

IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF NORTH CAROLINA

NO. 14-752

CAPE FEAR RIVER WATCH, INC. AND)
WATERKEEPER ALLIANCE, INC.,)

Plaintiffs,)

v.)

DUKE ENERGY PROGRESS, INC.,)

Defendant.)
_____)

COMPLAINT
(JURY TRIAL DEMANDED)

NATURE OF THE CASE AND FACTS

1. This citizen enforcement action challenges ongoing, unlawful discharges of toxic metals and other pollutants by Defendant Duke Energy Progress, Inc. (“DEP” or “Defendant”) and other violations of law at its Cape Fear Steam Station coal-fired electricity generating plant (“Cape Fear”), in violation of the Clean Water Act (“CWA”), 33 U.S.C. §§ 1251-1376. On July 1, 2014, Plaintiffs Cape Fear River Watch and Waterkeeper Alliance, Inc. (collectively the “Conservation Groups”) gave notice of their intent to enforce the CWA against Defendant, incorporated herein as Exhibit A.

2. Defendant is engaged in the generation, transmission, distribution, and sale of electricity. Defendant is a corporation with its headquarters in Raleigh, North

Carolina. The Cape Fear coal-fired electricity generating plant is located on the banks of the Cape Fear River downstream of the confluence of the Deep and Haw Rivers in Moncure in Chatham County, North Carolina. Cape Fear is owned and operated by Defendant.

3. The Cape Fear coal ash lagoons are upstream of drinking water intakes for over 500,000 people, including residents of Sanford, Dunn, Fayetteville, and Wilmington, as well as Brunswick County and Harnett Counties. The Sanford drinking water system intake withdraws water from the Cape Fear River just three miles from the Cape Fear coal ash site.

4. For years, Defendant has been polluting the waters of the United States and North Carolina by discharging large quantities of pollutants, including arsenic, aluminum, barium, beryllium, cadmium, chromium, cobalt, copper, molybdenum, selenium, vanadium, boron, sulfate, iron, lead, nickel, zinc, and manganese from coal ash impoundments located on the banks of the Cape Fear River at Cape Fear.

5. The Cape Fear plant was constructed in 1923, and Defendant permanently ceased electricity generation at the facility in October of 2012. While coal is no longer burned at the Cape Fear Plant, Defendant continues to store approximately 4.5 million tons of coal ash in five unlined lagoons, known as the 1985 Pond; the 1978 Pond; the 1970 Pond; the 1963 Pond; and the 1956 Pond (the “Cape Fear coal ash lagoons”), which are situated along the banks of the Cape Fear River and Haw Rivers and tributaries of the Cape Fear River.

6. The coal ash in the Cape Fear lagoons is held back from the rivers and tributaries only by aging and defective leaking earthen dikes that have received the worst structural integrity ratings of any coal ash storage facilities in North Carolina.

7. The Cape Fear Lagoons are unlined, and for the most part the ash is stored in a wet condition.

The DENR Enforcement Action

8. In response to a Clean Water Act Notice sent by the Conservation Groups and the Sierra Club in June 2013 regarding Defendant's Clean Water Act violations at its Sutton Plant, also on the Cape Fear River, in August of 2013 DENR filed an enforcement action alleging Defendant's violations of state groundwater laws and unlawful seeps from the 1985 lagoons at Cape Fear, as well as violations at other sites. *State of North Carolina v. Duke Energy Progress, Inc.*, C.A. No. 13-cvs-11032 (the "DENR action") (attached as Exhibit B).

9. However, none of the provisions of the Cape Fear NPDES permit and the Clean Water Act alleged in this action are enforced by DENR as to the Cape Fear site in the DENR action. In the DENR action, DENR does not bring enforcement action for the NPDES permit and Clean Water Act violations alleged in this action. Therefore, under the Clean Water Act, Plaintiffs may enforce these standards and limitations and seek the relief set out in this action.

The Cape Fear Coal Ash Lagoons and Dams

10. The 1985 Pond covers 65 acres and contains a “pond within a pond” that was built to increase its ash containing capacity. Its dikes reach 30 feet in height, and the interior dikes for the “pond within a pond” reach 10 feet in height.

11. The 1978 Ash Pond covers 43 acres. It shares a common dike with the 1963 and 1970 Ash Ponds, and its dikes reach 38 feet in height.

12. The 1963 and 1970 Ash Ponds are connected to one another, are adjacent to the 1978 Ash Pond, and are right on the Cape Fear River – as close as 15 feet from the river. They occupy approximately 50 acres and their dikes reach 30 feet in height.

13. The 1956 Ash Pond is on the Cape Fear and Haw Rivers and has a very steep dike that reaches 20 feet in height. It gets as close as 15 feet from the river.

14. The Cape Fear coal ash lagoons are constructed on and around wetlands, and the ground around the lagoons is swampy. These wetlands are adjacent and connected to tributaries of the Cape Fear River.

15. Defendant operates pursuant to state-issued CWA National Pollutant Discharge Elimination System (NPDES) Permit No. NC0003433, which authorizes discharges of certain pollutants from the outfall structures on the 1978 Pond (Outfall 001) and dams at the 1985 Pond (Outfall 005) into a watercourse designated by DENR as “an unnamed tributary to the Cape Fear River” (the “Tributary”).

16. The Tributary flows between the 1963, 1978, and 1985 Ponds before converging with the Cape Fear River at multiple locations downstream. The Tributary is

a water of the United States, and DENR has classified it as a WS-IV drinking water supply under state and federal law.

Unsafe Condition of Coal Ash Lagoons and Dams

17. The dams of the Cape Fear coal ash lagoons have been given High Hazard ratings by North Carolina and Significant Hazard ratings by EPA. EPA engineers also determined that all five of the coal ash storage facilities at Cape Fear are in “Poor” structural condition, indicating that every dam poses a safety risk, and remedial action is necessary. No other coal ash disposal site in North Carolina has as many dams in Poor condition as the Cape Fear Plant. In fact, only two sites in the entire United States have more dams in “Poor” condition than the Cape Fear Plant.

18. In a letter dated August 13, 2013, EPA formally notified DENR Secretary John E. Skvarla that all the dams around the Cape Fear coal ash lagoons are in Poor structural condition.

19. The Cape Fear coal ash lagoons received these Poor Ratings because of safety deficiencies, the need for remedial action, and the need for critical studies and investigations. The 2009 EPA Report found inappropriate vegetation cover; animal burrows; concerns relating to the stability of the dams for the 1956, 1963/1970, and 1985 Ash Ponds and the hydrology of all the ash ponds; inadequate drainage and buttressing of the toes of the dams; and erosion and sloughing.

20. The Cape Fear coal ash facilities have a long history of specific problems.

21. In March of 2014, Waterkeeper Alliance discovered that Defendant was pumping polluted water out of the 1985 Ash Pond and that a large crack had developed in the dam.

22. Previously, the dike for the 1985 Ash Pond cracked and eroded before it was even put into service, with holes and tunnels in the dike. The slope of the dike cracked in 1990. In 1991, a consultant observed longitudinal cracking on dikes of the 1985 Ash Pond. A 2009 EPA report noted that slope erosion and instability continued and that the safety factor for the 1985 Ash Pond slope was lower than design requirements. Engineers have documented numerous other problems with the dam of the 1985 Pond, including excessive moisture, erosion, and ground cover loss. In June of 2014, an inspection of the lagoon's spillway conduit revealed cracks and "weeper with infiltration," demonstrating the continuing unsafe condition of the entire 1985 Pond and requiring further evaluation.

23. The 1978 Ash Pond sits atop an area of shallow groundwater at the dike, and coal ash wastewater is seeping through its dam. In 2006-07, a large tree on the slope of the dam fell, causing a rupture in the soil at the toe of the dike. The face of the dam has eroded and sloughed. The toe of the dam has been undercut by the canal that abuts the lagoon to the east. In June of 2014, an inspection of this lagoon's spillway revealed numerous defects, including a significant crack, multiple fractures, root intrusion, and weepers with infiltration; and a joint that allowed water to infiltrate the conduit. The

conduit was also sagging, had a poorly-fitted joint connected with a loose-fitting ring; and its surface was spalling.

24. In 1982, a slope failed on the 1963-1970 Ash Ponds adjacent to the Cape Fear River. An effort to repair the dike caused additional instability and deformation of the dike. The work on the dike was stopped without the repair being completed. In 2009, the riverfront dike – which is as close as 15 feet from the river – was described in the EPA report as being irregular due to erosion, sloughing, and fallen trees. As a result, there was exposed soil and a steepened slope. It has never been fully repaired and seeps into the Cape Fear River. In June of 2014, an inspection of the spillway of the 1970 Ash Pond revealed significant fractures and deformation in the fiberglass barrel component of the spillway, as well as infiltration.

25. The 1956 Ash Pond has very steep slopes close to the river. The 2009 EPA Report notes that the downstream slopes of the dam are severely eroded with fallen and uprooted trees and sloughing. A June 2014 inspection of the spillway for the 1956 lagoon revealed cracking, infiltration, and root intrusion.

26. The potential for fatalities, combined with the history of structural failure and ongoing structural defects, demonstrates that all five of the dams at the Cape Fear Plant present a serious hazard that threatens people and the environment.

2013/2014 Pumping of Contaminated Wastewater from 1985 & 1978 Ash Ponds

27. In March 2014, Waterkeeper Alliance discovered that Defendant was pumping polluted coal ash water from the 1985 Ash Pond and that the dike had cracked.

Subsequently, it was determined that Defendant had pumped 61 million gallons – over twice as much as flowed from the Dan River lagoons when they failed in February 2014 – from the 1978 Ash Pond and the 1985 Ash Pond. In addition, the crack in the dam was confirmed, reaching some 40 feet. The dam had subsided a foot and a half, and there was a bulge in the dam. DENR issued a Notice of Violation but to date has taken no enforcement action.

28. As DENR has confirmed in its Notice of Violation, Defendant's pumping was not authorized by DENR or by the Cape Fear NPDES permit. The NPDES permit authorizes Defendant to discharge wastewater that has been treated by settling in the Coal Ash Ponds via risers that are part of the permitted outfall structures. The permit authorizes discharge of water at the top of the ponds after the contaminants have settled in the ponds and left the top layer of water. Instead, Defendant went around and did not use these permitted structures and pumped directly from below the top layer of the ponds and from lower levels and the bottom of the ponds, where the water is more polluted and where pollutants settle and concentrate. This discharging of untreated coal ash wastewater turns on its head the waste treatment system authorized by the Cape Fear NPDES permit.

29. In addition to being an unpermitted discharge, Defendant's pumping activities violate the following conditions of its NPDES permit:

- Part I.A.11 – requirement to meet all dam safety requirements under 15A N.C. Admin. Code 2K;

- Part II.C.2 – Proper operation and maintenance;
- Part II.C.4 – Bypass requirements;
- Part II.C.6 – Removed Substances provision;
- Part II.D.1 – Sampling requirements;
- Part II.E – Reporting requirements; and
- Part III.E – Facility closure requirements.

Any violation of an NPDES permit condition is an enforceable violation of the Clean Water Act. 33 U.S.C. §§ 1365(a)(1)(A), (f)(6); 40 C.F.R. § 122.41(a) (“Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action.”).

30. According to DENR’s Notice, Defendant claimed that the pumping was allowable maintenance. Thus, Defendant considers itself free to repeat and continue these discharges and activities in the future and therefore they may continue in the future.

Pollution Leaking from Coal Ash Lagoons

31. In addition to its pollution discharges through permitted wastewater outfalls, Defendant for years has illegally discharged pollutants from the Cape Fear coal ash lagoons directly into the Cape Fear River, streams, wetlands, and the Tributary. These unpermitted discharges, or “seeps,” consist of contaminants that are leaking out of at least three of Defendant’s coal ash lagoons at the site, discharging directly into the Cape Fear River, wetlands, and the Tributary.

32. The EPA dam inspection report notes that in 1982, a slope failure occurred on the north end of the west dike in the 1963 Ash Pond adjacent to the Cape Fear River. Repairs to that failure were never completed because the construction project itself “initiated additional instability and deformation” of the dam “and the work was halted with only a portion” having been accomplished.

33. Today, this same unstable failure area is still the site of significant, ongoing, and illegal seep discharges from the 1963 Coal Ash Pond directly into the Cape Fear River.

34. The State of North Carolina has not alleged any seeps from the 1963 Pond into the Cape Fear River in the DENR action. The State’s Complaint only identifies “potential” seeps from the 1985 Pond into the Tributary. The DENR action does not identify any unpermitted discharges from the 1963 Pond into the Cape Fear River.

35. The seeps from the 1963 Pond identified by the Conservation Groups are marked as “A” and “B” on the map attached as Exhibit C. Seep “A” is a large, slimy orange discharge into the Cape Fear River. Repeated sampling has revealing ongoing, elevated concentrations of coal ash pollutants in excess of state and federal standards, including:

- Arsenic at 4 times the standard;
- Cobalt at 331 times the standard;
- Beryllium at 3.75 times the standard;
- Aluminum at 125 times the standard;

- Manganese at 442 times the standard;
- Iron at 826 times the standard;
- Nickel at 2.9 times the standard;
- Zinc at 5.7 times the standard;
- Barium;
- Boron;
- Lead

36. Coal ash pollutants have also been found in the sediments of the Cape Fear River where Seep “A” discharges into the River.

37. Seep “B” also discharges from the 1963 pond into the Cape Fear River. A sample of Seep “B” contained:

- Arsenic at nearly 12 times the standard;
- Boron at 2 times the standard;
- Aluminum at 24 times the standard;
- Manganese at 101 times the standard;
- Chromium;
- Nickel;
- Zinc

38. At the 1985 Pond, a stream is receiving coal ash pollutants, running through the wetlands east of the pond, and discharging the pollutants into the Tributary 0.36 miles downstream from Outfall 007. This stream discharge to the Tributary is identified as

“W” on the map attached as Exhibit D. The discharge from the 1985 Pond into this stream is an unpermitted point source discharge. In the alternative, the stream discharge to the Tributary is an unpermitted point source discharge. The coal ash pollutants found in this stream include:

- Aluminum at 14 times the standard;
- Iron at 21 times the standard;
- Manganese at 67 times the standard;
- Barium;
- Boron

39. A seep identified as Seep “C” on the map attached as Exhibit C also discharges from the 1985 Pond into the Tributary. Sampling of this seep has revealed concentrations of the following coal ash pollutants:

- Aluminum at 26 times the standard;
- Boron at 2.4 times the standard;
- Manganese at 125 times the standard;
- Nickel
- Zinc

40. An engineered ditch also conveys contaminants that have leaked out of the 1985 Pond, depositing them into the Tributary at the point identified as Seep “E” on the map attached as Exhibit C. EPA’s 2009 dam inspection report identifies this ditch running through two culverts under the access road for the Cape Fear facility from the

“downstream foundation area” of the 1985 Pond. Samples of the discharge revealed that it contains the following coal ash pollutants:

- Aluminum at 7,460 times the standard;
- Cadmium at 2.5 times the standard;
- Chromium at 5.3 times the standard;
- Lead at 13 times the standard;
- Manganese at 372 times the standard;
- Zinc at 21 times the standard;
- Copper

41. A seep from the 1978 Pond (Seep “D” on Exhibit C) is also discharging pollutants to the Tributary without a permit. Sampling of this seep has revealed coal ash pollutants including:

- Aluminum at 668 times the standard;
- Manganese at 69 times the standard;
- Zinc at 1.8 times the standard;
- Chromium;
- Copper;
- Lead;
- Nickel

42. Defendant is not authorized by the Cape Fear NPDES permit to discharge pollutants from the Coal Ash Ponds directly to the Cape Fear River at all. And it is only

authorized to discharge to the Tributary via Outfall 007. Defendant is only authorized to discharge from the Coal Ash Ponds into the Tributary via “Internal” Outfalls 001 and 005. The State of North Carolina, in its verified complaint against Defendant, confirms that seeps or discharges other than these authorized outfalls are point source discharges not authorized by the Cape Fear NPDES permit. Exhibit B at ¶ 112.

43. Accordingly, all of Defendant’s other ongoing point source discharges of coal ash pollutants are unpermitted discharges in violation of its NPDES permit and the CWA.

Unauthorized Pollution of State Waters

44. In addition to the unpermitted discharges whose location is described above, Defendant has violated the terms of its NPDES permit – and thus violated the CWA – by allowing pollutants and coal ash materials including arsenic, aluminum, barium, beryllium, cadmium, chromium, cobalt, copper, molybdenum, selenium, vanadium, boron, sulfate, iron, lead, nickel, zinc, and manganese to escape from the bottom of its unlined lagoons into the groundwater at Cape Fear and from these seeps, leaks, illegal pumping, and streams into North Carolina waters and navigable waters. Defendant’s unauthorized discharges of pollutants are prohibited by the Cape Fear NPDES permit and the CWA.

45. Defendant has repeatedly allowed pollutants and materials removed during treatment to enter state waters. DENR has confirmed that boron (at more than four times the standard), selenium (at twice the standard), and sulfate (at over twice the standard)

have entered groundwater, which is included within state waters, in amounts that violate the state's groundwater standards, and that arsenic, iron (at over 1800 times the standard), manganese (at 360 times the standard), and total dissolved solids (at over twice the standard) have also been found in significant amounts in groundwater at the coal ash lagoons at Cape Fear. Groundwater testing has also found other contaminants from the coal ash lagoons in ground water, including barium and chromium.

46. The contaminated groundwater at Cape Fear also flows directly into the Cape Fear River. As a result, the coal ash lagoons are also contaminating the Cape Fear River via this hydrologically connected groundwater, and thus constitute an additional unpermitted point source discharge in violation of the CWA.

47. These discharges to the river from the coal ash lagoons via the groundwater are also a further violation of the NPDES permit, which prohibits the entry of pollutants to waters of the state, including both groundwater and the Cape Fear River.

48. The Cape Fear coal-fired power plant was retired in 2012. However, the Cape Fear coal ash areas continue to discharge illegally into the River, streams, wetlands, and the Tributary. As long as the coal ash remains in these leaking, unlined pits, it will continue to discharge into the Cape Fear River, tributary streams, and from the bottom and sides of the lagoon in violation of the CWA as described in this letter.

Toxic Effects of Pollutants

49. Arsenic is a known carcinogen that causes multiple forms of cancer in humans. It is also a toxic pollutant, 40 C.F.R. § 401.15, and a priority pollutant, 40

C.F.R. Part 423 App'x A. Arsenic is also associated with non-cancer health effects of the skin and the nervous system.

50. Drinking water containing beryllium in excess of the maximum contaminant level of 4 parts per billion (ppb) can lead to intestinal lesions according to EPA. Beryllium in drinking water may also pose a cancer risk in humans. Because beryllium is an element, it does not degrade over time.

51. Lead is a very potent neurotoxicant that is highly damaging to the nervous system. Health effects associated with exposure to lead include, but are not limited to, neurotoxicity, developmental delays, hypertension, impaired hearing acuity, impaired hemoglobin synthesis, and male reproductive impairment. Importantly, many of lead's health effects may occur without overt signs of toxicity. Lead is also classified by the EPA as a "probable human carcinogen."

52. Animal studies have shown that chronic ingestion of molybdenum can cause diarrhea, slowed growth, low birth weight and infertility, and can affect the lungs, kidneys, and liver. In humans, chronic exposure to molybdenum has been shown to cause fatigue, headaches and joint pains.

53. Selenium is a toxic pollutant, 40 C.F.R. § 401.15, and excess exposure can cause a chemical-specific condition known as selenosis, with symptoms that include hair and nail loss.

54. According to the U.S. Agency for Toxic Substances and Disease Registry (ATSDR), vanadium can cause nausea, diarrhea, and stomach cramps. And the

International Agency for Research on Cancer (IARC) has determined that vanadium is possibly carcinogenic to humans.

55. Barium can cause gastrointestinal disturbances and muscular weakness. Ingesting large amounts, dissolved in water, can change heart rhythm and can cause paralysis and possibly death. Barium can also cause increased blood pressure.

56. Oral exposure to boron has led to developmental and reproductive toxicity in multiple species. Specific effects include testicular degeneration, reduced sperm count, reduced birth weight, and birth defects.

57. Oral exposure to chromium VI, a toxic and a human carcinogen, has been found to cause cancers of the stomach and mouth. Exposure to the skin may cause dermatitis, sensitivity, and ulceration of the skin.

58. IARC has determined that cobalt is possibly carcinogenic to humans. Short-term exposure of rats to high levels of cobalt in the food or drinking water resulted in effects on the blood, liver, kidneys, and heart. Longer-term exposure of rats, mice, and guinea pigs to lower levels of cobalt in the food or drinking water results in effects on the same tissues (heart, liver, kidneys, and blood) as well as the testes, and also caused effects on behavior. Sores were seen on the skin of guinea pigs following skin contact with cobalt for 18 days.

59. According to the ATSDR, some studies show that people exposed to high levels of aluminum may develop Alzheimer's disease. People with kidney disease have trouble removing aluminum from their system.

60. According to EPA and ATSDR, nausea, vomiting, diarrhea and neurological effects have been reported in those who ingested water contaminated with nickel. Exposure to nickel on the skin causes dermatitis. And animal studies have reported reproductive and developmental effects from ingestion of soluble nickel.

61. Iron can render water unusable by imparting a rusty color and a metallic taste and causing sedimentation and staining; to prevent these effects the EPA has set a secondary drinking water standard of 300 ug/L. Iron in the seeps was measured at 248,000 ug/L, 826 times the standard.

62. Manganese is known to be toxic to the nervous system. Manganese concentrations greater than 50 ug/L render water unusable by discoloring the water, giving it a metallic taste, and causing black staining. Exposure to high levels can affect the nervous system; very high levels may impair brain development in children. The manganese sampled from the Cape Fear seeps was measured at 22,100 ug/L, or 442 times North Carolina's standard of 50 ug/L.

63. According to ATSDR, ingesting high levels of zinc may cause stomach cramps, nausea, and vomiting. Ingesting high levels of zinc for several months may cause anemia, damage the pancreas, and decrease levels of high-density lipoprotein (HDL) cholesterol.

64. Concurrent exposure to multiple contaminants may intensify existing effects of individual contaminants, or may give rise to interactions and synergies that create new effects. Where several coal ash contaminants share a common mechanism of

toxicity or affect the same body organ or system, exposure to several contaminants concurrently produces a greater chance of increased risk to health.

JURISDICTION, NOTICE, AND VENUE

65. The Conservation Groups bring this enforcement action under the citizens' suit provision of the Clean Water Act, 33 U.S.C. § 1365. This Court has jurisdiction over this action pursuant to 28 U.S.C. § 1331 and has jurisdiction over the parties.

66. In compliance with 33 U.S.C. § 1365(b)(1)(A), and 40 C.F.R. § 135.2, on July 1, 2014, the Conservation Groups gave Defendant, the Administrator of the United States Environmental Protection Agency ("EPA"), and DENR notice of the violations specified in this complaint and of its intent to file suit after sixty days should those violations continue. A copy of the notice letter with documentation of its receipt is attached as Exhibit A. More than sixty days have passed since the notice was given pursuant to law and regulation, and the violations identified in the notice letter are continuing at this time and are reasonably likely to continue in the future. Currently, EPA has not commenced and is not diligently prosecuting a civil or criminal action to redress the asserted violations.

67. DENR has filed an action against Defendant in the Superior Court for Wake County for certain violations of North Carolina law and certain violations of the NPDES permit. *State of North Carolina v. Duke Energy Progress, Inc.*, C.A. No. 13-cvs-11032 (the "DENR action") (Exhibit "B"). However, in that action, DENR does not seek to require compliance with the standards and limitations set out in this complaint,

including the standard and limitation contained in the NPDES permit requiring compliance with dam safety regulations; the standards and limitations contained in the NPDES permit and violated by Defendant when it pumped coal ash polluted water out of the Cape Fear Lagoons in 2013-14 as set out above; the standard and limitation contained in the NPDES permit prohibiting the entering of removed substances into waters of North Carolina and navigable waters of the United States; and the standard and limitation prohibiting unpermitted discharge from the Cape Fear lagoons via the hydrologic connection between the Cape Fear River and the contaminated groundwater that flows from the lagoons.

68. In this action, the Conservation Groups enforce those standards and limitations, with which DENR is not seeking to require compliance in the DENR action. 33 U.S.C. § 1365 (b) (1) (B).

69. In the DENR action, DENR seeks to enforce certain state groundwater statutes and regulations and seeks to enforce the prohibition against unpermitted discharges in the form of the seeps and streams flowing from the 1985 Cape Fear lagoon.

70. However, the standards and limitations set out above are entirely separate and different standards and limitations and permit requirements.

71. In particular, as to the Removed Substance permit provision, the groundwater statutes and regulations of North Carolina, which are alleged in the DENR action, govern generally the contamination of groundwater in North Carolina. The Removed Substances provision of the NPDES permit, on the other hand, is a standard,

limitation, condition, and requirement of operating a wastewater treatment facility, such as the Cape Fear lagoons which Defendant is allowed to operate in accordance with the terms of the NPDES permit. The NPDES permit's Removed Substances provision logically requires that the operator of a wastewater treatment facility must ensure that the substances it removes during the treatment process (in this instance, settling) do not enter the waters of North Carolina or the navigable waters of the United States. Otherwise, the wastewater *treatment* facility is not a wastewater treatment facility at all, but instead is a wastewater *transmission* facility and a wastewater *pollution* facility in and of itself, because it would simply move the removed substances from the wastewater into the waters of North Carolina or navigable waters of the United States and would thereby pollute those waters. That is exactly what Defendant has done and is doing at its Cape Fear wastewater coal ash lagoons.

72. Further, in the DENR action, DENR alleges that Defendant has committed violations of law and its permit through its unpermitted discharges in the form of seeps and streams flowing from the 1985 lagoon. However, DENR does not allege that the transmission of pollutants from the Cape Fear lagoons and site by way of the hydrologically connected groundwater is an unpermitted discharge in violation of Defendant's NPDES permit. That is an additional standard and limitation with which the Conservation Groups seek to require compliance in this action.

73. Venue is proper in this Court pursuant to 28 U.S.C. § 1391(b) and 33 U.S.C. § 1365(c)(1). The challenged discharges from the Cape Fear coal ash lagoons and the violations of the NPDES permit are located and have occurred in this District.

The Conservation Groups and Their Members

74. Cape Fear River Watch (“CFRW”) is a § 501(c)(3) non-profit public interest organization based in Wilmington, North Carolina. CFRW has members throughout the Cape Fear River watershed, including members who live and recreate on the Cape Fear River in the vicinity of and downstream from the Cape Fear facility. CFRW’s Cape Fear Riverkeeper is the sole Riverkeeper for the entire Cape Fear River.

75. Waterkeeper Alliance is a § 501(c)(3) non-profit public interest organization that connects and supports local Waterkeeper programs to provide a united voice and to champion clean water issues around the world. The Waterkeeper Alliance seeks to protect fishable, swimmable and drinkable waterways worldwide. CFRW is a member Waterkeeper organization of the Alliance.

76. The Conservation Groups and their members have been harmed by Defendant’s unpermitted discharges and violations of the NPDES permit and the Clean Water Act. Members of the Conservation Groups live, recreate, and fish on the Cape Fear River in the vicinity of and downstream from Cape Fear. They fear contamination of drinking water, wildlife, and lake water by discharges from Defendant’s coal ash ponds containing pollutants. Defendant’s discharges of contaminants from the unlined Cape Fear ash lagoons and the risk of further discharges through dam failure are reducing

the use and enjoyment by the Conservation Groups and their members of the Cape Fear River. Copies of standing affidavits by members of the Conservation Groups and their officials are attached as Exhibits E through H.

77. These injuries will not be redressed except by an order from this Court assessing civil penalties against Defendant and requiring Defendant to take immediate and substantial action to stop the flow of contaminated water and groundwater into the Cape Fear River, to empty the Cape Fear lagoons of all coal combustion byproducts, to move its storage of coal ash away from banks of the Cape Fear River, to remediate the groundwater contamination at Cape Fear, and to comply with the other relief sought in this action.

STATUTORY BACKGROUND

78. The objective of the CWA is to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” 33 U.S.C. § 1251(a). To accomplish that objective, Congress set the national goal that “the discharge of pollutants into the navigable waters be eliminated.” *Id.* Accordingly, the CWA, 33 U.S.C. § 1311(a), prohibits the discharge of pollutants from a point source to waters of the United States except in compliance with, among other conditions, a National Pollutant Discharge Elimination System (“NPDES”) permit issued pursuant to 33 U.S.C. § 1342.

79. Each violation of an NPDES permit – and each discharge of a pollutant that is not authorized by the permit – is a violation of the Clean Water Act. 33 U.S.C. §§ 1311(a); 1342(a); 1365(f).

80. The CWA defines a “point source” as “*any* discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, [or] container . . . from which pollutants are or may be discharged.” 33 U.S.C. § 1362(14) (emphasis added). Under this broad definition, the discharge of pollutants from mining pits, slurry ponds, sediment basins, and mining leachate collection systems have been held to be point sources. “The term ‘point source’ has been taken beyond pipes and ditches and now includes less discrete conveyances, such as cesspools and ponds.” *N. Cal. River Watch v. City of Healdsburg*, 2004 U.S. Dist. LEXIS 1008 (N.D. Cal. Jan. 23, 2004) (citing *Cnty. Ass’n for Restoration v. Bosma Dairy*, 305 F.3d 943, 955 (9th Cir. 2002); *Wash. Wilderness Coal. v. Hecla Mining Co.*, 870 F. Supp. 983, 988 (E.D. Wash. 1994)), *aff’d*, 496 F.3d 993 (9th Cir. 2007). *Accord U.S. v. Earth Sciences, Inc.*, 599 F.2d 368, 374 (10th Cir. 1979) (“[W]hether from a fissure in the dirt berm or overflow of a wall, the escape of liquid from the confined system is from a point source.”); *Consolidation Coal Co. v. Costle*, 604 F.2d 239, 249-50 (4th Cir. 1979) (finding that “discharges from coal preparation plant associated areas,” which included slurry ponds, drainage ponds, and coal refuse piles, were within CWA definition of point source), *rev’d on other grounds*, 449 U.S. 64 (1980).

81. In addition, a “point source need not be the original source of the pollutant; it need only convey the pollutant to ‘navigable waters.’” *S. Fla. Water Mgmt. Dist. v. Miccosukee Tribe of Indians*, 541 U.S. 95, 105 (2004); *accord W. Va. Highlands Conservancy, Inc. v. Huffman*, 625 F.3d 159, 168 (4th Cir. 2010) (permits are required

for discharges from point sources that “merely convey pollutants to navigable waters”). Thus, ditches and channels that convey pollutants but are themselves not the original source constitute point sources. This includes unintentional conveyance of pollutants, for example, through naturally-formed ditches, gullies, or fissures. *See Sierra Club v. Abston Constr. Co.*, 620 F.2d 41, 45 (5th Cir. 1980) (discharge from mining pits and spoil piles through naturally formed ditches caused by gravity flow at a coal mining site are point sources); *Earth Sciences*, 599 F.2d 368 (holding unintentional discharges of pollutants from a mine system designed to catch runoff from gold leaching site during periods of excess melting met the statutory definition of a point source); *N.C. Shellfish Growers Ass’n v. Holly Ridge Assocs., LLC*, 278 F. Supp. 2d 654, 679 (E.D.N.C. 2003) (“Notwithstanding that it may result from such natural phenomena as rainfall and gravity, the surface run-off of contaminated waters, once channeled or collected, constitutes discharge by a point source.”); *O’Leary v. Moyer’s Landfill, Inc.*, 523 F. Supp. 642, 655 (E.D. Pa. 1981) (intent of the discharging entity is irrelevant).

CLAIMS FOR RELIEF

82. The allegations of the preceding paragraphs are incorporated by reference as if repeated and set forth herein.

I. Unsafe Dams

83. Defendant’s NPDES permit, Part II.B.1, states that “[t]he Permittee must comply with all conditions of this permit. *Any permit noncompliance constitutes a violation of the CWA . . . and is grounds for enforcement action . . .*” Permit No.

NC0003433 (emphasis added). 33 U.S.C. §§ 1365 (f)(6),1342(a); 40 CFR § 122.41(a) (“Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action.”).

84. Defendant’s Permit for Cape Fear provides in Part I.A.11: “The facility shall meet the dam design and dam safety requirements per 15A NCAC 2K.” As set out above, the dams at Cape Fear are in Poor condition and pose a High hazard under North Carolina’s dam safety rules. The dams at Cape Fear violate 15A NCAC 2K and thus this Permit provision.

85. Those violations include at least the following:

- (a) Section .0206(c) provides: “Protection shall be provided to prohibit unsafe seepage along conduits through the dam, abutments, and foundation.” There is unsafe seepage at numerous places throughout the dam structures at Cape Fear, and that seepage is continuing.
- (b) Section .0206(f)(1) provides: “Pipe conduits shall be designed to support the total external loads in addition to the total internal hydraulic pressure without leakage.” Inspections of the spillways for the dams at Cape Fear have revealed infiltration, weeping, cracks, fractures, loose joints, and other defects in violation of this provision.
- (c) Section .0206(f)(2)(A) provides: “All conduits are to be designed and constructed to remain watertight under maximum anticipated hydraulic pressure and maximum probable joint opening, including the effects of joint rotation and extensibility.” None of the conduits for the dams at Cape Fear have remained watertight.
- (d) Section .0206(f)(2)(B) provides: “Provisions for safe movement of the barrel are to be provided at each joint in the barrel and at the junction of the barrel and riser or inlet. Cradles are to be articulated if constructed on a yielding foundation.” Defendant has violated this provision as to the dam for the 1970 Ash Pond.
- (e) Section .0207(a) provides: “All dams shall be designed and constructed to prevent the development of instability due to excessive seepage forces, uplift forces, or loss of materials in the embankment, abutments, spillway areas, or foundation.”

The dams for all the ash ponds at Cape Fear suffer from seepage, sloughing, erosion, undercutting, steep banks, needed but unfinished repairs, and uprooted trees.

(f) Section .0208 provides: “Design and construction of dams to assure structural stability shall be consistent with modern engineering practice.” These dams are not designed or constructed to assure structural stability and their design and construction is not consistent with modern engineering practice.

(g) Section .0212 provides: “All elements of the dam and reservoir shall conform to good engineering practice.” The defects and the problems with the dams at the coal ash lagoons at Cape Fear do not conform to good engineering practice.

86. Because these permit violations are continuous and ongoing, they will continue after the date of this letter and the subsequent filing of a lawsuit.

II. Unlawful Entering of Removed Substances into State Waters and Navigable Waters of the United States

87. Defendant’s NPDES permit, Part II.B.1, states that “[t]he Permittee must comply with all conditions of this permit. *Any permit noncompliance constitutes a violation of the CWA . . . and is grounds for enforcement action . . .*” Permit No. NC0003433 (emphasis added). 33 U.S.C. §§ 1365 (f)(6),1342(a); 40 CFR § 122.41(a) (“Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action.”).

88. Part II.C.6 of the permit requires that “[s]olids, sludges . . . or other pollutants removed in the course of treatment or control of wastewaters shall be utilized/disposed of . . . in a manner such as to *prevent any pollutant from such materials from entering waters of the State or navigable waters of the United States.*” Permit No. NC0003433 (emphasis added).

89. The ash lagoons receive and treat various waste streams, including coal ash transport water, coal pile runoff, chemical metal cleaning wastes, and stormwater. These waste streams are treated by sedimentation in the ash lagoons. The ash settling lagoons are an integral part of the station's wastewater treatment system. Pollutants that have been removed in the course of treatment are stored in all the Cape Fear coal ash lagoons.

90. This provision prohibits the permittee from allowing coal ash contaminants removed in the course of treatment (*i.e.*, settling) as well as coal pile runoff, stormwater, and other wastewaters (all of which discharge to the ash lagoons) to enter the waters of North Carolina. Groundwater is included in the North Carolina pollution control statute's definition of waters of the state. N.C. Gen. Stat. § 143-212(6). So are the Cape Fear River, the Tributary, and the streams and waters that flow into them. The Cape Fear River and the Tributary are also navigable waters of the United States.

91. Pollutants, solids, materials, substances, and sludges from Defendant's coal ash lagoons have for years been entering State waters and navigable waters of the United States. For years, pollutants from coal ash have been found in ground water under, at, and around Cape Fear. Monitoring well data from the site show the unlined ash lagoons have caused toxins, heavy metals, and other pollutants from coal ash to exceed their respective standards, as set out above.

92. These pollutants, solids, materials, substances, and sludges from Defendant's Cape Fear coal ash lagoons have for years also been entering State waters

and navigable waters of the United States from seeps and streams flowing from the Cape Fear coal ash lagoons.

93. The settling lagoons are a wastewater treatment system; their purpose is to treat and remove solids, sludges, substances, materials, and pollutants. They are prohibited from allowing such solids, sludges, substances, materials, and pollutants to enter waters of the State and navigable waters of the United States.

94. Instead, in violation of an express provision of its permit, Defendant has been and is allowing the unpermitted and uncontrolled entrance of solids, sludges, and pollutants – including arsenic, cobalt, manganese, iron, barium, boron, strontium, and zinc, as well as total dissolved solids and acidic pH levels – into the waters of the State and navigable waters of the United States. Defendant's actions are a straightforward violation of this straightforward provision of the permit.

95. Accordingly, Defendant has violated its NPDES permit, and thus the Clean Water Act, by allowing and causing the entering of removed substances, including solids, sludges, substances, materials, and pollutants to State waters and navigable waters of the United States, including the groundwater of North Carolina, the Cape Fear River, the Tributary, streams, wetlands, and tributaries thereof.

96. This prohibition against the entering of removed substances and pollutants to State waters, including ground waters of the State, is enforceable through a citizen suit under the Clean Water Act. *See* 33 U.S.C. § 1370 (allowing states to adopt and enforce more stringent limitations in CWA permits than the federal government); 33 U.S.C. §

1311(b)(1)(B) (stating that more stringent state limitations in furtherance of the objective of the CWA include “those necessary to meet water quality standards”); *Nw. Env'tl. Advocates v. City of Portland*, 56 F.3d 979, 986 (9th Cir. 1995) (“The plain language of CWA § 505 authorizes citizens to enforce all permit conditions”); *Culbertson v. Coats Am.*, 913 F. Supp. 1572, 1581 (N.D. Ga. 1995) (holding that “[t]he CWA authorizes citizen suits for the enforcement of all conditions of NPDES permits”).

III. Unauthorized Discharges of Point Source Pollution to Waters of the United States

97. The Cape Fear Coal Ash Ponds are discharging in violation of the Clean Water Act because one or more of the dikes or berms for the lagoons are discharging through unpermitted flows, seeps, leaks, and channels into the Cape Fear River, the Tributary, their tributaries, streams, and adjacent wetlands. Defendant has in some instances even constructed an unpermitted ditch and culvert system to facilitate the flow of these waters out of the coal ash lagoons, through adjacent wetlands and into the Tributary. These are all point sources under the CWA that convey unpermitted discharges into the Cape Fear River and its tributaries and adjacent wetlands.

98. The ash ponds at Cape Fear have received coal ash that is sluiced to the ponds in a wet form, ash sluice water, ash trench drain wastewater, acid/caustic sump wastewater, coal pile runoff, metal cleaning wastes, sanitary sewage wastewater, boiler blowdown, cooling tower blowdown, softener and demineralizer regenerate, and other waste streams from the Cape Fear facility. These substances contain metals including arsenic, chromium, cadmium, cobalt, and lead. When the ash comes into contact with

water, these metals, along with other pollutants such as boron, tend to leach or dissolve into the water.

99. The illegal discharges at Cape Fear contain elevated concentrations of pollutants including: arsenic, beryllium, cobalt, lead, molybdenum, selenium, vanadium, barium, boron, chromium, aluminum, nickel, iron, manganese, and zinc.

100. The coal ash lagoons, the berms, their leaks, flows, streams, and seeps, and the engineered ditches are all unpermitted point sources under the CWA.

101. Because these discharges to the Cape Fear River and its tributaries and adjacent wetlands are continuous and ongoing, they will continue after the date of this letter and the subsequent filing of a lawsuit.

IV. Discharges Through Close Hydrologic Flow into the Cape Fear River, the Tributary, Wetlands, and Streams

102. The contaminated groundwater at Cape Fear flows directly into the Cape Fear River, the Tributary, streams, and wetlands. These unpermitted discharges of pollutants via hydrologically connected groundwater to navigable surface waters constitute an additional violation of the CWA.

103. Unpermitted discharges of pollutants via hydrologically connected groundwater to surface waters of the United States violate the CWA. EPA has explained repeatedly that the CWA applies to such discharges. 66 Fed. Reg. 2960, 3015 (Jan. 12, 2001) (“EPA is restating that the Agency interprets the Clean Water Act to apply to discharges of pollutants from a point source via ground water that has a direct hydrologic connection to surface water.”); 56 Fed. Reg. 64876-01, 64892 (Dec. 12, 1991) (“the Act

requires NPDES permits for discharges to groundwater where there is a direct hydrological connection between groundwaters and surface waters.”); 55 Fed. Reg. 47990, 47997 (Nov. 16, 1990) (announcing stormwater runoff rules and explaining that discharges to groundwater are covered by the rule where there is a hydrologic connection between the groundwater and a nearby surface water body).

104. The CWA prohibits “any addition of any pollutant to navigable waters from any point source.” 33 U.S.C. § 1362(12)(A). “[T]he touchstone for finding a point source is the ability to identify a discrete facility from which pollutants have escaped.” *Wash. Wilderness Coal. v. Hecla Mining Co.*, 870 F. Supp. 983, 987 (E.D. Wash. 1994).

105. Because there is a direct hydrologic connection between the ash lagoons and the Cape Fear River, the Tributary, streams, and wetlands, Defendant’s discharges from the lagoons via the groundwater to the river, as well as the lagoons themselves, are point sources that violate the CWA.

V. Unlawful Pumping from the Coal Ash Lagoons

106. In 2013 and 2014, Defendant pumped over 60 million gallons of polluted coal ash water from the 1978 Coal Ash Pond and the 1985 Coal Ash Pond. The Clean Water Act violations due to this unlawful activity include:

- (a) Defendant violated its NPDES wastewater treatment permit by defeating the wastewater treatment purpose and permitted mode of operation. The lagoons are permitted to receive wastewater, including coal ash; to treat the wastewater through settling; and to discharge through risers only the treated wastewater at the top of the lagoons, after the pollutants and coal ash materials have settled to lower levels of the lagoons’ waters and ultimately toward the bottom of the lagoon. In violation of the permit, Defendant instead over a period of months repeatedly pumped polluted and untreated wastewater from below the top level of the lagoons

and from the bottom of the lagoon, going around the riser and the designed discharge system.

At least on the following dates, Defendant pumped in this way from the 1978 Ash Pond in 2014 on January 13-16, 21-23, 27-30; February 3-4, 10-12, 17-20, 24-27; March 3-6, 10-11. At least on the following dates, Defendant pumped this way from the 1985 Ash Pond on September 30; October 1-3, 7-10, 14-17, 21-24, 29-31; November 4-7, 11-14, 18-21; December 2-5, 9-12, 18-19, 23-24, 30-31; January 6-9, 15-16, 20-23, 27-28, 30; February 4-5, 10-12, 18-20, 24-27; March 3-6, 10-11.

- (b) Defendant also violated Part II.C.2 – Proper operation and maintenance of its permit through this unlawful pumping and related activities.
- (c) Defendant also violated Part II.C.4 – Bypass requirements of its permit through an unlawful bypass.
- (d) Defendant also violated Part II.C.6 – Removed Substances provision of its permit; it allowed and caused pollutants and coal ash materials removed during treatment to enter navigable waters and state water.
- (e) Defendant also violated Part II.D.1 – Sampling requirements of its permit.
- (f) Defendant also violated Part II.E – Reporting requirements of its permit.
- (g) Defendant also violated Part III.E – Facility closure requirements of its permits by taking action equivalent to or related to closure activities and closure activities without complying with these permit requirements.

107. Defendant has insisted that it has violated no laws or regulations through this pumping and related activities and therefore it is reasonable to expect that Defendant will repeat this unlawful pumping and that this unlawful pumping and these violations will continue in the future.

108. All the violations of the CWA alleged above in all the claims for relief are continuing violations.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff respectfully requests that this Court:

A. Issue a declaratory judgment stating that Defendant is violating the CWA due to its unsafe dams and its ongoing unpermitted discharges of toxins, heavy metals, coal ash, pollutants, and other contaminants, and by allowing and causing the entering of such removed substances into the Cape Fear River, the Tributary, streams, wetlands, and groundwater in violation of Defendant's NPDES permit and the CWA;

B. Enter appropriate preliminary and injunctive relief to ensure that Defendant:

- i. Removes the coal ash lagoons at Cape Fear and dismantles the dams for the lagoons or, in the alternative, renders all the dams safe and in compliance with governing law and regulations;
- ii. Is barred from pumping coal ash water from the coal ash lagoons into the Tributary or the Cape Fear River or to any other water body, beyond allowing water at the top of the lagoon from being discharged through the top riser, as contemplated in the NPDES Permit;
- iii. Prevents the flow of contaminated groundwater into the Cape Fear River, the Tributary, streams, and wetlands;
- iv. Prevents the coal ash impoundments from allowing or causing the entering of removed substances, including solids, sludges, materials,

substances, and pollutants, into groundwater, the Cape Fear River, the Tributary, streams, and wetlands;

- v. Removes all existing coal combustion byproducts from the coal ash lagoons at Cape Fear within a reasonable amount of time and stores them in an appropriately lined industrial solid waste landfill facility away from the Cape Fear River, the Tributary, streams, and wetlands, with appropriate monitoring and collection and treatment of wastewater or leachate coming from the landfill;
- vi. Remediates the groundwater beneath and around the Cape Fear site resulting from its unpermitted discharges; and
- vii. Removes from the Cape Fear River, the Tributary, streams, and wetlands has illegally allowed to enter the Lake and that it has illegally discharged into the Lake.

C. Assess civil penalties against Defendant of up to \$37,500 per violation per day pursuant to 33 U.S.C. §§ 1319(d), 1365(a), and 74 Fed. Reg. 626, 627 (Jan. 7, 2009);

D. Award Plaintiffs the costs of this action, including reasonable attorney and expert fees, as authorized by 33 U.S.C. § 1365(d); and

E. Grant Plaintiffs such further and additional relief as the Court deems just and proper.

THE PLAINTIFFS HEREBY DEMAND A TRIAL BY JURY

This the 3rd day of September, 2014.

/s/ Frank S. Holleman III

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