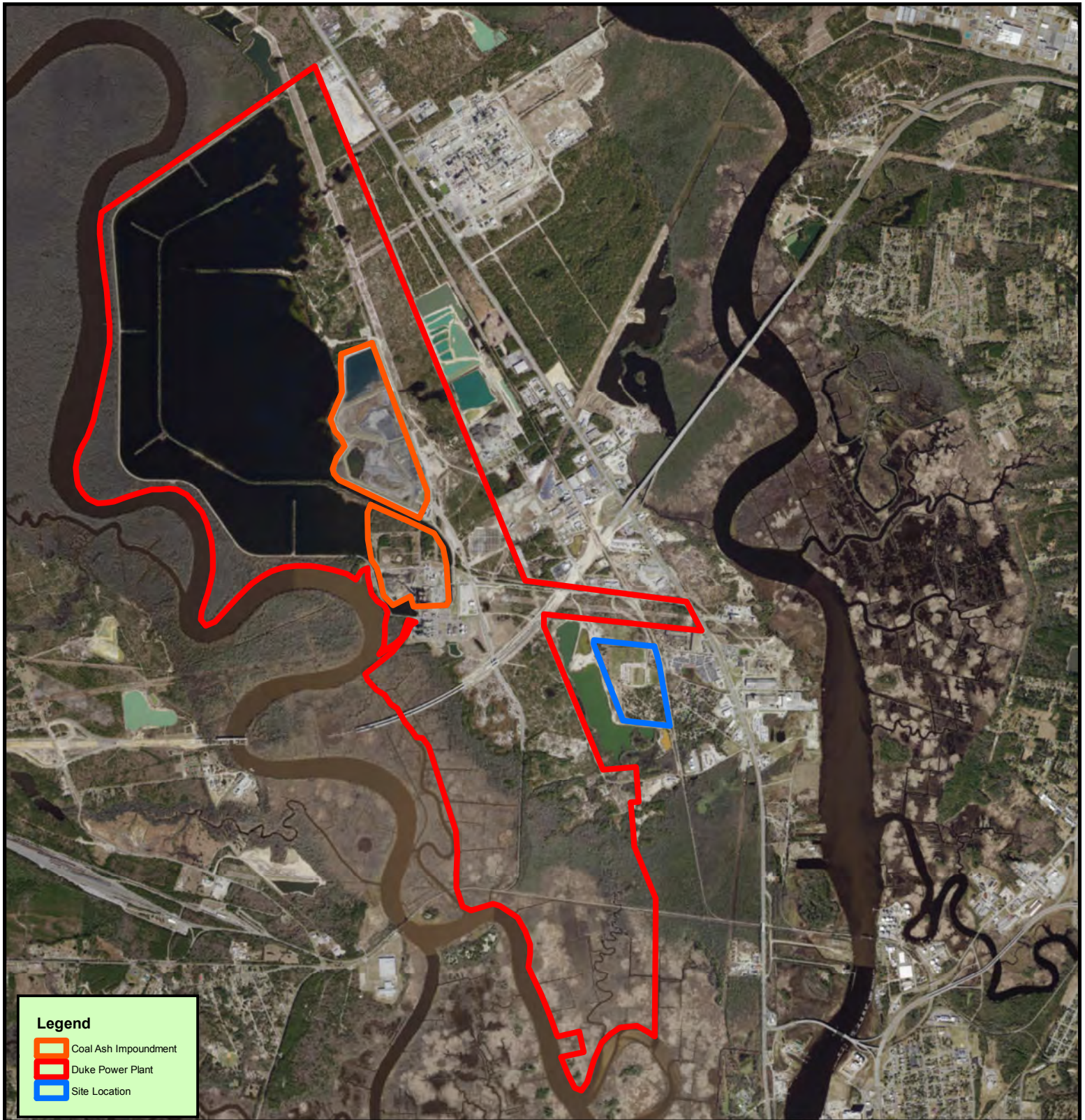
% = Percent

J = indicates concentration reported below Practical Quantitation Limit (PQL), but above Method Detection Limit (MDL) and therefore concentration is estimated.




< = Concentration not detected at or above the reporting limit

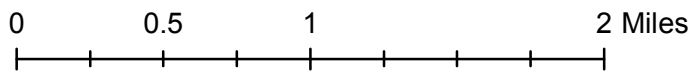
* = Collected by others

Figure 1: Site Location



Legend

-  Coal Ash Impoundment
-  Duke Power Plant
-  Site Location



Irrigation Well Sample and Analysis
205 Sutton Steam Plant Road
Wilmington, North Carolina 28401
Project Number: 1395

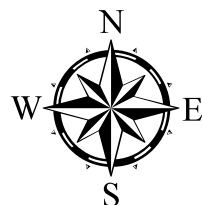
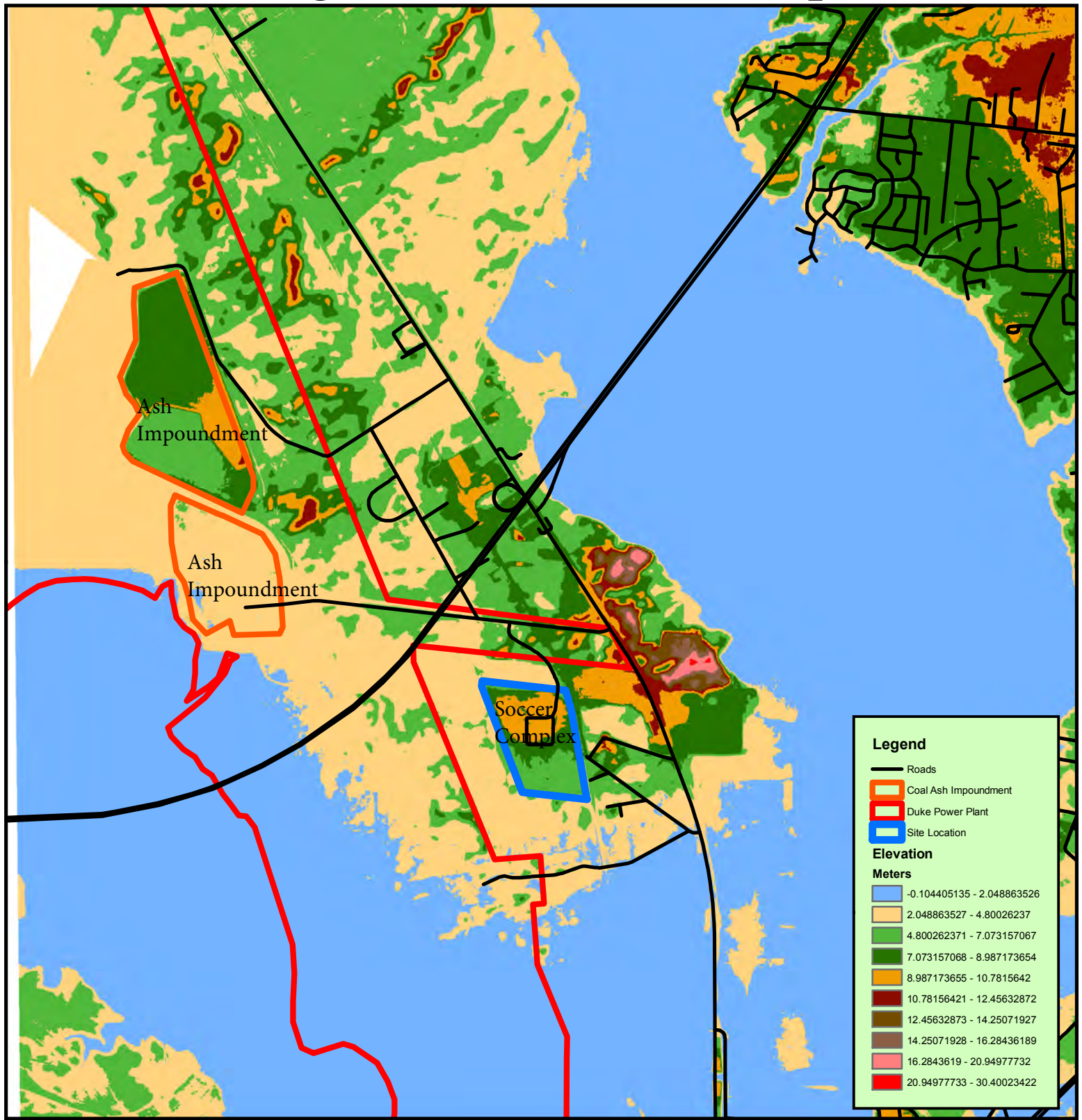


Figure 2: Elevation Map



0 0.5 1 2 Miles



205 Sutton Steam Plant Road
 Wilmington, North Carolina 28401
 Project Number: 1395

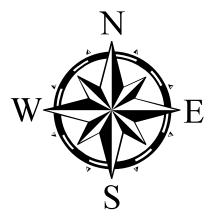
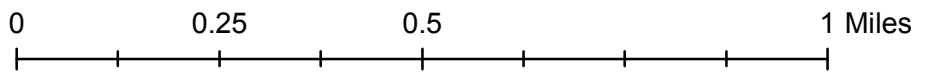
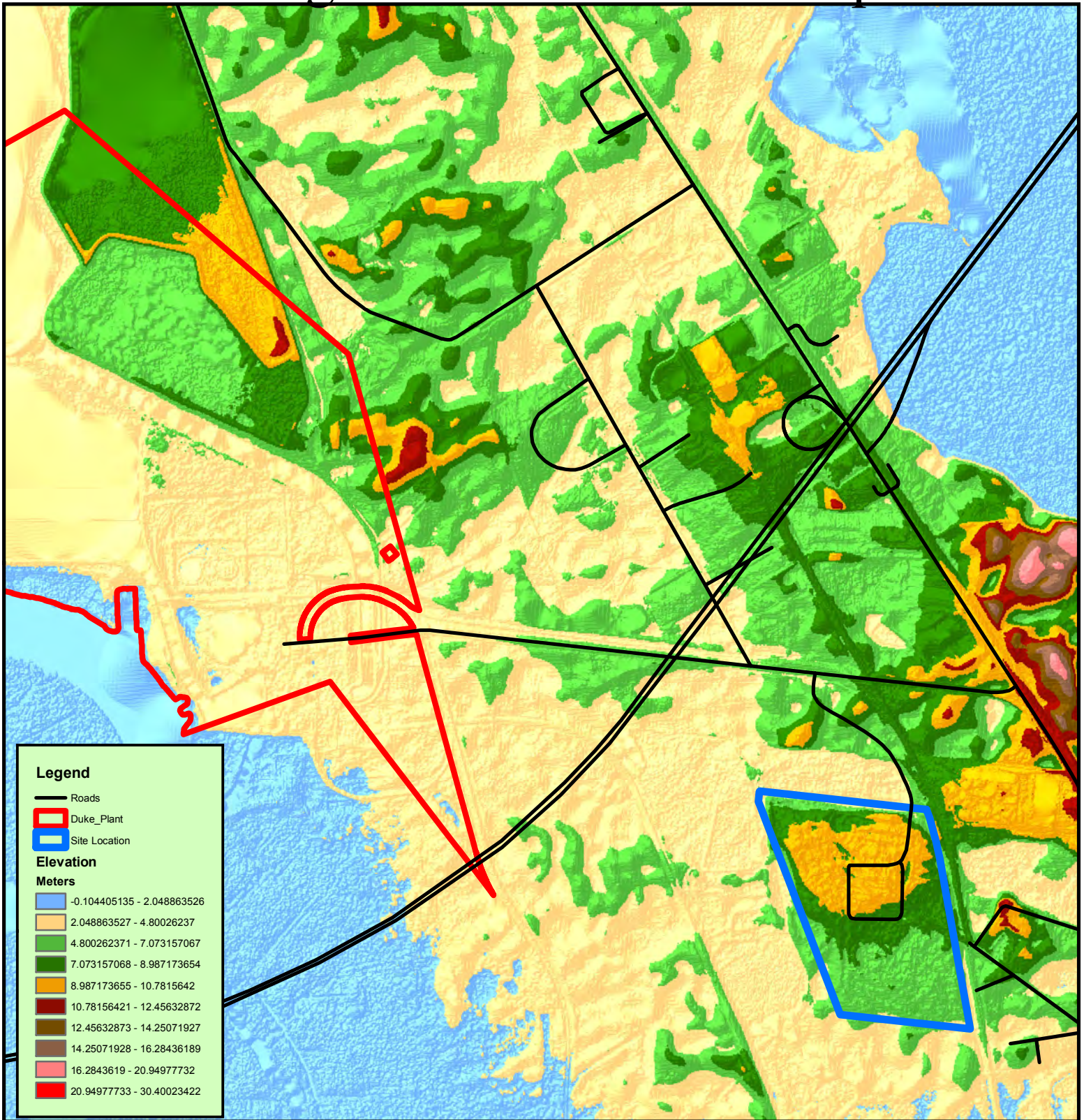


Figure 2A: Elevation Map



205 Sutton Steam Plant Road
Wilmington, North Carolina 28401
Project Number: 1395

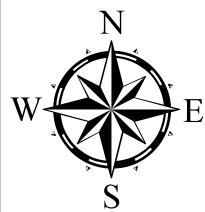
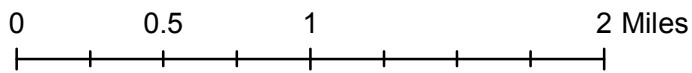
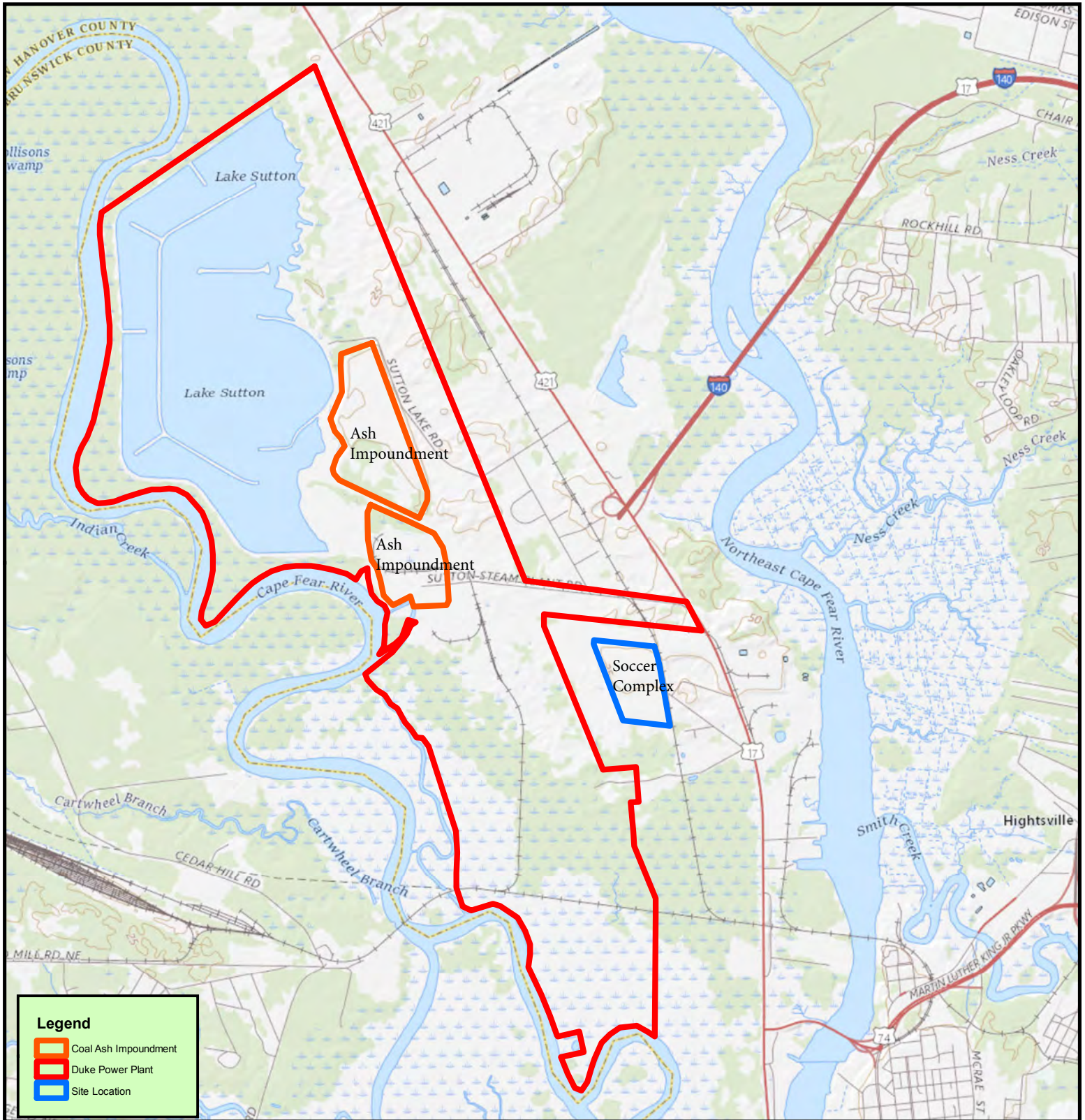


Figure 3: Topographic Map



Irrigation Well Sample and Analysis
205 Sutton Steam Plant Road
Wilmington, North Carolina 28401
Project Number: 1395



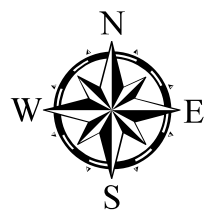
Figure 4: Soil Sample Locations



0 0.05 0.1 0.2 Miles



Soil Sample Locations
205 Sutton Steam Plant Road
Wilmington, North Carolina 28401
Project Number: 1395



March 20, 2019

Cheryl Moody
Atlantic Shore Environmental
154 Backhoe Rd
Leland, NC 28451

RE: Project: Metals
Pace Project No.: 92421261

Dear Cheryl Moody:

Enclosed are the analytical results for sample(s) received by the laboratory on March 14, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Taylor Ezell
taylor.ezell@pacelabs.com
(704)875-9092
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Metals
Pace Project No.: 92421261

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12

South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

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SAMPLE ANALYTE COUNT

Project: Metals
Pace Project No.: 92421261

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92421261001	SS-1	EPA 6010D	SH1	22	PASI-A
		ASTM D2974-87	KDF	1	PASI-C
92421261002	SS-2	EPA 6010D	SH1	22	PASI-A
		ASTM D2974-87	KDF	1	PASI-C
92421261003	SS-3	EPA 6010D	SH1	22	PASI-A
		ASTM D2974-87	KDF	1	PASI-C
92421261004	SS-4	EPA 6010D	SH1	22	PASI-A
		ASTM D2974-87	KDF	1	PASI-C
92421261005	SS-5	EPA 6010D	SH1	22	PASI-A
		ASTM D2974-87	KDF	1	PASI-C
92421261006	SS-6	EPA 6010D	SH1	22	PASI-A
		ASTM D2974-87	KDF	1	PASI-C
92421261007	SS-7	EPA 6010D	SH1	22	PASI-A
		ASTM D2974-87	KDF	1	PASI-C

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Metals
Pace Project No.: 92421261

Sample: SS-1 **Lab ID: 92421261001** Collected: 03/13/19 14:43 Received: 03/14/19 10:43 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3050B						
Aluminum	3640	mg/kg	11.4	1	03/19/19 11:18	03/20/19 00:24	7429-90-5	
Antimony	ND	mg/kg	0.57	1	03/19/19 11:18	03/20/19 00:24	7440-36-0	
Arsenic	1.8	mg/kg	1.1	1	03/19/19 11:18	03/20/19 00:24	7440-38-2	
Barium	11.4	mg/kg	0.57	1	03/19/19 11:18	03/20/19 00:24	7440-39-3	
Beryllium	ND	mg/kg	0.11	1	03/19/19 11:18	03/20/19 00:24	7440-41-7	
Cadmium	ND	mg/kg	0.11	1	03/19/19 11:18	03/20/19 00:24	7440-43-9	
Calcium	2550	mg/kg	11.4	1	03/19/19 11:18	03/20/19 00:24	7440-70-2	
Chromium	4.7	mg/kg	0.57	1	03/19/19 11:18	03/20/19 00:24	7440-47-3	
Cobalt	0.64	mg/kg	0.57	1	03/19/19 11:18	03/20/19 00:24	7440-48-4	
Copper	6.6	mg/kg	0.57	1	03/19/19 11:18	03/20/19 00:24	7440-50-8	
Iron	2110	mg/kg	11.4	1	03/19/19 11:18	03/20/19 00:24	7439-89-6	
Lead	12.4	mg/kg	0.57	1	03/19/19 11:18	03/20/19 00:24	7439-92-1	
Magnesium	255	mg/kg	11.4	1	03/19/19 11:18	03/20/19 00:24	7439-95-4	
Manganese	34.5	mg/kg	0.57	1	03/19/19 11:18	03/20/19 00:24	7439-96-5	
Nickel	1.8	mg/kg	0.57	1	03/19/19 11:18	03/20/19 00:24	7440-02-0	
Potassium	ND	mg/kg	568	1	03/19/19 11:18	03/20/19 00:24	7440-09-7	
Selenium	ND	mg/kg	1.1	1	03/19/19 11:18	03/20/19 00:24	7782-49-2	
Silver	ND	mg/kg	0.57	1	03/19/19 11:18	03/20/19 00:24	7440-22-4	
Sodium	ND	mg/kg	568	1	03/19/19 11:18	03/20/19 00:24	7440-23-5	
Thallium	ND	mg/kg	1.1	1	03/19/19 11:18	03/20/19 00:24	7440-28-0	
Vanadium	6.8	mg/kg	0.57	1	03/19/19 11:18	03/20/19 00:24	7440-62-2	
Zinc	17.1	mg/kg	1.1	1	03/19/19 11:18	03/20/19 00:24	7440-66-6	

Percent Moisture Analytical Method: ASTM D2974-87

Percent Moisture	26.6	%	0.10	1		03/15/19 15:41		
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ANALYTICAL RESULTS

Project: Metals
Pace Project No.: 92421261

Sample: SS-2 **Lab ID: 92421261002** Collected: 03/13/19 14:51 Received: 03/14/19 10:43 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3050B						
Aluminum	4850	mg/kg	11.3	1	03/19/19 11:18	03/20/19 00:33	7429-90-5	
Antimony	ND	mg/kg	0.57	1	03/19/19 11:18	03/20/19 00:33	7440-36-0	
Arsenic	1.5	mg/kg	1.1	1	03/19/19 11:18	03/20/19 00:33	7440-38-2	
Barium	11.4	mg/kg	0.57	1	03/19/19 11:18	03/20/19 00:33	7440-39-3	
Beryllium	ND	mg/kg	0.11	1	03/19/19 11:18	03/20/19 00:33	7440-41-7	
Cadmium	ND	mg/kg	0.11	1	03/19/19 11:18	03/20/19 00:33	7440-43-9	
Calcium	1780	mg/kg	11.3	1	03/19/19 11:18	03/20/19 00:33	7440-70-2	
Chromium	5.5	mg/kg	0.57	1	03/19/19 11:18	03/20/19 00:33	7440-47-3	
Cobalt	0.97	mg/kg	0.57	1	03/19/19 11:18	03/20/19 00:33	7440-48-4	
Copper	3.8	mg/kg	0.57	1	03/19/19 11:18	03/20/19 00:33	7440-50-8	
Iron	2810	mg/kg	11.3	1	03/19/19 11:18	03/20/19 00:33	7439-89-6	
Lead	7.8	mg/kg	0.57	1	03/19/19 11:18	03/20/19 00:33	7439-92-1	
Magnesium	403	mg/kg	11.3	1	03/19/19 11:18	03/20/19 00:33	7439-95-4	
Manganese	40.0	mg/kg	0.57	1	03/19/19 11:18	03/20/19 00:33	7439-96-5	
Nickel	2.0	mg/kg	0.57	1	03/19/19 11:18	03/20/19 00:33	7440-02-0	
Potassium	ND	mg/kg	567	1	03/19/19 11:18	03/20/19 00:33	7440-09-7	
Selenium	ND	mg/kg	1.1	1	03/19/19 11:18	03/20/19 00:33	7782-49-2	
Silver	ND	mg/kg	0.57	1	03/19/19 11:18	03/20/19 00:33	7440-22-4	
Sodium	ND	mg/kg	567	1	03/19/19 11:18	03/20/19 00:33	7440-23-5	
Thallium	ND	mg/kg	1.1	1	03/19/19 11:18	03/20/19 00:33	7440-28-0	
Vanadium	8.6	mg/kg	0.57	1	03/19/19 11:18	03/20/19 00:33	7440-62-2	
Zinc	14.3	mg/kg	1.1	1	03/19/19 11:18	03/20/19 00:33	7440-66-6	

Percent Moisture

Analytical Method: ASTM D2974-87

Percent Moisture	31.2	%	0.10	1		03/15/19 15:41		
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ANALYTICAL RESULTS

Project: Metals
Pace Project No.: 92421261

Sample: SS-3 **Lab ID: 92421261003** Collected: 03/13/19 14:59 Received: 03/14/19 10:43 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3050B						
Aluminum	1080	mg/kg	9.0	1	03/19/19 11:18	03/20/19 00:36	7429-90-5	
Antimony	ND	mg/kg	0.45	1	03/19/19 11:18	03/20/19 00:36	7440-36-0	
Arsenic	ND	mg/kg	0.90	1	03/19/19 11:18	03/20/19 00:36	7440-38-2	
Barium	2.0	mg/kg	0.45	1	03/19/19 11:18	03/20/19 00:36	7440-39-3	
Beryllium	ND	mg/kg	0.090	1	03/19/19 11:18	03/20/19 00:36	7440-41-7	
Cadmium	ND	mg/kg	0.090	1	03/19/19 11:18	03/20/19 00:36	7440-43-9	
Calcium	157	mg/kg	9.0	1	03/19/19 11:18	03/20/19 00:36	7440-70-2	
Chromium	3.3	mg/kg	0.45	1	03/19/19 11:18	03/20/19 00:36	7440-47-3	
Cobalt	ND	mg/kg	0.45	1	03/19/19 11:18	03/20/19 00:36	7440-48-4	
Copper	2.1	mg/kg	0.45	1	03/19/19 11:18	03/20/19 00:36	7440-50-8	
Iron	847	mg/kg	9.0	1	03/19/19 11:18	03/20/19 00:36	7439-89-6	
Lead	4.3	mg/kg	0.45	1	03/19/19 11:18	03/20/19 00:36	7439-92-1	
Magnesium	51.4	mg/kg	9.0	1	03/19/19 11:18	03/20/19 00:36	7439-95-4	
Manganese	7.4	mg/kg	0.45	1	03/19/19 11:18	03/20/19 00:36	7439-96-5	
Nickel	1.9	mg/kg	0.45	1	03/19/19 11:18	03/20/19 00:36	7440-02-0	
Potassium	ND	mg/kg	450	1	03/19/19 11:18	03/20/19 00:36	7440-09-7	
Selenium	ND	mg/kg	0.90	1	03/19/19 11:18	03/20/19 00:36	7782-49-2	
Silver	0.60	mg/kg	0.45	1	03/19/19 11:18	03/20/19 00:36	7440-22-4	
Sodium	ND	mg/kg	450	1	03/19/19 11:18	03/20/19 00:36	7440-23-5	
Thallium	ND	mg/kg	0.90	1	03/19/19 11:18	03/20/19 00:36	7440-28-0	
Vanadium	3.1	mg/kg	0.45	1	03/19/19 11:18	03/20/19 00:36	7440-62-2	
Zinc	6.9	mg/kg	0.90	1	03/19/19 11:18	03/20/19 00:36	7440-66-6	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	4.1	%	0.10	1		03/15/19 15:42		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Metals
Pace Project No.: 92421261

Sample: SS-4 **Lab ID: 92421261004** Collected: 03/13/19 15:11 Received: 03/14/19 10:43 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3050B						
Aluminum	1430	mg/kg	9.4	1	03/19/19 11:18	03/20/19 00:39	7429-90-5	
Antimony	ND	mg/kg	0.47	1	03/19/19 11:18	03/20/19 00:39	7440-36-0	
Arsenic	ND	mg/kg	0.94	1	03/19/19 11:18	03/20/19 00:39	7440-38-2	
Barium	4.1	mg/kg	0.47	1	03/19/19 11:18	03/20/19 00:39	7440-39-3	
Beryllium	ND	mg/kg	0.094	1	03/19/19 11:18	03/20/19 00:39	7440-41-7	
Cadmium	ND	mg/kg	0.094	1	03/19/19 11:18	03/20/19 00:39	7440-43-9	
Calcium	532	mg/kg	9.4	1	03/19/19 11:18	03/20/19 00:39	7440-70-2	
Chromium	1.7	mg/kg	0.47	1	03/19/19 11:18	03/20/19 00:39	7440-47-3	
Cobalt	ND	mg/kg	0.47	1	03/19/19 11:18	03/20/19 00:39	7440-48-4	
Copper	1.4	mg/kg	0.47	1	03/19/19 11:18	03/20/19 00:39	7440-50-8	
Iron	1100	mg/kg	9.4	1	03/19/19 11:18	03/20/19 00:39	7439-89-6	
Lead	1.6	mg/kg	0.47	1	03/19/19 11:18	03/20/19 00:39	7439-92-1	
Magnesium	111	mg/kg	9.4	1	03/19/19 11:18	03/20/19 00:39	7439-95-4	
Manganese	13.8	mg/kg	0.47	1	03/19/19 11:18	03/20/19 00:39	7439-96-5	
Nickel	0.58	mg/kg	0.47	1	03/19/19 11:18	03/20/19 00:39	7440-02-0	
Potassium	ND	mg/kg	468	1	03/19/19 11:18	03/20/19 00:39	7440-09-7	
Selenium	ND	mg/kg	0.94	1	03/19/19 11:18	03/20/19 00:39	7782-49-2	
Silver	ND	mg/kg	0.47	1	03/19/19 11:18	03/20/19 00:39	7440-22-4	
Sodium	ND	mg/kg	468	1	03/19/19 11:18	03/20/19 00:39	7440-23-5	
Thallium	ND	mg/kg	0.94	1	03/19/19 11:18	03/20/19 00:39	7440-28-0	
Vanadium	2.5	mg/kg	0.47	1	03/19/19 11:18	03/20/19 00:39	7440-62-2	
Zinc	9.2	mg/kg	0.94	1	03/19/19 11:18	03/20/19 00:39	7440-66-6	

Percent Moisture

Analytical Method: ASTM D2974-87

Percent Moisture	11.0	%	0.10	1		03/15/19 15:42		
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ANALYTICAL RESULTS

Project: Metals
Pace Project No.: 92421261

Sample: SS-5 **Lab ID: 92421261005** Collected: 03/13/19 15:14 Received: 03/14/19 10:43 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3050B						
Aluminum	1720	mg/kg	9.1	1	03/19/19 11:18	03/20/19 00:42	7429-90-5	
Antimony	ND	mg/kg	0.45	1	03/19/19 11:18	03/20/19 00:42	7440-36-0	
Arsenic	ND	mg/kg	0.91	1	03/19/19 11:18	03/20/19 00:42	7440-38-2	
Barium	12.7	mg/kg	0.45	1	03/19/19 11:18	03/20/19 00:42	7440-39-3	
Beryllium	ND	mg/kg	0.091	1	03/19/19 11:18	03/20/19 00:42	7440-41-7	
Cadmium	0.11	mg/kg	0.091	1	03/19/19 11:18	03/20/19 00:42	7440-43-9	
Calcium	2910	mg/kg	9.1	1	03/19/19 11:18	03/20/19 00:42	7440-70-2	
Chromium	2.8	mg/kg	0.45	1	03/19/19 11:18	03/20/19 00:42	7440-47-3	
Cobalt	0.50	mg/kg	0.45	1	03/19/19 11:18	03/20/19 00:42	7440-48-4	
Copper	3.9	mg/kg	0.45	1	03/19/19 11:18	03/20/19 00:42	7440-50-8	
Iron	909	mg/kg	9.1	1	03/19/19 11:18	03/20/19 00:42	7439-89-6	
Lead	6.6	mg/kg	0.45	1	03/19/19 11:18	03/20/19 00:42	7439-92-1	
Magnesium	243	mg/kg	9.1	1	03/19/19 11:18	03/20/19 00:42	7439-95-4	
Manganese	47.3	mg/kg	0.45	1	03/19/19 11:18	03/20/19 00:42	7439-96-5	
Nickel	1.7	mg/kg	0.45	1	03/19/19 11:18	03/20/19 00:42	7440-02-0	
Potassium	ND	mg/kg	453	1	03/19/19 11:18	03/20/19 00:42	7440-09-7	
Selenium	ND	mg/kg	0.91	1	03/19/19 11:18	03/20/19 00:42	7782-49-2	
Silver	ND	mg/kg	0.45	1	03/19/19 11:18	03/20/19 00:42	7440-22-4	
Sodium	ND	mg/kg	453	1	03/19/19 11:18	03/20/19 00:42	7440-23-5	
Thallium	ND	mg/kg	0.91	1	03/19/19 11:18	03/20/19 00:42	7440-28-0	
Vanadium	2.8	mg/kg	0.45	1	03/19/19 11:18	03/20/19 00:42	7440-62-2	
Zinc	25.9	mg/kg	0.91	1	03/19/19 11:18	03/20/19 00:42	7440-66-6	

Percent Moisture

Analytical Method: ASTM D2974-87

Percent Moisture	18.9	%	0.10	1		03/15/19 15:42		
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REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Metals
Pace Project No.: 92421261

Sample: SS-6 **Lab ID: 92421261006** Collected: 03/13/19 15:20 Received: 03/14/19 10:43 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3050B						
Aluminum	1230	mg/kg	7.6	1	03/19/19 11:18	03/20/19 00:45	7429-90-5	
Antimony	ND	mg/kg	0.38	1	03/19/19 11:18	03/20/19 00:45	7440-36-0	
Arsenic	ND	mg/kg	0.76	1	03/19/19 11:18	03/20/19 00:45	7440-38-2	
Barium	13.4	mg/kg	0.38	1	03/19/19 11:18	03/20/19 00:45	7440-39-3	
Beryllium	ND	mg/kg	0.076	1	03/19/19 11:18	03/20/19 00:45	7440-41-7	
Cadmium	ND	mg/kg	0.076	1	03/19/19 11:18	03/20/19 00:45	7440-43-9	
Calcium	3790	mg/kg	7.6	1	03/19/19 11:18	03/20/19 00:45	7440-70-2	
Chromium	2.0	mg/kg	0.38	1	03/19/19 11:18	03/20/19 00:45	7440-47-3	
Cobalt	0.88	mg/kg	0.38	1	03/19/19 11:18	03/20/19 00:45	7440-48-4	
Copper	13.0	mg/kg	0.38	1	03/19/19 11:18	03/20/19 00:45	7440-50-8	
Iron	1250	mg/kg	7.6	1	03/19/19 11:18	03/20/19 00:45	7439-89-6	
Lead	0.94	mg/kg	0.38	1	03/19/19 11:18	03/20/19 00:45	7439-92-1	
Magnesium	143	mg/kg	7.6	1	03/19/19 11:18	03/20/19 00:45	7439-95-4	
Manganese	19.2	mg/kg	0.38	1	03/19/19 11:18	03/20/19 00:45	7439-96-5	
Nickel	1.3	mg/kg	0.38	1	03/19/19 11:18	03/20/19 00:45	7440-02-0	
Potassium	ND	mg/kg	380	1	03/19/19 11:18	03/20/19 00:45	7440-09-7	
Selenium	ND	mg/kg	0.76	1	03/19/19 11:18	03/20/19 00:45	7782-49-2	
Silver	ND	mg/kg	0.38	1	03/19/19 11:18	03/20/19 00:45	7440-22-4	
Sodium	ND	mg/kg	380	1	03/19/19 11:18	03/20/19 00:45	7440-23-5	
Thallium	ND	mg/kg	0.76	1	03/19/19 11:18	03/20/19 00:45	7440-28-0	
Vanadium	1.6	mg/kg	0.38	1	03/19/19 11:18	03/20/19 00:45	7440-62-2	
Zinc	36.0	mg/kg	0.76	1	03/19/19 11:18	03/20/19 00:45	7440-66-6	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	0.43	%	0.10	1		03/15/19 15:42		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Metals
Pace Project No.: 92421261

Sample: SS-7 **Lab ID: 92421261007** Collected: 03/13/19 15:25 Received: 03/14/19 10:43 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3050B						
Aluminum	2060	mg/kg	8.3	1	03/19/19 11:18	03/20/19 00:48	7429-90-5	
Antimony	ND	mg/kg	0.41	1	03/19/19 11:18	03/20/19 00:48	7440-36-0	
Arsenic	1.3	mg/kg	0.83	1	03/19/19 11:18	03/20/19 00:48	7440-38-2	
Barium	24.9	mg/kg	0.41	1	03/19/19 11:18	03/20/19 00:48	7440-39-3	
Beryllium	ND	mg/kg	0.083	1	03/19/19 11:18	03/20/19 00:48	7440-41-7	
Cadmium	0.23	mg/kg	0.083	1	03/19/19 11:18	03/20/19 00:48	7440-43-9	
Calcium	8140	mg/kg	41.4	5	03/19/19 11:18	03/20/19 14:00	7440-70-2	
Chromium	5.4	mg/kg	0.41	1	03/19/19 11:18	03/20/19 00:48	7440-47-3	
Cobalt	0.72	mg/kg	0.41	1	03/19/19 11:18	03/20/19 00:48	7440-48-4	
Copper	12.6	mg/kg	0.41	1	03/19/19 11:18	03/20/19 00:48	7440-50-8	
Iron	2020	mg/kg	8.3	1	03/19/19 11:18	03/20/19 00:48	7439-89-6	
Lead	11.3	mg/kg	0.41	1	03/19/19 11:18	03/20/19 00:48	7439-92-1	
Magnesium	289	mg/kg	8.3	1	03/19/19 11:18	03/20/19 00:48	7439-95-4	
Manganese	58.2	mg/kg	0.41	1	03/19/19 11:18	03/20/19 00:48	7439-96-5	
Nickel	2.0	mg/kg	0.41	1	03/19/19 11:18	03/20/19 00:48	7440-02-0	
Potassium	ND	mg/kg	414	1	03/19/19 11:18	03/20/19 00:48	7440-09-7	
Selenium	ND	mg/kg	0.83	1	03/19/19 11:18	03/20/19 00:48	7782-49-2	
Silver	ND	mg/kg	0.41	1	03/19/19 11:18	03/20/19 00:48	7440-22-4	
Sodium	ND	mg/kg	414	1	03/19/19 11:18	03/20/19 00:48	7440-23-5	
Thallium	ND	mg/kg	0.83	1	03/19/19 11:18	03/20/19 00:48	7440-28-0	
Vanadium	4.7	mg/kg	0.41	1	03/19/19 11:18	03/20/19 00:48	7440-62-2	
Zinc	59.0	mg/kg	0.83	1	03/19/19 11:18	03/20/19 00:48	7440-66-6	

Percent Moisture

Analytical Method: ASTM D2974-87

Percent Moisture	5.6	%	0.10	1		03/15/19 15:42		
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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Metals
Pace Project No.: 92421261

QC Batch: 464021 Analysis Method: EPA 6010D
QC Batch Method: EPA 3050B Analysis Description: 6010 MET
Associated Lab Samples: 92421261001, 92421261002, 92421261003, 92421261004, 92421261005, 92421261006, 92421261007

METHOD BLANK: 2523625 Matrix: Solid
Associated Lab Samples: 92421261001, 92421261002, 92421261003, 92421261004, 92421261005, 92421261006, 92421261007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Aluminum	mg/kg	ND	10.0	03/19/19 23:32	
Antimony	mg/kg	ND	0.50	03/19/19 23:32	
Arsenic	mg/kg	ND	1.0	03/19/19 23:32	
Barium	mg/kg	ND	0.50	03/19/19 23:32	
Beryllium	mg/kg	ND	0.10	03/19/19 23:32	
Cadmium	mg/kg	ND	0.10	03/19/19 23:32	
Calcium	mg/kg	ND	10.0	03/19/19 23:32	
Chromium	mg/kg	ND	0.50	03/19/19 23:32	
Cobalt	mg/kg	ND	0.50	03/19/19 23:32	
Copper	mg/kg	ND	0.50	03/19/19 23:32	
Iron	mg/kg	ND	10.0	03/19/19 23:32	
Lead	mg/kg	ND	0.50	03/19/19 23:32	
Magnesium	mg/kg	ND	10.0	03/19/19 23:32	
Manganese	mg/kg	ND	0.50	03/19/19 23:32	
Nickel	mg/kg	ND	0.50	03/19/19 23:32	
Potassium	mg/kg	ND	500	03/19/19 23:32	
Selenium	mg/kg	ND	1.0	03/19/19 23:32	
Silver	mg/kg	ND	0.50	03/19/19 23:32	
Sodium	mg/kg	ND	500	03/19/19 23:32	
Thallium	mg/kg	ND	1.0	03/19/19 23:32	
Vanadium	mg/kg	ND	0.50	03/19/19 23:32	
Zinc	mg/kg	ND	1.0	03/20/19 13:33	

LABORATORY CONTROL SAMPLE: 2523626

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Aluminum	mg/kg	500	478	96	80-120	
Antimony	mg/kg	50	43.8	88	80-120	
Arsenic	mg/kg	50	42.9	86	80-120	
Barium	mg/kg	50	47.8	96	80-120	
Beryllium	mg/kg	50	46.4	93	80-120	
Cadmium	mg/kg	50	47.0	94	80-120	
Calcium	mg/kg	500	477	95	80-120	
Chromium	mg/kg	50	48.6	97	80-120	
Cobalt	mg/kg	50	48.0	96	80-120	
Copper	mg/kg	50	48.9	98	80-120	
Iron	mg/kg	500	476	95	80-120	
Lead	mg/kg	50	46.4	93	80-120	
Magnesium	mg/kg	500	456	91	80-120	
Manganese	mg/kg	50	47.6	95	80-120	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Metals
Pace Project No.: 92421261

LABORATORY CONTROL SAMPLE: 2523626

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nickel	mg/kg	50	47.4	95	80-120	
Potassium	mg/kg	500	ND	93	80-120	
Selenium	mg/kg	50	42.6	85	80-120	
Silver	mg/kg	25	23.8	95	80-120	
Sodium	mg/kg	500	479J	96	80-120	
Thallium	mg/kg	50	44.9	90	80-120	
Vanadium	mg/kg	50	48.5	97	80-120	
Zinc	mg/kg	50	47.7	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2523627 2523628

Parameter	Units	MS 92421073011		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		Result	Spike Conc.	Spike Conc.	MSD Conc.							
Aluminum	mg/kg	4290	311	389	389	7560	6760	1050	633	75-125	11	E,M1
Antimony	mg/kg	0.39	31.1	38.9	38.9	12.9	17.1	40	43	75-125	28	M1,R1
Arsenic	mg/kg	1.8	31.1	38.9	38.9	27.6	34.2	83	83	75-125	21	R1
Barium	mg/kg	11.5	31.1	38.9	38.9	43.9	49.2	104	97	75-125	11	
Beryllium	mg/kg	ND	31.1	38.9	38.9	28.6	35.7	92	92	75-125	22	R1
Cadmium	mg/kg	ND	31.1	38.9	38.9	29.2	36.3	94	93	75-125	21	R1
Calcium	mg/kg	197	311	389	389	462	572	85	97	75-125	21	R1
Chromium	mg/kg	5.7	31.1	38.9	38.9	37.3	43.7	101	98	75-125	16	
Cobalt	mg/kg	ND	31.1	38.9	38.9	30.1	37.1	96	95	75-125	21	R1
Copper	mg/kg	1.1	31.1	38.9	38.9	33.7	41.4	105	104	75-125	20	
Iron	mg/kg	3690	311	389	389	3950	3850	84	42	75-125	3	M1
Lead	mg/kg	6.3	31.1	38.9	38.9	36.2	41.9	96	92	75-125	15	
Magnesium	mg/kg	128	311	389	389	503	557	120	111	75-125	10	
Manganese	mg/kg	5.5	31.1	38.9	38.9	35.1	41.7	95	93	75-125	17	
Nickel	mg/kg	0.95	31.1	38.9	38.9	31.1	37.9	97	95	75-125	20	
Potassium	mg/kg	ND	311	389	389	503	587	117	116	75-125	15	
Selenium	mg/kg	ND	31.1	38.9	38.9	26.4	32.7	84	84	75-125	21	R1
Silver	mg/kg	ND	15.6	19.4	19.4	15.1	18.7	97	96	75-125	21	R1
Sodium	mg/kg	ND	311	389	389	309J	380J	96	95	75-125		
Thallium	mg/kg	ND	31.1	38.9	38.9	28.0	34.6	90	89	75-125	21	R1
Vanadium	mg/kg	9.9	31.1	38.9	38.9	41.8	47.8	102	97	75-125	13	
Zinc	mg/kg	5.0	31.1	38.9	38.9	33.8	41.0	92	93	75-125	19	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Metals
Pace Project No.: 92421261

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A Pace Analytical Services - Asheville

PASI-C Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

E Analyte concentration exceeded the calibration range. The reported result is estimated.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

R1 RPD value was outside control limits.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Metals
Pace Project No.: 92421261

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92421261001	SS-1	EPA 3050B	464021	EPA 6010D	464075
92421261002	SS-2	EPA 3050B	464021	EPA 6010D	464075
92421261003	SS-3	EPA 3050B	464021	EPA 6010D	464075
92421261004	SS-4	EPA 3050B	464021	EPA 6010D	464075
92421261005	SS-5	EPA 3050B	464021	EPA 6010D	464075
92421261006	SS-6	EPA 3050B	464021	EPA 6010D	464075
92421261007	SS-7	EPA 3050B	464021	EPA 6010D	464075
92421261001	SS-1	ASTM D2974-87	463625		
92421261002	SS-2	ASTM D2974-87	463625		
92421261003	SS-3	ASTM D2974-87	463625		
92421261004	SS-4	ASTM D2974-87	463625		
92421261005	SS-5	ASTM D2974-87	463625		
92421261006	SS-6	ASTM D2974-87	463625		
92421261007	SS-7	ASTM D2974-87	463625		

REPORT OF LABORATORY ANALYSIS

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Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville

Sample Condition
Upon Receipt

Client Name:
Atlantic Shores Env.

Project # **WO# : 92421261**



Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____

Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: 3/14 AR

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?
 Yes No N/A

Thermometer: IR Gun ID: 93-7096 Type of Ice: Wet Blue None

Cooler Temp (°C): 2.3 Correction Factor: Add/Subtract (°C) 0

Temp should be above freezing to 6°C

Cooler Temp Corrected (°C): 2.3

Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?

Did samples originate from a foreign source (Internationally, including Hawaii and Puerto Rico)? Yes No

Yes No

			Comments/Discrepancy:
Chain of Custody Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Samples Arrived within Hold Time?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Short Hold Time Analysis (<72 hr.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Rush Turn Around Time Requested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.	<u>5-Day Turn</u>
Sufficient Volume?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Correct Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.	
-Pace Containers Used?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Dissolved analysis: Samples Field Filtered?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.	
Sample Labels Match COC?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-Includes Date/Time/ID/Analysis Matrix: <u>SL</u>			
Headspace in VOA Vials (>5-6mm)?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.	
Trip Blank Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Trip Blank Custody Seals Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____

Date: 3/15

Project Manager SRF Review: _____

Date: 3/15

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Collform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottle

Project # **WO# : 92421261**
 PM: PTE Due Date: 03/21/19
 CLIENT: 92-ATL SHORE

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic Zn Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1	/	/	/	/	/	/	/	/	2	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
2	/	/	/	/	/	/	/	/	2	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
3	/	/	/	/	/	/	/	/	2	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
4	/	/	/	/	/	/	/	/	2	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
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12	/	/	/	/	/	/	/	/		/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. Out of hold, incorrect preservative, out of temp, incorrect containers).

**GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2013**

**SENATE BILL 729
RATIFIED BILL**

AN ACT TO (1) PROHIBIT RECOVERY OF COSTS RELATED TO UNLAWFUL DISCHARGES FROM COAL COMBUSTION RESIDUALS SURFACE IMPOUNDMENTS; (2) ESTABLISH A MORATORIUM ON CERTAIN RATE CASES; (3) CREATE THE COAL ASH MANAGEMENT COMMISSION TO REVIEW AND APPROVE COAL COMBUSTION RESIDUALS SURFACE IMPOUNDMENTS CLASSIFICATIONS AND CLOSURE PLANS AND OTHERWISE STUDY AND MAKE RECOMMENDATIONS ON LAWS GOVERNING MANAGEMENT OF COAL COMBUSTION RESIDUALS; (4) REQUIRE EXPEDITED REVIEW BY THE DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES OF ANY PERMIT NECESSARY TO CONDUCT ACTIVITIES REQUIRED BY THIS ACT; (5) ESTABLISH VARIOUS REPORTING REQUIREMENTS TO THE GENERAL ASSEMBLY, INCLUDING A QUARTERLY REPORT FROM THE DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES ON ITS OPERATIONS, ACTIVITIES, PROGRAMS, AND PROGRESS WITH RESPECT TO ITS OBLIGATIONS UNDER THIS ACT FOR COAL COMBUSTION RESIDUALS SURFACE IMPOUNDMENTS; (6) PROHIBIT LOCAL GOVERNMENT REGULATION OF MANAGEMENT OF COAL COMBUSTION RESIDUALS OR COAL COMBUSTION PRODUCTS; (7) PROHIBIT CONSTRUCTION OF NEW OR EXPANSION OF EXISTING COAL COMBUSTION RESIDUALS SURFACE IMPOUNDMENTS EFFECTIVE OCTOBER 1, 2014; (8) PROHIBIT THE DISPOSAL OF COAL COMBUSTION RESIDUALS INTO COAL COMBUSTION RESIDUALS SURFACE IMPOUNDMENTS AT COAL-FIRED GENERATING UNITS THAT ARE NO LONGER PRODUCING COAL COMBUSTION RESIDUALS EFFECTIVE OCTOBER 1, 2014; (9) PROHIBIT DISPOSAL OF STORMWATER TO COAL COMBUSTION RESIDUALS SURFACE IMPOUNDMENTS EFFECTIVE DECEMBER 31, 2018; (10) REQUIRE ALL ELECTRIC GENERATING FACILITIES TO CONVERT TO GENERATION OF DRY FLY ASH ON OR BEFORE DECEMBER 31, 2017, AND DRY BOTTOM ASH ON OR BEFORE DECEMBER 31, 2020, OR RETIRE; (11) REQUIRE THE ASSESSMENT OF GROUNDWATER AT COAL COMBUSTION RESIDUALS SURFACE IMPOUNDMENTS; (12) REQUIRE CORRECTIVE ACTION FOR THE RESTORATION OF GROUNDWATER QUALITY AT COAL COMBUSTION RESIDUALS SURFACE IMPOUNDMENTS; (13) REQUIRE A SURVEY OF DRINKING WATER SUPPLY WELLS AND REPLACEMENT OF CONTAMINATED WATER SUPPLIES; (14) REQUIRE THE IDENTIFICATION, ASSESSMENT, AND CORRECTION OF UNPERMITTED DISCHARGES FROM COAL COMBUSTION RESIDUALS SURFACE IMPOUNDMENTS; (15) REQUIRE THE DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES TO, AS SOON AS PRACTICABLE, BUT NO LATER THAN DECEMBER 31, 2015, PRIORITIZE FOR THE PURPOSE OF CLOSURE AND REMEDIATION COAL COMBUSTION RESIDUALS SURFACE IMPOUNDMENTS, INCLUDING ACTIVE AND RETIRED SITES, BASED ON THESE SITES' RISKS TO PUBLIC HEALTH, SAFETY, AND WELFARE, THE ENVIRONMENT, AND NATURAL RESOURCES; (16) REQUIRE OWNERS OF COAL COMBUSTION RESIDUALS SURFACE IMPOUNDMENTS TO SUBMIT A PROPOSED PLAN FOR CLOSURE OF ALL IMPOUNDMENTS TO THE DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES; (17) REQUIRE CLOSURE AND REMEDIATION OF CERTAIN COAL COMBUSTION RESIDUALS SURFACE IMPOUNDMENTS AS SOON AS PRACTICABLE, BUT NO LATER THAN AUGUST 1, 2019; (18) REQUIRE THE



DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES TO ESTABLISH A SCHEDULE AND PROCESS FOR CLOSURE AND REMEDIATION OF ALL COAL COMBUSTION RESIDUALS SURFACE IMPOUNDMENTS BASED UPON THE DEPARTMENT'S RISK ASSESSMENT OF THESE SITES, BASELINE REQUIREMENTS SET BY THE GENERAL ASSEMBLY, EVALUATION OF PROPOSED CLOSURE PLANS SUBMITTED BY IMPOUNDMENT OWNERS, AND INPUT FROM THE PUBLIC AND OTHER STAKEHOLDERS; (19) ESTABLISH MINIMUM STATUTORY REQUIREMENTS FOR STRUCTURAL FILL PROJECTS USING COAL COMBUSTION PRODUCTS AND REQUIRE THE DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES TO INVENTORY AND INSPECT CERTAIN STRUCTURAL FILL PROJECTS; (20) PLACE A MORATORIUM ON CERTAIN PROJECTS USING COAL COMBUSTION PRODUCTS AS STRUCTURAL FILL UNTIL AUGUST 1, 2015, AND DIRECT THE DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES AND THE ENVIRONMENTAL MANAGEMENT COMMISSION TO STUDY THE ADEQUACY OF CURRENT LAW GOVERNING USE OF COAL COMBUSTION PRODUCTS AS STRUCTURAL FILL AND FOR BENEFICIAL USE; (21) PLACE A MORATORIUM ON THE EXPANSION AND CONSTRUCTION OF COAL COMBUSTION RESIDUALS LANDFILLS UNTIL AUGUST 1, 2015, AND DIRECT THE DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES TO ASSESS THE RISKS TO PUBLIC HEALTH, SAFETY, AND WELFARE, THE ENVIRONMENT, AND NATURAL RESOURCES OF COAL COMBUSTION RESIDUALS SURFACE IMPOUNDMENTS LOCATED BENEATH THESE LANDFILLS TO DETERMINE THE ADVISABILITY OF CONTINUED OPERATION OF THESE LANDFILLS; (22) STRENGTHEN THE REPORTING AND NOTIFICATION REQUIREMENTS APPLICABLE TO DISCHARGES OF WASTEWATER TO WATERS OF THE STATE; (23) REQUIRE CERTAIN EMERGENCY CALLS TO BE RECORDED; (24) REQUIRE DEVELOPMENT OF EMERGENCY ACTION PLANS FOR HIGH AND INTERMEDIATE HAZARD DAMS AND AMEND OTHER DAM SAFETY LAW REQUIREMENTS APPLICABLE TO COAL COMBUSTION RESIDUALS SURFACE IMPOUNDMENTS; (25) TRANSFER SOLID WASTE RULE-MAKING AUTHORITY FROM COMMISSION FOR PUBLIC HEALTH TO ENVIRONMENTAL MANAGEMENT COMMISSION; (26) AMEND COMPLIANCE BOUNDARY PROVISIONS; (27) PROVIDE FOR VARIOUS STUDIES; (28) REQUIRE THE STATE CONSTRUCTION OFFICE AND THE DEPARTMENT OF TRANSPORTATION TO DEVELOP TECHNICAL SPECIFICATIONS FOR USE OF COAL COMBUSTION PRODUCTS; AND (29) PROVIDE RESOURCES FOR IMPLEMENTATION OF THIS ACT.

The General Assembly of North Carolina enacts:

PART I. PROHIBIT RECOVERY OF COSTS RELATED TO UNLAWFUL DISCHARGES FROM COAL COMBUSTION RESIDUALS SURFACE IMPOUNDMENTS; MORATORIUM ON RATE CASES

SECTION 1.(a) Article 7 of Chapter 62 of the General Statutes is amended by adding a new section to read:

"§ 62-133.13. Recovery of costs related to unlawful discharges from coal combustion residuals surface impoundments to the surface waters of the State.

The Commission shall not allow an electric public utility to recover from the retail electric customers of the State costs resulting from an unlawful discharge to the surface waters of the State from a coal combustion residuals surface impoundment, unless the Commission determines the discharge was due to an event of force majeure. For the purposes of this section, "coal combustion residuals surface impoundments" has the same meaning as in G.S. 130A-309.201. For the purposes of this section, "unlawful discharge" means a discharge that results in a violation of State or federal surface water quality standards.

SECTION 1.(b) Section 1(a) of this act is effective when it becomes law and applies to discharges occurring on or after January 1, 2014.

SECTION 2.(a) Moratorium on Cost Recovery. – The Utilities Commission shall not issue an order authorizing an electric public utility the recovery of any costs related to coal

combustion residuals surface impoundments that were not included in the utility's cost of service approved in its most recent general rate case until the end of the moratorium provided in this section. Nothing in this section prohibits the utility from seeking, nor prohibits the Commission from authorizing under its existing authority, a deferral for costs related to coal ash combustion residual surface impoundments. The moratorium established under this section shall not apply to the net recovery of any fuel and fuel-related costs under G.S. 62-133.2. For the purposes of this section, "coal combustion residuals surface impoundments" has the same meaning as in G.S. 130A-309.201. The moratorium in this section shall end January 15, 2015.

SECTION 2.(b) Purpose of Moratorium. – The purpose of the moratorium is to allow the State to study the disposition of coal combustion residuals surface impoundments, including any final rules adopted by the United States Environmental Protection Agency on the regulation of coal combustion residuals.

PART II. PROVISIONS FOR COMPREHENSIVE MANAGEMENT OF COAL COMBUSTION RESIDUALS

SECTION 3.(a) Article 9 of Chapter 130A of the General Statutes is amended by adding a new Part to read:

"Part 2I. Coal Ash Management.

"Subpart 1. Short Title, Definitions, and General Provisions.

"§ 130A-309.200. Title.

This Part may be cited as the "Coal Ash Management Act of 2014."

"§ 130A-309.201. Definitions.

Unless a different meaning is required by the context, the definitions of G.S. 130A-290 and the following definitions apply throughout this Part:

- (1) "Beneficial and beneficial use" means projects promoting public health and environmental protection, offering equivalent success relative to other alternatives, and preserving natural resources.
- (2) "Boiler slag" means the molten bottom ash collected at the base of slag tap and cyclone type furnaces that is quenched with water. It is made up of hard, black, angular particles that have a smooth, glassy appearance.
- (3) "Bottom ash" means the agglomerated, angular ash particles formed in pulverized coal furnaces that are too large to be carried in the flue gases and collect on the furnace walls or fall through open grates to an ash hopper at the bottom of the furnace.
- (4) "Coal combustion products" means fly ash, bottom ash, boiler slag, or flue gas desulfurization materials that are beneficially used, including use for structural fill.
- (5) "Coal combustion residuals" has the same meaning as defined in G.S. 130A-290.
- (6) "Coal combustion residuals surface impoundment" means a topographic depression, excavation, or diked area that is (i) primarily formed from earthen materials; (ii) without a base liner approved for use by Article 9 of Chapter 130A of the General Statutes or rules adopted thereunder for a combustion products landfill or coal combustion residuals landfill, industrial landfill, or municipal solid waste landfill; and (iii) designed to hold accumulated coal combustion residuals in the form of liquid wastes, wastes containing free liquids, or sludges, and that is not backfilled or otherwise covered during periods of deposition. "Coal combustion residuals surface impoundment" shall only include impoundments owned by a public utility, as defined in G.S. 62-3. "Coal combustion residuals surface impoundment" includes all of the following:

 - a. An impoundment that is dry due to the deposited liquid having evaporated, volatilized, or leached.
 - b. An impoundment that is wet with exposed liquid.
 - c. Lagoons, ponds, aeration pits, settling ponds, tailings ponds, and sludge pits, when these structures are designed to hold accumulated coal combustion residuals.

- d. A coal combustion residuals surface impoundment that has been covered with soil or other material after the final deposition of coal combustion residuals at the impoundment.
- (7) "Commission" means the Environmental Management Commission.
- (8) "Fly ash" means the very fine, powdery material, composed mostly of silica with nearly all particles spherical in shape, which is a product of burning finely ground coal in a boiler to produce electricity and is removed from the plant exhaust gases by air emission control devices.
- (9) "Flue gas desulfurization material" means the material produced through a process used to reduce sulfur dioxide emissions from the exhaust gas system of a coal-fired boiler. The physical nature of these materials varies from a wet sludge to a dry powdered material, depending on the process, and their composition comprises either sulfites, sulfates, or a mixture thereof.
- (10) "Minerals" means soil, clay, coal, phosphate, metallic ore, and any other solid material or substance of commercial value found in natural deposits on or in the earth.
- (11) "Open pit mine" means an excavation made at the surface of the ground for the purpose of extracting minerals, inorganic and organic, from their natural deposits, which excavation is open to the surface.
- (12) "Owner" or "owner of a coal combustion residuals surface impoundment" means a public utility, as defined in G.S. 62-3, that owns a coal combustion residuals surface impoundment.
- (13) "Receptor" means any human, plant, animal, or structure which is, or has the potential to be, affected by the release or migration of contaminants. Any well constructed for the purpose of monitoring groundwater and contaminant concentrations shall not be considered a receptor.
- (14) "Structural fill" means an engineered fill with a projected beneficial end use constructed using coal combustion products that are properly placed and compacted. For purposes of this Part, the term includes fill used to reclaim open pit mines and for embankments, greenscapes, foundations, construction foundations, and for bases or sub-bases under a structure or a footprint of a paved road, parking lot, sidewalk, walkway, or similar structure.
- (15) "Use or reuse of coal combustion products" means the procedure whereby coal combustion products are directly used as either of the following:
- a. As an ingredient in an industrial process to make a product, unless distinct components of the coal combustion products are recovered as separate end products.
 - b. In a function or application as an effective substitute for a commercial product or natural resource.

"§ 130A-309.202. Coal Ash Management Commission.

(a) Creation. – In recognition of the complexity and magnitude of the issues associated with the management of coal combustion residuals and the proper closure and remediation of coal combustion residuals surface impoundments, the Coal Ash Management Commission is hereby established.

(b) Membership. – The Commission shall consist of nine members as follows:

- (1) One appointed by the General Assembly upon recommendation of the President Pro Tempore of the Senate in accordance with G.S. 120-121 who shall at the time of appointment be a resident of the State.
- (2) One appointed by the General Assembly upon recommendation of the President Pro Tempore of the Senate in accordance with G.S. 120-121 who shall at the time of appointment have special training or scientific expertise in waste management, including solid waste disposal, hauling, or beneficial use.
- (3) One appointed by the General Assembly upon recommendation of the President Pro Tempore of the Senate in accordance with G.S. 120-121 who shall at the time of appointment be a licensed physician or a person with experience in public health.
- (4) One appointed by the General Assembly upon recommendation of the Speaker of the House of Representatives in accordance with G.S. 120-121

who shall at the time of appointment be a member of a nongovernmental conservation interest.

- (5) One appointed by the General Assembly upon recommendation of the Speaker of the House of Representatives in accordance with G.S. 120-121 who shall at the time of appointment have special training or scientific expertise in waste management, including solid waste disposal, hauling, or beneficial use, or is a representative of or on the faculty of a State college or university that conducts coal ash research.
- (6) One appointed by the General Assembly upon recommendation of the Speaker of the House of Representatives in accordance with G.S. 120-121 who shall at the time of appointment be a representative of an electric membership corporation organized under Article 2 of Chapter 117 of the General Statutes and have a background in power supply resource planning and engineering.
- (7) One appointed by the Governor who shall at the time of appointment have experience in economic development.
- (8) One appointed by the Governor who shall at the time of appointment have expertise in determining and evaluating the costs associated with electricity generation and establishing the rates associated with electricity consumption.
- (9) One appointed by the Governor who shall at the time of appointment be a person with experience in science or engineering in the manufacturing sector.

(c) Chair. – The Governor shall appoint the Chair of the Commission from among the Commission's members, and that person shall serve at the pleasure of the Governor. The Chair shall serve two-year terms. The Governor shall make:

- (1) The initial appointment of the Chair no later than October 1, 2014. If the initial appointment is not made by that date, the Chair shall be elected by a vote of the membership; and
- (2) Appointments of a subsequent Chair, including appointments to fill a vacancy of the Chair created by resignation, dismissal, death, or disability of the Chair, no later than 30 days after the last day of the previous Chair's term. If an appointment of a subsequent Chair is not made by that date, the Chair shall be elected by a vote of the membership.

(d) Vacancies. – Any appointment to fill a vacancy on the Commission created by the resignation, dismissal, death, or disability of a member shall be for the balance of the unexpired term. The Governor may reappoint a gubernatorial appointee of the Commission to an additional term if, at the time of the reappointment, the member qualifies for membership on the Commission under subdivisions (7) through (9) of subsection (b) of this section. Appointments by the General Assembly shall be made in accordance with G.S. 120-121, and vacancies in those appointments shall be filled in accordance with G.S. 120-122.

(e) Removal. – The Governor shall have the power to remove any member of the Commission from office for misfeasance, malfeasance, or nonfeasance in accordance with the provisions of G.S. 143B-13 of the Executive Organization Act of 1973.

(f) Powers and Duties. – The Commission shall have all of the following powers and duties:

- (1) To review and approve the classification of coal combustion residuals surface impoundments required by G.S. 130A-309.211.
- (2) To review and approve Coal Combustion Residuals Surface Impoundment Closure Plans as provided in G.S. 130A-309.212.
- (3) To review and make recommendations on the provisions of this Part and other statutes and rules related to the management of coal combustion residuals.
- (4) To undertake any additional studies as requested by the General Assembly.

(g) Reimbursement. – The members of the Commission shall receive per diem and necessary travel and subsistence expenses in accordance with the provisions of G.S. 138-5.

(h) Quorum. – Five members of the Commission shall constitute a quorum for the transaction of business.

(i) Staff. – The Commission is authorized and empowered to employ staff as the Commission may determine to be necessary for the proper discharge of the Commission's

duties and responsibilities. The Chair of the Commission shall organize and direct the work of the Commission staff. The salaries and compensation of all such personnel shall be fixed in the manner provided by law for fixing and regulating salaries and compensation by other State agencies. The Chair, within allowed budgetary limits and as allowed by law, shall authorize and approve travel, subsistence, and related expenses of such personnel incurred while traveling on official business. All State agencies, including the constituent institutions of The University of North Carolina, shall provide information and support to the Commission upon request.

(j) Conflicts of Interest; Disclosure. – The Governor shall require adequate disclosure of potential conflicts of interest by members. The Governor, by executive order, shall promulgate criteria regarding conflicts of interest and disclosure thereof for determining the eligibility of persons under this subsection, giving due regard to the requirements of federal legislation and, for this purpose, may promulgate rules, regulations, or guidelines in conformance with those established by any federal agency interpreting and applying provisions of federal law.

(k) Covered Persons. – All members of the Commission are covered persons for the purposes of Chapter 138A of the General Statutes, the State Government Ethics Act. As covered persons, members of the Commission shall comply with the applicable requirements of the State Government Ethics Act, including mandatory training, the public disclosure of economic interests, and ethical standards for covered persons. Members of the Commission shall comply with the provisions of the State Government Ethics Act to avoid conflicts of interest.

(l) Meetings. – The Commission shall meet at least once every two months and may hold special meetings at any time and place within the State at the call of the Chair or upon the written request of at least five members.

(m) Reports. – The Commission shall submit quarterly written reports as to its operation, activities, programs, and progress to the Environmental Review Commission. The Commission shall supplement the written reports required by this subsection with additional written and oral reports as may be requested by the Environmental Review Commission. The Commission shall submit the written reports required by this subsection whether or not the General Assembly is in session at the time the report is due.

(n) Administrative Location; Independence. – The Commission shall be administratively located in the Division of Emergency Management of the Department of Public Safety. The Commission shall exercise all of its powers and duties independently and shall not be subject to the supervision, direction, or control of the Division or Department.

(o) Terms of Members. – Members of the Commission shall serve terms of six years, beginning effective July 1 of the year of appointment.

"§ 130A-309.203. Expedited permit review.

(a) The Department shall act as expeditiously as practicable, but no later than the deadlines established under subsection (b) of this section, except in compliance with subsection (c) of this section, to issue all permits necessary to conduct activities required by this Part.

(b) Notwithstanding G.S. 130A-295.8(e), the Department shall determine whether an application for any permit necessary to conduct activities required by this Part is complete within 30 days after the Department receives the application for the permit. A determination of completeness means that the application includes all required components but does not mean that the required components provide all of the information that is required for the Department to make a decision on the application. If the Department determines that an application is not complete, the Department shall notify the applicant of the components needed to complete the application. An applicant may submit additional information to the Department to cure the deficiencies in the application. The Department shall make a final determination as to whether the application is complete within the later of (i) 30 days after the Department receives the application for the permit less the number of days that the applicant uses to provide the additional information or (ii) 10 days after the Department receives the additional information from the applicant. The Department shall issue a draft permit decision on an application for a permit within 90 days after the Department determines that the application is complete. The Department shall hold a public hearing and accept written comment on the draft permit decision for a period of not less than 30 or more than 60 days after the Department issues a draft permit decision. The Department shall issue a final permit decision on an application for a permit within 60 days after the comment period on the draft permit decision closes. If the

Department fails to act within any time period set out in this subsection, the applicant may treat the failure to act as a denial of the permit and may challenge the denial as provided in Chapter 150B of the General Statutes.

(c) If the Department finds that compliance with the deadlines established under subsection (b) of this section would result in insufficient review of a permit application that would pose a risk to public health, safety, and welfare; the environment; or natural resources, the applicable deadline shall be waived for the application as necessary to allow for adequate review. If a deadline is waived pursuant to this subsection, the Secretary shall issue a written declaration, including findings of fact, documenting the need for the waiver.

(d) Notwithstanding any other provision of this section or any other provision of law, the Department shall either issue or deny a permit required for dewatering of a retired impoundment within 90 days of receipt of a completed application, in such a form and including such information as the Department may prescribe, for the dewatering activities. The Department shall accept written comment on a draft permit decision for a period of not less than 30 days or more than 60 days prior to issuance or denial of such a permit. If the Department fails to act within any time period set out in this subsection, the applicant may treat the failure to act as a denial of the permit and may challenge the denial as provided in Chapter 150B of the General Statutes.

"§ 130A-309.204. Reports.

(a) The Department shall submit quarterly written reports to the Environmental Review Commission and the Coal Ash Management Commission on its operations, activities, programs, and progress with respect to its obligations under this Part concerning all coal combustion residuals surface impoundments. At a minimum, the report shall include information concerning the status of assessment, corrective action, prioritization, and closure for each coal combustion residuals surface impoundment and information on costs connected therewith. The report shall include an executive summary of each annual Groundwater Protection and Restoration Report submitted to the Department by the operator of any coal combustion residuals surface impoundments pursuant to G.S. 130A-309.209(d) and a summary of all groundwater sampling, protection, and restoration activities related to the impoundment for the preceding year. The report shall also include an executive summary of each annual Surface Water Protection and Restoration Report submitted to the Department by the operator of any coal combustion residuals surface impoundments pursuant to G.S. 130A-309.210(e) and a summary of all surface water sampling, protection, and restoration activities related to the impoundment for the preceding year, including the status of the identification, assessment, and correction of unpermitted discharges from coal combustion residuals surface impoundments to the surface waters of the State. The Department shall supplement the written reports required by this subsection with additional written and oral reports as may be requested by the Environmental Review Commission. The Department shall submit the written reports required by this subsection whether or not the General Assembly is in session at the time the report is due.

(b) On or before October 1 of each year, the Department shall report to each member of the General Assembly who has a coal combustion residuals surface impoundment in the member's district. This report shall include the location of each impoundment in the member's district, the amount of coal combustion residuals known or believed to be located in the impoundment, the last action taken at the impoundment, and the date of that last action.

(c) On or before October 1 of each year, a public utility generating coal combustion residuals and coal combustion products shall submit an annual summary to the Department. The annual summary shall be for the period of July 1 through June 30 and shall include all of the following:

- (1) The volume of coal combustion residuals and products produced.
- (2) The volume of coal combustion residuals disposed.
- (3) The volume of coal combustion products used in structural fill projects.
- (4) The volume of coal combustion products beneficially used, other than for structural fill.

"§ 130A-309.205. Local ordinances regulating management of coal combustion residuals and coal combustion products invalid; petition to preempt local ordinance.

(a) It is the intent of the General Assembly to maintain a uniform system for the management of coal combustion residuals and coal combustion products, including matters of disposal and beneficial use, and to place limitations upon the exercise by all units of local

government in North Carolina of the power to regulate the management of coal combustion residuals and coal combustion products by means of ordinances, property restrictions, zoning regulations, or otherwise. Notwithstanding any authority granted to counties, municipalities, or other local authorities to adopt local ordinances, including those imposing taxes, fees, or charges or regulating health, environment, or land use, all provisions of local ordinances, including those regulating land use, adopted by counties, municipalities, or other local authorities that regulate or have the effect of regulating the management of coal combustion residuals and coal combustion products, including regulation of carbon burn-out plants, within the jurisdiction of a local government are invalidated, to the extent necessary to effectuate the purposes of this Part, that do the following:

(1) Place any restriction or condition not placed by this Part upon management of coal combustion residuals or coal combustion products within any county, city, or other political subdivision.

(2) Conflict or are in any manner inconsistent with the provisions of this Part.

(b) If a local zoning or land-use ordinance imposes requirements, restrictions, or conditions that are generally applicable to development, including, but not limited to, setback, buffer, and stormwater requirements, and coal combustion residuals and coal combustion products would be regulated under the ordinance of general applicability, the operator of the proposed activities may petition the Environmental Management Commission to review the matter. After receipt of a petition, the Commission shall hold a hearing in accordance with the procedures in subsection (c) of this section and shall determine whether or to what extent to preempt the local ordinance to allow for the management of coal combustion residuals and coal combustion products.

(c) When a petition described in subsection (b) of this section has been filed with the Environmental Management Commission, the Commission shall hold a public hearing to consider the petition. The public hearing shall be held in the affected locality within 60 days after receipt of the petition by the Commission. The Commission shall give notice of the public hearing by both of the following means:

(1) Publication in a newspaper or newspapers having general circulation in the county or counties where the activities are to be conducted, once a week for three consecutive weeks, the first notice appearing at least 30 days prior to the scheduled date of the hearing.

(2) First-class mail to persons who have requested notice. The Commission shall maintain a mailing list of persons who request notice in advance of the hearing pursuant to this section. Notice by mail shall be complete upon deposit of a copy of the notice in a postage-paid wrapper addressed to the person to be notified at the address that appears on the mailing list maintained by the Commission in a post office or official depository under the exclusive care and custody of the United States Postal Service.

(d) Any interested person may appear before the Environmental Management Commission at the hearing to offer testimony. In addition to testimony before the Commission, any interested person may submit written evidence to the Commission for the Commission's consideration. At least 20 days shall be allowed for receipt of written comment following the hearing.

(e) A local zoning or land-use ordinance is presumed to be valid and enforceable to the extent the zoning or land-use ordinance imposes requirements, restrictions, or conditions that are generally applicable to development, including, but not limited to, setback, buffer, and stormwater requirements, unless the Environmental Management Commission makes a finding of fact to the contrary. The Commission shall determine whether or to what extent to preempt local ordinances so as to allow the project involving management of coal combustion residuals and coal combustion products no later than 60 days after conclusion of the hearing. The Commission shall preempt a local ordinance only if the Commission makes all of the following findings:

(1) That there is a local ordinance that would regulate the management of coal combustion residuals and coal combustion products.

(2) That all legally required State and federal permits or approvals have been issued by the appropriate State and federal agencies or that all State and federal permit requirements have been satisfied and that the permits or approvals have been denied or withheld only because of the local ordinance.

- (3) That local citizens and elected officials have had adequate opportunity to participate in the permitting process.
- (4) That the project involving management of coal combustion residuals and coal combustion products will not pose an unreasonable health or environmental risk to the surrounding locality and that the operator has taken or consented to take reasonable measures to avoid or manage foreseeable risks and to comply to the maximum feasible extent with applicable local ordinances.

(f) If the Environmental Management Commission does not make all of the findings under subsection (e) of this section, the Commission shall not preempt the challenged local ordinance. The Commission's decision shall be in writing and shall identify the evidence submitted to the Commission plus any additional evidence used in arriving at the decision.

(g) The decision of the Environmental Management Commission shall be final, unless a party to the action files a written appeal under Article 3 of Chapter 150B of the General Statutes, as modified by this section, within 30 days of the date of the decision. The record on appeal shall consist of all materials and information submitted to or considered by the Commission, the Commission's written decision, a complete transcript of the hearing, the specific findings required by subsection (e) of this section, and any minority positions on the specific findings required by subsection (e) of this section. The scope of judicial review shall be as set forth in G.S. 150B-51, except as this subsection provides regarding the record on appeal.

(h) If the court reverses or modifies the decision of the Environmental Management Commission, the judge shall set out in writing, which writing shall become part of the record, the reasons for the reversal or modification.

(i) In computing any period of time prescribed or allowed by the procedure in this section, the provisions of Rule 6(a) of the Rules of Civil Procedure, G.S. 1A-1, shall apply.

"§ 130A-309.206. Federal preemption; severability.

The provisions of this Part shall be severable, and if any phrase, clause, sentence, or provision is declared to be unconstitutional or otherwise invalid or is preempted by federal law or regulation, the validity of the remainder of this Part shall not be affected thereby.

"§ 130A-309.207. General rule making for Part.

The Environmental Management Commission shall adopt rules as necessary to implement the provisions of the Part. Such rules shall be exempt from the requirements of G.S. 150B-19.3.

"Subpart 2. Management of Coal Ash Residuals; Closure of Coal Ash Impoundments.

"§ 130A-309.208. Generation, disposal, and use of coal combustion residuals.

(a) On or after October 1, 2014, the construction of new and expansion of existing coal combustion residuals surface impoundments is prohibited.

(b) On or after October 1, 2014, the disposal of coal combustion residuals into a coal combustion residuals surface impoundment at an electric generating facility where the coal-fired generating units are no longer producing coal combustion residuals is prohibited.

(c) On or after December 31, 2018, the discharge of stormwater into a coal combustion surface impoundment at an electric generating facility where the coal-fired generating units are no longer producing coal combustion residuals is prohibited.

(d) On or after December 31, 2019, the discharge of stormwater into a coal combustion surface impoundment at an electric generating facility where the coal-fired generating units are actively producing coal combustion residuals is prohibited.

(e) On or before December 31, 2018, all electric generating facilities owned by a public utility shall convert to the disposal of "dry" fly ash or the facility shall be retired. For purposes of this subsection, the term "dry" means coal combustion residuals that are not in the form of liquid wastes, wastes containing free liquids, or sludges.

(f) On or before December 31, 2019, all electric generating facilities owned by a public utility shall convert to the disposal of "dry" bottom ash or the facility shall be retired. For purposes of this subsection, the term "dry" means coal combustion residuals that are not in the form of liquid wastes, wastes containing free liquids, or sludges.

"§ 130A-309.209. Groundwater assessment and corrective action; drinking water supply well survey and provision of alternate water supply; reporting.

(a) Groundwater Assessment of Coal Combustion Residuals Surface Impoundments. – The owner of a coal combustion residuals surface impoundment shall conduct groundwater monitoring and assessment as provided in this subsection. The requirements for groundwater monitoring and assessment set out in this subsection are in addition to any other groundwater

monitoring and assessment requirements applicable to the owners of coal combustion residuals surface impoundments.

- (1) No later than December 31, 2014, the owner of a coal combustion residuals surface impoundment shall submit a proposed Groundwater Assessment Plan for the impoundment to the Department for its review and approval. The Groundwater Assessment Plan shall, at a minimum, provide for all of the following:
 - a. A description of all receptors and significant exposure pathways.
 - b. An assessment of the horizontal and vertical extent of soil and groundwater contamination for all contaminants confirmed to be present in groundwater in exceedance of groundwater quality standards.
 - c. A description of all significant factors affecting movement and transport of contaminants.
 - d. A description of the geological and hydrogeological features influencing the chemical and physical character of the contaminants.
 - e. A schedule for continued groundwater monitoring.
 - f. Any other information related to groundwater assessment required by the Department.
- (2) The Department shall approve the Groundwater Assessment Plan if it determines that the Plan complies with the requirements of this subsection and will be sufficient to protect public health, safety, and welfare; the environment; and natural resources.
- (3) No later than 10 days from approval of the Groundwater Assessment Plan, the owner shall begin implementation of the Plan.
- (4) No later than 180 days from approval of the Groundwater Assessment Plan, the owner shall submit a Groundwater Assessment Report to the Department. The Report shall describe all exceedances of groundwater quality standards associated with the impoundment.

(b) Corrective Action for the Restoration of Groundwater Quality. – The owner of a coal combustion residuals surface impoundment shall implement corrective action for the restoration of groundwater quality as provided in this subsection. The requirements for corrective action for the restoration of groundwater quality set out in this subsection are in addition to any other corrective action for the restoration of groundwater quality requirements applicable to the owners of coal combustion residuals surface impoundments.

- (1) No later than 90 days from submission of the Groundwater Assessment Report required by subsection (a) of this section, or a time frame otherwise approved by the Department not to exceed 180 days from submission of the Groundwater Assessment Report, the owner of the coal combustion residuals surface impoundment shall submit a proposed Groundwater Corrective Action Plan to the Department for its review and approval. The Groundwater Corrective Action Plan shall provide for the restoration of groundwater in conformance with the requirements of Subchapter L of Chapter 2 of Title 15A of the North Carolina Administrative Code. The Groundwater Corrective Action Plan shall include, at a minimum, all of the following:
 - a. A description of all exceedances of the groundwater quality standards, including any exceedances that the owner asserts are the result of natural background conditions.
 - b. A description of the methods for restoring groundwater in conformance with the requirements of Subchapter L of Chapter 2 of Title 15A of the North Carolina Administrative Code and a detailed explanation of the reasons for selecting these methods.
 - c. Specific plans, including engineering details, for restoring groundwater quality.
 - d. A schedule for implementation of the Plan.
 - e. A monitoring plan for evaluating the effectiveness of the proposed corrective action and detecting movement of any contaminant plumes.

- f. Any other information related to groundwater assessment required by the Department.
- (2) The Department shall approve the Groundwater Corrective Action Plan if it determines that the Plan complies with the requirements of this subsection and will be sufficient to protect public health, safety, and welfare; the environment; and natural resources.
- (3) No later than 30 days from the approval of the Groundwater Corrective Action Plan, the owner shall begin implementation of the Plan in accordance with the Plan's schedule.

(c) Drinking Water Supply Well Survey and Provision of Alternate Water Supply. – No later than October 1, 2014, the owner of a coal combustion residuals surface impoundment shall conduct a Drinking Water Supply Well Survey that identifies all drinking water supply wells within one-half mile down-gradient from the established compliance boundary of the impoundment and submit the Survey to the Department. The Survey shall include well locations, the nature of water uses, available well construction details, and information regarding ownership of the wells. No later than December 1, 2014, the Department shall determine, based on the Survey, which drinking water supply wells the owner is required to sample and how frequently and for what period sampling is required. The Department shall require sampling for drinking water supply wells where data regarding groundwater quality and flow and depth in the area of any surveyed well provide a reasonable basis to predict that the quality of water from the surveyed well may be adversely impacted by constituents associated with the presence of the impoundment. No later than January 1, 2015, the owner shall initiate sampling and water quality analysis of the drinking water supply wells. A property owner may elect to have an independent third party selected from a laboratory certified by the Department's Wastewater/Groundwater Laboratory Certification program sample wells located on their property in lieu of sampling conducted by the owner of the coal combustion residuals surface impoundment. The owner of the coal combustion residuals surface impoundment shall pay for the reasonable costs of such sampling. Nothing in this subsection shall be construed to preclude or impair the right of any property owner to refuse such sampling of wells on their property. If the sampling and water quality analysis indicates that water from a drinking water supply well exceeds groundwater quality standards for constituents associated with the presence of the impoundment, the owner shall replace the contaminated drinking water supply well with an alternate supply of potable drinking water and an alternate supply of water that is safe for other household uses. The alternate supply of potable drinking water shall be supplied within 24 hours of the Department's determination that there is an exceedance of groundwater quality standards attributable to constituents associated with the presence of the impoundment. The alternate supply of water that is safe for other household uses shall be supplied within 30 days of the Department's determination that there is an exceedance of groundwater quality standards attributable to constituents associated with the presence of the impoundment. The requirement to replace a contaminated drinking water supply well with an alternate supply of potable drinking water and an alternate supply of water that is safe for other household uses set out in this subsection is in addition to any other requirements to replace a contaminated drinking water supply well with an alternate supply of potable drinking water or an alternate supply of water that is safe for other household uses applicable to the owners of coal combustion residuals surface impoundments.

(d) Reporting. – In addition to any other reporting required by the Department, the owner of a coal combustion residuals surface impoundment shall submit an annual Groundwater Protection and Restoration Report to the Department no later than January 31 of each year. The Report shall include a summary of all groundwater monitoring, protection, and restoration activities related to the impoundment for the preceding year, including the status of the Groundwater Assessment Plan, the Groundwater Assessment Report, the Groundwater Corrective Action Plan, the Drinking Water Supply Well Survey, and the replacement of any contaminated drinking water supply wells. The owner of a coal combustion residuals surface impoundment shall also submit all information required to be submitted to the Department pursuant to this section to the Coal Ash Management Commission.

"§ 130A-309.210. Identification and assessment of discharges; correction of unpermitted discharges.

(a) Identification of Discharges from Coal Combustion Residuals Surface Impoundments. –

- (1) The owner of a coal combustion residuals surface impoundment shall identify all discharges from the impoundment as provided in this subsection. The requirements for identifying all discharges from an impoundment set out in this subsection are in addition to any other requirements for identifying discharges applicable to the owners of coal combustion residuals surface impoundments.
- (2) No later than December 31, 2014, the owner of a coal combustion residuals surface impoundment shall submit a topographic map that identifies the location of all (i) outfalls from engineered channels designed or improved for the purpose of collecting water from the toe of the impoundment and (ii) seeps and weeps discharging from the impoundment that are not captured by engineered channels designed or improved for the purpose of collecting water from the toe of the impoundment to the Department. The topographic map shall comply with all of the following:
 - a. Be at a scale as required by the Department.
 - b. Specify the latitude and longitude of each toe drain outfall, seep, and weep.
 - c. Specify whether the discharge from each toe drain outfall, seep, and weep is continuous or intermittent.
 - d. Provide an average flow measurement of the discharge from each toe drain outfall, seep, and weep including a description of the method used to measure average flow.
 - e. Specify whether the discharge from each toe drain outfall, seep, and weep identified reaches the surface waters of the State. If the discharge from a toe drain outfall, seep, or weep reaches the surface waters of the State, the map shall specify the latitude and longitude of where the discharge reaches the surface waters of the State.
 - f. Include any other information related to the topographic map required by the Department.

(b) Assessment of Discharges from Coal Combustion Residuals Surface Impoundments to the Surface Waters of the State. – The owner of a coal combustion residuals surface impoundment shall conduct an assessment of discharges from the coal combustion residuals surface impoundment to the surface waters of the State as provided in this subsection. The requirements for assessment of discharges from the coal combustion residuals surface impoundment to the surface waters of the State set out in this subsection are in addition to any other requirements for the assessment of discharges from coal combustion residuals surface impoundments to surface waters of the State applicable to the owners of coal combustion residuals surface impoundments.

- (1) No later than December 31, 2014, the owner of a coal combustion residuals surface impoundment shall submit a proposed Discharge Assessment Plan to the Department. The Discharge Assessment Plan shall include information sufficient to allow the Department to determine whether any discharge, including a discharge from a toe drain outfall, seep, or weep, has reached the surface waters of the State and has caused a violation of surface water quality standards. The Discharge Assessment Plan shall include, at a minimum, all of the following:
 - a. Upstream and downstream sampling locations within all channels that could potentially carry a discharge.
 - b. A description of the surface water quality analyses that will be performed.
 - c. A sampling schedule, including the frequency and duration of sampling activities.
 - d. Reporting requirements.
 - e. Any other information related to the assessment of discharges required by the Department.
- (2) The Department shall approve the Discharge Assessment Plan if it determines that the Plan complies with the requirements of this subsection and will be sufficient to protect public health, safety, and welfare; the environment; and natural resources.

- (3) No later than 30 days from the approval of the Discharge Assessment Plan, the owner shall begin implementation of the Plan in accordance with the Plan's schedule.

(c) Corrective Action to Prevent Unpermitted Discharges from Coal Combustion Residuals Surface Impoundments to the Surface Waters of the State. – The owner of a coal combustion residuals surface impoundment shall implement corrective action to prevent unpermitted discharges from the coal combustion residuals surface impoundment to the surface waters of the State as provided in this subsection. The requirements for corrective action to prevent unpermitted discharges from coal combustion residuals surface impoundments to the surface waters of the State set out in this subsection are in addition to any other requirements for corrective action to prevent unpermitted discharges from coal combustion residuals surface impoundments to the surface waters of the State applicable to the owners of coal combustion residuals surface impoundments.

- (1) If the Department determines, based on information provided pursuant to subsection (a) or (b) of this section, that an unpermitted discharge from a coal combustion residuals surface impoundment, including an unpermitted discharge from a toe drain outfall, seep, or weep, has reached the surface waters of the State, the Department shall notify the owner of the impoundment of its determination.

- (2) No later than 30 days from a notification pursuant to subdivision (1) of this subsection, the owner of the coal combustion residuals surface impoundment shall submit a proposed Unpermitted Discharge Corrective Action Plan to the Department for its review and approval. The proposed Unpermitted Discharge Corrective Action Plan shall include, at a minimum, all of the following:

a. One of the following methods of proposed corrective action:

1. Elimination of the unpermitted discharge.

2. Application for a National Pollutant Discharge Elimination System (NPDES) permit amendment pursuant to G.S. 143-215.1 and Subchapter H of Chapter 2 of Title 15A of the North Carolina Administrative Code to bring the unpermitted discharge under permit regulations.

b. A detailed explanation of the reasons for selecting the method of corrective action.

c. Specific plans, including engineering details, to prevent the unpermitted discharge.

d. A schedule for implementation of the Plan.

e. A monitoring plan for evaluating the effectiveness of the proposed corrective action.

f. Any other information related to the correction of unpermitted discharges required by the Department.

- (3) The Department shall approve the Unpermitted Discharge Corrective Action Plan if it determines that the Plan complies with the requirements of this subsection and will be sufficient to protect public health, safety, and welfare; the environment; and natural resources.

- (4) No later than 30 days from the approval of the Unpermitted Discharge Corrective Action Plan, the owner shall begin implementation of the Plan in accordance with the Plan's schedule.

(d) Identification of New Discharges. – No later than October 1, 2014, the owner of a coal combustion residuals surface impoundment shall submit a proposed Plan for the Identification of New Discharges to the Department for its review and approval as provided in this subsection.

- (1) The proposed Plan for the Identification of New Discharges shall include, at a minimum, all of the following:

a. A procedure for routine inspection of the coal combustion residuals surface impoundment to identify indicators of potential new discharges, including toe drain outfalls, seeps, and weeps.

b. A procedure for determining whether a new discharge is actually present.

- c. A procedure for notifying the Department when a new discharge is confirmed.
- d. Any other information related to the identification of new discharges required by the Department.
- (2) The Department shall approve the Plan for the Identification of New Discharges if it determines that the Plan complies with the requirements of this subsection and will be sufficient to protect public health, safety, and welfare; the environment; and natural resources.
- (3) No later than 30 days from the approval of the Plan for the Identification of New Discharges, the owner shall begin implementation of the Plan in accordance with the Plan.
- (e) Reporting. – In addition to any other reporting required by the Department, the owner of a coal combustion residuals surface impoundment shall submit an annual Surface Water Protection and Restoration Report to the Department no later than January 31 of each year. The Report shall include a summary of all surface water sampling, protection, and restoration activities related to the impoundment for the preceding year, including the status of the identification, assessment, and correction of unpermitted discharges from coal combustion residuals surface impoundments to the surface waters of the State. The owner of a coal combustion residuals surface impoundment shall also submit all information required to be submitted to the Department pursuant to this section to the Coal Ash Management Commission.

"§ 130A-309.211. Prioritization of coal combustion residuals surface impoundments.

(a) As soon as practicable, but no later than December 31, 2015, the Department shall develop proposed classifications for all coal combustion residuals surface impoundments, including active and retired sites, for the purpose of closure and remediation based on these sites' risks to public health, safety, and welfare; the environment; and natural resources and shall determine a schedule for closure and required remediation that is based on the degree of risk to public health, safety, and welfare; the environment; and natural resources posed by the impoundments and that gives priority to the closure and required remediation of impoundments that pose the greatest risk. In assessing the risk, the Department shall evaluate information received pursuant to G.S. 130A-309.209 and G.S. 130A-309.210 and any other information deemed relevant and, at a minimum, consider all of the following:

- (1) Any hazards to public health, safety, or welfare resulting from the impoundment.
- (2) The structural condition and hazard potential of the impoundment.
- (3) The proximity of surface waters to the impoundment and whether any surface waters are contaminated or threatened by contamination as a result of the impoundment.
- (4) Information concerning the horizontal and vertical extent of soil and groundwater contamination for all contaminants confirmed to be present in groundwater in exceedance of groundwater quality standards and all significant factors affecting contaminant transport.
- (5) The location and nature of all receptors and significant exposure pathways.
- (6) The geological and hydrogeological features influencing the movement and chemical and physical character of the contaminants.
- (7) The amount and characteristics of coal combustion residuals in the impoundment.
- (8) Whether the impoundment is located within an area subject to a 100-year flood.
- (9) Any other factor the Department deems relevant to establishment of risk.

(b) The Department shall issue a proposed classification for each coal combustion residuals surface impoundment based upon the assessment conducted pursuant to subsection (a) of this section as high-risk, intermediate-risk, or low-risk. Within 30 days after a proposed classification has been issued, the Department shall issue a written declaration, including findings of fact, documenting the proposed classification. The Department shall provide for public participation on the proposed risk classification as follows:

- (1) The Department shall make copies of the written declaration issued pursuant to this subsection available for inspection as follows:

- a. A copy of the declaration shall be provided to the local health director.
 - b. A copy of the declaration shall be provided to the public library located in closest proximity to the site in the county or counties in which the site is located.
 - c. The Department shall post a copy of the declaration on the Department's Web site.
 - d. The Department shall place copies of the declaration in other locations so as to assure the reasonable availability thereof to the public.
- (2) The Department shall give notice of the written declaration issued pursuant to this subsection as follows:
- a. A notice and summary of the declaration shall be published weekly for a period of three consecutive weeks in a newspaper having general circulation in the county or counties where the site is located.
 - b. Notice of the written declaration shall be given by first-class mail to persons who have requested such notice. Such notice shall include a summary of the written declaration and state the locations where a copy of the written declaration is available for inspection. The Department shall maintain a mailing list of persons who request notice pursuant to this section.
 - c. Notice of the written declaration shall be given by electronic mail to persons who have requested such notice. Such notice shall include a summary of the written declaration and state the locations where a copy of the written declaration is available for inspection. The Department shall maintain a mailing list of persons who request notice pursuant to this section.
- (3) No later than 60 days after issuance of the written declaration, the Department shall conduct a public meeting in the county or counties in which the site is located to explain the written declaration to the public. The Department shall give notice of the hearing at least 15 days prior to the date thereof by all of the following methods:
- a. Publication as provided in subdivision (1) of this subsection, with first publication to occur not less than 30 days prior to the scheduled date of the hearing.
 - b. First-class mail to persons who have requested notice as provided in subdivision (2) of this subsection.
 - c. Electronic mail to persons who have requested notice as provided in subdivision (2) of this subsection.
- (4) At least 30 days from the latest date on which notice is provided pursuant to subdivision (2) of this subsection shall be allowed for the receipt of written comment on the written declaration prior to issuance of a final risk classification. At least 20 days will be allowed for receipt of written comment following a hearing conducted pursuant to subdivision (3) of this subsection prior to issuance of a final risk classification.

(c) Within 30 days of the receipt of all written comment as required by subdivision (4) of subsection (b) of this section, the Department shall submit a proposed classification for a coal combustion residuals surface impoundment to the Coal Ash Management Commission established pursuant to G.S. 130A-309.202. The Commission shall evaluate all information submitted in accordance with this Part related to the proposed classification and any other information the Commission deems relevant. The Commission shall only approve the proposed classification if it determines that the classification was developed in accordance with this section and that the classification accurately reflects the level of risk posed by the coal combustion residuals surface impoundment. The Commission shall issue its determination in writing, including findings in support of its determination. If the Commission fails to act on a proposed classification within 60 days of receipt of the proposed classification, the proposed classification shall be deemed approved. Parties aggrieved by a final decision of the Commission pursuant to this subsection may appeal the decision as provided under Article 3 of Chapter 150B of the General Statutes.

"§ 130A-309.212. Closure of coal combustion residuals surface impoundments.

(a) An owner of a coal combustion residuals surface impoundment shall submit a proposed Coal Combustion Residuals Surface Impoundment Closure Plan for the Department's approval. If corrective action to restore groundwater has not been completed pursuant to the requirements of G.S. 130A-309.209(b), the proposed closure plan shall include provisions for completion of activities to restore groundwater in conformance with the requirements of Subchapter L of Chapter 2 of Title 15A of the North Carolina Administrative Code. In addition, the following requirements, at a minimum, shall apply to such plans:

(1) High-risk impoundments shall be closed as soon as practicable, but no later than December 31, 2019. A proposed closure plan for such impoundments must be submitted as soon as practicable, but no later than December 31, 2016. At a minimum, (i) impoundments located in whole above the seasonal high groundwater table shall be dewatered; (ii) impoundments located in whole or in part beneath the seasonal high groundwater table shall be dewatered to the maximum extent practicable; and (iii) the owner of an impoundment shall either:

a. Convert the coal combustion residuals impoundment to an industrial landfill by removing all coal combustion residuals and contaminated soil from the impoundment temporarily, safely storing the residuals on-site, and complying with the requirements for such landfills established by this Article and rules adopted thereunder. At a minimum, the landfills shall have a design with a leachate collection system, a closure cap system, and a composite liner system consisting of two components: the upper component shall consist of a minimum 30-ml flexible membrane (FML), and the lower components shall consist of at least a two-foot layer of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} centimeters per second. FML components consisting of high density polyethylene (HDPE) shall be at least 60 ml thick. The landfill shall otherwise comply with the construction requirements established by Section .1624 of Subchapter B of Chapter 13 of Title 15A of the North Carolina Administrative Code, and the siting and design requirements for disposal sites established by Section .0503 of Subchapter B of Chapter 13 of Title 15A of the North Carolina Administrative Code, except with respect to those requirements that pertain to buffers. In lieu of the buffer requirement established by Section .0503(f)(2)(iii) of Subchapter B of Chapter 13 of Title 15A of the North Carolina Administrative Code, the owner of the impoundment shall establish and maintain a 300-foot buffer between surface waters and disposal areas. After the temporarily displaced coal combustion residuals have been returned for disposal in the industrial landfill constructed pursuant to the requirements of this sub-subdivision, the owner of the landfill shall comply with the closure and post-closure requirements established by Section .1627 of Subchapter B of Chapter 13 of Title 15A of the North Carolina Administrative Code. A landfill constructed pursuant to this sub-subdivision shall otherwise be subject to all applicable requirements of this Chapter and rules adopted thereunder. Prior to closure, the Department may allow the disposal of coal combustion residuals, in addition to those originally contained in the impoundment, to the landfill constructed pursuant to this sub-subdivision, if the Department determines that the site is suitable for additional capacity and that disposal of additional coal combustion residuals will not pose an unacceptable risk to public health, safety, welfare; the environment; and natural resources.

b. Remove all coal combustion residuals from the impoundment, return the former impoundment to a nonerosive and stable condition and (i) transfer the coal combustion residuals for disposal in a coal combustion residuals landfill, industrial landfill, or municipal solid

waste landfill or (ii) use the coal combustion products in a structural fill or other beneficial use as allowed by law. The use of coal combustion products (i) as structural fill shall be conducted in accordance with the requirements of Subpart 3 of this Part and (ii) for other beneficial uses shall be conducted in accordance with the requirements of Section .1700 of Subchapter B of Chapter 13 of Title 15A of the North Carolina Administrative Code (Requirements for Beneficial Use of Coal Combustion By-Products) and Section .1205 of Subchapter T of Chapter 2 of Title 15A of the North Carolina Administrative Code (Coal Combustion Products Management).

- (2) Intermediate-risk impoundments shall be closed as soon as practicable, but no later than December 31, 2024. A proposed closure plan for such impoundments must be submitted as soon as practicable, but no later than December 31, 2017. At a minimum, such impoundments shall be dewatered, and the owner of an impoundment shall close the impoundment in any manner allowed pursuant to subdivision (1) of this subsection.
- (3) Low-risk impoundments shall be closed as soon as practicable, but no later than December 31, 2029. A proposed closure plan for such impoundments must be submitted as soon as practicable, but no later than December 31, 2018. At a minimum, (i) impoundments located in whole above the seasonal high groundwater table shall be dewatered; (ii) impoundments located in whole or in part beneath the seasonal high groundwater table shall be dewatered to the maximum extent practicable; and (iii) the owner of an impoundment shall either:

 - a. Close in any manner allowed pursuant to subdivision (1) of this subsection.
 - b. Comply with the closure and post-closure requirements established by Section .1627 of Subchapter B of Chapter 13 of Title 15A of the North Carolina Administrative Code, except that such impoundments shall not be required to install and maintain a leachate collection system. Specifically, the owner of an impoundment shall install and maintain a cap system that is designed to minimize infiltration and erosion in conformance with the requirements of Section .1624 of Subchapter B of Chapter 13 of Title 15A of the North Carolina Administrative Code, and, at a minimum, shall be designed and constructed to (i) have a permeability no greater than 1×10^{-5} centimeters per second; (ii) minimize infiltration by the use of a low-permeability barrier that contains a minimum 18 inches of earthen material; and (iii) minimize erosion of the cap system and protect the low-permeability barrier from root penetration by use of an erosion layer that contains a minimum of six inches of earthen material that is capable of sustaining native plant growth. In addition, the owner of an impoundment shall (i) install and maintain a groundwater monitoring system; (ii) establish financial assurance that will ensure that sufficient funds are available for closure pursuant to this subdivision, post-closure maintenance and monitoring, any corrective action that the Department may require, and satisfy any potential liability for sudden and nonsudden accidental occurrences arising from the impoundment and subsequent costs incurred by the Department in response to an incident, even if the owner becomes insolvent or ceases to reside, be incorporated, do business, or maintain assets in the State; and (iii) conduct post-closure care for a period of 30 years, which period may be increased by the Department upon a determination that a longer period is necessary to protect public health, safety, welfare; the environment; and natural resources, or decreased upon a determination that a shorter period is sufficient to protect public health, safety, welfare; the environment; and natural resources. The Department may require implementation of any other measure it

deems necessary to protect public health, safety, and welfare; the environment; and natural resources, including imposition of institutional controls that are sufficient to protect public health, safety, and welfare; the environment; and natural resources. The Department may not approve closure for an impoundment pursuant to sub-subdivision b. of subdivision (3) of this subsection unless the Department finds that the proposed closure plan includes design measures to prevent, upon the plan's full implementation, post-closure exceedances of groundwater quality standards beyond the compliance boundary that are attributable to constituents associated with the presence of the impoundment.

(4) Closure Plans for all impoundments shall include all of the following:

a. Facility and coal combustion residuals surface impoundment description. – A description of the operation of the site that shall include, at a minimum, all of the following:

1. Site history and history of site operations, including details on the manner in which coal combustion residuals have been stored and disposed of historically.
2. Estimated volume of material contained in the impoundment.
3. Analysis of the structural integrity of dikes or dams associated with impoundment.
4. All sources of discharge into the impoundment, including volume and characteristics of each discharge.
5. Whether the impoundment is lined, and, if so, the composition thereof.
6. A summary of all information available concerning the impoundment as a result of inspections and monitoring conducted pursuant to this Part and otherwise available.

b. Site maps, which, at a minimum, illustrate all of the following:

1. All structures associated with the operation of any coal combustion residuals surface impoundment located on the site. For purposes of this sub-subdivision, the term "site" means the land or waters within the property boundary of the applicable electric generating station.
2. All current and former coal combustion residuals disposal and storage areas on the site, including details concerning coal combustion residuals produced historically by the electric generating station and disposed of through transfer to structural fills.
3. The property boundary for the applicable site, including established compliance boundaries within the site.
4. All potential receptors within 2,640 feet from established compliance boundaries.
5. Topographic contour intervals of the site shall be selected to enable an accurate representation of site features and terrain and in most cases should be less than 20-foot intervals.
6. Locations of all sanitary landfills permitted pursuant to this Article on the site that are actively receiving waste or are closed, as well as the established compliance boundaries and components of associated groundwater and surface water monitoring systems.
7. All existing and proposed groundwater monitoring wells associated with any coal combustion residuals surface impoundment on the site.
8. All existing and proposed surface water sample collection locations associated with any coal combustion residuals surface impoundment on the site.

- c. The results of a hydrogeologic, geologic, and geotechnical investigation of the site, including, at a minimum, all of the following:
1. A description of the hydrogeology and geology of the site.
 2. A description of the stratigraphy of the geologic units underlying each coal combustion residuals surface impoundment located on the site.
 3. The saturated hydraulic conductivity for (i) the coal combustion residuals within any coal combustion residuals surface impoundment located on the site and (ii) the saturated hydraulic conductivity of any existing liner installed at an impoundment, if any.
 4. The geotechnical properties for (i) the coal combustion residuals within any coal combustion residuals surface impoundment located on the site, (ii) the geotechnical properties of any existing liner installed at an impoundment, if any, and (iii) the uppermost identified stratigraphic unit underlying the impoundment, including the soil classification based upon the Unified Soil Classification System, in-place moisture content, particle size distribution, Atterberg limits, specific gravity, effective friction angle, maximum dry density, optimum moisture content, and permeability.
 5. A chemical analysis of the coal combustion residuals surface impoundment, including water, coal combustion residuals, and coal combustion residuals-affected soil.
 6. Identification of all substances with concentrations determined to be in excess of the groundwater quality standards for the substance established by Subchapter L of Chapter 2 of Title 15A of the North Carolina Administrative Code, including all laboratory results for these analyses.
 7. Summary tables of historical records of groundwater sampling results.
 8. A map that illustrates the potentiometric contours and flow directions for all identified aquifers underlying impoundments (shallow, intermediate, and deep) and the horizontal extent of areas where groundwater quality standards established by Subchapter L of Chapter 2 of Title 15A of the North Carolina Administrative Code for a substance are exceeded.
 9. Cross-sections that illustrate the following: the vertical and horizontal extent of the coal combustion residuals within an impoundment; stratigraphy of the geologic units underlying an impoundment; and the vertical extent of areas where groundwater quality standards established by Subchapter L of Chapter 2 of Title 15A of the North Carolina Administrative Code for a substance are exceeded.
- d. The results of groundwater modeling of the site that shall include, at a minimum, all of the following:
1. An account of the design of the proposed Closure Plan that is based on the site hydrogeologic conceptual model developed and includes (i) predictions on post-closure groundwater elevations and groundwater flow directions and velocities, including the effects on and from the potential receptors and (ii) predictions at the compliance boundary for substances with concentrations determined to be in excess of the groundwater quality standards for the substance established by Subchapter L of Chapter 2 of Title 15A of the North Carolina Administrative Code.

2. Predictions that include the effects on the groundwater chemistry and should describe migration, concentration, mobilization, and fate for substances with concentrations determined to be in excess of the groundwater quality standards for the substance established by Subchapter L of Chapter 2 of Title 15A of the North Carolina Administrative Code pre- and post-closure, including the effects on and from potential receptors.
 3. A description of the groundwater trend analysis methods used to demonstrate compliance with groundwater quality standards for the substance established by Subchapter L of Chapter 2 of Title 15A of the North Carolina Administrative Code and requirements for corrective action of groundwater contamination established by Subchapter L of Chapter 2 of Title 15A of the North Carolina Administrative Code.
- e. A description of any plans for beneficial use of the coal combustion residuals in compliance with the requirements of Section .1700 of Subchapter B of Chapter 13 of Title 15A of the North Carolina Administrative Code (Requirements for Beneficial Use of Coal Combustion By-Products) and Section .1205 of Subchapter T of Chapter 2 of Title 15A of the North Carolina Administrative Code (Coal Combustion Products Management).
 - f. All engineering drawings, schematics, and specifications for the proposed Closure Plan. If required by Chapter 89C of the General Statutes, engineering design documents should be prepared, signed, and sealed by a professional engineer.
 - g. A description of the construction quality assurance and quality control program to be implemented in conjunction with the Closure Plan, including the responsibilities and authorities for monitoring and testing activities, sampling strategies, and reporting requirements.
 - h. A description of the provisions for disposal of wastewater and management of stormwater and the plan for obtaining all required permits.
 - i. A description of the provisions for the final disposition of the coal combustion residuals. If the coal combustion residuals are to be removed, the owner must identify (i) the location and permit number for the coal combustion residuals landfills, industrial landfills, or municipal solid waste landfills in which the coal combustion residuals will be disposed and (ii) in the case where the coal combustion residuals are planned for beneficial use, the location and manner in which the residuals will be temporarily stored. If the coal combustion residuals are to be left in the impoundment, the owner must (i) in the case of closure pursuant to sub-subdivision (a)(1)a. of this section, provide a description of how the ash will be stabilized prior to completion of closure in accordance with closure and post-closure requirements established by Section .1627 of Subchapter B of Chapter 13 of Title 15A of the North Carolina Administrative Code and (ii) in the case of closure pursuant to sub-subdivision (a)(1)b. of this section, provide a description of how the ash will be stabilized pre- and post-closure. If the coal combustion residuals are to be left in the impoundment, the owner must provide an estimate of the volume of coal combustion residuals remaining.
 - j. A list of all permits that will need to be acquired or modified to complete closure activities.
 - k. A description of the plan for post-closure monitoring and care for an impoundment for a minimum of 30 years. The length of the post-closure care period may be (i) proposed to be decreased or the frequency and parameter list modified if the owner demonstrates that the reduced period or modifications are sufficient to protect public

health, safety, and welfare; the environment; and natural resources and (ii) increased by the Department at the end of the post-closure monitoring and care period if there are statistically significant increasing groundwater quality trends or if contaminant concentrations have not decreased to a level protective of public health, safety, and welfare; the environment; and natural resources. If the owner determines that the post-closure care monitoring and care period is no longer needed and the Department agrees, the owner shall provide a certification, signed and sealed by a professional engineer, verifying that post-closure monitoring and care has been completed in accordance with the post-closure plan. If required by Chapter 89C of the General Statutes, the proposed plan for post-closure monitoring and care should be signed and sealed by a professional engineer. The plan shall include, at a minimum, all of the following:

1. A demonstration of the long-term control of all leachate, affected groundwater, and stormwater.
2. A description of a groundwater monitoring program that includes (i) post-closure groundwater monitoring, including parameters to be sampled and sampling schedules; (ii) any additional monitoring well installations, including a map with the proposed locations and well construction details; and (iii) the actions proposed to mitigate statistically significant increasing groundwater quality trends.
- l. An estimate of the milestone dates for all activities related to closure and post-closure.
- m. Projected costs of assessment, corrective action, closure, and post-closure care for each coal combustion residuals surface impoundment.
- n. A description of the anticipated future use of the site and the necessity for the implementation of institutional controls following closure, including property use restrictions, and requirements for recordation of notices documenting the presence of contamination, if applicable, or historical site use.

(b) The Department shall review a proposed Coal Combustion Residuals Surface Impoundment Closure Plan for consistency with the minimum requirements set forth in subsection (a) of this section and whether the proposed Closure Plan is protective of public health, safety, and welfare; the environment; and natural resources and otherwise complies with the requirements of this Part. Prior to issuing a decision on a proposed Closure Plan, the Department shall provide for public participation on the proposed Closure Plan as follows:

- (1) The Department shall make copies of the proposed Closure Plan available for inspection as follows:
 - a. A copy of the proposed Closure Plan shall be provided to the local health director.
 - b. A copy of the proposed Closure Plan shall be provided to the public library located in closest proximity to the site in the county or counties in which the site is located.
 - c. The Department shall post a copy of the proposed Closure Plan on the Department's Web site.
 - d. The Department shall place copies of the declaration in other locations so as to assure the reasonable availability thereof to the public.
- (2) Before approving a proposed Closure Plan, the Department shall give notice as follows:
 - a. A notice and summary of the proposed Closure Plan shall be published weekly for a period of three consecutive weeks in a newspaper having general circulation in the county or counties where the site is located.

- b. Notice that a proposed Closure Plan has been developed shall be given by first-class mail to persons who have requested such notice. Such notice shall include a summary of the proposed Closure Plan and state the locations where a copy of the proposed Closure Plan is available for inspection. The Department shall maintain a mailing list of persons who request notice pursuant to this section.
 - c. Notice that a proposed Closure Plan has been developed shall be given by electronic mail to persons who have requested such notice. Such notice shall include a summary of the proposed Closure Plan and state the locations where a copy of the proposed Closure Plan is available for inspection. The Department shall maintain a mailing list of persons who request notice pursuant to this section.
- (3) No later than 60 days after receipt of a proposed Closure Plan, the Department shall conduct a public meeting in the county or counties in which the site is located to explain the proposed Closure Plan and alternatives to the public. The Department shall give notice of the hearing at least 30 days prior to the date thereof by all of the following methods:
- a. Publication as provided in subdivision (1) of this subsection, with first publication to occur not less than 30 days prior to the scheduled date of the hearing.
 - b. First-class mail to persons who have requested notice as provided in subdivision (2) of this subsection.
 - c. Electronic mail to persons who have requested notice as provided in subdivision (2) of this subsection.
- (4) At least 30 days from the latest date on which notice is provided pursuant to subdivision (2) of this subsection shall be allowed for the receipt of written comment on the proposed Closure Plan prior to its approval. At least 20 days will be allowed for receipt of written comment following a hearing conducted pursuant to subdivision (3) of this subsection prior to the approval of the proposed Closure Plan.

(c) The Department shall disapprove a proposed Coal Combustion Residuals Surface Impoundment Closure Plan unless the Department finds that the Closure Plan is protective of public health, safety, and welfare; the environment; and natural resources and otherwise complies with the requirements of this Part. The Department shall provide specific findings to support its decision to approve or disapprove a proposed Closure Plan. If the Department disapproves a proposed Closure Plan, the person who submitted the Closure Plan may seek review as provided in Article 3 of Chapter 150B of the General Statutes. If the Department fails to approve or disapprove a proposed Closure Plan within 120 days after a complete Closure Plan has been submitted, the person who submitted the proposed Closure Plan may treat the Closure Plan as having been disapproved at the end of that time period. The Department may require a person who proposes a Closure Plan to supply any additional information necessary for the Department to approve or disapprove the Closure Plan.

(d) Within 30 days of its approval of a Coal Combustion Residuals Surface Impoundment Closure Plan, the Department shall submit the Closure Plan to the Coal Ash Management Commission. The Commission shall evaluate all information submitted in accordance with this Part related to the Closure Plan and any other information the Commission deems relevant. The Commission shall approve the Closure Plan if it determines that the Closure Plan was developed in accordance with this section, that implementation of the Closure Plan according to the Closure Plan's schedule is technologically and economically feasible, and the Closure Plan is protective of the public health, safety, and welfare; the environment; and natural resources. In addition, the Commission may consider any impact on electricity costs and reliability, but this factor may not be dispositive of the Commission's determination. The Commission shall issue its determination in writing, including findings in support of its determination. If the Commission fails to act on a Closure Plan within 60 days of receipt of the Closure Plan, the Closure Plan shall be deemed approved. Parties aggrieved by a final decision of the Commission pursuant to this subsection may appeal the decision as provided under Article 3 of Chapter 150B of the General Statutes.

(e) As soon as practicable, but no later than 60 days after a Coal Combustion Residuals Surface Impoundment Closure Plan has been approved by the Coal Ash Management

Commission, the owner of the coal combustion residuals impoundment shall begin implementation of the approved plan. Modifications to an approved Closure Plan may only be allowed in conformance with the requirements of this Part, upon written request of an owner of an impoundment, with the written approval of the Department, and after public notice of the change in accordance with the requirements of subdivision (2) of subsection (b) of this section. Provided, however, minor technical modifications may be made in accordance with standard Department procedures for such minor modifications and may be made without written approval of the Department or public notice of the change.

(f) Nothing in this section shall be construed to obviate the need for sampling, remediation, and monitoring activities at the site as required by G.S. 130A-309.209 and G.S. 130A-309.310.

"§ 130A-309.213. Variance authority.

(a) In recognition of the complexity and magnitude of the issues surrounding the management of coal combustion residuals and coal combustion residuals surface impoundments, the General Assembly authorizes the Commission to grant a variance to extend any deadline for closure of an impoundment established under G.S. 130A-309.212 in conformance with the requirements of this section. To request such a variance the owner of an impoundment shall, no earlier than two years prior to the applicable deadline, submit an application in a form acceptable to the Department which shall include, at a minimum, all of the following information: identification of the site, applicable requirements, and applicable deadlines for which a variance is sought, and the site-specific circumstances that support the need for the variance. The owner of the impoundment shall also provide detailed information that demonstrates (i) the owner has substantially complied with all other requirements and deadlines established by this Part; (ii) the owner has made good faith efforts to comply with the applicable deadline for closure of the impoundment; and (iii) that compliance with the deadline cannot be achieved by application of best available technology found to be economically reasonable at the time and would produce serious hardship without equal or greater benefits to the public. As soon as practicable, but no later than 60 days from receipt of an application, the Secretary shall evaluate the information submitted in conjunction with the application, and any other information the Secretary deems relevant, to determine whether the information supports issuance of a variance. After such evaluation, if the Secretary finds that the information supports issuance of a variance from the deadline, the Secretary shall issue a proposed variance. Within 10 days after a proposed variance has been issued, the Secretary shall issue a written declaration, including findings of fact, documenting the proposed variance. The Department shall provide for public participation on the proposed variance in the manner provided by G.S. 130A-309.212(b) and shall take the public input received through the process into account in its decision concerning the proposed variance. Within 30 days of the receipt of all public input received, the Department shall submit a proposed variance to the Coal Ash Management Commission. The Commission shall evaluate all information submitted in accordance with this section and any other information the Commission deems relevant. The Commission shall only approve a variance if it determines that compliance with the deadline cannot be achieved by application of best available technology found to be economically reasonable at the time and would produce serious hardship without equal or greater benefits to the public. The Commission shall issue its determination in writing, including findings in support of its determination. If the Commission fails to act on a variance request within 60 days of receipt, the variance shall be deemed denied. Parties aggrieved by a final decision of the Commission pursuant to this subsection may appeal the decision as provided under Article 3 of Chapter 150B of the General Statutes.

(b) A variance granted pursuant to this section shall not extend a deadline for closure of an impoundment more than three years beyond the date applicable to the impoundment as provided under G.S. 130A-309.212.

(c) No more than one variance may be granted pursuant to this section per impoundment.

"Subpart 3. Use of Coal Combustion Products in Structural Fill.

"§ 130A-309.214. Applicability.

The provisions of this Subpart shall apply to the siting, design, construction, operation, and closure of projects that utilize coal combustion products for structural fill.

"§ 130A-309.215. Permit requirements for projects using coal combustion products for structural fill.

(a) Permit Requirements. –

- (1) Projects using coal combustion products as structural fill involving the placement of less than 8,000 tons of coal combustion products per acre or less than 80,000 tons of coal combustion products in total per project, which proceed in compliance with the requirements of this section and rules adopted thereunder, are deemed permitted. Any person proposing such a project shall submit an application for a permit to the Department upon such form as the Department may prescribe, including, at a minimum, the information set forth in subdivision (1) of subsection (b) of this section.
- (2) No person shall commence or operate a project using coal combustion residuals as structural fill involving the placement of 8,000 or more tons of coal combustion products per acre or 80,000 or more tons of coal combustion products in total per project without first receiving an individual permit from the Department. Any person proposing such a project shall submit an application for a permit to the Department upon such form as the Department may prescribe, including, at a minimum, the information set forth in subdivisions (1) and (2) of subsection (b) of this section.

(b) Information to Be Provided to the Department. – At least 60 days before initiation of a proposed project using coal combustion products as structural fill, the person proposing the project shall submit all of the following information to the Department on a form as prescribed by the Department:

- (1) For projects involving placement of less than 8,000 tons of coal combustion products per acre or less than 80,000 tons of coal combustion products in total per project, the person shall provide, at a minimum, the following information:
 - a. The description of the nature, purpose, and location of the project.
 - b. The estimated start and completion dates for the project.
 - c. An estimate of the volume of coal combustion products to be used in the project.
 - d. A Toxicity Characteristic Leaching Procedure analysis from a representative sample of each different coal combustion product's source to be used in the project for, at a minimum, all of the following constituents: arsenic, barium, cadmium, lead, chromium, mercury, selenium, and silver.
 - e. A signed and dated statement by the owner of the land on which the structural fill is to be placed, acknowledging and consenting to the use of coal combustion products as structural fill on the property and agreeing to record the fill in accordance with the requirements of G.S. 130A-390.219.
 - f. The name, address, and contact information for the generator of the coal combustion products.
 - g. Physical location of the project at which the coal combustion products were generated.
- (2) For projects involving placement of 8,000 or more tons of coal combustion products per acre or 80,000 or more tons of coal combustion products in total per project, the person shall provide all information required pursuant to subdivision (1) of this subsection and shall provide construction plans for the project, including a stability analysis as the Department may require. If required by the Department, a stability analysis shall be prepared, signed, and sealed by a professional engineer in accordance with sound engineering practices. A construction plan shall, at a minimum, include a groundwater monitoring system and an encapsulation liner system in compliance with the requirements of G.S. 130A-309.216.

§ 130A-309.216. Design, construction, and siting requirements for projects using coal combustion products for structural fill.

(a) Design, Construction, and Operation of Structural Fill Sites. –

- (1) A structural fill site must be designed, constructed, operated, closed, and maintained in such a manner as to minimize the potential for harmful release

- of constituents of coal combustion residuals to the environment or create a nuisance to the public.
- (2) Coal combustion products shall be collected and transported in a manner that will prevent nuisances and hazards to public health and safety. Coal combustion products shall be moisture conditioned, as necessary, and transported in covered trucks to prevent dusting.
 - (3) Coal combustion products shall be placed uniformly and shall be compacted to standards, including in situ density, compaction effort, and relative density, specified by a registered professional engineer for a specific end-use purpose.
 - (4) Equipment shall be provided that is capable of placing and compacting the coal combustion products and handling the earthwork required during the periods that coal combustion products are received at the fill project.
 - (5) The coal combustion product structural fill project shall be effectively maintained and operated as a nondischarge system to prevent discharge to surface water resulting from the project.
 - (6) The coal combustion product structural fill project shall be effectively maintained and operated to ensure no violations of groundwater standards adopted by the Commission pursuant to Article 21 of Chapter 143 of the General Statutes due to the project.
 - (7) Surface waters resulting from precipitation shall be diverted away from the active coal combustion product placement area during filling and construction activity.
 - (8) Site development shall comply with the North Carolina Sedimentation Pollution Control Act of 1973, as amended.
 - (9) The structural fill project shall be operated with sufficient dust control measures to minimize airborne emissions and to prevent dust from creating a nuisance or safety hazard and shall not violate applicable air quality regulations.
 - (10) Coal combustion products utilized on an exterior slope of a structural fill shall not be placed with a slope greater than 3.0 horizontal to 1.0 vertical.
 - (11) Compliance with this subsection shall not insulate any of the owners or operators of a structural fill project from claims for damages to surface waters, groundwater, or air resulting from the operation of the structural fill project. If the project fails to comply with the requirements of this section, the constructor, generator, owner, or operator shall notify the Department and shall take any immediate corrective action as may be required by the Department.

(b) Liners, Leachate Collection System, Cap, and Groundwater Monitoring System Required for Large Structural Fills. – For projects involving placement of 8,000 or more tons of coal combustion products per acre or 80,000 or more tons of coal combustion products in total per project shall have an encapsulation liner system. The encapsulation liner system shall be constructed on and around the structural fill and shall be designed to efficiently contain, collect, and remove leachate generated by the coal combustion products, as well as separate the coal combustion products from any exposure to surrounding environs. At a minimum, the components of the liner system shall consist of the following:

- (1) A base liner, which shall consist of one of the following designs:
 - a. A composite liner utilizing a compacted clay liner. This composite liner is one liner that consists of two components: a geomembrane liner installed above and in direct and uniform contact with a compacted clay liner with a minimum thickness of 24 inches (0.61 m) and a permeability of no more than 1.0×10^{-7} centimeters per second.
 - b. A composite liner utilizing a geosynthetic clay liner. This composite liner is one liner that consists of three components: a geomembrane liner installed above and in uniform contact with a geosynthetic clay liner overlying a compacted clay liner with a minimum thickness of 18 inches (0.46 m) and a permeability of no more than 1.0×10^{-5} centimeters per second.

- (2) A leachate collection system, which is constructed directly above the base liner and shall be designed to effectively collect and remove leachate from the project.
- (3) A cap system that is designed to minimize infiltration and erosion as follows:
 - a. The cap system shall be designed and constructed to (i) have a permeability less than or equal to the permeability of any base liner system or the in situ subsoils underlying the structural fill, or the permeability specified for the final cover in the effective permit, or a permeability no greater than 1×10^{-5} centimeters per second, whichever is less; (ii) minimize infiltration through the closed structural fill by the use of a low-permeability barrier that contains a minimum 18 inches of earthen material; and (iii) minimize erosion of the cap system and protect the low-permeability barrier from root penetration by use of an erosion layer that contains a minimum of six inches of earthen material that is capable of sustaining native plant growth.
 - b. The Department may approve an alternative cap system if the owner or operator can adequately demonstrate (i) the alternative cap system will achieve an equivalent or greater reduction in infiltration as the low-permeability barrier specified in sub-subdivision a. of this subdivision and (ii) the erosion layer will provide equivalent or improved protection as the erosion layer specified in sub-subdivision a. of this subdivision.
- (4) A groundwater monitoring system, that shall be approved by the Department and, at a minimum, consists of all of the following:
 - a. A sufficient number of wells, installed at appropriate locations and depths, to yield groundwater samples from the uppermost aquifer that represent the quality of groundwater passing the relevant point of compliance as approved by the Department. A down-gradient monitoring system shall be installed at the relevant point of compliance so as to ensure detection of groundwater contamination in the uppermost aquifer.
 - b. A proposed monitoring plan, which shall be certified by a licensed geologist or professional engineer to be effective in providing early detection of any release of hazardous constituents from any point in a structural fill or leachate surface impoundment to the uppermost aquifer, so as to be protective of public health, safety, and welfare; the environment; and natural resources.
 - c. A groundwater monitoring program, which shall include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide an accurate representation of groundwater quality at the background and down-gradient wells. Monitoring shall be conducted through construction and the post-closure care period. The sampling procedures and frequency shall be protective of public health, safety, and welfare; the environment; and natural resources.
 - d. A detection monitoring program for all Appendix I constituents. For purposes of this subdivision, the term "Appendix I" means Appendix I to 40 C.F.R. Part 258, "Appendix I Constituents for Detection Monitoring," including subsequent amendments and editions.
 - e. An assessment monitoring program and corrective action plan if one or more of the constituents listed in Appendix I is detected in exceedance of a groundwater protection standard.

(c) Siting for Structural Fill Facilities. – Coal combustion products used as a structural fill shall not be placed:

- (1) Within 50 feet of any property boundary.
- (2) Within 300 horizontal feet of a private dwelling or well.

- (3) Within 50 horizontal feet of the top of the bank of a perennial stream or other surface water body.
- (4) Within four feet of the seasonal high groundwater table.
- (5) Within a 100-year floodplain except as authorized under G.S. 143-215.54A(b). A site located in a floodplain shall not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain or result in washout of solid waste so as to pose a hazard to human life, wildlife or land or water resources.
- (6) Within 50 horizontal feet of a wetland, unless, after consideration of the chemical and physical impact on the wetland, the United States Army Corps of Engineers issues a permit or waiver for the fill.

"§ 130A-309.217. Financial assurance requirements for large projects using coal combustion products for structural fill.

(a) For projects involving placement of 8,000 or more tons of coal combustion products per acre or 80,000 or more tons of coal combustion products in total per project, the applicant for a permit or a permit holder to construct or operate a structural fill shall establish financial assurance that will ensure that sufficient funds are available for facility closure, post-closure maintenance and monitoring, any corrective action that the Department may require, and to satisfy any potential liability for sudden and nonsudden accidental occurrences, and subsequent costs incurred by the Department in response to an incident at a structural fill project, even if the applicant or permit holder becomes insolvent or ceases to reside, be incorporated, do business, or maintain assets in the State.

(b) To establish sufficient availability of funds under this section, the applicant for a permit or a permit holder may use insurance, financial tests, third-party guarantees by persons who can pass the financial test, guarantees by corporate parents who can pass the financial test, irrevocable letters of credit, trusts, surety bonds, or any other financial device, or any combination of the foregoing shown to provide protection equivalent to the financial protection that would be provided by insurance if insurance were the only mechanism used.

(c) The applicant for a permit or a permit holder and any parent, subsidiary, or other affiliate of the applicant, permit holder, or parent, including any joint venturer with a direct or indirect interest in the applicant, permit holder, or parent shall be a guarantor of payment for closure, post-closure maintenance and monitoring, any corrective action that the Department may require, and to satisfy any potential liability for sudden and nonsudden accidental occurrences arising from the operation of the hazardous waste facility.

(d) Assets used to meet the financial assurance requirements of this section shall be in a form that will allow the Department to readily access funds for the purposes set out in this section. Assets used to meet financial assurance requirements of this section shall not be accessible to the permit holder except as approved by the Department.

(e) The Department may provide a copy of any filing that an applicant for a permit or a permit holder submits to the Department to meet the financial responsibility requirements under this section to the State Treasurer. The State Treasurer shall review the filing and provide the Department with a written opinion as to the adequacy of the filing to meet the purposes of this section, including any recommended changes.

(f) In order to continue to hold a permit for a structural fill, a permit holder must maintain financial responsibility as required by this Part and must provide any information requested by the Department to establish that the permit holder continues to maintain financial responsibility.

(g) An applicant for a permit or a permit holder shall satisfy the Department that the applicant or permit holder has met the financial responsibility requirements of this Part before the Department is required to otherwise review the application.

"§ 130A-309.218. Closure of projects using coal combustion products for structural fill.

(a) Closure of Structural Fill Projects. –

- (1) No later than 30 working days or 60 calendar days, whichever is less, after coal combustion product placement has ceased, the final cover shall be applied over the coal combustion product placement area.
- (2) The final surface of the structural fill shall be graded and provided with drainage systems that do all of the following:
 - a. Minimize erosion of cover materials.

- b. Promote drainage of area precipitation, minimize infiltration, and prevent ponding of surface water on the structural fill.
 - (3) Other erosion control measures, such as temporary mulching, seeding, or silt barriers shall be installed to ensure no visible coal combustion product migration to adjacent properties until the beneficial end use of the project is realized.
 - (4) The constructor or operator shall submit a certification to the Department signed and sealed by a registered professional engineer or signed by the Secretary of the Department of Transportation or the Secretary's designee certifying that all requirements of this Subpart have been met. The report shall be submitted within 30 days of application of the final cover.
- (b) Additional Closure and Post-Closure Requirements for Large Structural Fill Projects. – For projects involving placement of 8,000 or more tons of coal combustion products per acre or 80,000 or more tons of coal combustion products in total per project, a constructor or operator shall conduct post-closure care. Post-closure care shall be conducted for 30 years, which period may be increased by the Department upon a determination that a longer period is necessary to protect public health, safety, and welfare; the environment; and natural resources, or decreased upon a determination that a shorter period is sufficient to protect public health, safety, and welfare; the environment; and natural resources. Additional closure and post-closure requirements include, at a minimum, all of the following:
 - (1) Submit a written closure plan that includes all of the following:
 - a. A description of the cap liner system and the methods and procedures used to install the cap that conforms to the requirement in G.S. 130A-309.216(b).
 - b. An estimate of the largest area of the structural fill project ever requiring the cap liner system at any time during the overall construction period that is consistent with the drawings prepared for the structural fill.
 - c. An estimate of the maximum inventory of coal combustion products ever on-site over the construction duration of the structural fill.
 - d. A schedule for completing all activities necessary to satisfy the closure criteria set forth in this section.
 - (2) Submit a written post-closure plan that includes all of the following:
 - a. A description of the monitoring and maintenance activities required for the project and the frequency at which these activities must be performed.
 - b. The name, address, and telephone number of the person or office responsible for the project during the post-closure period.
 - c. A description of the planned uses of the property during the post-closure period. Post-closure use of the property must not disturb the integrity of the cap system, base liner system, or any other components of the containment system or the function of the monitoring systems, unless necessary to comply with the requirements of this subsection. The Department may approve disturbance if the constructor or operator demonstrates that disturbance of the cap system, base liner system, or other component of the containment system will not increase the potential threat to public health, safety, and welfare; the environment; and natural resources.
 - d. The cost estimate for post-closure activities required under this section.
 - (3) Maintain the integrity and effectiveness of any cap system, including repairing the system as necessary to correct the defects of settlement, subsidence, erosion, or other events and preventing run-on and runoff from eroding or otherwise damaging the cap system.
 - (4) Maintain and operate the leachate collection system. The Department may allow the constructor or operator to stop managing leachate upon a satisfactory demonstration that leachate from the project no longer poses a threat to human health and the environment.

(5) Monitor and maintain the groundwater monitoring system in accordance with G.S. 130A-309.216 and monitor the surface water in accordance with 15A NCAC 13B .0602.

(c) Completion of Post-Closure Care. – Following completion of the post-closure care period, the constructor or operator shall submit a certification, signed by a registered professional engineer, to the Department, verifying that post-closure care has been completed in accordance with the post-closure plan, and include the certification in the operating record.

"§ 130A-309.219. Recordation of projects using coal combustion products for structural fill.

(a) The owner of land where coal combustion products have been used in volumes of more than 1,000 cubic yards shall file a statement of the volume and locations of the coal combustion residuals with the Register of Deeds in the county or counties where the property is located. The statement shall identify the parcel of land according to the complete legal description on the recorded deed, either by metes and bounds or by reference to a recorded plat map. The statement shall be signed and acknowledged by the landowners in the form prescribed by G.S. 47-38 through G.S. 47-43.

(b) Recordation shall be required within 90 days after completion of a structural fill project using coal combustion residuals.

(c) The Register of Deeds, in accordance with G.S. 161-14, shall record the notarized statement and index it in the Grantor Index under the name of the owner of the land. The original notarized statement with the Register's seal and the date, book, and page number of recording shall be returned to the Department after recording.

(d) When property with more than 1,000 cubic yards of coal combustion products is sold, leased, conveyed, or transferred in any manner, the deed or other instrument of transfer shall contain in the description section in no smaller type than used in the body of the deed or instrument a statement that coal combustion products have been used as structural fill material on the property.

"§ 130A-309.220. Department of Transportation projects.

The Department and the Department of Transportation may agree on specific design, construction, siting, operation, and closure criteria that may apply to the Department of Transportation structural fill projects.

"§ 130A-309.221. Inventory and inspection of certain structural fill projects.

No later than July 1, 2015, the Department shall prepare an inventory of all structural fill projects with a volume of 10,000 cubic yards or more. The Department shall update the structural fill project inventory at least annually. The Department shall inspect each structural fill project with a volume of 10,000 cubic yards or more at least annually to determine if the project or facility has been constructed and operated in compliance with Section .1700 of Subchapter B of Chapter 13 of Title 15A of the North Carolina Administrative Code (Requirements for Beneficial Use of Coal Combustion By-Products) and Section .1200 of Subchapter T of Chapter 2 of Title 15A of the North Carolina Administrative Code (Coal Combustion Products Management), as applicable.

"§ 130A-309.222. Amendments required to rules.

Requirements under existing rules governing the use of coal combustion products for structural fill that do not conflict with the provisions of this Subpart shall continue to apply to such projects. The Environmental Management Commission shall amend existing rules governing the use of coal combustion products for structural fill as necessary to implement the provisions of this Subpart. Such rules shall be exempt from the requirements of G.S. 150B-19.3.

"Subpart 4. Enforcement.

"§ 130A-309.223. General enforcement.

Except as otherwise provided in this Subpart, the provisions of this Part shall be enforced as provided in Article 1 of this Chapter.

"§ 130A-309.224. Penalties for making false statements.

Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this Part or a rule implementing this Part shall be guilty of a Class 2 misdemeanor, which may include a fine not to exceed ten thousand dollars (\$10,000)."

SECTION 3.(b) Notwithstanding G.S. 130A-309.211 or G.S. 130A-309.212, as enacted by Section 3(a) of this act, and except as otherwise preempted by the requirements of

federal law, the following coal combustion residuals surface impoundments shall be deemed high-priority and, as soon as practicable, but no later than August 1, 2019, shall be closed in conformance with Section 3(c) of this act:

- (1) Coal combustion residuals surface impoundments located at the Dan River Steam Station, owned and operated by Duke Energy Progress, and located in Rockingham County.
- (2) Coal combustion residuals surface impoundments located at the Riverbend Steam Station, owned and operated by Duke Energy Carolinas, and located in Gaston County.
- (3) Coal combustion residuals surface impoundments located at the Asheville Steam Electric Generating Plant, owned and operated by Duke Energy Progress, and located in Buncombe County.
- (4) Coal combustion residuals surface impoundments located at the Sutton Plant, owned and operated by Duke Energy Progress, and located in New Hanover County.

SECTION 3.(c) The impoundments identified in subsection (b) of this section shall be closed as follows:

- (1) Impoundments located in whole above the seasonal high groundwater table shall be dewatered. Impoundments located in whole or in part beneath the seasonal high groundwater table shall be dewatered to the maximum extent practicable.
- (2) All coal combustion residuals shall be removed from the impoundments and transferred for (i) disposal in a coal combustion residuals landfill, industrial landfill, or municipal solid waste landfill or (ii) use in a structural fill or other beneficial use as allowed by law. Any disposal or use of coal combustion products pursuant to this section shall comply with the moratoriums enacted under Section 4(a) and Section 5(a) of this act and any extensions thereof. The use of coal combustion products (i) as structural fill, as authorized by Section 4(b) of this act, shall be conducted in accordance with the requirements of Subpart 3 of Part 2I of Article 9 of the General Statutes, as enacted by Section 3(a) of this act, and (ii) for other beneficial uses shall be conducted in accordance with the requirements of Section .1700 of Subchapter B of Chapter 13 of Title 15A of the North Carolina Administrative Code (Requirements for Beneficial Use of Coal Combustion By-Products) and Section .1205 of Subchapter T of Chapter 2 of Title 15A of the North Carolina Administrative Code (Coal Combustion Products Management), as applicable.
- (3) If restoration of groundwater quality is degraded as a result of the impoundment, corrective action to restore groundwater quality shall be implemented by the owner or operator as provided in G.S. 130A-309.204.

SECTION 3.(d) G.S. 130A-290(a) reads as rewritten:

"§ 130A-290. Definitions.

(a) Unless a different meaning is required by the context, the following definitions shall apply throughout this Article:

- ...
(2b) ~~"Combustion products"~~ "Coal combustion residuals" means residuals, including fly ash, bottom ash, boiler slag, mill rejects, and flue gas desulfurization residue produced by a coal-fired generating ~~unit~~ unit destined for disposal. The term does not include coal combustion products as defined in G.S. 130A-309.201(4).
- (2c) ~~"Combustion products landfill"~~ "Coal combustion residuals landfill" means a facility or unit for the disposal of combustion products, where the landfill is located at the same facility with the coal-fired generating unit or units producing the combustion products, and where the landfill is located wholly or partly on top of a facility that is, or was, being used for the disposal or storage of such combustion products, including, but not limited to, landfills, wet and dry ash ponds, and structural fill facilities.
- ...
(3a) "Commission" means the Environmental Management Commission.

- ...
- (20) "Open dump" means any facility or site where solid waste is disposed of that is not a sanitary landfill and that is not a coal combustion residuals surface impoundment or a facility for the disposal of hazardous waste.
- ...
- (35) "Solid waste" means any hazardous or nonhazardous garbage, refuse or sludge from a waste treatment plant, water supply treatment plant or air pollution control facility, domestic sewage and sludges generated by the treatment thereof in sanitary sewage collection, treatment and disposal systems, and other material that is either discarded or is being accumulated, stored or treated prior to being discarded, or has served its original intended use and is generally discarded, including solid, liquid, semisolid or contained gaseous material resulting from industrial, institutional, commercial and agricultural operations, and from community activities. Notwithstanding sub-sub-subdivision b.3. of this subdivision, the term includes coal combustion residuals. The term does not include:
- a. Fecal waste from fowls and animals other than humans.
 - b. Solid or dissolved material in:
 1. Domestic sewage and sludges generated by treatment thereof in sanitary sewage collection, treatment and disposal systems which are designed to discharge effluents to the surface waters.
 2. Irrigation return flows.
 3. Wastewater discharges and the sludges incidental to and generated by treatment which are point sources subject to permits granted under Section 402 of the Water Pollution Control Act, as amended (P.L. 92-500), and permits granted under G.S. 143-215.1 by the ~~Environmental Management Commission.~~ Commission, including coal combustion products. However, any sludges that meet the criteria for hazardous waste under RCRA shall also be a solid waste for the purposes of this Article.

....."

SECTION 3.(e) The initial members of the Coal Ash Management Commission established pursuant to G.S. 130A-309.202, as enacted by Section 3(a) of this act, whose qualifications are described in subdivisions (3), (4), and (9) of G.S. 130A-309.202(b), shall be appointed for an initial term of two years beginning effective July 1, 2014, and subsequent appointments shall be for six-year terms. The initial members of the Coal Ash Management Commission established pursuant to G.S. 130A-309.202, as enacted by Section 3(a) of this act, whose qualifications are described in subdivisions (1), (6), and (8) of G.S. 130A-309.202(b), shall be appointed for an initial term of four years beginning effective July 1, 2014, and subsequent appointments shall be for six-year terms. The initial members of the Coal Ash Management Commission established pursuant to G.S. 130A-309.202, as enacted by Section 3(a) of this act, whose qualifications are described in subdivisions (2), (5), and (7) of G.S. 130A-309.202(b), shall be appointed for an initial term of six years beginning effective July 1, 2014, and subsequent appointments shall be for six-year terms.

SECTION 3.(f) This section is effective when it becomes law. G.S. 130A-309.202, as enacted by Section 3(a) of this act, is repealed June 30, 2030. Subpart 3 of Part 2I of Article 9 of the General Statutes, as enacted by Section 3(a) of this act, applies to the use of coal combustion products as structural fill contracted for on or after that date. The first report due under G.S. 130A-309.210, as enacted by Section 3(a) of this act, is due November 1, 2014. Members to be appointed pursuant to G.S. 130A-309.202(b), as enacted by Section 3(a) of this act, shall be appointed no later than October 1, 2014.

PART III. MORATORIUMS AND STUDY ON (1) USE OF COAL COMBUSTION PRODUCTS AS STRUCTURAL FILL AND (2) CONSTRUCTION OR EXPANSION OF COMBUSTION PRODUCTS LANDFILLS

SECTION 4.(a) Notwithstanding 15A NCAC 13B .1701, et seq., and except as provided in Section 4(b) of this act, the use of coal combustion products, as defined in

G.S. 130A-309.201, as structural fill is prohibited until August 1, 2015, in order to allow the Department of Environment and Natural Resources, the Environmental Management Commission, and the General Assembly time to review and evaluate the use of coal combustion residuals as structural fill.

SECTION 4.(b) Coal combustion products may be used as structural fill for any of the following types of projects:

- (1) A project where the structural fill is used with a base liner, leachate collection system, cap liner, or groundwater monitoring system and where the constructor or operator establishes financial assurance, as required by G.S. 130A-309.217.
- (2) As the base or sub-base of a concrete or asphalt paved road constructed under the authority of a public entity.

SECTION 4.(c) The use of coal combustion products (i) as structural fill as authorized by Section 4(b) of this act shall be conducted in accordance with the requirements of Subpart 3 of Part 2I of Article 9 of the General Statutes, as enacted by Section 3(a) of this act, and (ii) for other beneficial uses shall be conducted in accordance with the requirements of Section .1700 of Subchapter B of Chapter 13 of Title 15A of the North Carolina Administrative Code (Requirements for Beneficial Use of Coal Combustion By-Products) and Section .1205 of Subchapter T of Chapter 2 of Title 15A of the North Carolina Administrative Code (Coal Combustion Products Management), as applicable.

SECTION 4.(d) The Department of Environment and Natural Resources and the Environmental Management Commission shall jointly review Subpart 3 of Part 2I of Article 9 of the General Statutes, as enacted by Section 3(a) of this act, and 15A NCAC 13B .1701, et seq. In conducting this review, the Department and Commission shall do all of the following:

- (1) Review the uses of coal combustion products as structural fill and the regulation of this use under Subpart 3 of Part 2I of Article 9 of the General Statutes, as enacted by Section 3(a) of this act, to determine if the requirements are sufficient to protect public health, safety, and welfare; the environment; and natural resources.
- (2) Review the uses of coal combustion products for other beneficial uses and the regulation of these uses under Section .1700 of Subchapter B of Chapter 13 of Title 15A of the North Carolina Administrative Code (Requirements for Beneficial Use of Coal Combustion By-Products) and Section .1200 of Subchapter T of Chapter 2 of Title 15A of the North Carolina Administrative Code (Coal Combustion Products Management), and other applicable rules, to determine if the rules are sufficient to protect public health, safety, and welfare; the environment; and natural resources.
- (3) Evaluate additional opportunities for the use of coal combustion products as structural fill and for other beneficial uses that would reduce the volume of coal combustion residuals that are being disposed of in coal combustion residuals landfills, industrial landfills, or municipal solid waste landfills while still being protective of public health, safety, and welfare; the environment; and natural resources.
- (4) Monitor any actions of the United States Environmental Protection Agency regarding the use of coal combustion products as structural fill or for other beneficial uses.
- (5) Jointly report to the Environmental Review Commission no later than January 15, 2015, on their findings and recommendations regarding the use of coal combustion products as structural fill and for other beneficial uses.

SECTION 4.(e) All electric generating facilities owned by a public utility that produce coal combustion residuals and coal combustion products shall issue a request for proposals on or before December 31, 2014, for (i) the conduct of a market analysis for the concrete industry and other industries that might beneficially use coal combustion residuals and coal combustion products; (ii) the study of the feasibility and advisability of installation of technology to convert existing and newly generated coal combustion residuals to commercial-grade coal combustion products suitable for use in the concrete industry and other industries that might beneficially use coal combustion residuals; and (iii) an examination of all innovative technologies that might be applied to diminish, recycle or reuse, or mitigate the impact of existing and newly generated coal combustion residuals. All electric generating

facilities shall present the materials and information received in response to a request for proposals issued pursuant to this section and an assessment of the materials and information, including a forecast of specific actions to be taken in response to the materials and information received, to the Environmental Management Commission and the Coal Ash Management Commission on or before August 1, 2016.

SECTION 4.(f) This section is effective when it becomes law and applies to the use of coal combustion residuals as structural fill contracted for on or after that date.

SECTION 5.(a) There is hereby established a moratorium on construction of new or expansion of existing coal combustion residuals landfills, as defined by G.S. 130A-290(2c) and amended by Section 3(d) of this act. The purpose of this moratorium is to allow the State to assess the risks to public health, safety, and welfare; the environment; and natural resources of coal combustion residuals impoundments located beneath coal combustion residuals landfills to determine the advisability of continued operation of these landfills.

SECTION 5.(b) The Department of Environment and Natural Resources shall evaluate each coal combustion residuals landfill currently operating in the State and, in particular, assess the risks to public health, safety, and welfare; the environment; and natural resources, of coal combustion residuals surface impoundments located beneath coal combustion residuals landfills to determine the advisability of continued operation of these landfills. The Department shall report to the Environmental Review Commission no later than January 15, 2015, on its findings and recommendations concerning the risk assessment of each of these sites and the advisability of continued operation of coal combustion residuals landfills.

SECTION 5.(c) This section is effective when it becomes law and expires August 1, 2015.

PART IV. STRENGTHEN THE REPORTING AND NOTIFICATION REQUIREMENTS APPLICABLE TO DISCHARGES OF WASTEWATER TO WATERS OF THE STATE; REQUIRE CERTAIN EMERGENCY CALLS TO BE RECORDED

SECTION 6.(a) G.S. 143-215.1C reads as rewritten:

"§ 143-215.1C. Report to wastewater system customers on system performance; report discharge of untreated wastewater to the Department; publication of notice of discharge of untreated wastewater and waste.

(a) Report to Wastewater System Customers. – The owner or operator of any wastewater collection or treatment works, the operation of which is primarily to collect or treat municipal or domestic wastewater and for which a permit is issued under this Part and having an average annual flow greater than 200,000 gallons per day, shall provide to the users or customers of the collection system or treatment works and to the Department an annual report that summarizes the performance of the collection system or treatment works and the extent to which the collection system or treatment works has violated the permit or federal or State laws, regulations, or rules related to the protection of water quality. The report shall be prepared on either a calendar or fiscal year basis and shall be provided no later than 60 days after the end of the calendar or fiscal year.

(a1) Report Discharge of Untreated Wastewater to the Department. – The owner or operator of any wastewater collection or treatment works for which a permit is issued under this Part shall report a discharge of 1,000 gallons or more of untreated wastewater to the surface waters of the State to the Department as soon as practicable, but no later than 24 hours after the owner or operator has determined that the discharge has reached the surface waters of the State. This reporting requirement shall be in addition to any other reporting requirements applicable to the owner or operator of the wastewater collection or treatment works.

(b) Publication of Notice of Discharge of Untreated Wastewater. – The owner or operator of any wastewater collection or treatment works, the operation of which is primarily to collect or treat municipal or domestic wastewater and for which a permit is issued under this Part shall:

- (1) In the event of a discharge of 1,000 gallons or more of untreated wastewater to the surface waters of the State, issue a press release to all print and electronic news media that provide general coverage in the county where the discharge occurred setting out the details of the discharge. The owner or operator shall issue the press release within ~~48~~24 hours after the owner or operator has determined that the discharge has reached the surface waters of

the State. The owner or operator shall retain a copy of the press release and a list of the news media to which it was distributed for at least one year after the discharge and shall provide a copy of the press release and the list of the news media to which it was distributed to any person upon request.

- (2) In the event of a discharge of 15,000 gallons or more of untreated wastewater to the surface waters of the State, publish a notice of the discharge in a newspaper having general circulation in the county in which the discharge occurs and in each county downstream from the point of discharge that is significantly affected by the discharge. The Secretary shall determine, at the Secretary's sole discretion, which counties are significantly affected by the discharge and shall approve the form and content of the notice and the newspapers in which the notice is to be published. The notice shall be captioned "NOTICE OF DISCHARGE OF UNTREATED SEWAGE". The owner or operator shall publish the notice within 10 days after the Secretary has determined the counties that are significantly affected by the discharge and approved the form and content of the notice and the newspapers in which the notice is to be published. The owner or operator shall file a copy of the notice and proof of publication with the Department within 30 days after the notice is published. Publication of a notice of discharge under this subdivision is in addition to the requirement to issue a press release under subdivision (1) of this subsection.

(c) **Publication of Notice of Discharge of Untreated Waste.** – The owner or operator of any wastewater collection or treatment works, other than a wastewater collection or treatment works the operation of which is primarily to collect or treat municipal or domestic wastewater, for which a permit is issued under this Part shall:

- (1) In the event of a discharge of 1,000 gallons or more of untreated waste to the surface waters of the State, issue a press release to all print and electronic news media that provide general coverage in the county where the discharge occurred setting out the details of the discharge. The owner or operator shall issue the press release within ~~48~~24 hours after the owner or operator has determined that the discharge has reached the surface waters of the State. The owner or operator shall retain a copy of the press release and a list of the news media to which it was distributed for at least one year after the discharge and shall provide a copy of the press release and the list of the news media to which it was distributed to any person upon request.
- (2) In the event of a discharge of 15,000 gallons or more of untreated waste to the surface waters of the State, publish a notice of the discharge in a newspaper having general circulation in the county in which the discharge occurs and in each county downstream from the point of discharge that is significantly affected by the discharge. The Secretary shall determine, at the Secretary's sole discretion, which counties are significantly affected by the discharge and shall approve the form and content of the notice and the newspapers in which the notice is to be published. The notice shall be captioned "NOTICE OF DISCHARGE OF UNTREATED WASTE". The owner or operator shall publish the notice within 10 days after the Secretary has determined the counties that are significantly affected by the discharge and approved the form and content of the notice and the newspapers in which the notice is to be published. The owner or operator shall file a copy of the notice and proof of publication with the Department within 30 days after the notice is published. Publication of a notice of discharge under this subdivision is in addition to the requirement to issue a press release under subdivision (1) of this subsection."

SECTION 6.(b) Section 6(a) of this act becomes effective October 1, 2014.

SECTION 6.(c) G.S. 166A-19.12(16) reads as rewritten:

- "(16) Establishing and operating a 24-hour Operations Center to serve as a single point of contact for local governments to report the occurrence of emergency and disaster events and to coordinate local and State response assets. The Division shall record all telephone calls to the 24-hour Operations Center

emergency hotline and shall maintain the recording of each telephone call for at least one year."

PART V. REQUIRE NOTIFICATION OF THE DEPARTMENT OF EMERGENCY DAM REPAIRS; REQUIRE EMERGENCY ACTION PLANS FOR CERTAIN DAMS; REQUIRE INSPECTION OF DAMS AT COAL COMBUSTION RESIDUALS SURFACE IMPOUNDMENTS

SECTION 7. G.S. 143-215.27 reads as rewritten:

"§ 143-215.27. Repair, alteration, or removal of dam.

(a) Before commencing the repair, alteration or removal of a dam, application shall be made for written approval by the Department, except as otherwise provided by this Part. The application shall state the name and address of the applicant, shall adequately detail the changes it proposes to effect and shall be accompanied by maps, plans and specifications setting forth such details and dimensions as the Department requires. The Department may waive any such requirements. The application shall give such other information concerning the dam and reservoir required by the Department, such information concerning the safety of any change as it may require, and shall state the proposed time of commencement and completion of the work. When an application has been completed it may be referred by the Department for agency review and report, as provided by subsection (b) of G.S. 143-215.26 in the case of original construction.

(b) When emergency repairs are necessary to safeguard life and property they may be started immediately but the Department shall be notified ~~forthwith~~ of the proposed repairs and of the work ~~under way~~, and ~~they~~ underway as soon as possible, but not later than 24 hours after first knowledge of the necessity for the emergency repairs, and the emergency repairs shall be made to conform to its the Department's orders."

SECTION 7.1. Part 3 of Article 21 of Chapter 143 of the General Statutes is amended by adding a new section to read:

"§ 143-215.27A. Closure of coal combustion residuals surface impoundments to render such facilities exempt from the North Carolina Dam Safety Law of 1967.

(a) Decommissioning Request. – The owner of a coal combustion residuals surface impoundment, as defined by G.S. 130A-309.201, that seeks to decommission the impoundment shall submit a Decommissioning Request to the Division of Energy, Mineral, and Land Resources of the Department requesting that the facility be decommissioned. The Decommissioning Request shall include, at a minimum, all of the following:

- (1) A proposed geotechnical investigation plan scope of work. Upon preliminary plan approval pursuant to subsection (b) of this section, the owner shall proceed with necessary field work and submit a geotechnical report with site-specific field data indicating that the containment dam and material impounded by the containment dam are stable, and that the impounded material is not subject to liquid flow behavior under expected static and dynamic loading conditions. Material testing should be performed along the full extent of the containment dam and in a pattern throughout the area of impounded material.
- (2) A topographic map depicting existing conditions of the containment dam and impoundment area at two-foot contour intervals or less.
- (3) If the facility contains areas capable of impounding by topography, a breach plan must be included that ensures that there shall be no place within the facility capable of impounding. The breach plan shall include, at a minimum, proposed grading contours superimposed on the existing topographic map as well as necessary engineering calculations, construction details, and construction specifications.
- (4) A permanent vegetation and stabilization or capping plan by synthetic liner or other means, if needed. These plans shall include at minimum, proposed grading contours superimposed on the existing topographic map where applicable as well as necessary engineering calculations, construction details, construction specifications, and all details for the establishment of surface area stabilization.
- (5) A statement indicating that the impoundment facility has not received sluiced coal combustion residuals for at least three years and that there are

no future plans to place coal combustion residuals in the facility by sluicing methods. The Division of Energy, Mineral, and Land Resources may waive the three-year requirement if proper evidence is presented by a North Carolina registered professional engineer indicating that the impounded material is not subject to liquid flow behavior.

(b) Preliminary Review and Approval. – The Decommissioning Request shall undergo a preliminary review by the Division for completeness and approval of the proposed geotechnical investigation plan scope of work. The owner shall be notified by letter with results of the preliminary review, including approval or revision requests relative to the proposed scope of work included in the geotechnical investigation plan. Upon receipt of a letter issued by the Division approving the preliminary geotechnical plan scope of work, the owner may proceed with field work and development of the geotechnical report.

(c) Final Determination and Approval. – Upon receipt of the geotechnical report, the Division shall complete the submittal review as provided in this subsection.

- (1) If it is determined that sufficient evidence has been presented to clearly show that the facility no longer functions as a dam in its current state, a letter decommissioning the facility shall be issued by the Division, and the facility shall no longer be under jurisdiction of the Dam Safety Law of 1967.
- (2) If modifications such as breach construction or implementation of a permanent vegetation or surface lining plan are needed, such plans shall be reviewed per standard procedures for consideration of a letter of approval to modify or breach.
- (3) If approved, such plans shall follow standard procedure for construction, including construction supervision by a North Carolina registered professional engineer, as-built submittal by a North Carolina registered professional engineer, and follow up final inspection by the Division.
- (4) Final approval shall be issued by the Division in the form of a letter decommissioning the facility, and the facility shall no longer be under jurisdiction of the Dam Safety Law of 1967."

SECTION 8.(a) G.S. 143-215.31 reads as rewritten:

"§ 143-215.31. Supervision over maintenance and operation of dams.

(a) The Commission shall have jurisdiction and supervision over the maintenance and operation of dams to safeguard life and property and to satisfy minimum streamflow requirements. The Commission may adopt standards for the maintenance and operation of dams as may be necessary for the purposes of this Part. The Commission may vary the standards applicable to various dams, giving due consideration to the minimum flow requirements of the stream, the type and location of the structure, the hazards to which it may be exposed, and the peril of life and property in the event of failure of a dam to perform its function.

(a1) The owner of a dam classified by the Department as a high-hazard dam or an intermediate-hazard dam shall develop an Emergency Action Plan for the dam as provided in this subsection.

- (1) The owner of the dam shall submit a proposed Emergency Action Plan for the dam within 90 days after the dam is classified as a high-hazard dam or an intermediate-hazard dam to the Department and the Department of Public Safety for their review and approval. The Department and the Department of Public Safety shall approve the Emergency Action Plan if they determine that it complies with the requirements of this subsection and will protect public health, safety, and welfare; the environment; and natural resources.
- (2) The Emergency Action Plan shall include, at a minimum, all of the following:
 - a. A description of potential emergency conditions that could occur at the dam, including security risks.
 - b. A description of actions to be taken in response to an emergency condition at the dam.
 - c. Emergency notification procedures to aid in warning and evacuations during an emergency condition at the dam.
 - d. A downstream inundation map depicting areas affected by a dam failure and sudden release of the impoundment.

- (3) The owner of the dam shall update the Emergency Action Plan annually and shall submit it to the Department and the Department of Public Safety for their review and approval within one year of the prior approval.
- (4) The Department shall provide a copy of the Emergency Action Plan to the regional offices of the Department that might respond to an emergency condition at the dam.
- (5) The Department of Public Safety shall provide a copy of the Emergency Action Plan to all local emergency management agencies that might respond to an emergency condition at the dam.
- (6) Information included in an Emergency Action Plan that constitutes sensitive public security information, as provided in G.S. 132-1.7, shall be maintained as confidential information and shall not be subject to disclosure under the Public Records Act. For purposes of this section, "sensitive public security information" shall include Critical Energy Infrastructure Information protected from disclosure under rules adopted by the Federal Energy Regulatory Commission in 18 C.F.R. § 333.112.

...."

SECTION 8.(b) Notwithstanding G.S. 143-215.31, as amended by Section 8(a) of this act, the owners of all high-hazard dams and intermediate-hazard dams in operation on the effective date of this act shall submit their proposed Emergency Action Plans to the Department of Environment and Natural Resources and the Department of Public Safety no later than March 1, 2015.

SECTION 8.(c) G.S. 143-215.30 reads as rewritten:

"§ 143-215.30. Notice of completion; certification of final ~~approval~~approval; notice of transfer.

(a) Immediately upon completion, enlargement, repair, alteration or removal of a dam, notice of completion shall be given the Commission. As soon as possible thereafter supplementary drawings or descriptive matter showing or describing the dam as actually constructed shall be filed with the Department in such detail as the Commission may require.

(b) When an existing dam is enlarged, the supplementary drawings and descriptive matter need apply only to the new work.

(c) The completed work shall be inspected by the supervising engineers, and upon finding that the work has been done as required and that the dam is safe and satisfies minimum streamflow requirements, they shall file with the Department a certificate that the work has been completed in accordance with approved design, plans, specifications and other requirements. Unless the Commission has reason to believe that the dam is unsafe or is not in compliance with any applicable rule or law, the Commission shall grant final approval of the work in accordance with the certificate, subject to such terms as it deems necessary for the protection of life and property.

(d) Pending issuance of the Commission's final approval, the dam shall not be used except on written consent of the Commission, subject to conditions it may impose.

(e) The owner of a dam shall provide written notice of transfer to the Department within 30 days after title to the dam has been legally transferred. The notice of transfer shall include the name and address of the new dam owner."

SECTION 9. Section 3(b) of S.L. 2009-390 reads as rewritten:

"SECTION 3.(b) Any impoundments or other facilities that were in use ~~on the effective date of this section~~January 1, 2010, in connection with nonnuclear electric generating facilities under the jurisdiction of the North Carolina Utilities Commission, and that had been exempted under the provisions of G.S. 143-215.25A(4), prior to ~~amendment by Section 3(a) of this act,~~ January 1, 2010, shall be deemed to have received all of the necessary approvals from the Department of Environment and Natural Resources and the ~~Commission for Dam Safety,~~ and shall not be required to submit application, certificate, or other materials in connection with the ~~continued normal operation and maintenance of those facilities.~~Environmental Management Commission."

SECTION 10. G.S. 143-215.32 reads as rewritten:

"§ 143-215.32. Inspection of dams.

(a) The Department may at any time inspect any dam, including a dam that is otherwise exempt from this Part, upon receipt of a written request of any affected person or agency, or upon a motion of the Environmental Management Commission. Within the limits of available

funds the Department shall endeavor to provide for inspection of all dams at intervals of approximately five years.

(a1) Coal combustion residuals surface impoundments, as defined by G.S. 130A-309.201, shall be inspected as provided in this subsection:

- (1) The Department shall inspect each dam associated with a coal combustion residuals surface impoundment at least annually.
- (2) The owner of a coal combustion residuals surface impoundment shall inspect the impoundment weekly and after storms to detect evidence of any of the following conditions:
 - a. Deterioration, malfunction, or improper operation of spillway control systems.
 - b. Sudden drops in the level of the contents of the impoundment.
 - c. Severe erosion or other signs of deterioration in dikes or other containment devices or structures.
 - d. New or enlarged seeps along the downstream slope or toe of the dike or other containment devices or structures.
 - e. Any other abnormal conditions at the impoundment that could pose a risk to public health, safety, or welfare; the environment; or natural resources.
- (3) If any of the conditions described in subdivision (2) of this subsection are observed, the owner shall provide documentation of the conditions to the Department and a registered professional engineer. The registered professional engineer shall investigate the conditions and, if necessary, develop a plan of corrective action to be implemented by the owner of the impoundment. The owner of the impoundment shall provide documentation of the completed corrective action to the Department.
- (4) The owner of a coal combustion residuals surface impoundment shall provide for the annual inspection of the impoundment by an independent registered professional engineer to ensure that the structural integrity and the design, operation, and maintenance of the impoundment is in accordance with generally accepted engineering standards. Within 30 days of the inspection, the owner shall provide to the Department the inspection report and a certification by the engineer that the impoundment is structurally sound and that the design, operation, and maintenance of the impoundment is in accordance with generally accepted engineering standards. The owner and the Department shall each place the inspection report and certification on a publicly accessible Internet Web site.

(b) If the Department upon inspection finds that any dam is not sufficiently strong, is not maintained in good repair or operating condition, is dangerous to life or property, or does not satisfy minimum streamflow requirements, the Department shall present its findings to the Commission and the Commission may issue an order directing the owner or owners of the dam to make at his or her expense maintenance, alterations, repairs, reconstruction, change in construction or location, or removal as may be deemed necessary by the Commission within a time limited by the order, not less than 90 days from the date of issuance of each order, except in the case of extreme danger to the safety of life or property, as provided by subsection (c) of this section.

(c) If at any time the condition of any dam becomes so dangerous to the safety of life or property, in the opinion of the Environmental Management Commission, as not to permit sufficient time for issuance of an order in the manner provided by subsection (b) of this section, the Environmental Management Commission may immediately take such measures as may be essential to provide emergency protection to life and property, including the lowering of the level of a reservoir by releasing water impounded or the destruction in whole or in part of the dam or reservoir. The Environmental Management Commission may recover the costs of such measures from the owner or owners by appropriate legal action.

(d) An order issued under this Part shall be served on the owner of the dam as provided in G.S. 1A-1, Rule 4."

PART VI. TRANSFER SOLID WASTE RULE-MAKING AUTHORITY FROM COMMISSION FOR PUBLIC HEALTH TO ENVIRONMENTAL MANAGEMENT COMMISSION

SECTION 11.(a) G.S. 130A-29 reads as rewritten:

"§ 130A-29. Commission for Public Health – Creation, powers and duties.

- ...
- (c) The Commission shall adopt rules:
- (1) Repealed by Session Laws 1983 (Regular Session, 1984), c. 1022, s. 5.
 - (2) Establishing standards for approving sewage-treatment devices and holding tanks for marine toilets as provided in G.S. 75A-6(o).
 - (3) Establishing specifications for sanitary privies for schools where water-carried sewage facilities are unavailable as provided in G.S. 115C-522.
 - (4) Establishing requirements for the sanitation of local confinement facilities as provided in Part 2 of Article 10 of Chapter 153A of the General Statutes.
 - (5) Repealed by Session Laws 1989 (Regular Session, 1990), c. 1075, s. 1.
 - (5a) Establishing eligibility standards for participation in Department reimbursement programs.
 - (6) ~~Requiring proper treatment and disposal of sewage and other waste from chemical and portable toilets.~~
 - (7) Establishing statewide health outcome objectives and delivery standards.
 - (8) Establishing permit requirements for the sanitation of premises, utensils, equipment, and procedures to be used by a person engaged in tattooing, as provided in Part 11 of Article 8 of this Chapter.
 - (9) Implementing immunization requirements for adult care homes as provided in G.S. 131D-9 and for nursing homes as provided in G.S. 131E-113.
 - (10) Pertaining to the biological agents registry in accordance with G.S. 130A-479.
 - (11) For matters within its jurisdiction that allow for and regulate horizontal drilling and hydraulic fracturing for the purpose of oil and gas exploration and development.

...."

SECTION 11.(b) G.S. 130A-291.1 reads as rewritten:

"§ 130A-291.1. Septage management program; permit fees.

...

(d) Septage shall be treated and disposed only at a wastewater system that has been approved by the Department under rules adopted by the Commission ~~or by the Environmental Management Commission~~ or at a site that is permitted by the Department under this section. A permit shall be issued only if the site satisfies all of the requirements of the rules adopted by the Commission.

...."

SECTION 11.(c) G.S. 130A-294(a)(4) reads as rewritten:

"§ 130A-294. Solid waste management program.

(a) The Department is authorized and directed to engage in research, conduct investigations and surveys, make inspections and establish a statewide solid waste management program. In establishing a program, the Department shall have authority to:

- ...
- (4) a. Develop a permit system governing the establishment and operation of solid waste management facilities. A landfill with a disposal area of 1/2 acre or less for the on-site disposal of land clearing and inert debris is exempt from the permit requirement of this section and shall be governed by G.S. 130A-301.1. Demolition debris from the decommissioning of manufacturing buildings, including electric generating stations, that is disposed of on the same site as the decommissioned buildings, is exempt from the permit requirement of this section and rules adopted pursuant to this section and shall be governed by G.S. 130A-301.3. The Department shall not approve an application for a new permit, the renewal of a permit, or a substantial amendment to a permit for a sanitary landfill, excluding demolition

landfills as defined in the rules of the Commission, except as provided in subdivisions (3) and (4) of subsection (b1) of this section. No permit shall be granted for a solid waste management facility having discharges that are point sources until the Department has referred the complete plans and specifications to the ~~Environmental Management~~ Commission and has received advice in writing that the plans and specifications are approved in accordance with the provisions of G.S. 143-215.1. In any case where the Department denies a permit for a solid waste management facility, it shall state in writing the reason for denial and shall also state its estimate of the changes in the applicant's proposed activities or plans that will be required for the applicant to obtain a permit.

- b. Repealed by Session Laws 2007-550, s. 1(a), effective August 1, 2007.
- c. The Department shall deny an application for a permit for a solid waste management facility if the Department finds that:
 - 1. Construction or operation of the proposed facility would be inconsistent with or violate rules adopted by the Commission.
 - 2. Construction or operation of the proposed facility would result in a violation of water quality standards adopted by the ~~Environmental Management~~ Commission pursuant to G.S. 143-214.1 for waters, as defined in G.S. 143-213.
 - 3. Construction or operation of the facility would result in significant damage to ecological systems, natural resources, cultural sites, recreation areas, or historic sites of more than local significance. These areas include, but are not limited to, national or State parks or forests; wilderness areas; historic sites; recreation areas; segments of the natural and scenic rivers system; wildlife refuges, preserves, and management areas; areas that provide habitat for threatened or endangered species; primary nursery areas and critical fisheries habitat designated by the Marine Fisheries Commission; and Outstanding Resource Waters designated by the ~~Environmental Management~~ Commission.

....."
SECTION 11.(d) G.S. 130A-300 reads as rewritten:

"§ 130A-300. Effect on laws applicable to water pollution control.

This Article shall not be considered as amending, repealing or in any manner abridging or interfering with those sections of the General Statutes of North Carolina relative to the control of water pollution as now administered by the ~~Environmental Management~~ Commission nor shall the provisions of this Article be construed as being applicable to or in any way affecting the authority of the ~~Environmental Management~~ Commission to control the discharges of wastes to the waters of the State as provided in Articles 21 and 21A, Chapter 143 of the General Statutes."

SECTION 11.(e) G.S. 130A-302 reads as rewritten:

"§ 130A-302. Sludge deposits at sanitary landfills.

Sludges generated by the treatment of wastewater discharges which are point sources subject to permits granted under Section 402 of the Federal Water Pollution Act, as amended (P.L. 92-500), or permits generated under G. S. 143-215.1 by the ~~Environmental Management~~ Commission shall not be deposited in or on a sanitary landfill permitted under this Article unless in a compliance with the rules concerning solid waste adopted under this Article."

SECTION 11.(f) G.S. 130A-310.3 reads as rewritten:

"§ 130A-310.3. Remedial action programs for inactive hazardous substance or waste disposal sites.

...
(b) Where possible, the Secretary shall work cooperatively with any owner, operator, responsible party, or any appropriate agency of the State or federal government to develop and implement the inactive hazardous substance or waste disposal site remedial action program. The Secretary shall not take action under this section to the extent that the ~~Environmental~~

~~Management~~ Commission, the Commissioner of Agriculture, or the Pesticide Board has assumed jurisdiction pursuant to Articles 21 or 21A of Chapter 143 of the General Statutes.

...
(d) In any inactive hazardous substance or waste disposal site remedial action program implemented hereunder, the Secretary shall ascertain the most nearly applicable cleanup standard as would be applied under CERCLA/SARA, and may seek federal approval of any such program to insure concurrent compliance with federal standards. State standards may exceed and be more comprehensive than such federal standards. The Secretary shall assure concurrent compliance with applicable standards set by the ~~Environmental Management Commission~~.

...."

SECTION 11.(g) G.S. 130A-310.4(g) reads as rewritten:

"(g) The Commission ~~on Health Services [Commission for Public Health]~~ shall adopt rules prescribing the form and content of the notices required by this section. The proposed remedial action plan shall include a summary of all alternatives considered in the development of the plan. A record shall be maintained of all comment received by the Department regarding the remedial action plan."

SECTION 11.(h) G.S. 130A-310.31(b)(5) reads as rewritten:

"(5) "Unrestricted use standards" when used in connection with "cleanup", "remediated", or "remediation" means contaminant concentrations for each environmental medium that are considered acceptable for all uses and that comply with generally applicable standards, guidance, or established methods governing the contaminants that are established by statute or adopted, published, or implemented by the ~~Environmental Management Commission, the Commission, Commission~~ or the Department instead of the site-specific contaminant levels established pursuant to this Part."

SECTION 11.(i) G.S. 130A-310.65 reads as rewritten:

"§ 130A-310.65. Definitions.

As used in this Part:

- (1) "Background standard" means the naturally occurring concentration of a substance in the absence of the release of a contaminant.
- (2) ~~"Commission" means the Environmental Management Commission created pursuant to G.S. 143B-282.~~

- ...
(12) "Unrestricted use standards" means contaminant concentrations for each environmental medium that are acceptable for all uses; that are protective of public health, safety, and welfare and the environment; and that comply with generally applicable standards, guidance, or methods established by statute or adopted, published, or implemented by the ~~Commission, the Commission for Public Health, Commission~~ or the Department."

SECTION 11.(j) G.S. 113-391(a)(5)f. reads as rewritten:

"f. Management of wastes produced in connection with oil and gas exploration and development and use of horizontal drilling and hydraulic fracturing treatments for that purpose. Such rules shall address storage, transportation, and disposal of wastes that may contain radioactive materials or wastes that may be toxic or have other hazardous wastes' characteristics that are not otherwise regulated as a hazardous waste by the federal Resource Conservation and Recovery Act (RCRA), such as top-hole water, brines, drilling fluids, additives, drilling muds, stimulation fluids, well servicing fluids, oil, production fluids, and drill cuttings from the drilling, alteration, production, plugging, or other activity associated with oil and gas wells. Wastes generated in connection with oil and gas exploration and development and use of horizontal drilling and hydraulic fracturing treatments for that purpose that constitute hazardous waste under RCRA shall be subject to rules adopted by the ~~Environmental Management Commission for Public Health~~ to implement RCRA requirements in the State."

SECTION 11.(k) G.S. 113-415 reads as rewritten:

"§ 113-415. Conflicting laws.

No provision of this Article shall be construed to repeal, amend, abridge or otherwise affect: ~~(i) affect the authority and responsibility~~ responsibility (i) vested in the Environmental Management Commission by Article 7 of Chapter 87 of the General Statutes, pertaining to the location, construction, repair, operation and abandonment of wells, or the authority and responsibility wells; ~~(ii) vested in the Environmental Management Commission related to the control of water and air pollution as provided in Articles 21 and 21A of Chapter 143 of the General Statutes; or (ii) the authority or responsibility~~ (iii) vested in the Department and the Environmental Management Commission for Public Health by Article 10 of Chapter 130A of the General Statutes pertaining to public water-supply requirements, requirements; or the authority and responsibility ~~(iv) vested in the Environmental Management Commission for Public Health related to the management of solid and hazardous waste as provided in Article 9 of Chapter 130A of the General Statutes."~~

SECTION 11.(l) The Revisor of Statutes shall make any conforming statutory changes necessary to reflect the transfer of rule-making authority under Article 9 of Chapter 130A of the General Statutes from the Commission for Public Health to the Environmental Management Commission.

SECTION 11.(m) The Codifier of Rules shall make any conforming rule changes necessary to reflect the transfer of rule-making authority under Article 9 of Chapter 130A of the General Statutes from the Commission for Public Health to the Environmental Management Commission.

PART VII. AMEND COMPLIANCE BOUNDARY PROVISIONS

SECTION 12.(a) G.S. 143-215.1 reads as rewritten:

"§ 143-215.1. Control of sources of water pollution; permits required.

~~(i) Any person subject to the requirements of this section who is required to obtain an individual permit from the Commission for a disposal system under the authority of G.S. 143-215.1 or Chapter 130A of the General Statutes shall have a compliance boundary as may be established by rule or permit for various categories of disposal systems and beyond which groundwater quality standards may not be exceeded. The location of the compliance boundary shall be established at the property boundary, except as otherwise established by the Commission. Multiple contiguous properties under common ownership and permitted for use as a disposal system shall be treated as a single property with regard to determination of a compliance boundary under this subsection. Nothing in this subsection shall be interpreted to require a revision to an existing compliance boundary previously approved by rule or permit boundary.~~

~~(j) When operation of a disposal system permitted under this section results in an exceedance of the groundwater quality standards adopted in accordance with G.S. 143-214.1, the Commission shall require that the exceedances within the compliance boundary be remedied through cleanup, recovery, containment, or other response only when any of the following conditions occur:~~

- ~~(1) A violation of any water quality standard in adjoining classified waters of the State occurs or can be reasonably predicted to occur considering hydrogeological conditions, modeling, or any other available evidence.~~
- ~~(2) An imminent hazard or threat to the environment, public health, or safety exists.~~
- ~~(3) A violation of any standard in groundwater occurring in the bedrock, including limestone aquifers in Coastal Plain sediments, unless it can be demonstrated that the violation will not adversely affect, or have the potential to adversely affect, a water supply well.~~

~~(k) Where operation of a disposal system permitted under this section results in exceedances of the groundwater quality standards at or beyond the compliance boundary established under subsection (i) of this section, exceedances shall be remedied through cleanup, recovery, containment, or other response as directed by the Commission boundary, the Commission shall require the permittee to undertake corrective action, without regard to the date that the system was first permitted, to restore the groundwater quality by assessing the cause, significance, and extent of the violation of standards and submit the results of the investigation and a plan and proposed schedule for corrective action to the Director or the~~

Director's designee. The permittee shall implement the plan as approved by, and in accordance with, a schedule established by the Director or the Director's designee. In establishing a schedule the Director or the Director's designee shall consider any reasonable schedule proposed by the permittee."

SECTION 12.(b) Section 46(b) of S.L. 2013-413 is repealed.

SECTION 12.(c) The Environmental Management Commission shall review the compliance boundary and corrective action provisions of Subchapter 2L of Title 15A of the North Carolina Administrative Code for clarity and internal consistency. The Commission shall report the results of its review, including any recommendations, to the Environmental Review Commission no later than December 1, 2014.

PART VIII. OTHER STUDIES

SECTION 13.(a) The Coal Ash Management Commission, established pursuant to G.S. 130A-309.202, as enacted by Section 3(a) of this act, shall study whether and under what circumstances no further action or natural attenuation is appropriate for a coal combustion residuals surface impoundment that is classified as low-risk pursuant to G.S. 130A-309.211, as enacted by Section 3(a) of this act. In conducting this study, the Commission shall specifically consider whether there is any contact or interaction between coal combustion residuals and groundwater and surface water, whether the area has reverted to a natural state as evidenced by the presence of wildlife and vegetation, and whether no further action or natural attenuation would be protective of public health, safety, and welfare; the environment; and natural resources. The Commission shall report the results of its study, including any recommendations, to the Environmental Review Commission no later than October 1, 2015.

SECTION 13.(b) The Department of Environment and Natural Resources shall review and make recommendations on all deadlines established under Part 2I of Article 9 of Chapter 130A of the General Statutes, as enacted by Section 3(a) of this act. At a minimum, the Department shall identify all permits that may be required for closure requirements established under this act and expected time frames for issuance of these permits. The Department shall report the results of its study, including any recommendations, to the Environmental Review Commission no later than December 1, 2014.

SECTION 13.(c) The Coal Ash Management Commission, established pursuant to G.S. 130A-309.202, as enacted by Section 3(a) of this act, shall study how to promote, incentivize, and prioritize the beneficial use of coal combustion products over the disposal of coal combustion residuals. The Commission shall report the results of its study, including any recommendations, to the Environmental Review Commission no later than December 1, 2014.

SECTION 14. The Department of Transportation shall evaluate additional opportunities for the use of coal combustion products in the construction and maintenance of roads and bridges within the State. The Department shall report the results of its study, including any recommendations, to the Environmental Review Commission and the Joint Legislative Transportation Oversight Committee no later than December 1, 2014.

PART IX. PROVIDE RESOURCES FOR IMPLEMENTATION OF THIS ACT

SECTION 15.(a) Article 14 of Chapter 62 of the General Statutes is amended by adding a new section to read:

"§ 62-302.1. Regulatory fee for combustion residuals surface impoundments.

(a) Fee Imposed. – Each public utility with a coal combustion residuals surface impoundment shall pay a regulatory fee for the purpose of defraying the costs of oversight of coal combustion residuals. The fee is in addition to the fee imposed under G.S. 62-302. The fees collected under this section shall only be used to pay the expenses of the Coal Ash Management Commission and the Department of Environment and Natural Resources in providing oversight of coal combustion residuals.

(b) Rate. – The combustion residuals surface impoundment fee shall be three-hundredths of one percent (0.03%) of the North Carolina jurisdictional revenues of each public utility with a coal combustion residuals surface impoundment. For the purposes of this section, the term "North Carolina jurisdictional revenues" has the same meaning as in G.S. 62-302.

(c) When Due. – The fee shall be paid in quarterly installments. The fee is payable to the Coal Ash Management Commission on or before the 15th of the second month following the end of each quarter. Each public utility subject to this fee shall, on or before the date the fee

is due for each quarter, prepare and render a report on a form prescribed by the Commission. The report shall state the public utility's total North Carolina jurisdictional revenues for the preceding quarter and shall be accompanied by any supporting documentation that the Coal Ash Management Commission may by rule require. Receipts shall be reported on an accrual basis.

(d) Use of Proceeds. – A special fund in the Office of State Treasurer and the Coal Ash Management Commission is created. The fees collected pursuant to this section and all other funds received by the Coal Ash Management Commission shall be deposited in the Coal Combustion Residuals Management Fund. The Fund shall be placed in an interest-bearing account, and any interest or other income derived from the Fund shall be credited to the Fund. Moneys in the Fund shall only be spent pursuant to appropriation by the General Assembly. The Commission shall be subject to the provisions of the State Budget Act, except that no unexpended surplus of the Coal Combustion Residuals Management Fund shall revert to the General Fund. All funds credited to the Fund shall be used only to pay the expenses of the Coal Ash Management Commission and the Department of Environment and Natural Resources in providing oversight of coal combustion residuals.

(e) Recovery of Fee. – The North Carolina Utilities Commission shall not allow an electric public utility to recover this fee from the retail electric customers of the State."

SECTION 15.(b) Notwithstanding G.S. 62-302.1, as enacted by this section, for the first two quarters of fiscal year 2014-2015, each public utility shall pay the fee in G.S. 62-302.1 on a monthly basis. The fee shall be paid by the 15th of the following month.

SECTION 15.(c) Twenty-five receipt-supported positions are created in the Department of Environment and Natural Resources to carry out the duties in Part 2I of Article 9 of Chapter 130A of the General Statutes. There is appropriated from the Coal Combustion Residuals Management Fund the sum of one million seven hundred fifty thousand dollars (\$1,750,000) to the Department of Environment and Natural Resources to support the positions for the 2014-2015 fiscal year.

SECTION 15.(d) Five receipt-supported positions are created in the Division of Emergency Management of the Department of Public Safety to carry out the duties in G.S. 130A-309.202. The funds remaining in the Coal Combustion Residuals Management Fund after the appropriation to the Department of Environment and Natural Resources are appropriated to the Department of Public Safety for the 2014-2015 fiscal year. These positions shall be used to provide assistance to the Coal Ash Management Commission established by G.S. 130A-309.202, as enacted by Section 3(a) of this act. The positions shall be assigned in the following manner: one of the positions shall be the executive director of the staff, two positions shall be assigned as analysts, one position shall be assigned as a technician, and one position shall be assigned as administrative. The Division of Emergency Management in the Department of Public Safety shall consult with the Chair of the Commission in hiring the staff for the Coal Ash Management Commission. The Division of Emergency Management in the Department of Public Safety shall provide support to the Commission until the staff of the Commission is hired, including the designation of an individual to serve as an interim executive director of the staff.

SECTION 15.(e) Subsection (a) of this section becomes effective July 1, 2014, and expires April 1, 2030, and applies to jurisdictional revenues earned on or after July 1, 2014, and before April 1, 2030. The remainder of this section becomes effective July 1, 2014.

PART X. SPECIFICATIONS FOR USE OF COAL COMBUSTION PRODUCTS IN PUBLIC PROCUREMENT

SECTION 16. Article 3 of Chapter 143 of the General Statutes is amended by adding a new section to read:

"§ 143-58.6. Specifications for use of coal combustion products.

(a) State Construction Office to Develop Technical Specifications. – The State Construction Office shall develop recommended technical specifications for the use of coal combustion products that may be utilized in any construction by all State departments, institutions, agencies, community colleges, and local school administrative units, other than the Department of Transportation. The technical specifications shall address all products used in construction, including, but not limited to, the use of coal combustion products in concrete and cement products and in construction fill.

(b) Department of Transportation to Develop Technical Specifications. – The Department of Transportation shall develop recommended technical specifications for the use of coal combustion products that may be utilized in any construction by the Department of Transportation. The technical specifications shall address all products used in construction, including, but not limited to, the use of coal combustion products in concrete and cement products and in construction fill.

(c) Specification Factors. – The State Construction Office and the Department of Transportation shall consider safety, best practice engineering standards, quality, cost, and availability of an in-State source of coal combustion products in developing the recommended technical specifications pursuant to this section.

(d) Consultation. – The State Construction Office and the Department of Transportation shall consult with each other in the development of the recommended technical specifications pursuant to the provisions of this section in order to ensure that the recommended technical standards are uniform for similar types of construction. The goal of the Department of Administration and the Department of Transportation shall be to increase the usage and consumption of coal combustion products in their respective construction projects.

(e) Report of Recommended Specifications. – The State Construction Office and the Department of Transportation shall report the recommended technical specifications developed pursuant to this section to the Environmental Review Commission and the Joint Legislative Transportation Oversight Committee on or before February 1, 2015."

PART XI. SEVERABILITY CLAUSE AND EFFECTIVE DATE

SECTION 17. If any provision of this act or its application is held invalid, the invalidity does not affect other provisions or applications of this act that can be given effect without the invalid provisions or application, and to this end the provisions of this act are severable.

SECTION 18. Except as otherwise provided, this act is effective when it becomes law.

In the General Assembly read three times and ratified this the 20th day of August, 2014.

s/ Daniel J. Forest
President of the Senate

s/ Thom Tillis
Speaker of the House of Representatives

Pat McCrory
Governor

Approved _____m. this _____ day of _____, 2014

**GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2015**

**SESSION LAW 2016-95
HOUSE BILL 630**

A BILL TO BE ENTITLED

AN ACT TO (1) REQUIRE A COAL COMBUSTION RESIDUALS IMPOUNDMENT OWNER TO PROVIDE PERMANENT ALTERNATIVE WATER SUPPLIES FOR RESIDENTS IN AREAS SURROUNDING COAL COMBUSTION RESIDUALS SURFACE IMPOUNDMENTS; (2) REPEAL STATUTORY PROVISIONS RELATED TO THE COAL ASH MANAGEMENT COMMISSION; (3) MODIFY THE CLOSURE REQUIREMENTS FOR COAL COMBUSTION RESIDUALS SURFACE IMPOUNDMENTS UNDER THE COAL ASH MANAGEMENT ACT OF 2014; AND (4) MODIFY APPOINTMENTS TO THE MINING COMMISSION AND THE OIL AND GAS COMMISSION.

The General Assembly of North Carolina enacts:

SECTION 1. Part 2I of Article 9 of Chapter 130A of the General Statutes reads as rewritten:

"Part 2I. Coal Ash Management.

"Subpart 1. Short Title, Definitions, and General Provisions.

"§ 130A-309.200. Title.

This Part may be cited as the "Coal Ash Management Act of 2014."

"§ 130A-309.201. Definitions.

Unless a different meaning is required by the context, the definitions of G.S. 130A-290 and the following definitions apply throughout this Part:

- (1) "Beneficial and beneficial use" means projects promoting public health and environmental protection, offering equivalent success relative to other alternatives, and preserving natural resources.
- (2) "Boiler slag" means the molten bottom ash collected at the base of slag tap and cyclone type furnaces that is quenched with water. It is made up of hard, black, angular particles that have a smooth, glassy appearance.
- (3) "Bottom ash" means the agglomerated, angular ash particles formed in pulverized coal furnaces that are too large to be carried in the flue gases and collect on the furnace walls or fall through open grates to an ash hopper at the bottom of the furnace.
- (4) "Coal combustion products" it means fly ash, bottom ash, boiler slag, or flue gas desulfurization materials that are beneficially used, including use for structural fill.
- (5) "Coal combustion residuals" has the same meaning as defined in G.S. 130A-290.
- (6) "Coal combustion residuals surface impoundment" means a topographic depression, excavation, or diked area that is (i) primarily formed from earthen materials; (ii) without a base liner approved for use by Article 9 of Chapter 130A of the General Statutes or rules adopted thereunder for a combustion products landfill or coal combustion residuals landfill, industrial landfill, or municipal solid waste landfill; and

(iii) designed to hold accumulated coal combustion residuals in the form of liquid wastes, wastes containing free liquids, or sludges, and that is not backfilled or otherwise covered during periods of deposition. "Coal combustion residuals surface impoundment" shall only include impoundments owned by a public utility, as defined in G.S. 62-3. "Coal combustion residuals surface impoundment" includes all of the following:

- a. An impoundment that is dry due to the deposited liquid having evaporated, volatilized, or leached.
- b. An impoundment that is wet with exposed liquid.
- c. Lagoons, ponds, aeration pits, settling ponds, tailings ponds, and sludge pits, when these structures are designed to hold accumulated coal combustion residuals.
- d. A coal combustion residuals surface impoundment that has been covered with soil or other material after the final deposition of coal combustion residuals at the impoundment.

~~(7) "Commission" means the Coal Ash Management Commission.~~

- (8) "Flue gas desulfurization material" means the material produced through a process used to reduce sulfur dioxide emissions from the exhaust gas system of a coal-fired boiler. The physical nature of these materials varies from a wet sludge to a dry powdered material, depending on the process, and their composition comprises either sulfites, sulfates, or a mixture thereof.
- (9) "Fly ash" means the very fine, powdery material, composed mostly of silica with nearly all particles spherical in shape, which is a product of burning finely ground coal in a boiler to produce electricity and is removed from the plant exhaust gases by air emission control devices.
- (10) "Minerals" means soil, clay, coal, phosphate, metallic ore, and any other solid material or substance of commercial value found in natural deposits on or in the earth.
- (11) "Open pit mine" means an excavation made at the surface of the ground for the purpose of extracting minerals, inorganic and organic, from their natural deposits, which excavation is open to the surface.
- (12) "Owner" or "owner of a coal combustion residuals surface impoundment" means a public utility, as defined in G.S. 62-3, that owns a coal combustion residuals surface impoundment.
- (13) "Receptor" means any human, plant, animal, or structure which is, or has the potential to be, affected by the release or migration of contaminants. Any well constructed for the purpose of monitoring groundwater and contaminant concentrations shall not be considered a receptor.
- (14) "Structural fill" means an engineered fill with a projected beneficial end use constructed using coal combustion products that are properly placed and compacted. For purposes of this Part, the term includes fill used to reclaim open pit mines and for embankments, greenscapes, foundations, construction foundations, and for bases or sub-bases under a structure or a footprint of a paved road, parking lot, sidewalk, walkway, or similar structure.
- (15) "Use or reuse of coal combustion products" means the procedure whereby coal combustion products are directly used as either of the following:
 - a. As an ingredient in an industrial process to make a product, unless distinct components of the coal combustion products are recovered as separate end products.

- b. In a function or application as an effective substitute for a commercial product or natural resource.

~~"§ 130A-309.202. (Repealed effective June 30, 2030) Coal Ash Management Commission.~~

~~(a) Creation. — In recognition of the complexity and magnitude of the issues associated with the management of coal combustion residuals and the proper closure and remediation of coal combustion residuals surface impoundments, the Coal Ash Management Commission is hereby established.~~

~~(b) Membership. — The Commission shall consist of nine members as follows:~~

- ~~(1) One appointed by the General Assembly upon recommendation of the President Pro Tempore of the Senate in accordance with G.S. 120-121 who shall at the time of appointment be a resident of the State.~~
- ~~(2) One appointed by the General Assembly upon recommendation of the President Pro Tempore of the Senate in accordance with G.S. 120-121 who shall at the time of appointment have special training or scientific expertise in waste management, including solid waste disposal, hauling, or beneficial use.~~
- ~~(3) One appointed by the General Assembly upon recommendation of the President Pro Tempore of the Senate in accordance with G.S. 120-121 who shall at the time of appointment be a licensed physician or a person with experience in public health.~~
- ~~(4) One appointed by the General Assembly upon recommendation of the Speaker of the House of Representatives in accordance with G.S. 120-121 who shall at the time of appointment be a member of a nongovernmental conservation interest.~~
- ~~(5) One appointed by the General Assembly upon recommendation of the Speaker of the House of Representatives in accordance with G.S. 120-121 who shall at the time of appointment have special training or scientific expertise in waste management, including solid waste disposal, hauling, or beneficial use, or is a representative of or on the faculty of a State college or university that conducts coal ash research.~~
- ~~(6) One appointed by the General Assembly upon recommendation of the Speaker of the House of Representatives in accordance with G.S. 120-121 who shall at the time of appointment be a representative of an electric membership corporation organized under Article 2 of Chapter 117 of the General Statutes and have a background in power supply resource planning and engineering.~~
- ~~(7) One appointed by the Governor who shall at the time of appointment have experience in economic development.~~
- ~~(8) One appointed by the Governor who shall at the time of appointment have expertise in determining and evaluating the costs associated with electricity generation and establishing the rates associated with electricity consumption.~~
- ~~(9) One appointed by the Governor who shall at the time of appointment be a person with experience in science or engineering in the manufacturing sector.~~

~~(c) Chair. — The Governor shall appoint the Chair of the Commission from among the Commission's members, and that person shall serve at the pleasure of the Governor. The Chair shall serve two-year terms. The Governor shall make:~~

- ~~(1) The initial appointment of the Chair no later than October 1, 2014. If the initial appointment is not made by that date, the Chair shall be elected by a vote of the membership; and~~
- ~~(2) Appointments of a subsequent Chair, including appointments to fill a vacancy of the Chair created by resignation, dismissal, death, or disability of the Chair, no later than 30 days after the last day of the previous Chair's term. If an appointment of a subsequent Chair is not made by that date, the Chair shall be elected by a vote of the~~

membership.

~~(d) Vacancies.—Any appointment to fill a vacancy on the Commission created by the resignation, dismissal, death, or disability of a member shall be for the balance of the unexpired term. The Governor may reappoint a gubernatorial appointee of the Commission to an additional term if, at the time of the reappointment, the member qualifies for membership on the Commission under subdivisions (7) through (9) of subsection (b) of this section. Appointments by the General Assembly shall be made in accordance with G.S. 120–121, and vacancies in those appointments shall be filled in accordance with G.S. 120–122.~~

~~(e) Removal.—The Governor shall have the power to remove any member of the Commission from office for misfeasance, malfeasance, or nonfeasance in accordance with the provisions of G.S. 143B–13 of the Executive Organization Act of 1973.~~

~~(f) Powers and Duties.—The Commission shall have all of the following powers and duties:~~

~~(1) To review and approve the classification of coal combustion residuals surface impoundments required by G.S. 130A–309.213.~~

~~(2) To review and approve Coal Combustion Residuals Surface Impoundment Closure Plans as provided in G.S. 130A–309.214.~~

~~(3) To review and make recommendations on the provisions of this Part and other statutes and rules related to the management of coal combustion residuals.~~

~~(4) To undertake any additional studies as requested by the General Assembly.~~

~~(g) Reimbursement.—The members of the Commission shall receive per diem and necessary travel and subsistence expenses in accordance with the provisions of G.S. 138–5.~~

~~(h) Quorum.—Five members of the Commission shall constitute a quorum for the transaction of business.~~

~~(i) Staff.—The Commission is authorized and empowered to employ staff as the Commission may determine to be necessary for the proper discharge of the Commission's duties and responsibilities. The Chair of the Commission shall organize and direct the work of the Commission staff. The salaries and compensation of all such personnel shall be fixed in the manner provided by law for fixing and regulating salaries and compensation by other State agencies. The Chair, within allowed budgetary limits and as allowed by law, shall authorize and approve travel, subsistence, and related expenses of such personnel incurred while traveling on official business. All State agencies, including the constituent institutions of The University of North Carolina, shall provide information and support to the Commission upon request.~~

~~(j) Repealed by Session Laws 2015–9, s. 1.1, effective April 27, 2015.~~

~~(k) Covered Persons; Conflicts of Interest; Disclosure.—All members of the Commission are covered persons for the purposes of Chapter 138A of the General Statutes, the State Government Ethics Act. As covered persons, members of the Commission shall comply with the applicable requirements of the State Government Ethics Act, including mandatory training, the public disclosure of economic interests, and ethical standards for covered persons. Members of the Commission shall comply with the provisions of the State Government Ethics Act to avoid conflicts of interest. The Governor may require additional disclosure of potential conflicts of interest by members. The Governor may promulgate criteria regarding conflicts of interest and disclosure thereof for determining the eligibility of persons under this subsection, giving due regard to the requirements of federal legislation, and, for this purpose, may promulgate rules, regulations, or guidelines in conformance with those established by any federal agency interpreting and applying provisions of federal law.~~

~~(l) Meetings.—The Commission shall meet at least once every two months and may hold special meetings at any time and place within the State at the call of the Chair or upon the written request of at least five members.~~

~~(m) Reports.—The Commission shall submit quarterly written reports as to its operation, activities, programs, and progress to the Environmental Review Commission. The Commission shall~~

~~supplement the written reports required by this subsection with additional written and oral reports as may be requested by the Environmental Review Commission. The Commission shall submit the written reports required by this subsection whether or not the General Assembly is in session at the time the report is due.~~

~~(n) Administrative Location; Independence.—The Commission shall be administratively located in the Division of Emergency Management of the Department of Public Safety. The Commission shall exercise all of its powers and duties independently and shall not be subject to the supervision, direction, or control of the Division or Department.~~

~~(o) Terms of Members.—Members of the Commission shall serve terms of six years, beginning effective July 1 of the year of appointment.~~

"§ 130A-309.203. Expedited permit review.

(a) The Department shall act as expeditiously as practicable, but no later than the deadlines established under subsection (b) of this section, except in compliance with subsection (c) of this section, to issue all permits necessary to conduct activities required by this Part.

(b) Notwithstanding G.S. 130A-295.8(e), the Department shall determine whether an application for any permit necessary to conduct activities required by this Part is complete within 30 days after the Department receives the application for the permit. A determination of completeness means that the application includes all required components but does not mean that the required components provide all of the information that is required for the Department to make a decision on the application. If the Department determines that an application is not complete, the Department shall notify the applicant of the components needed to complete the application. An applicant may submit additional information to the Department to cure the deficiencies in the application. The Department shall make a final determination as to whether the application is complete within the later of (i) 30 days after the Department receives the application for the permit less the number of days that the applicant uses to provide the additional information or (ii) 10 days after the Department receives the additional information from the applicant. The Department shall issue a draft permit decision on an application for a permit within 90 days after the Department determines that the application is complete. The Department shall hold a public hearing and accept written comment on the draft permit decision for a period of not less than 30 or more than 60 days after the Department issues a draft permit decision. The Department shall issue a final permit decision on an application for a permit within 60 days after the comment period on the draft permit decision closes. If the Department fails to act within any time period set out in this subsection, the applicant may treat the failure to act as a denial of the permit and may challenge the denial as provided in Chapter 150B of the General Statutes.

(c) If the Department finds that compliance with the deadlines established under subsection (b) of this section would result in insufficient review of a permit application that would pose a risk to public health, safety, and welfare; the environment; or natural resources, the applicable deadline shall be waived for the application as necessary to allow for adequate review. If a deadline is waived pursuant to this subsection, the Secretary shall issue a written declaration, including findings of fact, documenting the need for the waiver.

(d) Notwithstanding any other provision of this section or any other provision of law, the Department shall either issue or deny a permit required for dewatering of a retired impoundment within 90 days of receipt of a completed application, in such a form and including such information as the Department may prescribe, for the dewatering activities. The Department shall accept written comment on a draft permit decision for a period of not less than 30 days or more than 60 days prior to issuance or denial of such a permit. If the Department fails to act within any time period set out in this subsection, the applicant may treat the failure to act as a denial of the permit and may challenge the denial as provided in Chapter 150B of the General Statutes.

"§ 130A-309.204. Reports.

(a) The Department shall submit quarterly written reports to the Environmental Review Commission ~~and the Coal Ash Management Commission~~ on its operations, activities, programs, and progress with respect to its obligations under this Part concerning all coal combustion residuals surface impoundments. At a minimum, the report shall include information concerning the status of assessment, corrective action, prioritization, and closure for each coal combustion residuals surface impoundment and information on costs connected therewith. The report shall include an executive summary of each annual Groundwater Protection and Restoration Report submitted to the Department by the operator of any coal combustion residuals surface impoundments pursuant to G.S. 130A-309.211(d) and a summary of all groundwater sampling, protection, and restoration activities related to the impoundment for the preceding year. The report shall also include an executive summary of each annual Surface Water Protection and Restoration Report submitted to the Department by the operator of any coal combustion residuals surface impoundments pursuant to G.S. 130A-309.212(e) and a summary of all surface water sampling, protection, and restoration activities related to the impoundment for the preceding year, including the status of the identification, assessment, and correction of unpermitted discharges from coal combustion residuals surface impoundments to the surface waters of the State. The Department shall supplement the written reports required by this subsection with additional written and oral reports as may be requested by the Environmental Review Commission. The Department shall submit the written reports required by this subsection whether or not the General Assembly is in session at the time the report is due.

(b) On or before October 1 of each year, the Department shall report to each member of the General Assembly who has a coal combustion residuals surface impoundment in the member's district. This report shall include the location of each impoundment in the member's district, the amount of coal combustion residuals known or believed to be located in the impoundment, the last action taken at the impoundment, and the date of that last action.

(c) On or before October 1 of each year, a public utility generating coal combustion residuals and coal combustion products shall submit an annual summary to the Department. The annual summary shall be for the period of July 1 through June 30 and shall include all of the following:

- (1) The volume of coal combustion residuals and products produced.
- (2) The volume of coal combustion residuals disposed.
- (3) The volume of coal combustion products used in structural fill projects.
- (4) The volume of coal combustion products beneficially used, other than for structural fill.

"§ 130A-309.205. Local ordinances regulating management of coal combustion residuals and coal combustion products invalid; petition to preempt local ordinance.

(a) It is the intent of the General Assembly to maintain a uniform system for the management of coal combustion residuals and coal combustion products, including matters of disposal and beneficial use, and to place limitations upon the exercise by all units of local government in North Carolina of the power to regulate the management of coal combustion residuals and coal combustion products by means of ordinances, property restrictions, zoning regulations, or otherwise. Notwithstanding any authority granted to counties, municipalities, or other local authorities to adopt local ordinances, including those imposing taxes, fees, or charges or regulating health, environment, or land use, all provisions of local ordinances, including those regulating land use, adopted by counties, municipalities, or other local authorities that regulate or have the effect of regulating the management of coal combustion residuals and coal combustion products, including regulation of carbon burn-out plants, within the jurisdiction of a local government are invalidated and unenforceable, to the extent necessary to effectuate the purposes of this Part, that do the following:

- (1) Place any restriction or condition not placed by this Part upon management of coal combustion residuals or coal combustion products within any county, city, or other political subdivision.

(2) Conflict or are in any manner inconsistent with the provisions of this Part.

(a1) As used in this section, "Commission" means the Environmental Management Commission.

(b) If a local zoning or land-use ordinance imposes requirements, restrictions, or conditions that are generally applicable to development, including, but not limited to, setback, buffer, and stormwater requirements, and coal combustion residuals and coal combustion products would be regulated under the ordinance of general applicability, the operator of the proposed activities may petition the Environmental Management Commission to review the matter. After receipt of a petition, the Commission shall hold a hearing in accordance with the procedures in subsection (c) of this section and shall determine whether or to what extent to preempt the local ordinance to allow for the management of coal combustion residuals and coal combustion products.

(c) When a petition described in subsection (b) of this section has been filed with the Environmental Management Commission, the Commission shall hold a public hearing to consider the petition. The public hearing shall be held in the affected locality within 60 days after receipt of the petition by the Commission. The Commission shall give notice of the public hearing by both of the following means:

(1) Publication in a newspaper or newspapers having general circulation in the county or counties where the activities are to be conducted, once a week for three consecutive weeks, the first notice appearing at least 30 days prior to the scheduled date of the hearing.

(2) First-class mail to persons who have requested notice. The Commission shall maintain a mailing list of persons who request notice in advance of the hearing pursuant to this section. Notice by mail shall be complete upon deposit of a copy of the notice in a postage-paid wrapper addressed to the person to be notified at the address that appears on the mailing list maintained by the Commission in a post office or official depository under the exclusive care and custody of the United States Postal Service.

(d) Any interested person may appear before the Environmental Management Commission at the hearing to offer testimony. In addition to testimony before the Commission, any interested person may submit written evidence to the Commission for the Commission's consideration. At least 20 days shall be allowed for receipt of written comment following the hearing.

(e) A local zoning or land-use ordinance is presumed to be valid and enforceable to the extent the zoning or land-use ordinance imposes requirements, restrictions, or conditions that are generally applicable to development, including, but not limited to, setback, buffer, and stormwater requirements, unless the Environmental Management Commission makes a finding of fact to the contrary. The Commission shall determine whether or to what extent to preempt local ordinances so as to allow the project involving management of coal combustion residuals and coal combustion products no later than 60 days after conclusion of the hearing. The Commission shall preempt a local ordinance only if the Commission makes all of the following findings:

(1) That there is a local ordinance that would regulate the management of coal combustion residuals and coal combustion products.

(2) That all legally required State and federal permits or approvals have been issued by the appropriate State and federal agencies or that all State and federal permit requirements have been satisfied and that the permits or approvals have been denied or withheld only because of the local ordinance.

(3) That local citizens and elected officials have had adequate opportunity to participate in the permitting process.

(4) That the project involving management of coal combustion residuals and coal combustion products will not pose an unreasonable health or environmental risk to the

surrounding locality and that the operator has taken or consented to take reasonable measures to avoid or manage foreseeable risks and to comply to the maximum feasible extent with applicable local ordinances.

(f) If the Environmental Management Commission does not make all of the findings under subsection (e) of this section, the Commission shall not preempt the challenged local ordinance. The Commission's decision shall be in writing and shall identify the evidence submitted to the Commission plus any additional evidence used in arriving at the decision.

(g) The decision of the Environmental Management Commission shall be final, unless a party to the action files a written appeal under Article 3 of Chapter 150B of the General Statutes, as modified by this section, within 30 days of the date of the decision. The record on appeal shall consist of all materials and information submitted to or considered by the Commission, the Commission's written decision, a complete transcript of the hearing, the specific findings required by subsection (e) of this section, and any minority positions on the specific findings required by subsection (e) of this section. The scope of judicial review shall be as set forth in G.S. 150B-51, except as this subsection provides regarding the record on appeal.

(h) If the court reverses or modifies the decision of the Environmental Management Commission, the judge shall set out in writing, which writing shall become part of the record, the reasons for the reversal or modification.

(i) In computing any period of time prescribed or allowed by the procedure in this section, the provisions of Rule 6(a) of the Rules of Civil Procedure, G.S. 1A-1, shall apply.

"§ 130A-309.206. Federal preemption; severability.

The provisions of this Part shall be severable, and if any phrase, clause, sentence, or provision is declared to be unconstitutional or otherwise invalid or is preempted by federal law or regulation, the validity of the remainder of this Part shall not be affected thereby.

"§ 130A-309.207. General rule making for Part.

The Environmental Management Commission shall adopt rules as necessary to implement the provisions of the Part. Such rules shall be exempt from the requirements of G.S. 150B-19.3.

"§ 130A-309.208: Reserved for future codification purposes.

"§ 130A-309.209: Reserved for future codification purposes.

"Subpart 2. Management of Coal Ash Residuals; Closure of Coal Ash Impoundments.

"§ 130A-309.210. Generation, disposal, and use of coal combustion residuals.

(a) On or after October 1, 2014, the construction of new and expansion of existing coal combustion residuals surface impoundments is prohibited.

(b) On or after October 1, 2014, the disposal of coal combustion residuals into a coal combustion residuals surface impoundment at an electric generating facility where the coal-fired generating units are no longer producing coal combustion residuals is prohibited.

(c) On or after December 31, 2018, the discharge of stormwater into a coal combustion surface impoundment at an electric generating facility where the coal-fired generating units are no longer producing coal combustion residuals is prohibited.

(d) On or after December 31, 2019, the discharge of stormwater into a coal combustion surface impoundment at an electric generating facility where the coal-fired generating units are actively producing coal combustion residuals is prohibited.

(e) On or before December 31, 2018, all electric generating facilities owned by a public utility shall convert to the disposal of "dry" fly ash or the facility shall be retired. For purposes of this subsection, the term "dry" means coal combustion residuals that are not in the form of liquid wastes, wastes containing free liquids, or sludges.

(f) On or before December 31, 2019, all electric generating facilities owned by a public utility

shall convert to the disposal of "dry" bottom ash or the facility shall be retired. For purposes of this subsection, the term "dry" means coal combustion residuals that are not in the form of liquid wastes, wastes containing free liquids, or sludges.

"§ 130A-309.211. Groundwater assessment and corrective action; drinking water supply well survey and provision of alternate water supply; reporting.

(a) Groundwater Assessment of Coal Combustion Residuals Surface Impoundments. – The owner of a coal combustion residuals surface impoundment shall conduct groundwater monitoring and assessment as provided in this subsection. The requirements for groundwater monitoring and assessment set out in this subsection are in addition to any other groundwater monitoring and assessment requirements applicable to the owners of coal combustion residuals surface impoundments:

- (1) No later than December 31, 2014, the owner of a coal combustion residuals surface impoundment shall submit a proposed Groundwater Assessment Plan for the impoundment to the Department for its review and approval. The Groundwater Assessment Plan shall, at a minimum, provide for all of the following:
 - a. A description of all receptors and significant exposure pathways.
 - b. An assessment of the horizontal and vertical extent of soil and groundwater contamination for all contaminants confirmed to be present in groundwater in exceedance of groundwater quality standards.
 - c. A description of all significant factors affecting movement and transport of contaminants.
 - d. A description of the geological and hydrogeological features influencing the chemical and physical character of the contaminants.
 - e. A schedule for continued groundwater monitoring.
 - f. Any other information related to groundwater assessment required by the Department.
- (2) The Department shall approve the Groundwater Assessment Plan if it determines that the Plan complies with the requirements of this subsection and will be sufficient to protect public health, safety, and welfare; the environment; and natural resources.
- (3) No later than 10 days from approval of the Groundwater Assessment Plan, the owner shall begin implementation of the Plan.
- (4) No later than 180 days from approval of the Groundwater Assessment Plan, the owner shall submit a Groundwater Assessment Report to the Department. The Report shall describe all exceedances of groundwater quality standards associated with the impoundment.

(b) Corrective Action for the Restoration of Groundwater Quality. – The owner of a coal combustion residuals surface impoundment shall implement corrective action for the restoration of groundwater quality as provided in this subsection. The requirements for corrective action for the restoration of groundwater quality set out in this subsection are in addition to any other corrective action for the restoration of groundwater quality requirements applicable to the owners of coal combustion residuals surface impoundments:

- (1) No later than 90 days from submission of the Groundwater Assessment Report required by subsection (a) of this section, or a time frame otherwise approved by the Department not to exceed 180 days from submission of the Groundwater Assessment Report, the owner of the coal combustion residuals surface impoundment shall submit a proposed Groundwater Corrective Action Plan to the Department for its review and approval. The Groundwater Corrective Action Plan shall provide for the restoration of groundwater in conformance with the requirements of Subchapter L of Chapter 2 of Title 15A of the North Carolina Administrative Code. The Groundwater Corrective

Action Plan shall include, at a minimum, all of the following:

- a. A description of all exceedances of the groundwater quality standards, including any exceedances that the owner asserts are the result of natural background conditions.
 - b. A description of the methods for restoring groundwater in conformance with the requirements of Subchapter L of Chapter 2 of Title 15A of the North Carolina Administrative Code and a detailed explanation of the reasons for selecting these methods.
 - c. Specific plans, including engineering details, for restoring groundwater quality.
 - d. A schedule for implementation of the Plan.
 - e. A monitoring plan for evaluating the effectiveness of the proposed corrective action and detecting movement of any contaminant plumes.
 - f. Any other information related to groundwater assessment required by the Department.
- (2) The Department shall approve the Groundwater Corrective Action Plan if it determines that the Plan complies with the requirements of this subsection and will be sufficient to protect public health, safety, and welfare; the environment; and natural resources.
- (3) No later than 30 days from the approval of the Groundwater Corrective Action Plan, the owner shall begin implementation of the Plan in accordance with the Plan's schedule.

(c) Drinking Water Supply Well Survey and Provision of Alternate Water Supply. – No later than October 1, 2014, the owner of a coal combustion residuals surface impoundment shall conduct a Drinking Water Supply Well Survey that identifies all drinking water supply wells within one-half mile down-gradient from the established compliance boundary of the impoundment and submit the Survey to the Department. The Survey shall include well locations, the nature of water uses, available well construction details, and information regarding ownership of the wells. No later than December 1, 2014, the Department shall determine, based on the Survey, which drinking water supply wells the owner is required to sample and how frequently and for what period sampling is required. The Department shall require sampling for drinking water supply wells where data regarding groundwater quality and flow and depth in the area of any surveyed well provide a reasonable basis to predict that the quality of water from the surveyed well may be adversely impacted by constituents associated with the presence of the impoundment. No later than January 1, 2015, the owner shall initiate sampling and water quality analysis of the drinking water supply wells. A property owner may elect to have an independent third party selected from a laboratory certified by the Department's Wastewater/Groundwater Laboratory Certification program sample wells located on their property in lieu of sampling conducted by the owner of the coal combustion residuals surface impoundment. The owner of the coal combustion residuals surface impoundment shall pay for the reasonable costs of such sampling. Nothing in this subsection shall be construed to preclude or impair the right of any property owner to refuse such sampling of wells on their property. If the sampling and water quality analysis indicates that water from a drinking water supply well exceeds groundwater quality standards for constituents associated with the presence of the impoundment, the owner shall replace the contaminated drinking water supply well with an alternate supply of potable drinking water and an alternate supply of water that is safe for other household uses. The alternate supply of potable drinking water shall be supplied within 24 hours of the Department's determination that there is an exceedance of groundwater quality standards attributable to constituents associated with the presence of the impoundment. The alternate supply of water that is safe for other household uses shall be supplied within 30 days of the Department's determination that there is an exceedance of groundwater quality standards attributable to constituents associated with the presence of

the impoundment. The requirement to replace a contaminated drinking water supply well with an alternate supply of potable drinking water and an alternate supply of water that is safe for other household uses set out in this subsection is in addition to any other requirements to replace a contaminated drinking water supply well with an alternate supply of potable drinking water or an alternate supply of water that is safe for other household uses applicable to the owners of coal combustion residuals surface impoundments.

(c1) Provision of Permanent Water Supply. – As soon as practicable, but no later than October 15, 2018, the owner of a coal combustion residuals surface impoundment shall establish permanent replacement water supplies for (i) each household that has a drinking water supply well located within a one-half mile radius from the established compliance boundary of a coal combustion residuals impoundment, and is not separated from the impoundment by the mainstem of a river, as that term is defined under G.S. 143-215.22G, or other body of water that would prevent the migration of contaminants through groundwater from the impoundment to a well and (ii) each household that has a drinking water supply well that is located in an area in which contamination resulting from constituents associated with the presence of a coal combustion residuals impoundment is expected to migrate, as demonstrated by groundwater modeling and hydrogeologic, geologic, and geotechnical investigations of the site, conducted in accordance with the requirements of G.S. 130A-309.214(a)(4), and the results of other modeling or investigations that may have been submitted pursuant to G.S. 130A-309.213(b)(4). Preference shall be given to permanent replacement water supplies by connection to public water supplies; provided that (i) a household may elect to receive a filtration system in lieu of a connection to public water supplies and (ii) if the Department determines that connection to a public water supply to a particular household would be cost-prohibitive, the Department shall authorize provision of a permanent replacement water supply to that household through installation of a filtration system. For households for which filtration systems are installed, the impoundment owner shall be responsible for periodic required maintenance of the filtration system. No later than December 15, 2016, an impoundment owner shall submit information on permanent replacement water supplies proposed to be provided to each household to the Department, including, at a minimum, the type of permanent water supply proposed; the location of the household and its proximity to the nearest connection point to a public water supply; projected cost of the permanent water supply option proposed for the household; and any proposal to connect to a public water supply. The Department shall evaluate information submitted by the impoundment owner and render a final decision to approve or disapprove the plan, including written findings of fact, no later than January 15, 2017. If disapproved, an impoundment owner shall resubmit a plan for the Department's approval within 30 days. No later than April 15, 2017, an impoundment owner shall notify all residents identified in the approved plan of their eligibility for establishment of a permanent water supply. Until such time as an impoundment owner has established a permanent water supply for each household required by this subsection, the impoundment owner shall supply the household with an alternate supply of potable drinking water and an alternate supply of water that is safe for other household uses. Nothing in this section shall be construed to (i) require an eligible household to connect to a public water supply or receive a filtration system or (ii) obviate the need for other federal, State, and local permits and approvals. All State entities and local governments shall expedite any permits and approvals required for such projects. The Department may grant an impoundment owner an extension of time, not to exceed one year, to establish permanent water supplies as required by this section, if the Department determines that it is infeasible for the impoundment owner to establish a permanent water supply for a household by October 15, 2018, based on limitations arising from local government resources, including limitations on water supply capacity and staffing limitations for permitting and construction activities.

(d) Reporting. – In addition to any other reporting required by the Department, the owner of a coal combustion residuals surface impoundment shall submit an annual Groundwater Protection and Restoration Report to the Department no later than January 31 of each year. The Report shall include a

summary of all groundwater monitoring, protection, and restoration activities related to the impoundment for the preceding year, including the status of the Groundwater Assessment Plan, the Groundwater Assessment Report, the Groundwater Corrective Action Plan, the Drinking Water Supply Well Survey, and the replacement of any contaminated drinking water supply wells. ~~The owner of a coal combustion residuals surface impoundment shall also submit all information required to be submitted to the Department pursuant to this section to the Coal Ash Management Commission.~~

"§ 130A-309.212. Identification and assessment of discharges; correction of unpermitted discharges.

(a) Identification of Discharges from Coal Combustion Residuals Surface Impoundments. –

(1) The owner of a coal combustion residuals surface impoundment shall identify all discharges from the impoundment as provided in this subsection. The requirements for identifying all discharges from an impoundment set out in this subsection are in addition to any other requirements for identifying discharges applicable to the owners of coal combustion residuals surface impoundments.

(2) No later than December 31, 2014, the owner of a coal combustion residuals surface impoundment shall submit a topographic map that identifies the location of all (i) outfalls from engineered channels designed or improved for the purpose of collecting water from the toe of the impoundment and (ii) seeps and weeps discharging from the impoundment that are not captured by engineered channels designed or improved for the purpose of collecting water from the toe of the impoundment to the Department. The topographic map shall comply with all of the following:

- a. Be at a scale as required by the Department.
- b. Specify the latitude and longitude of each toe drain outfall, seep, and weep.
- c. Specify whether the discharge from each toe drain outfall, seep, and weep is continuous or intermittent.
- d. Provide an average flow measurement of the discharge from each toe drain outfall, seep, and weep including a description of the method used to measure average flow.
- e. Specify whether the discharge from each toe drain outfall, seep, and weep identified reaches the surface waters of the State. If the discharge from a toe drain outfall, seep, or weep reaches the surface waters of the State, the map shall specify the latitude and longitude of where the discharge reaches the surface waters of the State.
- f. Include any other information related to the topographic map required by the Department.

(b) Assessment of Discharges from Coal Combustion Residuals Surface Impoundments to the Surface Waters of the State. – The owner of a coal combustion residuals surface impoundment shall conduct an assessment of discharges from the coal combustion residuals surface impoundment to the surface waters of the State as provided in this subsection. The requirements for assessment of discharges from the coal combustion residuals surface impoundment to the surface waters of the State set out in this subsection are in addition to any other requirements for the assessment of discharges from coal combustion residuals surface impoundments to surface waters of the State applicable to the owners of coal combustion residuals surface impoundments:

(1) No later than December 31, 2014, the owner of a coal combustion residuals surface impoundment shall submit a proposed Discharge Assessment Plan to the Department. The Discharge Assessment Plan shall include information sufficient to allow the Department to determine whether any discharge, including a discharge from a toe drain outfall, seep, or weep, has reached the surface waters of the State and has caused a

violation of surface water quality standards. The Discharge Assessment Plan shall include, at a minimum, all of the following:

- a. Upstream and downstream sampling locations within all channels that could potentially carry a discharge.
 - b. A description of the surface water quality analyses that will be performed.
 - c. A sampling schedule, including the frequency and duration of sampling activities.
 - d. Reporting requirements.
 - e. Any other information related to the assessment of discharges required by the Department.
- (2) The Department shall approve the Discharge Assessment Plan if it determines that the Plan complies with the requirements of this subsection and will be sufficient to protect public health, safety, and welfare; the environment; and natural resources.
- (3) No later than 30 days from the approval of the Discharge Assessment Plan, the owner shall begin implementation of the Plan in accordance with the Plan's schedule.

(c) **Corrective Action to Prevent Unpermitted Discharges from Coal Combustion Residuals Surface Impoundments to the Surface Waters of the State.** – The owner of a coal combustion residuals surface impoundment shall implement corrective action to prevent unpermitted discharges from the coal combustion residuals surface impoundment to the surface waters of the State as provided in this subsection. The requirements for corrective action to prevent unpermitted discharges from coal combustion residuals surface impoundments to the surface waters of the State set out in this subsection are in addition to any other requirements for corrective action to prevent unpermitted discharges from coal combustion residuals surface impoundments to the surface waters of the State applicable to the owners of coal combustion residuals surface impoundments:

- (1) If the Department determines, based on information provided pursuant to subsection (a) or (b) of this section, that an unpermitted discharge from a coal combustion residuals surface impoundment, including an unpermitted discharge from a toe drain outfall, seep, or weep, has reached the surface waters of the State, the Department shall notify the owner of the impoundment of its determination.
- (2) No later than 30 days from a notification pursuant to subdivision (1) of this subsection, the owner of the coal combustion residuals surface impoundment shall submit a proposed Unpermitted Discharge Corrective Action Plan to the Department for its review and approval. The proposed Unpermitted Discharge Corrective Action Plan shall include, at a minimum, all of the following:
 - a. One of the following methods of proposed corrective action:
 1. Elimination of the unpermitted discharge.
 2. Application for a National Pollutant Discharge Elimination System (NPDES) permit amendment pursuant to G.S. 143-215.1 and Subchapter H of Chapter 2 of Title 15A of the North Carolina Administrative Code to bring the unpermitted discharge under permit regulations.
 - b. A detailed explanation of the reasons for selecting the method of corrective action.
 - c. Specific plans, including engineering details, to prevent the unpermitted discharge.
 - d. A schedule for implementation of the Plan.
 - e. A monitoring plan for evaluating the effectiveness of the proposed corrective action.

f. Any other information related to the correction of unpermitted discharges required by the Department.

(3) The Department shall approve the Unpermitted Discharge Corrective Action Plan if it determines that the Plan complies with the requirements of this subsection and will be sufficient to protect public health, safety, and welfare; the environment; and natural resources.

(4) No later than 30 days from the approval of the Unpermitted Discharge Corrective Action Plan, the owner shall begin implementation of the Plan in accordance with the Plan's schedule.

(d) Identification of New Discharges. – No later than October 1, 2014, the owner of a coal combustion residuals surface impoundment shall submit a proposed Plan for the Identification of New Discharges to the Department for its review and approval as provided in this subsection:

(1) The proposed Plan for the Identification of New Discharges shall include, at a minimum, all of the following:

a. A procedure for routine inspection of the coal combustion residuals surface impoundment to identify indicators of potential new discharges, including toe drain outfalls, seeps, and weeps.

b. A procedure for determining whether a new discharge is actually present.

c. A procedure for notifying the Department when a new discharge is confirmed.

d. Any other information related to the identification of new discharges required by the Department.

(2) The Department shall approve the Plan for the Identification of New Discharges if it determines that the Plan complies with the requirements of this subsection and will be sufficient to protect public health, safety, and welfare; the environment; and natural resources.

(3) No later than 30 days from the approval of the Plan for the Identification of New Discharges, the owner shall begin implementation of the Plan in accordance with the Plan.

(e) Reporting. – In addition to any other reporting required by the Department, the owner of a coal combustion residuals surface impoundment shall submit an annual Surface Water Protection and Restoration Report to the Department no later than January 31 of each year. The Report shall include a summary of all surface water sampling, protection, and restoration activities related to the impoundment for the preceding year, including the status of the identification, assessment, and correction of unpermitted discharges from coal combustion residuals surface impoundments to the surface waters of the State. ~~The owner of a coal combustion residuals surface impoundment shall also submit all information required to be submitted to the Department pursuant to this section to the Coal Ash Management Commission.~~

"§ 130A–309.213. Prioritization of coal combustion residuals surface impoundments.

(a) As soon as practicable, but no later than December 31, 2015, the Department shall develop proposed classifications for all coal combustion residuals surface impoundments, including active and retired sites, for the purpose of closure and remediation based on these sites' risks to public health, safety, and welfare; the environment; and natural resources and shall determine a schedule for closure and required remediation that is based on the degree of risk to public health, safety, and welfare; the environment; and natural resources posed by the impoundments and that gives priority to the closure and required remediation of impoundments that pose the greatest risk. In assessing the risk, the Department shall evaluate information received pursuant to G.S. 130A–309.211 and G.S. 130A–309.212 and any other information deemed relevant and, at a minimum, consider all of the following: relevant.

(1) ~~Any hazards to public health, safety, or welfare resulting from the impoundment.~~

- ~~(2) The structural condition and hazard potential of the impoundment.~~
- ~~(3) The proximity of surface waters to the impoundment and whether any surface waters are contaminated or threatened by contamination as a result of the impoundment.~~
- ~~(4) Information concerning the horizontal and vertical extent of soil and groundwater contamination for all contaminants confirmed to be present in groundwater in exceedance of groundwater quality standards and all significant factors affecting contaminant transport.~~
- ~~(5) The location and nature of all receptors and significant exposure pathways.~~
- ~~(6) The geological and hydrogeological features influencing the movement and chemical and physical character of the contaminants.~~
- ~~(7) The amount and characteristics of coal combustion residuals in the impoundment.~~
- ~~(8) Whether the impoundment is located within an area subject to a 100-year flood.~~
- ~~(9) Any other factor the Department deems relevant to establishment of risk.~~

(b) The Department shall issue a proposed classification for each coal combustion residuals surface impoundment based upon the assessment conducted pursuant to subsection (a) of this section as high-risk, intermediate-risk, or low-risk. Within 30 days after a proposed classification has been issued, the Department shall issue a written declaration, including findings of fact, documenting the proposed classification. The Department shall provide for public participation on the proposed risk classification as follows:

- (1) The Department shall make copies of the written declaration issued pursuant to this subsection available for inspection as follows:
 - a. A copy of the declaration shall be provided to the local health director.
 - b. A copy of the declaration shall be provided to the public library located in closest proximity to the site in the county or counties in which the site is located.
 - c. The Department shall post a copy of the declaration on the Department's Web site.
 - d. The Department shall place copies of the declaration in other locations so as to assure the reasonable availability thereof to the public.
- (2) The Department shall give notice of the written declaration issued pursuant to this subsection as follows:
 - a. A notice and summary of the declaration shall be published weekly for a period of three consecutive weeks in a newspaper having general circulation in the county or counties where the site is located.
 - b. Notice of the written declaration shall be given by first-class mail to persons who have requested such notice. Such notice shall include a summary of the written declaration and state the locations where a copy of the written declaration is available for inspection. The Department shall maintain a mailing list of persons who request notice pursuant to this section.
 - c. Notice of the written declaration shall be given by electronic mail to persons who have requested such notice. Such notice shall include a summary of the written declaration and state the locations where a copy of the written declaration is available for inspection. The Department shall maintain a mailing list of persons who request notice pursuant to this section.
- (3) No later than 60 days after issuance of the written declaration, the Department shall conduct a public meeting in the county or counties in which the site is located to explain the written declaration to the public. The Department shall give notice of the hearing at least 15 days prior to the date thereof by all of the following methods:

- a. Publication as provided in subdivision (1) of this subsection, with first publication to occur not less than 30 days prior to the scheduled date of the hearing.
 - b. First-class mail to persons who have requested notice as provided in subdivision (2) of this subsection.
 - c. Electronic mail to persons who have requested notice as provided in subdivision (2) of this subsection.
- (4) At least 30 days from the latest date on which notice is provided pursuant to subdivision (2) of this subsection shall be allowed for the receipt of written comment on the written declaration prior to issuance of a final risk classification. At least 20 days will be allowed for receipt of written comment following a hearing conducted pursuant to subdivision (3) of this subsection prior to issuance of a ~~final~~ preliminary risk classification.

~~(c) Within 30 days of the receipt of all written comment as required by subdivision (4) of subsection (b) of this section, the Department shall submit a proposed classification for a coal combustion residuals surface impoundment to the Coal Ash Management Commission established pursuant to G.S. 130A-309.202. The Commission shall evaluate all information submitted in accordance with this Part related to the proposed classification and any other information the Commission deems relevant. The Commission shall only approve the proposed classification if it determines that the classification was developed in accordance with this section and that the classification accurately reflects the level of risk posed by the coal combustion residuals surface impoundment. The Commission shall issue its determination in writing, including findings in support of its determination. If the Commission fails to act on a proposed classification within 60 days of receipt of the proposed classification, the proposed classification shall be deemed approved. Parties aggrieved by a final decision of the Commission pursuant to this subsection may appeal the decision as provided under Article 3 of Chapter 150B of the General Statutes.~~

(d) No later than 30 days after expiration of the deadline set forth in G.S. 130A-309.211(c1), or any applicable extension granted by the Secretary pursuant G.S. 130A-309.211(c1), the Department shall issue a final classification for each impoundment as follows:

- (1) The Department shall classify an impoundment as low-risk if the impoundment owner satisfies both of the following criteria:
 - a. Has established permanent water supplies as required for the impoundment pursuant to G.S. 130A-309.211(c1).
 - b. Has rectified any deficiencies identified by, and otherwise complied with the requirements of, any dam safety order issued by the Environmental Management Commission for the impoundment pursuant to G.S. 143-215.32. No later than July 1, 2018, the Department shall conduct the annual inspection of each dam associated with a coal combustion residuals surface impoundment required for that year, to detect any deficiencies and to ascertain, at a minimum, whether the dam is sufficiently strong, maintained in good repair and operating condition, does not pose a danger to life or property, and satisfies minimum streamflow requirements. The Department shall issue written findings of fact for each inspection and present such findings to the Environmental Management Commission. If the Department detects any deficiencies, the Commission shall issue an order directing the owner of the dam to take action as may be deemed necessary by the Commission within a time limited by the order, but not later than 90 days after issuance of the order.

(2) All other impoundments shall be classified as intermediate-risk.

(e) Parties aggrieved by a final decision of the Department issued pursuant to subsection (d) of this section may appeal the decision as provided under Article 3 of Chapter 150B of the General Statutes.

"§ 130A-309.214. Closure of coal combustion residuals surface impoundments.

(a) An owner of a coal combustion residuals surface impoundment shall submit a proposed Coal Combustion Residuals Surface Impoundment Closure Plan for the Department's approval. If corrective action to restore groundwater has not been completed pursuant to the requirements of G.S. 130A-309.211(b), the proposed closure plan shall include provisions for completion of activities to restore groundwater in conformance with the requirements of Subchapter L of Chapter 2 of Title 15A of the North Carolina Administrative Code. In addition, the following requirements, at a minimum, shall apply to such plans:

(1) High-risk impoundments shall be closed as soon as practicable, but no later than December 31, 2019. A proposed closure plan for such impoundments must be submitted as soon as practicable, but no later than December 31, 2016. At a minimum, (i) impoundments located in whole above the seasonal high groundwater table shall be dewatered; (ii) impoundments located in whole or in part beneath the seasonal high groundwater table shall be dewatered to the maximum extent practicable; and (iii) the owner of an impoundment shall either:

a. Convert the coal combustion residuals impoundment to an industrial landfill by removing all coal combustion residuals and contaminated soil from the impoundment temporarily, safely storing the residuals on-site, and complying with the requirements for such landfills established by this Article and rules adopted thereunder. At a minimum, the landfills shall have a design with a leachate collection system, a closure cap system, and a composite liner system consisting of two components: the upper component shall consist of a minimum 30-ml flexible membrane (FML), and the lower components shall consist of at least a two-foot layer of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} centimeters per second. FML components consisting of high density polyethylene (HDPE) shall be at least 60 ml thick. The landfill shall otherwise comply with the construction requirements established by Section .1624 of Subchapter B of Chapter 13 of Title 15A of the North Carolina Administrative Code, and the siting and design requirements for disposal sites established by Section .0503 of Subchapter B of Chapter 13 of Title 15A of the North Carolina Administrative Code, except with respect to those requirements that pertain to buffers. In lieu of the buffer requirement established by Section .0503(f)(2)(iii) of Subchapter B of Chapter 13 of Title 15A of the North Carolina Administrative Code, the owner of the impoundment shall establish and maintain a 300-foot buffer between surface waters and disposal areas. After the temporarily displaced coal combustion residuals have been returned for disposal in the industrial landfill constructed pursuant to the requirements of this sub-subdivision, the owner of the landfill shall comply with the closure and post-closure requirements established by Section .1627 of Subchapter B of Chapter 13 of Title 15A of the North Carolina Administrative Code. A landfill constructed pursuant to this sub-subdivision shall otherwise be subject to all applicable requirements of this Chapter and rules adopted thereunder. Prior to closure, the Department may allow the disposal of coal combustion residuals, in addition to those originally contained

in the impoundment, to the landfill constructed pursuant to this sub-subdivision, if the Department determines that the site is suitable for additional capacity and that disposal of additional coal combustion residuals will not pose an unacceptable risk to public health, safety, welfare; the environment; and natural resources.

- b. Remove all coal combustion residuals from the impoundment, return the former impoundment to a nonerosive and stable condition and (i) transfer the coal combustion residuals for disposal in a coal combustion residuals landfill, industrial landfill, or municipal solid waste landfill or (ii) use the coal combustion products in a structural fill or other beneficial use as allowed by law. The use of coal combustion products (i) as structural fill shall be conducted in accordance with the requirements of Subpart 3 of this Part and (ii) for other beneficial uses shall be conducted in accordance with the requirements of Section .1700 of Subchapter B of Chapter 13 of Title 15A of the North Carolina Administrative Code (Requirements for Beneficial Use of Coal Combustion By-Products) and Section .1205 of Subchapter T of Chapter 2 of Title 15A of the North Carolina Administrative Code (Coal Combustion Products Management).
- (2) Intermediate-risk impoundments shall be closed as soon as practicable, but no later than December 31, 2024. A proposed closure plan for such impoundments must be submitted as soon as practicable, but no later than December 31, ~~2017-2019~~. At a minimum, such impoundments shall be dewatered, and the owner of an impoundment shall close the impoundment in any manner allowed pursuant to subdivision (1) of this ~~subsection-subsection~~, or, if applicable, as provided in G.S. 130A-309.216.
 - (3) Low-risk impoundments shall be closed as soon as practicable, but no later than December 31, 2029. A proposed closure plan for such impoundments must be submitted as soon as practicable, but no later than December 31, ~~2018-2019~~. At a minimum, (i) impoundments located in whole above the seasonal high groundwater table shall be dewatered; (ii) impoundments located in whole or in part beneath the seasonal high groundwater table shall be dewatered to the maximum extent practicable; and (iii) at the election of the Department, the owner of an impoundment shall either:
 - a. Close in any manner allowed pursuant to subdivision (1) of this ~~subsection-subsection~~;
 - b. Comply with the closure and post-closure requirements established by Section .1627 of Subchapter B of Chapter 13 of Title 15A of the North Carolina Administrative Code, except that such impoundments shall not be required to install and maintain a leachate collection system. Specifically, the owner of an impoundment shall install and maintain a cap system that is designed to minimize infiltration and erosion in conformance with the requirements of Section .1624 of Subchapter B of Chapter 13 of Title 15A of the North Carolina Administrative Code, and, at a minimum, shall be designed and constructed to (i) have a permeability no greater than 1×10^{-5} centimeters per second; (ii) minimize infiltration by the use of a low-permeability barrier that contains a minimum 18 inches of earthen material; and (iii) minimize erosion of the cap system and protect the low-permeability barrier from root penetration by use of an erosion layer that contains a minimum of six inches of earthen material that

is capable of sustaining native plant growth. In addition, the owner of an impoundment shall (i) install and maintain a groundwater monitoring system; (ii) establish financial assurance that will ensure that sufficient funds are available for closure pursuant to this subdivision, post-closure maintenance and monitoring, any corrective action that the Department may require, and satisfy any potential liability for sudden and nonsudden accidental occurrences arising from the impoundment and subsequent costs incurred by the Department in response to an incident, even if the owner becomes insolvent or ceases to reside, be incorporated, do business, or maintain assets in the State; and (iii) conduct post-closure care for a period of 30 years, which period may be increased by the Department upon a determination that a longer period is necessary to protect public health, safety, welfare; the environment; and natural resources, or decreased upon a determination that a shorter period is sufficient to protect public health, safety, welfare; the environment; and natural resources. The Department may require implementation of any other measure it deems necessary to protect public health, safety, and welfare; the environment; and natural resources, including imposition of institutional controls that are sufficient to protect public health, safety, and welfare; the environment; and natural resources. The Department may not approve closure for an impoundment pursuant to sub-subdivision b. of subdivision (3) of this subsection unless the Department finds that the proposed closure plan includes design measures to prevent, upon the plan's full implementation, post-closure exceedances of groundwater quality standards beyond the compliance boundary that are attributable to constituents associated with the presence of the ~~impoundment.~~ impoundment; or

c. Comply with the closure requirements established by the United States Environmental Protection Agency as provided in 40 CFR Parts 257 and 261, "Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals From Electric Utilities."

(4) Closure Plans for all impoundments shall include all of the following:

- a. Facility and coal combustion residuals surface impoundment description. – A description of the operation of the site that shall include, at a minimum, all of the following:
 1. Site history and history of site operations, including details on the manner in which coal combustion residuals have been stored and disposed of historically.
 2. Estimated volume of material contained in the impoundment.
 3. Analysis of the structural integrity of dikes or dams associated with impoundment.
 4. All sources of discharge into the impoundment, including volume and characteristics of each discharge.
 5. Whether the impoundment is lined, and, if so, the composition thereof.
 6. A summary of all information available concerning the impoundment as a result of inspections and monitoring conducted pursuant to this Part and otherwise available.
- b. Site maps, which, at a minimum, illustrate all of the following:
 1. All structures associated with the operation of any coal combustion residuals surface impoundment located on the site. For purposes of this

- sub-subdivision, the term "site" means the land or waters within the property boundary of the applicable electric generating station.
2. All current and former coal combustion residuals disposal and storage areas on the site, including details concerning coal combustion residuals produced historically by the electric generating station and disposed of through transfer to structural fills.
 3. The property boundary for the applicable site, including established compliance boundaries within the site.
 4. All potential receptors within 2,640 feet from established compliance boundaries.
 5. Topographic contour intervals of the site shall be selected to enable an accurate representation of site features and terrain and in most cases should be less than 20-foot intervals.
 6. Locations of all sanitary landfills permitted pursuant to this Article on the site that are actively receiving waste or are closed, as well as the established compliance boundaries and components of associated groundwater and surface water monitoring systems.
 7. All existing and proposed groundwater monitoring wells associated with any coal combustion residuals surface impoundment on the site.
 8. All existing and proposed surface water sample collection locations associated with any coal combustion residuals surface impoundment on the site.
- c. The results of a hydrogeologic, geologic, and geotechnical investigation of the site, including, at a minimum, all of the following:
1. A description of the hydrogeology and geology of the site.
 2. A description of the stratigraphy of the geologic units underlying each coal combustion residuals surface impoundment located on the site.
 3. The saturated hydraulic conductivity for (i) the coal combustion residuals within any coal combustion residuals surface impoundment located on the site and (ii) the saturated hydraulic conductivity of any existing liner installed at an impoundment, if any.
 4. The geotechnical properties for (i) the coal combustion residuals within any coal combustion residuals surface impoundment located on the site, (ii) the geotechnical properties of any existing liner installed at an impoundment, if any, and (iii) the uppermost identified stratigraphic unit underlying the impoundment, including the soil classification based upon the Unified Soil Classification System, in-place moisture content, particle size distribution, Atterberg limits, specific gravity, effective friction angle, maximum dry density, optimum moisture content, and permeability.
 5. A chemical analysis of the coal combustion residuals surface impoundment, including water, coal combustion residuals, and coal combustion residuals-affected soil.
 6. Identification of all substances with concentrations determined to be in excess of the groundwater quality standards for the substance established by Subchapter L of Chapter 2 of Title 15A of the North Carolina Administrative Code, including all laboratory results for these analyses.

7. Summary tables of historical records of groundwater sampling results.
 8. A map that illustrates the potentiometric contours and flow directions for all identified aquifers underlying impoundments (shallow, intermediate, and deep) and the horizontal extent of areas where groundwater quality standards established by Subchapter L of Chapter 2 of Title 15A of the North Carolina Administrative Code for a substance are exceeded.
 9. Cross-sections that illustrate the following: the vertical and horizontal extent of the coal combustion residuals within an impoundment; stratigraphy of the geologic units underlying an impoundment; and the vertical extent of areas where groundwater quality standards established by Subchapter L of Chapter 2 of Title 15A of the North Carolina Administrative Code for a substance are exceeded.
- d. The results of groundwater modeling of the site that shall include, at a minimum, all of the following:
1. An account of the design of the proposed Closure Plan that is based on the site hydrogeologic conceptual model developed and includes (i) predictions on post-closure groundwater elevations and groundwater flow directions and velocities, including the effects on and from the potential receptors and (ii) predictions at the compliance boundary for substances with concentrations determined to be in excess of the groundwater quality standards for the substance established by Subchapter L of Chapter 2 of Title 15A of the North Carolina Administrative Code.
 2. Predictions that include the effects on the groundwater chemistry and should describe migration, concentration, mobilization, and fate for substances with concentrations determined to be in excess of the groundwater quality standards for the substance established by Subchapter L of Chapter 2 of Title 15A of the North Carolina Administrative Code pre- and post-closure, including the effects on and from potential receptors.
 3. A description of the groundwater trend analysis methods used to demonstrate compliance with groundwater quality standards for the substance established by Subchapter L of Chapter 2 of Title 15A of the North Carolina Administrative Code and requirements for corrective action of groundwater contamination established by Subchapter L of Chapter 2 of Title 15A of the North Carolina Administrative Code.
- e. A description of any plans for beneficial use of the coal combustion residuals in compliance with the requirements of Section .1700 of Subchapter B of Chapter 13 of Title 15A of the North Carolina Administrative Code (Requirements for Beneficial Use of Coal Combustion By-Products) and Section .1205 of Subchapter T of Chapter 2 of Title 15A of the North Carolina Administrative Code (Coal Combustion Products Management).
- f. All engineering drawings, schematics, and specifications for the proposed Closure Plan. If required by Chapter 89C of the General Statutes, engineering design documents should be prepared, signed, and sealed by a professional engineer.
- g. A description of the construction quality assurance and quality control program

to be implemented in conjunction with the Closure Plan, including the responsibilities and authorities for monitoring and testing activities, sampling strategies, and reporting requirements.

- h. A description of the provisions for disposal of wastewater and management of stormwater and the plan for obtaining all required permits.
- i. A description of the provisions for the final disposition of the coal combustion residuals. If the coal combustion residuals are to be removed, the owner must identify (i) the location and permit number for the coal combustion residuals landfills, industrial landfills, or municipal solid waste landfills in which the coal combustion residuals will be disposed and (ii) in the case where the coal combustion residuals are planned for beneficial use, the location and manner in which the residuals will be temporarily stored. If the coal combustion residuals are to be left in the impoundment, the owner must (i) in the case of closure pursuant to sub-subdivision (a)(1)a. of this section, provide a description of how the ash will be stabilized prior to completion of closure in accordance with closure and post-closure requirements established by Section .1627 of Subchapter B of Chapter 13 of Title 15A of the North Carolina Administrative Code and (ii) in the case of closure pursuant to sub-subdivision (a)(1)b. of this section, provide a description of how the ash will be stabilized pre- and post-closure. If the coal combustion residuals are to be left in the impoundment, the owner must provide an estimate of the volume of coal combustion residuals remaining.
- j. A list of all permits that will need to be acquired or modified to complete closure activities.
- k. A description of the plan for post-closure monitoring and care for an impoundment for a minimum of 30 years. The length of the post-closure care period may be (i) proposed to be decreased or the frequency and parameter list modified if the owner demonstrates that the reduced period or modifications are sufficient to protect public health, safety, and welfare; the environment; and natural resources and (ii) increased by the Department at the end of the post-closure monitoring and care period if there are statistically significant increasing groundwater quality trends or if contaminant concentrations have not decreased to a level protective of public health, safety, and welfare; the environment; and natural resources. If the owner determines that the post-closure care monitoring and care period is no longer needed and the Department agrees, the owner shall provide a certification, signed and sealed by a professional engineer, verifying that post-closure monitoring and care has been completed in accordance with the post-closure plan. If required by Chapter 89C of the General Statutes, the proposed plan for post-closure monitoring and care should be signed and sealed by a professional engineer. The plan shall include, at a minimum, all of the following:
 - 1. A demonstration of the long-term control of all leachate, affected groundwater, and stormwater.
 - 2. A description of a groundwater monitoring program that includes (i) post-closure groundwater monitoring, including parameters to be sampled and sampling schedules; (ii) any additional monitoring well installations, including a map with the proposed locations and well

construction details; and (iii) the actions proposed to mitigate statistically significant increasing groundwater quality trends.

- l. An estimate of the milestone dates for all activities related to closure and post-closure.
- m. Projected costs of assessment, corrective action, closure, and post-closure care for each coal combustion residuals surface impoundment.
- n. A description of the anticipated future use of the site and the necessity for the implementation of institutional controls following closure, including property use restrictions, and requirements for recordation of notices documenting the presence of contamination, if applicable, or historical site use.

(b) The Department shall review a proposed Coal Combustion Residuals Surface Impoundment Closure Plan for consistency with the minimum requirements set forth in subsection (a) of this section and whether the proposed Closure Plan is protective of public health, safety, and welfare; the environment; and natural resources and otherwise complies with the requirements of this Part. Prior to issuing a decision on a proposed Closure Plan, the Department shall provide for public participation on the proposed Closure Plan as follows:

- (1) The Department shall make copies of the proposed Closure Plan available for inspection as follows:
 - a. A copy of the proposed Closure Plan shall be provided to the local health director.
 - b. A copy of the proposed Closure Plan shall be provided to the public library located in closest proximity to the site in the county or counties in which the site is located.
 - c. The Department shall post a copy of the proposed Closure Plan on the Department's Web site.
 - d. The Department shall place copies of the declaration in other locations so as to assure the reasonable availability thereof to the public.
- (2) Before approving a proposed Closure Plan, the Department shall give notice as follows:
 - a. A notice and summary of the proposed Closure Plan shall be published weekly for a period of three consecutive weeks in a newspaper having general circulation in the county or counties where the site is located.
 - b. Notice that a proposed Closure Plan has been developed shall be given by first-class mail to persons who have requested such notice. Such notice shall include a summary of the proposed Closure Plan and state the locations where a copy of the proposed Closure Plan is available for inspection. The Department shall maintain a mailing list of persons who request notice pursuant to this section.
 - c. Notice that a proposed Closure Plan has been developed shall be given by electronic mail to persons who have requested such notice. Such notice shall include a summary of the proposed Closure Plan and state the locations where a copy of the proposed Closure Plan is available for inspection. The Department shall maintain a mailing list of persons who request notice pursuant to this section.
- (3) No later than 60 days after receipt of a proposed Closure Plan, the Department shall conduct a public meeting in the county or counties in which the site is located to explain the proposed Closure Plan and alternatives to the public. The Department shall give notice of the hearing at least 30 days prior to the date thereof by all of the

following methods:

- a. Publication as provided in subdivision (1) of this subsection, with first publication to occur not less than 30 days prior to the scheduled date of the hearing.
 - b. First-class mail to persons who have requested notice as provided in subdivision (2) of this subsection.
 - c. Electronic mail to persons who have requested notice as provided in subdivision (2) of this subsection.
- (4) At least 30 days from the latest date on which notice is provided pursuant to subdivision (2) of this subsection shall be allowed for the receipt of written comment on the proposed Closure Plan prior to its approval. At least 20 days will be allowed for receipt of written comment following a hearing conducted pursuant to subdivision (3) of this subsection prior to the approval of the proposed Closure Plan.

(c) The Department shall disapprove a proposed Coal Combustion Residuals Surface Impoundment Closure Plan unless the Department finds that the Closure Plan is protective of public health, safety, and welfare; the environment; and natural resources and otherwise complies with the requirements of this Part. The Department shall provide specific findings to support its decision to approve or disapprove a proposed Closure Plan. If the Department disapproves a proposed Closure Plan, the person who submitted the Closure Plan may seek review as provided in Article 3 of Chapter 150B of the General Statutes. If the Department fails to approve or disapprove a proposed Closure Plan within 120 days after a complete Closure Plan has been submitted, the person who submitted the proposed Closure Plan may treat the Closure Plan as having been disapproved at the end of that time period. The Department may require a person who proposes a Closure Plan to supply any additional information necessary for the Department to approve or disapprove the Closure Plan.

~~(d) Within 30 days of its approval of a Coal Combustion Residuals Surface Impoundment Closure Plan, the Department shall submit the Closure Plan to the Coal Ash Management Commission. The Commission shall evaluate all information submitted in accordance with this Part related to the Closure Plan and any other information the Commission deems relevant. The Commission shall approve the Closure Plan if it determines that the Closure Plan was developed in accordance with this section, that implementation of the Closure Plan according to the Closure Plan's schedule is technologically and economically feasible, and the Closure Plan is protective of the public health, safety, and welfare; the environment; and natural resources. In addition, the Commission may consider any impact on electricity costs and reliability, but this factor may not be dispositive of the Commission's determination. The Commission shall issue its determination in writing, including findings in support of its determination. If the Commission fails to act on a Closure Plan within 60 days of receipt of the Closure Plan, the Closure Plan shall be deemed approved. Parties aggrieved by a final decision of the Commission pursuant to this subsection may appeal the decision as provided under Article 3 of Chapter 150B of the General Statutes.~~

(e) As soon as practicable, but no later than 60 days after a Coal Combustion Residuals Surface Impoundment Closure Plan has been approved by the ~~Coal Ash Management Commission~~, Department, the owner of the coal combustion residuals impoundment shall begin implementation of the approved plan. Modifications to an approved Closure Plan may only be allowed in conformance with the requirements of this Part, upon written request of an owner of an impoundment, with the written approval of the Department, and after public notice of the change in accordance with the requirements of subdivision (2) of subsection (b) of this section. Provided, however, minor technical modifications may be made in accordance with standard Department procedures for such minor modifications and may be made without written approval of the Department or public notice of the change.

(f) Nothing in this section shall be construed to obviate the need for sampling, remediation, and monitoring activities at the site as required by G.S. 130A-309.211 and G.S. 130A-309.310

[G.S. 130A-309.212].

"§ 130A-309.215. Variance authority.

(a) In recognition of the complexity and magnitude of the issues surrounding the management of coal combustion residuals and coal combustion residuals surface impoundments, the General Assembly authorizes the ~~Commission-Secretary~~ to grant a variance to extend any deadline for closure of an impoundment established under G.S. 130A-309.214 in conformance with the requirements of this section. To request such a variance the owner of an impoundment under this act, on the Secretary's own motion, or that of an impoundment owner, on the basis that compliance with the deadline cannot be achieved by application of best available technology found to be economically reasonable at the time and would produce serious hardship without equal or greater benefits to the public.

(a1) For variances requested by an impoundment owner, the owner shall, no earlier than two years one year prior to the applicable deadline, submit an application in a form acceptable to the Department which shall include, at a minimum, all of the following information: identification of the site, applicable requirements, and applicable deadlines for which a variance is sought, and the site-specific circumstances that support the need for the variance. The owner of the impoundment shall also provide detailed information that demonstrates (i) the owner has substantially complied with all other requirements and deadlines established by this Part; (ii) the owner has made good faith efforts to comply with the applicable deadline for closure of the impoundment; and (iii) that compliance with the deadline cannot be achieved by application of best available technology found to be economically reasonable at the time and would produce serious hardship without equal or greater benefits to the public. As soon as practicable, but no later than 60 days from receipt of an application, the Secretary shall evaluate the information submitted in conjunction with the application, and any other information the Secretary deems relevant, to determine whether the information supports issuance of a variance. After such evaluation, if the Secretary finds that the information supports issuance of a variance from the deadline, the Secretary shall issue a proposed variance. Within 10 days after a proposed variance has been issued, the Secretary shall issue a written declaration, including findings of fact, documenting the proposed variance.

(a2) The Department shall provide for public participation on ~~the~~ proposed variance in the manner provided by G.S. 130A-309.214(b) and shall take the public input received through the process into account in its decision concerning ~~the proposed issuance of a variance. Within 30 days of the receipt of all public input received, the Department shall submit a proposed variance to the Coal Ash Management Commission. The Commission shall evaluate all information submitted in accordance with this section and any other information the Commission deems relevant. The Commission-Department~~ shall only approve a variance if it determines that compliance with the deadline cannot be achieved by application of best available technology found to be economically reasonable at the time and would produce serious hardship without equal or greater benefits to the public. ~~The Commission-Department~~ shall issue its determination in writing, including findings in support of its determination. If the ~~Commission-Department~~ fails to act on a variance request within 60 days of receipt, the variance shall be deemed denied.

(a3) Parties aggrieved by a final decision of the Commission pursuant to this subsection may appeal the decision as provided under Article 3 of Chapter 150B of the General Statutes.

(b) ~~A variance granted pursuant to this section shall not extend a deadline for closure of an impoundment more than three years beyond the date applicable to the impoundment as provided under G.S. 130A-309.214.~~

(c) ~~No more than one variance may be granted pursuant to this section per impoundment.~~

"§ 130A-309.216. Ash beneficiation projects.

(a) On or before January 1, 2017, an impoundment owner shall (i) identify, at a minimum, impoundments at two sites located within the State with ash stored in the impoundments on that date that is suitable for processing for cementitious purposes and (ii) enter into a binding agreement for the

installation and operation of an ash beneficiation project at each site capable of annually processing 300,000 tons of ash to specifications appropriate for cementitious products, with all ash processed to be removed from the impoundment(s) located at the sites. As soon as legally practicable thereafter, the impoundment owner shall apply for all permits necessary for the ash beneficiation projects from the Department. The Department shall expedite any State permits and approvals required for such projects. No later than 24 months after issuance of all necessary permits, operation of both ash beneficiation projects shall be commenced. An impoundment owner shall use commercially reasonable efforts to produce 300,000 tons of ash to specifications appropriate for cementitious products from each project.

(b) On or before July 1, 2017, an impoundment owner shall (i) identify an impoundment at an additional site located within the State with ash stored in the impoundment on that date that is suitable for processing for cementitious purposes and (ii) enter into a binding agreement for the installation and operation of an ash beneficiation project capable of annually processing 300,000 tons of ash to specifications appropriate for cementitious products, with all ash processed to be removed from the impoundment(s) located at the site. As soon as legally practicable thereafter, the impoundment owner shall apply for all permits necessary for the ash beneficiation project from the Department. The Department shall expedite any State permits and approvals required for such projects. No later than 24 months after issuance of all necessary permits, operation of the ash beneficiation project shall be commenced. An impoundment owner shall use commercially reasonable efforts to produce 300,000 tons of ash to specifications appropriate for cementitious products from the project.

(c) Notwithstanding any deadline for closure provided by G.S. 130A-309.214, any impoundment classified as intermediate- or low-risk that is located at a site at which an ash beneficiation project is installed, operating, and processing at least 300,000 tons of ash annually from the impoundment, shall be closed no later than December 31, 2029.

"§ 130A-309.217: Reserved for future codification purposes."

SECTION 2. G.S. 62-302.1 reads as rewritten:

"§ 62-302.1. Regulatory fee for combustion residuals surface impoundments.

(a) Fee Imposed. – Each public utility with a coal combustion residuals surface impoundment shall pay a regulatory fee for the purpose of defraying the costs of oversight of coal combustion residuals. The fee is in addition to the fee imposed under G.S. 62-302. The fees collected under this section shall only be used to pay the expenses of the ~~Coal Ash Management Commission and the~~ Department of Environmental Quality in providing oversight of coal combustion residuals.

(b) Rate. – The combustion residuals surface impoundment fee shall be ~~three-hundredths of one percent (0.03%)~~ twenty-two thousandths of one percent (0.022%) of the North Carolina jurisdictional revenues of each public utility with a coal combustion residuals surface impoundment. For the purposes of this section, the term "North Carolina jurisdictional revenues" has the same meaning as in G.S. 62-302.

(c) When Due. – The fee shall be paid in quarterly installments. The fee is payable to the ~~Coal Ash Management Commission~~ Department of Environmental Quality on or before the 15th of the second month following the end of each quarter. Each public utility subject to this fee shall, on or before the date the fee is due for each quarter, prepare and render a report on a form prescribed by the ~~Coal Ash Management Commission.~~ Department of Environmental Quality. The report shall state the public utility's total North Carolina jurisdictional revenues for the preceding quarter and shall be accompanied by any supporting documentation that the ~~Coal Ash Management Commission~~ Department of Environmental Quality may by rule require. Receipts shall be reported on an accrual basis.

(d) Use of Proceeds. – A special fund in the ~~Office of State Treasurer and the Coal Ash Management Commission~~ Department of Environmental Quality is created. The fees collected pursuant to this section ~~and all other funds received by the Coal Ash Management Commission~~ shall be deposited

in the Coal Combustion Residuals Management Fund. The Fund shall be placed in an interest-bearing account, and any interest or other income derived from the Fund shall be credited to the Fund. Subject to appropriation by the General Assembly, ~~twenty-six and one-half percent (26.5%) of the moneys in the Fund shall be used by the Coal Ash Management Commission and the remainder~~ one hundred percent (100%) shall be used by the Department of Environmental Quality. ~~The Coal Ash Management Commission shall be subject to the provisions of the State Budget Act, except that no unexpended surplus of the Coal Combustion Residuals Management Fund shall revert to the General Fund.~~ All funds credited to the Fund shall be used only to pay the expenses of the ~~Coal Ash Management Commission and the~~ Department of Environmental Quality in providing oversight of coal combustion residuals.

(e) Recovery of Fee. – The North Carolina Utilities Commission shall not allow an electric public utility to recover this fee from the retail electric customers of the State."

SECTION 3.(a) Notwithstanding G.S. 130A-309.213 or G.S. 130A-309.214, as amended by Section 1 of this act, and except as otherwise preempted by the requirements of federal law, the following coal combustion residuals surface impoundments shall be deemed intermediate-risk and, as soon as practicable, but no later than August 1, 2028, shall be closed in conformance with Section 3(b) of this act:

- (1) Coal combustion residuals surface impoundments located at the H.F. Lee Steam Station, owned and operated by Duke Energy Progress, and located in Wayne County.
- (2) Coal combustion residuals surface impoundments located at the Cape Fear Steam Station, owned and operated by Duke Energy Progress, and located in Chatham County.
- (3) Coal combustion residuals surface impoundments located at the Weatherspoon Steam Station, owned and operated by Duke Energy Progress, and located in New Hanover County.

SECTION 3.(b) The impoundments identified in subsection (a) of this section shall be closed as follows:

- (1) Impoundments located in whole above the seasonal high groundwater table shall be dewatered. Impoundments located in whole or in part beneath the seasonal high groundwater table shall be dewatered to the maximum extent practicable.
- (2) All coal combustion residuals shall be removed from the impoundments and transferred for (i) disposal in a coal combustion residuals landfill, industrial landfill, or municipal solid waste landfill or (ii) use in a structural fill or other beneficial use as allowed by law. The use of coal combustion products (i) as structural fill shall be conducted in accordance with the requirements of Subpart 3 of Part 2I of Article 9 of the General Statutes and (ii) for other beneficial uses shall be conducted in accordance with the requirements of Section .1700 of Subchapter B of Chapter 13 of Title 15A of the North Carolina Administrative Code (Requirements for Beneficial Use of Coal Combustion By-Products) and Section .1200 of Subchapter T of Chapter 2 of Title 15A of the North Carolina Administrative Code (Coal Combustion Products Management), as applicable.
- (3) If restoration of groundwater quality is degraded as a result of the impoundment, corrective action to restore groundwater quality shall be implemented by the owner or operator as provided in G.S. 130A-309.211.

SECTION 4. There is appropriated a sum of up to four hundred fifty thousand dollars (\$450,000) to the State Water Infrastructure Authority from the Coal Combustion Residuals Management Fund cash balance on June 30, 2016, to fund grants to local governments operating public water supplies in areas surrounding coal combustion residuals impoundments to provide moneys for additional staff for permitting and construction activities as may be needed to facilitate establishment of permanent water

supplies to households eligible for connection to public water supplies pursuant to G.S. 130A-309.211(c1).

SECTION 5.(a) Section 3(e) of S.L. 2014-122 is repealed.

SECTION 5.(b) Section 4(e) of S.L. 2014-122 reads as rewritten:

"**SECTION 4.(e)** All electric generating facilities owned by a public utility that produce coal combustion residuals and coal combustion products shall issue a request for proposals on or before December 31, 2014, for (i) the conduct of a market analysis for the concrete industry and other industries that might beneficially use coal combustion residuals and coal combustion products; (ii) the study of the feasibility and advisability of installation of technology to convert existing and newly generated coal combustion residuals to commercial-grade coal combustion products suitable for use in the concrete industry and other industries that might beneficially use coal combustion residuals; and (iii) an examination of all innovative technologies that might be applied to diminish, recycle or reuse, or mitigate the impact of existing and newly generated coal combustion residuals. All electric generating facilities shall present the materials and information received in response to a request for proposals issued pursuant to this section and an assessment of the materials and information, including a forecast of specific actions to be taken in response to the materials and information received, to the Environmental Management Commission ~~and the Coal Ash Management Commission~~ on or before August 1, 2016."

SECTION 6.(a) G.S. 143B-291 reads as rewritten:

"§ 143B-291. North Carolina Mining Commission – members; selection; removal; compensation; quorum; services.

(a) Repealed by 2014-4, s. 5(a), effective July 31, 2015.

(a1) **Members, Selection.** – The North Carolina Mining Commission shall consist of eight members appointed as follows:

(1) One member who is the chair of the North Carolina State University Minerals Research Laboratory Advisory ~~Committee~~. Committee, ex officio and nonvoting.

(2) The State Geologist, ex officio and nonvoting.

(3) One member appointed by the Governor subject to confirmation in conformance with Section 5(8) of Article III of the North Carolina Constitution, who is a representative of the mining industry.

(4) One member appointed by the Governor subject to confirmation in conformance with Section 5(8) of Article III of the North Carolina Constitution, who is a representative of the mining industry.

(5) One member appointed by the ~~General Assembly upon recommendation of the Speaker of the House of Representatives~~ Governor subject to confirmation in conformance with Section 5(8) of Article III of the North Carolina Constitution, who is a representative of the mining industry.

(6) One member appointed by the ~~General Assembly upon recommendation of the President Pro Tempore of the Senate~~ Governor subject to confirmation in conformance with Section 5(8) of Article III of the North Carolina Constitution, who is a representative of the mining industry.

(7) One member appointed by the General Assembly upon recommendation of the Speaker of the House of Representatives in conformance with G.S. 120-121, who is a ~~member of~~ representative of a nongovernmental conservation interests-interest.

(8) One member appointed by the General Assembly upon recommendation of the President Pro Tempore of the Senate in conformance with G.S. 120-121, who is a ~~member of~~ representative of a nongovernmental conservation interests-interest.

(a2) Process for Appointments by the Governor. – The Governor shall transmit to the presiding

officers of the Senate and the House of Representatives, within four weeks of the convening of the session of the General Assembly in the year for which the terms in question are to expire, the names of the persons to be appointed by the Governor and submitted to the General Assembly for confirmation by joint resolution. If an appointment is required pursuant to this subsection when the General Assembly is not in session, the member may be appointed and serve on an interim basis pending confirmation by the General Assembly. For the purpose of this subsection, the General Assembly is not in session only (i) prior to convening of the regular session, (ii) during any adjournment of the regular session for more than 10 days, or (iii) after sine die adjournment of the regular session.

(b) Terms. – The term of office of a member of the Commission is ~~six years~~ four years, beginning effective January 1 of the year of appointment and terminating on December 31 of the year of expiration. At the expiration of each member's term, the appointing authority shall replace the member with a new member of like qualifications for a term of ~~six~~ four years. The term of the member appointed under subdivision (5) of subsection (a1) of this section shall expire on June 30 of years that precede by one year those years that are evenly divisible by six. The term of members appointed under subdivisions (3) and (6) of subsection (a1) of this section shall expire on June 30 of years that follow by one year those years that are evenly divisible by six. The term of members appointed under subdivisions (4) and (7) of subsection (a1) of this section shall expire on June 30 of years that follow by three years those years that are evenly divisible by six. Upon the expiration of a ~~six~~ year term, a member may continue to serve until a successor is appointed and duly qualified as provided by G.S. 128-7. In order to establish regularly overlapping terms, initial appointments shall be made effective June 1, 2016, or as soon as feasible thereafter, and expire as follows:

- (1) The initial appointments made by the Governor:
 - a. Pursuant to subdivision (a1)(3) of this section shall expire December 31, 2020.
 - b. Pursuant to subdivision (a1)(4) of this section shall expire December 31, 2020.
 - c. Pursuant to subdivision (a1)(5) of this section shall expire December 31, 2019.
 - d. Pursuant to subdivision (a1)(6) of this section shall expire December 31, 2019.
- (2) The initial appointment made by the General Assembly upon recommendation of the Speaker of the House of Representatives pursuant to subdivision (a1)(7) of this section shall expire December 31, 2018.
- (3) The initial appointment made by the General Assembly upon recommendation of the President Pro Tempore of the Senate pursuant to subdivision (a1)(8) of this section shall expire December 31, 2018.

(c) Vacancies. – In case of death, incapacity, resignation, or vacancy for any other reason in the office of any member appointed by the Governor, prior to the expiration of the member's term of office, the name of the successor shall be submitted by the Governor within four weeks after the vacancy arises to the General Assembly for confirmation by the General Assembly. In case of death, incapacity, resignation, or vacancy for any other reason in the office of any member appointed by the General Assembly, vacancies in those appointments shall be filled in accordance with G.S. 120-122. If a vacancy arises or exists when the General Assembly is not in session, and the appointment is deemed urgent by the Governor, the member may be appointed by the Governor and serve on an interim basis pending confirmation or appointment by the General Assembly, as applicable. An appointment to fill a vacancy shall be for the unexpired balance of the term.

(d) Removal. – The Governor may remove any member of the Commission from office for misfeasance, malfeasance, or nonfeasance in accordance with the provisions of ~~G.S. 143B-13.~~ G.S. 143B-13, or for good cause.

(e) Compensation. – The members of the Commission shall receive per diem and necessary traveling and subsistence expenses in accordance with the provisions of G.S. 138-5.

(f) Quorum. – A majority of the Commission shall constitute a quorum for the transaction of

business.

(g) Staff. – All clerical and other services required by the Commission shall be supplied by the Secretary of Environmental ~~Quality~~. Quality. The Commission staff shall be housed in the Department of Environmental Quality and supervised by the Secretary of Environmental Quality."

SECTION 6.(b) Notwithstanding the provisions of G.S. 143B-291(a2) and G.S. 143B-291(b), as enacted and amended by Section 6(a) of this act, initial appointments made by the Governor to the Commission shall not require confirmation by the General Assembly.

SECTION 7.(a) G.S. 143B-293.2 reads as rewritten:

"§ 143B-293.2. North Carolina Oil and Gas Commission – members; selection; removal; compensation; quorum; services.

(a) Repealed by Session Laws 2014-4, s. 4(a), effective July 31, 2015.

(a1) Members Selection. – The North Carolina Oil and Gas Commission shall consist of nine members appointed as follows:

- (1) One appointed by the ~~General Assembly upon recommendation of the Speaker of the House of Representatives~~ Governor subject to confirmation in conformance with Section 5(8) of Article III of the North Carolina Constitution, who, at the time of initial appointment, is an elected official of a municipal government located in a region of North Carolina that has oil and gas potential. A person serving in this seat may complete a term on the Commission even if the person is no longer serving as an elected official of a municipal government but may not be reappointed to a subsequent term.
- (2) One appointed by the General Assembly upon recommendation of the Speaker of the House of Representatives in conformance with G.S. 120-121, who shall be a geologist with experience in oil and gas exploration and development.
- (3) One appointed by the General Assembly upon recommendation of the Speaker of the House of Representatives in conformance with G.S. 120-121, who is a ~~member~~ representative of a nongovernmental conservation interest.
- (4) One appointed by the ~~General Assembly upon recommendation of the President Pro Tempore of the Senate~~ Governor subject to confirmation in conformance with Section 5(8) of Article III of the North Carolina Constitution, who, at the time of initial appointment, is a member of a county board of commissioners of a county located in a region of North Carolina that has oil and gas potential. A person serving in this seat may complete a term on the Commission even if the person is no longer serving as county commissioner but may not be reappointed to a subsequent term.
- (5) One appointed by the General Assembly upon recommendation of the President Pro Tempore of the Senate in conformance with G.S. 120-121, who is a ~~member~~ representative of a nongovernmental conservation interest.
- (6) One appointed by the General Assembly upon recommendation of the President Pro Tempore of the Senate in conformance with G.S. 120-121, who shall be an engineer with experience in oil and gas exploration and development.
- (7) One appointed by the Governor subject to confirmation in conformance with Section 5(8) of Article III of the North Carolina Constitution, who shall be a representative of a publicly traded natural gas company.
- (8) One appointed by the Governor subject to confirmation in conformance with Section 5(8) of Article III of the North Carolina Constitution, who shall be a licensed attorney with experience in legal matters associated with oil and gas exploration and development.

- (9) One appointed by the Governor subject to confirmation in conformance with Section 5(8) of Article III of the North Carolina Constitution, with experience in matters related to public health.

(a2) Process for Appointments by the Governor. – The Governor shall transmit to the presiding officers of the Senate and the House of Representatives, within four weeks of the convening of the session of the General Assembly in the year for which the terms in question are to expire, the names of the persons to be appointed by the Governor and submitted to the General Assembly for confirmation by joint resolution. If an appointment is required pursuant to this subsection when the General Assembly is not in session, the member may be appointed and serve on an interim basis pending confirmation by the General Assembly. For the purpose of this subsection, the General Assembly is not in session only (i) prior to convening of the regular session, (ii) during any adjournment of the regular session for more than 10 days, or (iii) after sine die adjournment of the regular session.

(b) Terms. – The term of office of members of the Commission is ~~three years~~ four years, beginning effective January 1 of the year of appointment and terminating on December 31 of the year of expiration. A member may be reappointed to no more than two consecutive ~~three-year~~ four-year terms. The term of a member who no longer meets the qualifications of their respective appointment, as set forth in subsection ~~(a)~~(a1) of this section, shall terminate but the member may continue to serve until a new member who meets the qualifications is appointed. ~~The terms of members appointed under subdivisions (1), (4), and (7) of subsection (a1) of this section shall expire on June 30 of years evenly divisible by three. The terms of members appointed under subdivisions (2), (5), and (8) of subsection (a1) of this section shall expire on June 30 of years that precede by one year those years that are evenly divisible by three. The terms of members appointed under subdivisions (3), (6), and (9) of subsection (a1) of this section shall expire on June 30 of years that follow by one year those years that are evenly divisible by three. In order to establish regularly overlapping terms, initial appointments shall be made effective June 1, 2016, or as soon as feasible thereafter, and expire as follows:~~

- (1) The initial appointments made by the Governor:
 - a. Pursuant to subdivision (a1)(1) of this section shall expire December 31, 2020.
 - b. Pursuant to subdivision (a1)(4) of this section shall expire December 31, 2020.
 - c. Pursuant to subdivision (a1)(7) of this section shall expire December 31, 2020.
 - d. Pursuant to subdivision (a1)(8) of this section shall expire December 31, 2019.
 - e. Pursuant to subdivision (a1)(9) of this section shall expire December 31, 2019.
- (2) The initial appointments made by the General Assembly upon recommendation of the Speaker of the House of Representatives:
 - a. Pursuant to subdivision (a1)(2) of this section shall expire December 31, 2018.
 - b. Pursuant to subdivision (a1)(3) of this section shall expire December 31, 2019.
- (3) The initial appointments made by the General Assembly upon recommendation of the President Pro Tempore of the Senate:
 - a. Pursuant to subdivision (a1)(5) of this section shall expire December 31, 2018.
 - b. Pursuant to subdivision (a1)(6) of this section shall expire December 31, 2019.

(c) ~~Vacancies; Removal from Office.~~–~~Vacancies.~~ – In case of death, incapacity, resignation, or vacancy for any other reason in the office of any member appointed by the Governor, prior to the expiration of the member's term of office, the name of the successor shall be submitted by the Governor within four weeks after the vacancy arises to the General Assembly for confirmation by the General Assembly. In case of death, incapacity, resignation, or vacancy for any other reason in the office of any member appointed by the General Assembly, vacancies in those appointments shall be filled in conformance with G.S. 120–122. If a vacancy arises or exists when the General Assembly is not in session and the appointment is deemed urgent by the Governor, the member may be appointed by the Governor and serve on an interim basis pending confirmation or appointment by the General Assembly.

as applicable. An appointment to fill a vacancy shall be for the unexpired balance of the term.

(c1) Removal. –

~~(1) Any appointment by the Governor to fill a vacancy on the Commission created by the resignation, dismissal, death, or disability of a member shall be for the balance of the unexpired term. The Governor shall have the power to remove any member of the Commission from office for misfeasance, malfeasance, or nonfeasance in accordance with the provisions of G.S. 143B-13 of the Executive Organization Act of ~~1973~~ 1973, or for good cause.~~

~~(2) Members appointed by the President Pro Tempore of the Senate and the Speaker of the House of Representatives shall be made in accordance with G.S. 120-121, and vacancies in those appointments shall be filled in accordance with G.S. 120-122. In accordance with Section 10 of Article VI of the North Carolina Constitution, a member may continue to serve until a successor is duly appointed.~~

(d) Compensation. – The members of the Commission shall receive per diem and necessary traveling and subsistence expenses in accordance with the provisions of G.S. 138-5.

(e) Quorum. – A majority of the Commission shall constitute a quorum for the transaction of business.

(f) Staff. – All staff support required by the Commission shall be supplied by the Division of Energy, Mineral, and Land Resources and the North Carolina Geological ~~Survey~~ Survey, and supervised by the Secretary of Environmental Quality.

(g) Committees. – In addition to the Committee on Civil Penalty Remissions required to be established under G.S. 143B-293.6, the chair may establish other committees from members of the Commission to address specific issues as appropriate. No member of a committee may hear or vote on any matter in which the member has an economic interest. A majority of a committee shall constitute a quorum for the transaction of business.

(h) Office May Be Held Concurrently With Others. – Membership on the Oil and Gas Commission is hereby declared to be an office that may be held concurrently with other elective or appointive offices in addition to the maximum number of offices permitted to be held by one person under G.S. 128-1.1."

SECTION 7.(b) Notwithstanding the provisions of G.S. 143B-293.2(a1) and G.S. 143B-293.2(b), as enacted and amended by Section 7(a) of this act, initial appointments made by the Governor to the Commission shall not require confirmation by the General Assembly.

SECTION 7.(c) For purposes of the rules set forth in 15A NCAC 05H (Oil and Gas Conservation Rules), modifications made to the Oil and Gas Commission under Section 7(a) of this act shall, pursuant to G.S. 150B-21.7, be construed to (1) have repealed authority to adopt such rules given to previously constituted commissions and (2) transferred the authority to adopt such rules to the Oil and Gas Commission as modified by Section 7(b) of this act. Therefore, pursuant to G.S. 150B-21.7, rules set forth in 15A NCAC 05H (Oil and Gas Conservation Rules) shall be effective until the Oil and Gas Commission, as modified Section 7(a) of this act, amends or repeals the rules.

SECTION 8. The provisions of this act shall be severable, and if any phrase, clause, sentence, or provision is declared to be unconstitutional or otherwise invalid, the validity of the remainder of this act shall not be affected thereby.

SECTION 9. Except as otherwise provided, this act is effective when it becomes law. Requirements for establishment of a permanent alternative water supply under G.S. 130A-309.211(c1), as enacted by Section 1 of this act, shall apply only to households with drinking water supply wells in existence on the date this act becomes effective.

In the General Assembly read three times and ratified this the 1st day of July, 2016.

s/ Philip E. Berger
President Pro Tempore of the Senate

s/ Tim Moore
Speaker of the House of Representatives

s/ Pat McCrory
Governor

Approved 10:55 a.m. this 14th day of July, 2016

Prepared by:



L.V. SUTTON ENERGY COMPLEX

1971 ASH BASIN

1984 ASH BASIN

CLOSURE PLAN

JUNE 4, 2018

Certified by:



Geosyntec Consultants of NC, PC

1300 South Mint Street, Suite 300

Charlotte, North Carolina 28203

License No. C-3500

SUT_CLOSE_PLN

Rev. 3

Duke Energy Progress, LLC (Duke Energy) prepared this Closure Plan for the Coal Combustion Residuals (CCR) surface impoundments at the L.V. Sutton Energy Complex (Sutton) pursuant to the requirements of 40 C.F.R. § 257.102(b) of the Disposal of CCR from Electric Utilities rule, 80 Fed. Reg. 21302 (April 17, 2015). Geosyntec Consultants of NC, PC (Geosyntec) was retained by Duke Energy to certify that this Closure Plan meets the requirements of 40 C.F.R. § 257.102. The information contained in this Closure Plan will be used to assist Duke Energy in the closure of the 1971 Ash Basin and 1984 Ash Basin (Ash Basins) located in New Hanover County, North Carolina, on property owned by Duke Energy. This Closure Plan was originally posted to the Duke Energy operating record on October 17, 2016. The Closure Plan presented herein has been revised to reflect that the CCR Landfill and Ash Basins are considered a single unit, as presented in Section 1. This Closure Plan may be further amended pursuant to the requirements of 40 C.F.R. § 257.102(b)(3). Presented below are:

1. a narrative of closure activities;
2. a description of the procedures to remove CCR and decontaminate the CCR units;
3. an estimate of the in-place CCR inventory requiring closure;
4. an estimate of the largest area of the CCR units requiring a final cover (as needed);
5. a closure schedule; and
6. a written certification from a qualified professional engineer, licensed in North Carolina, that this Closure Plan meets the requirements of 40 C.F.R. § 257.102.

1 NARRATIVE OF CLOSURE ACTIVITIES

The purpose of this Closure Plan is to describe the steps necessary to close the Ash Basins consistent with recognized and generally accepted good engineering practices and Environmental Protection Agency (EPA) guidance. Closure is designed to reduce the need for long-term maintenance and control the post-closure release of constituents into environmental pathways (i.e., air, surface water, and groundwater).

Duke Energy has designated the Ash Basins and contiguous CCR Landfill as a single CCR unit for closure purposes. During closure, sluiced water from the 1971 Basin to the 1984 Basin will be recirculated back to the 1971 Basin to limit the amount of groundwater recharge within the 1971 Basin. This movement of water, CCR, and other wastes between the individual units will occur throughout the closure period to facilitate CCR dewatering, conditioning, and removal activities. The Ash Basins will be closed through the removal of CCR, and the closure will be performed pursuant to 40 C.F.R. § 257.102(c). CCR will be removed as described in the following section.

2 CCR REMOVAL AND DECONTAMINATION

The procedures to remove CCR from the Ash Basins include dewatering and utilizing appropriate equipment and methods to excavate and move the CCR to permitted off-site and on-site landfills. Dewatering will include removal of bulk water/free liquids and interstitial/pore water (as needed) to allow for safe excavation.

The existing embankments will be breached pursuant to a North Carolina Department of Environmental Quality (NCDEQ) Dam Safety permit approval. This breach is intended to promote free drainage of storm water from the closure area.

Existing appurtenant structures, such as ditches, culverts, and miscellaneous piping, will be decontaminated and abandoned in place, removed and disposed in a permitted disposal facility, or removed and placed in a beneficial use facility identified at the time of closure. Decontamination procedures may consist of pressure washing, scrubbing, or other generally accepted decontamination procedures.

Pursuant to 40 C.F.R. § 257.102(c), closure will be complete when groundwater monitoring concentrations do not exceed the applicable groundwater protection standard established pursuant to 40 C.F.R. § 257.95(h) for constituents listed in appendix IV to 40 C.F.R. Part 257.

3 ESTIMATE OF IN-PLACE CCR INVENTORY

The volumes of CCR present in the Ash Basins were calculated and are presented in Table 1 below, pursuant to 40 C.F.R. § 257.102(b)(1)(iv). The volumes are the estimated inventory of CCR that will be open (and require closure) at one time, and the estimates are based on bathymetric surveys, historical topography, and soil borings as of March 2015. The estimates do not include any material discharged into or removed from the Ash Basins after March 2015. The annual surface impoundment inspections completed, pursuant to 40 C.F.R. § 257.83(b), and posted to the Duke Energy CCR website, pursuant to 40 C.F.R. § 257.107(g)(5), contain the most recent estimates of CCR material in the Ash Basins.

Table 1. Estimated In-Place CCR Inventory On-Site

Basin	Quantity of CCR (cubic yards)
1971 Ash Basin	3,184,000
1984 Ash Basin	2,362,000
TOTAL	5,546,000

4 ESTIMATE OF MAXIMUM AREA REQUIRING FINAL COVER

CCR will be removed from the Ash Basins pursuant to §257.102(c); therefore, no final cover system will be constructed in support of closure activities.

5 CLOSURE SCHEDULE

The Ash Basins ceased receiving non-CCR waste streams on July 6, 2016 (receipt of CCR waste streams ceased prior to this date). Closure of the Ash Basins initiated on July 6, 2016, within 30 days of final receipt of CCR or non-CCR waste streams pursuant to 40 C.F.R. § 257.102(e). However, limited CCR excavation operations began prior to that date. Closure of

the Ash Basins will be extended due to the delayed receipt of the on-site landfill permit to construct but is anticipated to be completed by February 2020 (i.e., still within five years of the commencement of closure pursuant to 40 C.F.R. § 257.102(f)(1)(ii)). Throughout the closure process, Duke Energy will continue to evaluate and take, as appropriate, commercially reasonable measures to expedite environmentally protective closure of the Ash Basins.

Prior to commencing closure construction, design documents will be prepared to support applications for required local, state, and federal permits. Closure construction design documents will include construction drawings for closure, technical specifications, and quality testing work plans. The permits required for closure construction activities will be evaluated at the time of closure and are anticipated to include permits from the NCDEQ and the U.S. Army Corps of Engineers. Preliminary time frames for the anticipated closure activities are included below in Table 2.

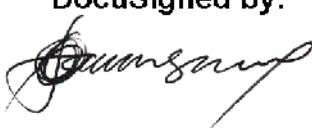
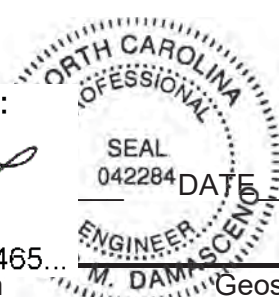
Table 2. Estimated Time Frames for Closure Activities

Closure Activity	Time Frame (years)*
NCDEQ Closure Plan Approval	1
NCDEQ Permitting Approvals (NDPES, E&SC, Air)	1
Dewatering and Stabilization	4.5
NCDEQ Landfill Permit Approval	1.5
CCR Excavation	4.5
NCDEQ Dam Decommissioning Approval	0.5

*Estimated closure activity time frames may include some overlap.

6 QUALIFIED PROFESSIONAL ENGINEER CERTIFICATION

I, Victor M. Damasceno, being a registered Professional Engineer in the state of North Carolina, do hereby certify to the best of my knowledge, information, and belief, that the information contained in this written Closure Plan dated June 4, 2018, was developed pursuant to the requirements of 40 C.F.R. § 257.102 and has been prepared in accordance with recognized and generally accepted good engineering practices.

SIGNATURE _____ **DocuSigned by:**

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NC BROWNFIELDS
LAND USE RESTRICTIONS ("LUR") UPDATE



Year Certification Made: 2018

Name: Flemington Landfill
Project #: 04018-00-065

Address: Sutton Steam Plant Road
County: New Hanover

Property Owner (In part or whole): Cape Fear Youth Soccer D.B.A Wilmington Hammerheads Youth Soccer

Read the following LURs and mark each restriction accordingly. Additional remarks may be added for compliance status clarification. Attach any required or supplemental documentation, sign, notarize and submit to the following address:

NC Division of Waste Management
Attn: Brownfields Program Staff
1646 Mail Service Center
Raleigh, NC 27699-1646

LUR 1: No water supply wells may be installed or used at the Brownfields Property.

In compliance Out of compliance

Remarks: _____

LUR 2: No mining activities may be conducted on the Property.

In compliance Out of compliance

Remarks: _____

LUR 3: Except as provided in paragraph 10.i. of the Brownfields Agreement ("Agreement"), no disturbance, displacement or removal of soil in areas of the Brownfields Property denominated "PROHIBITED" on the plat recorded as Exhibit B with the Notice of Brownfields Property ("Notice") is permitted without prior notification to and approval of the Department of Environmental Quality ("DEQ") or its successor in function, any sampling of such waste material required by DEQ, and submittal to DEQ or its successor in function of analyses of such sampling along with plans and procedures to protect human health and the environment during the proposed activities. In the event such activities are approved by DEQ or its successor in function, the activities shall be conducted in strict accordance with all local, state and federal legal provisions concerning sampling, characterization, handling, transportation and disposal of waste material, and anyone conducting such activities shall provide to DEQ a report of such activities as required in said subparagraph 10.i. If any existing landfill waste material at the

Brownfields Property is disturbed other than pursuant to this restriction number 3, the owner of any affected portion of the Brownfields Property shall effect sampling, characterization, handling, transportation and disposal of such waste material in strict accordance with local, State, and federal legal provisions, except that such waste material may not be disposed of on the Brownfields Property even if to do so would otherwise be in compliance with law, and shall, no later than seven (7) days following discovery of the disturbance, report the disturbance to DEQ in writing. Thereafter, the owner of any affected portion of the Brownfields Property shall report when and as required by DEQ regarding the disturbance, which reporting shall include, at a minimum, a written report that describes the nature and extent of the disturbance, the sampling, characterization, and handling of the waste material, and its transportation and disposal.

In compliance Out of compliance

Remarks: _____

LUR 4: No activities which result in direct exposure to or removal of groundwater (for example, construction or excavation activities which encounter or expose groundwater) may be conducted on the Property without prior sampling and analysis of groundwater in the area where such activities are to be conducted, submittal of the analytical results to DEQ or its successor in function along with plans and procedures to protect human health and the environment during those activities, and approval of those activities by DEQ or its successor in function.

In compliance Out of compliance

Remarks: _____

LUR 5: No basements and no fountains, ponds, lakes, swimming pools or other items which are supplied, in whole or in part, by groundwater under the Brownfields Property may be constructed on the Brownfields Property. Reservoirs and ponds used exclusively for irrigation purposes and supplied by groundwater originating other than on the Brownfields Property (e.g., groundwater from adjoining properties and water from the City of Wilmington) may be constructed in areas of the Brownfields Property not denominated "PROHIBITED" on the plat constituting Exhibit B of the Notice if: (A) any such reservoir or pond's base is at least two (2) feet above the top of the shallowest groundwater at the location of such reservoir or pond; and (B) the testing and use requirements set forth in subparagraph 10.f of the Agreement recorded as Exhibit A of the Notice are complied with in connection with any such reservoir or pond.

In compliance Out of compliance

Remarks: _____

LUR 6: No groundwater derived from adjoining properties may be used at the Brownfields Property unless, prior to its initial use and no less frequently than once every six months thereafter, the owner of any portion of the Brownfields Property where such groundwater is proposed to be used satisfies DEQ that such groundwater does not exceed the groundwater standards contained in the North Carolina Administrative Code, Title 15A, Subchapter 2L, Rule .0202.

In compliance Out of compliance

Remarks: _____

LUR 7: Within seven (7) days of each anniversary of the effective date of the Brownfields Agreement recorded as Exhibit A of the Notice, the owner(s) of the Brownfields Property shall each submit a notarized Land Use Restrictions Update to DEQ certifying that (A) this Notice containing these seven (7) Land Use Restrictions remains recorded at the New Hanover County Register of Deeds office; (B) the New Hanover County Ordinance referenced in Paragraph 4.h. of said Brownfields Agreement remains in effect; (C) if the Brownfields Property is in use, the air, groundwater quality, infiltration and pond water monitoring activities required, respectively, pursuant to subparagraphs 10.c., 10.d., 10.e. and 10.f. of said Brownfields Agreement are being conducted; (D) these Land Use Restrictions are being complied with; and (E) if the Brownfields Property is in use, the cap has been enhanced in accordance with paragraph 10.b. of said Brownfields Agreement and is functioning as required by that subparagraph. Each Land Use Restrictions Update shall also include a complete record of any erosion, erosion repairs or other activities affecting the Land Use Restrictions or, if the Brownfields Property is in use, affecting the integrity of the cap. The Land Use Restrictions Update shall be addressed to the DEQ official referenced in paragraph 29.a. of the Agreement.

In compliance Out of compliance

Remarks: _____

Notarized signing and submittal of this Land Use Restrictions Update constitutes certification that the Notice of Brownfields Property remains recorded at the New Hanover County Register of Deeds office and that the Land Use Restrictions are being complied with.

This Land Use Restrictions Update is certified by Carson Porter – Executive Director, owner of at least part of the Brownfields Property on this 30 day of August, 2018.

Name typed or printed of party making certification: _____

[Note: additional entities or owners may be added if appropriate (i.e. multiple managing members/entities)]

By: Carson Porter (signature)
Name typed or printed: CARSON PORTER
Title typed or printed: EXECUTIVE DIRECTOR

NORTH CAROLINA
New Hanover COUNTY

I certify that the following person(s) personally appeared before me this day, each acknowledging to me that he or she voluntarily signed the foregoing document for the purpose stated therein and in the capacity indicated: Executive Director.

Date: 8-30-18

Laurie J Horner
Official Signature of Notary

Laurie J Horner
Notary's printed or typed name, Notary Public
My commission expires: 4-25-2020

