

**COMPREHENSIVE COAL ASH ACTION PLAN
SESSION 2014**

April 16, 2014

AN ACT TO (1) CHANGE NOTIFICATION REQUIREMENTS APPLICABLE TO DISCHARGES OF WASTEWATER; (2) ESTABLISH COAL COMBUSTION PRODUCTS IMPOUNDMENT WATER MONITORING PROGRAM; (3) IDENTIFY AND ADDRESS UNPERMITTED WASTEWATER DISCHARGES AT COAL COMBUSTION PRODUCTS IMPOUNDMENT SITES; (4) AMEND S.L. 2009-390; (5) REQUIRE EMERGENCY ACTION PLANS FOR HIGH AND INTERMEDIATE HAZARD DAMS; (6) CHANGE NOTIFICATION REQUIREMENTS APPLICABLE TO DAM REPAIRS; (7) INCREASE COAL COMBUSTION PRODUCTS IMPOUNDMENT INSPECTION REQUIREMENTS; (8) MODIFY THE DEFINITION OF SOLID WASTE TO INCLUDE REMOVED COMBUSTION PRODUCTS; (9) PLACE A TEMPORARY MORATORIUM ON THE USE OF COAL COMBUSTION PRODUCTS AS STRUCTURAL FILL; AND (10) ESTABLISH REQUIREMENTS FOR COAL COMBUSTION PRODUCTS IMPOUNDMENT CLOSURE.

Whereas, the issue of coal ash storage has not been adequately addressed in North Carolina for more than six decades; and

Whereas, on February 2, 2014, an estimated 39,000 tons of coal ash was released into the Dan River following the failure of a stormwater pipe under a utility coal ash impoundment pond in Eden, North Carolina; and

Whereas, the Department of Environment and Natural Resources (“Department”) finds that coal combustion products have settled into the sediment of the river bottom and will require an extensive clean-up plan to complete remediation; and

Whereas, the Department is in the process of reassessing previous efforts at achieving compliance at coal ash facilities and developing short term and long term policies in light of the Dan River spill, violations discovered in light of increased inspections of coal combustion products disposal facilities and anticipated new federal regulations on coal combustion products; and

Whereas, it is the intent of the Department to ensure that spills of wastewater are reported to the Department in a defined and adequate time frame; and

Whereas, it is the intent of the Department to protect surface water and groundwater resources for their best usage; and

Whereas, it is the intent of the Department to ensure that all unpermitted wastewater discharges are eliminated or addressed in an environmentally responsible manner; and

Whereas, it is the intent of the Department to equally subject all dams under jurisdiction of G.S. 143-215.23 to the requirements of statute and administrative code; and

Whereas, it is the intent of the Department for the owners of all dams under jurisdiction of G.S. 143-215.23 deemed intermediate and high hazard by the Department to prepare at their own cost documents that describe full and adequate response to emergency situations at their dams and to submit those documents to the Department; and

Whereas, it is the intent of the Department to ensure that emergency situations at dams are reported to the Department in a defined and adequate time frame; and

1 discharge occurred setting out the details of the discharge. The owner or operator shall issue
2 the press release within 48 24 hours after the owner or operator has first knowledge of the
3 spill. The owner or operator shall retain a copy of the press release and a list of the news
4 media to which it was distributed for at least one year after the discharge and shall provide a
5 copy of the press release and the list of the news media to which it was distributed to any
6 person upon request.

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

21 (c) Publication of Notice of Discharge of Untreated Waste [as defined in 143-213 (18)]. – The
22 owner or operator of any wastewater collection or treatment works, other than a wastewater collection or
23 treatment works the operation of which is primarily to collect or treat municipal or domestic wastewater,
24 for which a permit is issued under this Part shall:

- 25 (1) In the event of a discharge of 1,000 gallons or more of untreated waste to the surface waters
26 of the State, issue a press release to all print and electronic news media that provide general
27 coverage in the county where the discharge occurred setting out the details of the discharge.
28 The owner or operator shall issue the press release within 48 24 hours after the owner of
29 operator has ~~determined that the discharge has reached the surface waters of the State~~ first
30 knowledge of the spill. The owner or operator shall retain a copy of the press release and a
31 list of the news media to which it was distributed for at least one year after the discharge and
32 shall provide a copy of the press release and the list of the news media it was distributed to
33 any person upon request.
- 34 (2) In the event of a discharge of 15,000 gallons or more of untreated waste to the surface waters
35 of the State, publish a notice of the discharge in a newspaper having general circulation in the
36 county in which the discharge occurs and the county immediately downstream and in each
37 county downstream from the point of discharge that is significantly affected by the discharge.
38 The Secretary shall determine, at the Secretary's sole discretion, which counties are
39 significantly affected by the discharge and shall approve the form and content of the notice
40 and the newspapers in which the notice is to be published. The notice shall be captioned
41 "NOTICE OF DISCHARGE OF UNTREATED WASTE." The owner or operator shall
42 publish the notice within 10 days after the Secretary has determined the counties that are
43 significantly affected by the discharge and approved the form and content of the notice and
44 the newspapers in which the notice is to be published. The owner or operator shall file a copy

1 of the notice and proof of publication with the Department within 30 days after the notice is
2 published. Publication of a notice of discharge under this subdivision is in addition to the
3 requirement to issue a press release under subdivision (1) of this subsection.
4

5 **PART II. COAL COMBUSTION PRODUCTS IMPOUNDMENT WATER MONITORING**
6 **PROGRAM**

7 SECTION 2. G.S. 143- [new] reads as written:

8 (a) Groundwater Assessment – Owners of coal ash impoundments located at all investor-owned
9 public utilities shall conduct groundwater monitoring according to the following schedule and
10 procedures:

11 (1) No later than 45 days from enactment of this Act, the owner shall submit to the Division of
12 Water Resources a Plan of proposed assessment activities to evaluate groundwater impacts
13 from all coal combustions products impoundments located at all investor-owned public
14 utilities. At a minimum the plan shall:

- 15 a. Identify all receptors and significant exposure pathways;
- 16 b. Assess horizontal and vertical extent of soil and groundwater contamination for
17 all contaminants confirmed to be present in groundwater in exceedance of
18 groundwater quality standards and all significant factors affecting contaminant
19 transport;
- 20 c. Identify the geological and hydrogeological features influencing the movement,
21 chemical, and physical character of the contaminants; and
- 22 d. Propose a schedule for continued groundwater monitoring.

23 Upon review and approval by the Division of Water Resources, the investor-owned public utility
24 shall initiate assessment activities.

25 (2) No later than 180 days from the Division of Water Resources' written approval of the Plan
26 required under subparagraph (1) above, or a time frame otherwise approved by the Division
27 of Water Resources, the owner shall submit a Report detailing the findings of the Plan. The
28 Report shall set forth the extent of any and all exceedances of the groundwater quality
29 standards.

30 (3) No later than 270 days from the Division of Water Resources' written approval of the Plan
31 required under subparagraph (1) above, or a time frame otherwise approved by the Division
32 of Water Resources, the owner shall submit to the Division of Water Resources a proposed
33 Corrective Action Plan. The Corrective Action Plan shall, at a minimum, contain:

- 34 a. A listing of all exceedances of the groundwater quality standards including any
35 exceedances that the owner asserts are the result of natural background
36 conditions
- 37 b. Except as provided in subsection (f) below, a description of the proposed
38 corrective action employing the best available technology for the restoration of
39 groundwater quality to the level of the groundwater quality standards and reasons
40 for its selection.
- 41 c. Specific plans, including engineering details where applicable, for restoring
42 groundwater quality.
- 43 d. A schedule for the implementation of the proposed corrective action plan.

1 e. A monitoring plan for evaluating the effectiveness of the proposed corrective
2 action and the movement of the contaminant plume.

3 f. The owner may request alternative remediation as provided for under the
4 requirements of 15A NCAC 2L .0106 (k), (l), or (m).

5 (4) No later than 30 days from the Division of Water Resources' approval of a Final Corrective
6 Action Plan, the owner shall implement the Final Corrective Action Plan in accordance with a
7 schedule established by Division of Water Resources. The approval of a Final Corrective
8 Action Plan is not a final agency action pursuant to N.C. Gen. Stat. 150B.

9 (b) Drinking Water Assessment. – Within 60 days of enactment of this Act, owners of coal ash
10 impoundments located at all investor-owned public utilities shall conduct and submit to the
11 Division of Water Resources a water supply receptor survey. The Survey shall identify all
12 receptors within a radius of 2,640 feet (0.5 mile) from the established compliance boundary of
13 each impoundment. The owner shall sample each receptor identified by the Division of Water
14 Resources. For any well exceeding the groundwater standards, the owner shall replace the water
15 supply with a supply of potable drinking water.

16 (c) Annual Reporting Requirement. – In addition to any other reports required by the Division of
17 Water Resources, the owners of coal combustion products impoundments located at all investor-
18 owned public utilities shall submit an annual report to the Division of Water Resources no later
19 than January 31 of each year. The Annual report shall include a summary of all monitoring data
20 collected over the year, status of Plans and Final Corrective Action Plans, and a summary of
21 water supply receptor survey results.

22
23 **PART III. IDENTIFY AND ADDRESS UNPERMITTED WASTEWATER DISCHARGES AT**
24 **COAL COMBUSTION PRODUCTS IMPOUNDMENT SITES**

25 SECTION 3. G.S. 143- [new] reads as rewritten:

26 (a) Owners of coal combustion products impoundments located at all investor-owned public utilities
27 shall implement the plan described in sections (b)-(h) below to identify and address any
28 unpermitted discharges to surface waters at those coal combustion products impoundment sites.

29 (b) No later than 90 days from enactment of this act, the owner shall submit a topographic map at a
30 scale approved by Division of Water Resources that indicates the locations of all outfalls from
31 engineered channels designed and/or improved for the purpose of collecting water from the toe of
32 the coal combustion products impoundments. For each outfall, the map will:

33 (1) Specify its latitude and longitude;

34 (2) Specify whether the discharge is continuous or intermittent;

35 (3) Provide an average flow measurement, including a description of the method used to
36 measure flow.

37 With the topographic map, the owner will submit to the Division of Water Resources a schedule
38 according to which the owner shall conduct water quality sampling of the toe drain outfalls in
39 order to further characterize the discharging water. No later than 30 days from receipt of the map
40 and sampling schedule, Division of Water Resources will provide the owner with review
41 comments, either approving the plan or noting any deficiencies to be corrected and a date by
42 which a corrected map and/or sampling schedule is to be submitted for further review and
43 comment. Within 30 days of approval of the schedule by the Division of Water Resources, the
44 owner shall begin to sample the toe drain outfalls in accordance with the schedule and submit the

1 samples for water quality analysis. Water quality analyses shall include the same parameters
2 required for a coal-fired power plant per EPA Application Form 2C – Wastewater Discharge
3 Information, Consolidated Permits Program (EPA Form 3510-2C, August 1990). If the owner
4 demonstrates to the satisfaction of Division of Water Resources that sampling of a toe drain
5 outfall is unlikely to generate usable data or is otherwise infeasible, the owner will not be
6 required to sample that toe drain outfall.

7 (c) No later than 180 days from the enactment of this act, the owner shall submit a topographic map
8 at a scale approved by the Division of Water Resources that indicates the locations of any seeps
9 or drains reflecting discharges from the ash ponds but are not captured by an engineered channel
10 identified pursuant to section (b) above (“seeps”). For any seep so identified that is believed to
11 not reflect flows from any of the ash ponds, the owner shall provide to the Division of Water
12 Resources the basis for such belief, including hydrological data or water quality testing
13 information. For the seeps from the impoundments, the map will:

- 14 (1) Specify its latitude and longitude;
- 15 (2) Specify whether the discharge is continuous or intermittent;
- 16 (3) Provide an average flow measurement, including a description of the method used to
17 measure flow;
- 18 (4) Specify whether the discharge from the seep reaches surface waters; and
- 19 (5) If the discharge from the seep reaches surface water, identify the location where the seep
20 reaches surface water on the map to include latitude and longitude.

21 (d) No later than 180 days from the enactment of this act, the owner shall submit a plan to determine
22 whether toe drain or seep discharges from the impoundments have reached surface waters of the
23 state and are causing violations of surface water quality standards. The plan shall include the
24 following:

- 25 (1) Sampling locations upstream and downstream within all channels that potentially carry
26 such discharges;
- 27 (2) Water quality analyses shall include the same parameters required for a coal-fired power
28 plant per EPA Application Form 2C – Wastewater Discharge Information, Consolidated
29 Permits Program (EPA Form 3510-2C, August 1990);
- 30 (3) Frequency and duration of the sampling activities; and
- 31 (4) Reporting requirements.

32 No later than 30 days from receipt of the plan, the Division of Water Resources will provide the
33 owner with review comments, either approving the plan, or noting any deficiencies to be
34 corrected and a date by which a corrected plan is to be submitted for further review and comment
35 or approval. Within 180 days from the Division of Water Resources’ approval of the plan, the
36 owner will implement and complete the plan and submit a report summarizing that work and its
37 results.

38 (e) If the Division of Water Resources determines, based on information submitted pursuant to
39 sections (b)-(d) above, that discharges, whether from toe drains or seeps, are causing a violation
40 of NC Gen. Stat. §143-215.1 or any other law, it shall so notify the owner. Within 120 days of
41 such notification, the owner shall do one of the following:

- 42 (1) Stop the discharge;
- 43 (2) Capture and route the discharge so that it is discharged through an NPDES permitted
44 outfall;

- 1 (3) Address the seep using Best Management Practices approved by the Division of Water
2 Resources pursuant to section (f); and
3 (4) Propose alternative Best Management Practices subject to the approval of the Division of
4 Water Resources; or
5 (5) Apply for an NPDES discharge permit or permit amendment to regulate the discharge.
6 (f) No later than 180 days from the date of enactment of this act, The owner shall submit to the
7 Division of Water Resources for approval a set of best management practices designed to prevent
8 unpermitted discharges of pollutants from the ash ponds to surface waters. Thereafter, the owner
9 may submit additional best management practices for the Division of Water Resources approval.
10 (g) No later than 30 days from enactment of this act, the owner shall submit to the Division of Water
11 Resources a plan for identifying new seeps on the dike areas of the ash ponds that arise after the
12 submission of the maps described in sections (b) and (c). The plan shall include, at a minimum,
13 the following elements:
14 (1) A procedure for routine inspection of the coal combustion products impoundment areas
15 to identify indicators of potential new seeps;
16 (2) A decision flow chart (including criteria and procedures) for determining whether a new
17 seep is actually present; and
18 (3) A procedure for notifying the Division of Water Resources after a new seep is confirmed.
19 No later than 30 days from receipt of the plan, the Division of Water Resources will provide the
20 owner with review comments noting any deficiencies.
21 (h) No later than 12 months from the enactment of this act, the owner shall submit any information,
22 forms, and fees necessary to request that the Division of Water Resources incorporate the process
23 described in sections (b)-(g) above into the owner's NPDES permit.
24

Dams and Pond Safety

PART IV. AMEND S.L. 2009-390 (SB 1004)

SECTION 4. S.L. 2009-390 reads as rewritten:

§ 143-215.25A. Exempt dams.

- 29 (a) Except as otherwise provided in this Part, this Part does not apply to any dam:
30 (1) Constructed by the United States Army Corps of Engineers, the Tennessee Valley
31 Authority, or another agency of the United States government, when the agency designed
32 or approved plans for the dam and supervised its construction.
33 (2) Constructed with financial assistance from the United States Soil Conservation
34 Service, when that agency designed or approved plans for the dam and supervised its
35 construction.
36 (3) Licensed by the Federal Energy Regulatory Commission, or for which a license
37 application is pending with the Federal Energy Regulatory Commission.
38 (4) For use in connection with electric generating facilities regulated by the Nuclear
39 Regulatory Commission.
40 (5) Under a single private ownership that provides protection only to land or other
41 property under the same ownership and that does not pose a threat to human life or
42 property below the dam.

1 (6) That is less than 25 feet in height or that has an impoundment capacity of less than 50
2 acre-feet, unless the Department determines that failure of the dam could result in loss of
3 human life or significant damage to property below the dam.

4 (7) Constructed for and maintains the purpose of providing water for agricultural use,
5 when a person who is licensed as a professional engineer or is employed by the Natural
6 Resources Conservation Service, county, or local Soil and Water Conservation District,
7 and has federal engineering job approval authority under Chapter 89C of the General
8 Statutes designed or approved plans for the dam, supervised its construction, and
9 registered the dam with the Division of Energy, Mineral, and Land Resources of the
10 Department prior to construction of the dam. This exemption shall not apply to dams that
11 are determined to be high-hazard by the Department.

12 (b) The exemption from this Part for a dam described in subdivisions (1) and (2) of
13 subsection (a) of this section does not apply after the supervising federal agency relinquishes
14 authority for the operation and maintenance of the dam to a local entity.

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

22 ~~SECTION 4. Section 3 of this act becomes effective January 1, 2010. The remainder of the act is~~
23 ~~effective when it becomes law.~~

24 **PART V. EMERGENCY ACTION PLANS**

25 SECTION 5. GS 143-215.31 amended by adding a new subsection to read:

26 (a) Develop Emergency Action Plan. – Owners of high and intermediate hazard dams shall
27 develop at their cost an Emergency Action Plan for their dam in document format in triplicate copy to be
28 submitted to the Department by January 1, 2015. The emergency action plan at minimum shall: (a)
29 identify potential emergency conditions that can occur at the dam, (2) list preplanned actions to be taken
30 during an emergency condition at the dam, (3) document emergency notification procedures to aid in
31 warning and evacuations during an emergency condition at the dam, and (4) provide a downstream
32 inundation map depicting areas affected by a dam failure and sudden release of the impoundment. If a
33 dam owner fails to provide the Department with an Emergency Action Plan in triplicate copy by January
34 1, 2015, it shall be subject to Enforcement Procedures under NCGS 143-215.36. Dam owners shall
35 update their emergency action plans annually and submit the updated plans in triplicate copy to the
36 Department each year subsequent to January 1, 2015. The Department shall provide the appropriate local
37 Emergency Management Agency and the Regional Office of the Department with the triplicate copy.

38 (b) Confidentiality of Sensitive Public Security Information – To the extent that any documents
39 included in the Emergency Action Plan developed under this section contain sensitive public security
40 information, those portions of documents shall not be subject to disclosure under the North Carolina
41 Public Records Act.
42

1 **PART VI. NOTIFICATION OF EMERGENCY REPAIR OF A DAM**

2 SECTION 6. GS 143-215.27 amended by adding a new subsection to read:

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

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

17
18 **PART VII. INSPECTION OF IMPOUNDMENTS**

19 SECTION 7. G.S. 143-215.32. "Inspection of Dams" amended by adding new subsections to
20 read:

21 (e) Investor-owned public utilities shall inspect each coal combustion products impoundment
22 weekly and after storms to detect evidence of any of the following:

- 23 (1) Deterioration, malfunctions, or improper operation of spillway control systems;
- 24 (2) Sudden drops in the level of the impoundment's contents;
- 25 (3) Severe erosion or other signs of deterioration in dikes or other containment devices;
- 26 (4) New or enlarged seeps along the downstream slope or toe of the dike or other
27 containment devices; and
- 28 (5) Any other abnormal conditions at the impoundment that may pose a health or safety risk.

29 If any abnormalities in subsections (1) - (5) above are observed, documentation shall be provided to a
30 registered professional engineer for further investigation and appropriate action.

31 (f) Each coal combustion products impoundment located at investor-owned public utilities shall
32 be inspected annually by an independent registered professional engineer to assure structural integrity and
33 that the design, operation, and maintenance of the surface impoundment are in accordance with generally
34 accepted engineering standards. The owner or operator must notify the Department by way of a
35 certification by the independent registered professional engineer that the dam is structurally sound and the
36 design, operation, and maintenance of the surface impoundment is in accordance with generally accepted
37 engineering standards. The inspection report shall be submitted to the Department within 30 days of the
38 completion of the inspection and shall be placed on a publicly accessible internet site.

39
40 **Closure and Conversion**

41
42 **PART VIII. DEFINITION OF SOLID WASTE**

43 SECTION 8(a). G.S. 130A-290(a) (35) reads as rewritten:
44 130A-290. Definitions.

1 (35) "Solid waste" means any hazardous or nonhazardous garbage, refuse or sludge from a
2 waste treatment plant, water supply treatment plant or air pollution control facility, domestic
3 sewage and sludges generated by the treatment thereof in sanitary sewage collection, treatment
4 and disposal systems, and other material that is either discarded or is being accumulated, stored or
5 treated prior to being discarded, or has served its original intended use and is generally discarded,
6 including solid, liquid, semisolid or contained gaseous material resulting from industrial,
7 institutional, commercial and agricultural operations, and from community activities. The term
8 does not include:

9 a. Fecal waste from fowls and animals other than humans.

10 b. Solid or dissolved material in:

11 1. Domestic sewage and sludges generated by treatment thereof in sanitary
12 sewage collection, treatment and disposal systems which are designed to
13 discharge effluents to the surface waters.

14 2. Irrigation return flows.

15 3. Wastewater discharges and the sludges incidental to and generated by
16 treatment which are point sources subject to permits granted under Section 402 of
17 the Water Pollution Control Act, as amended (P.L. 92-500), and permits granted
18 under G.S. 143-215.1 by the Environmental Management Commission.
19 However, combustion products removed from impoundments subject to permits
20 under Section 402 of the Water Pollution Control Act, as amended (P.L. 92-500),
21 and permits granted under G.S. 143-215.1 by the Environmental Management
22 Commission shall be a solid waste. ~~Any~~ sludges that meet the criteria for
23 hazardous waste under RCRA shall also be a solid waste for the purposes of this
24 Article.

25 c. Oils and other liquid hydrocarbons controlled under Article 21A of Chapter 143 of the
26 General Statutes. However, any oils or other liquid hydrocarbons that meet the criteria for
27 hazardous waste under RCRA shall also be a solid waste for the purposes of this Article.

28 d. Any source, special nuclear or byproduct material as defined by the Atomic Energy
29 Act of 1954, as amended (42 U.S.C. § 2011).

30 e. Mining refuse covered by the North Carolina Mining Act, G.S. 74-46 through 74-68
31 and regulated by the North Carolina Mining and Energy Commission (as defined under
32 G.S. 143B-293.1). However, any specific mining waste that meets the criteria for
33 hazardous waste under RCRA shall also be a solid waste for the purposes of this Article.

34 f. Recovered material.

35 SECTION 8(b). G.S. 143-213 reads as rewritten:

36 G.S. 143-213. Definitions.

37 (18) "Waste" shall mean and include the following with the exception of solid waste as defined by
38 G.S.130A-290(a)(35):

39 a. "Sewage," which shall mean water-carried human waste discharged, transmitted, and collected
40 from residences, buildings, industrial establishments, or other places into a unified sewerage
41 system or an arrangement for sewage disposal or a group of such sewerage arrangements or
42 systems, together with such ground, surface, storm, or other water as may be present.

1 b. "Industrial waste" shall mean any liquid, solid, gaseous, or other waste substance or a
2 combination thereof resulting from any process of industry, manufacture, trade or business, or
3 from the development of any natural resource.

4 c. "Other waste" means sawdust, shavings, lime, refuse, offal, oil, tar chemicals, dissolved and
5 suspended solids, sediment, and all other substances, except industrial waste, sewage, and toxic
6 chemicals which may be discharged into or placed in such proximity to the water that drainage
7 therefrom may reach the water.

8 d. "Toxic waste" means that waste, or combinations of wastes, including disease-causing agents,
9 which after discharge and upon exposure, ingestion, inhalation, or assimilation into any organism,
10 either directly from the environment or indirectly by ingestion through food chains, will cause
11 death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions
12 (including malfunctions in reproduction) or physical deformities, in such organisms or their
13 offspring.
14

15 **PART IX. TEMPORARY MORATORIUM ON STRUCTURAL FILL**

16 SECTION 9(a). Moratorium Established. – Notwithstanding rules adopted by the Commission for
17 Public Health there is hereby established a moratorium on the use of coal combustion products as a
18 structural fill unless the fill is used under an airport runway or base or sub-base of a concrete or asphalt
19 paved road, constructed under the authority of a public entity. The moratorium established by this section
20 shall be in effect until rules are amended by the Commission for Public Health for the management of
21 coal combustion products.

22 SECTION 9(b). For purposes of this section, the moratorium does not apply to structural fill sites
23 of less than 5,000 cubic yards.

24 SECTION 9(c). This section is effective when this act becomes law and applies only to those coal
25 combustion products structural fills that have not begun construction or have not received a permit to
26 begin construction on or before that date.
27

28 **PART X. COAL COMBUSTION PRODUCTS IMPOUNDMENT CLOSURE**

29 SECTION 10(a). Chapter 143 of the General Statutes is amended by adding a new Article to read:

30 G.S. 143-[new]. – "Closure of Coal Combustion Products Impoundments to Protect Groundwater and
31 Surface Water"

32 (a) The Department shall establish the priority for closure of all active and inactive investor-owned
33 coal combustion products impoundments. Once priorities for closure are established, the owner of
34 the active and inactive ash ponds shall propose a schedule for beginning closure activities for
35 each prioritized facility, and shall submit a proposed schedule in accordance with the time frame
36 established by the Department. Six months (180 days) before the scheduled closure activities
37 begin, the owner must submit five (5) paper copies and one (1) electronic copy of a closure plan
38 to the Division of Water Resources for approval. The closure plan shall include the following
39 sections:

40 (1) Facility and Ash Pond Description. – A description of the operation of the facility that shall
41 include, but not be limited to:

- 42 a. Site and history of site operations; ash handling and storage operations;
43 b. Types of flows discharging into the impoundment;
44 c. Estimated volume of material contained in the impoundment;

- 1 d. Analysis of the structural integrity of dikes or dams associated with impoundment;
- 2 e. Composition of liner (lined or unlined pond); and
- 3 f. Summarized results of any previous environmental investigations performed at the
- 4 site.

5 (2) Site Map. – Site maps that illustrate the following:

- 6 a. All structures associated with operations of the ash ponds within the power plant
- 7 property boundary;
- 8 b. All identified current and former ash disposal and storage areas including structural
- 9 fills;
- 10 c. All property boundaries and established compliance boundaries;
- 11 d. All potential receptors (i.e. water supply wells, surface water bodies (streams,
- 12 springs, lakes, ponds and other surface drainage features, and wetlands) within 2,640
- 13 feet from the compliance boundary;
- 14 e. Topographic contour intervals of the site shall be selected to enable an accurate
- 15 representation of site features and terrain and in most cases should be less than 20
- 16 feet intervals;
- 17 f. Locations of all on-site active and inactive Division of Waste Management permitted
- 18 solid waste facilities along with their associated compliance boundaries and
- 19 monitoring wells;
- 20 g. All existing and proposed groundwater monitoring wells associated with monitoring
- 21 of the active and inactive ash ponds; and
- 22 h. All existing and proposed sample collection locations associated with the operation
- 23 or closure of the impoundment(s).

24 (3) Hydrogeologic, Geologic, and Geotechnical Investigations. – The results of a hydrogeologic,

25 geologic, and geotechnical investigation of the facility, that shall include, but not be limited

26 to:

- 27 a. A description of the hydrogeology and geology of the site;
- 28 b. A description of the stratigraphy of the geologic units underlying the ash ponds;
- 29 c. The saturated hydraulic conductivity for the ash and liner if present;
- 30 d. The geotechnical properties for the ash, liner if present, and the uppermost identified
- 31 stratigraphic unit underlying the impoundment including the soil classification by
- 32 Unified Soil Classification System, in-place moisture content, particle size
- 33 distribution, Atterberg limits, specific gravity, effective friction angle, maximum dry
- 34 density, optimum moisture content, and permeability;
- 35 e. A chemical analysis of the impoundment water, ash, and ash-affected soil. Identify
- 36 constituents with concentrations found to be in excess of 15A NCAC 02L.0202
- 37 Groundwater Quality Standards including all laboratory results for these analyses.
- 38 f. Summary tables of historical records of groundwater sampling results.
- 39 g. A map that illustrates the potentiometric contours and flow directions for all
- 40 identified aquifers underlying impoundments (shallow, intermediate, and deep) and
- 41 the horizontal extent of areas where 15A NCAC 02L.0202 Groundwater Quality
- 42 Standards are exceeded.
- 43 h. Cross-sections that illustrate the following: vertical and horizontal extent of the ash
- 44 within the impoundment; Stratigraphy of the geologic units underlying the ash pond;

1 and the vertical extent of areas where 15A NCAC 02L.0202 Groundwater Quality
2 Standards are exceeded.

3 (4) Hydrogeologic Modeling. – The results of groundwater modeling of the site that shall
4 include, but not be limited to:

5 a. An account of the design of the proposed pond closure method that: is based on the
6 site hydrogeologic conceptual model developed, includes predictions on post-closure
7 groundwater elevations, groundwater flow directions and velocities including the
8 effects on/from the potential receptors, and includes predictions at the compliance
9 boundary for constituents identified in part 3 (e) as exceeding 15A NCAC 2L.0202
10 Groundwater Quality Standards.

11 b. Predictions that include the effects on the groundwater chemistry, and should
12 describe migration, concentration, mobilization and fate of the constituents that
13 exceed 15A NCAC 2L standards before and after closure activities including the
14 effects on/from potential receptors; and

15 c. A description of the groundwater trend analysis methods used to demonstrate
16 compliance with 15A NCAC 02L.0202 Groundwater Quality Standards and 15A
17 NCAC 02L .0106.

18 (5) Closure Method. – The owner shall provide a proposed closure method. The proposed
19 closure method must demonstrate that where groundwater quality is degraded, restoration to
20 the level of the groundwater standards will be obtained as is economically and technically
21 feasible. The selected proposed closure method shall be from one of the following
22 alternatives, and shall include, but not be limited to:

23 a. A description of the closure method identified for each ash pond. Closure methods
24 include:

25 i. Closure-in-Place. – This alternative entails placing an engineered cover
26 system such as a composite geomembrane, impermeable clay, and/or a
27 soil cover over the ash pond. No ash or ash-affected soil would leave the
28 ash pond area.

29 ii. Clean Closure. – This alternative assumes that all coal ash can be
30 excavated and the ash pond area will be returned to a non-erosive and
31 stable condition.

32 iii. Hybrid Closure. – This alternative entails consolidating ash and ash-
33 affected soil into as small area as feasible within the ash pond footprint.
34 An engineered cover system (e.g. composite geomembrane, impermeable
35 clay, and/or a soil cover) would be installed over the consolidated ash
36 and ash-affected soil. The remaining ash pond area will be returned to a
37 non-erosive and stable condition.

38 iv. Other. – Must be equally or more effective at protecting water quality
39 than the other closure options.

40 b. A description concerning any plans for beneficial reuse of the coal ash under 15A
41 NCAC 02T .1200 (if applicable).

42 c. All engineering drawings, schematics, and specifications for the proposed closure
43 method. If required by G.S. 89C, engineering design documents should be prepared,
44 signed, and sealed by a professional engineer. Describe the construction quality

- 1 assurance and quality control program including the responsibilities and authorities;
2 monitoring and testing activities; sampling strategies; and reporting requirements.
3 d. A description of the provisions for disposal of wastewater through an NPDES permit
4 or any other relevant permit.
5 e. A description of the provisions for the final disposition of the ash. If the ash is to be
6 removed, the owner must identify the site location and the permit number for ash sent
7 to a permitted disposal site. If the ash is left in place, the owner must provide a
8 description of how the ash will be stabilized during closure and post closure and an
9 estimate of the volume of ash left in place.
10 f. A list of all permits that will need to be acquired or modified to complete closure
11 activities.
12 (6) Post-Closure Plan. – The owner shall provide post-closure plans for a minimum of 30 years.
13 If required by G.S. 89C, these plans should be signed and sealed by a professional engineer.
14 These plans shall include, but not be limited to:
15 a. A description of the post-closure care and maintenance activities;
16 b. A demonstration of the long-term control of all leachate, affected groundwater, and
17 stormwater;
18 c. A description of a groundwater monitoring program that includes:
19 i. Post closure groundwater monitoring, including parameters to be sampled
20 and sampling schedules;
21 ii. Any additional monitoring well installations, including a map with the
22 proposed location/s and well construction details;
23 iii. A description of the actions proposed to mitigate statistically significant
24 increasing groundwater quality trends; and
25 d. The length of the post-closure care period. This period may be proposed to be
26 decreased or the frequency and parameter list modified if the owner demonstrates
27 that the reduced period or modifications are sufficient to protect human health and
28 the environment and this demonstration is approved by the Department. The length of
29 the post-closure care period may be increased by the Department at the end of the
30 post-closure period if there are statistically significant increasing groundwater quality
31 trends or contaminant concentrations have not decreased to a level protective of
32 human health and the environment. If the owner determines that the post-closure
33 care period is no longer needed and the Department agrees, the owner shall provide a
34 certification, signed by a registered professional engineer, verifying that post-closure
35 care has been completed in accordance with the post-closure plan.
36 (7) Schedules. – The owner shall provide an estimate of the milestone dates for all activities
37 related to closure and post-closure.
38 (8) Future Site Use. – The owner shall describe the anticipated future use of the site and the
39 necessity for deed restrictions following closure.
40 (9) Final Submittal Determination and Approval. – Within 90 days of receipt of a completed
41 closure plan, the Department will send a letter either approving the closure plan or requesting
42 additional information. Upon approval, the owner must begin closure activities within 30
43 days.
44

1 SECTION 10(b). G.S. 143-[new] “Closure of coal combustion products impoundments to render such
2 facilities exempt from the North Carolina Dam Safety Law of 1967”:

3 (a) Decommissioning Request Submittal. – Any party seeking to decommission a coal combustion
4 products impoundment facility shall submit a document from the ownership entity requesting that
5 the facility be decommissioned to the Division of Energy, Mineral, and Land Resources. The
6 document shall include as a minimum the following:

- 7 (1) A proposed geotechnical investigation plan scope of work. Upon preliminary plan
8 approval as described below, the owner shall proceed with necessary field work and
9 submit a geotechnical report with site specific field data indicating that the containment
10 dam and material impounded by the containment dam are stable, and that the impounded
11 material is not subject to liquid flow behavior under expected static and dynamic loading
12 conditions. Material testing should be performed along the full extent of the containment
13 dam and in a pattern throughout the area of impounded material.
- 14 (2) A topographic map depicting existing conditions of the containment dam and
15 impoundment area at two foot contour intervals or less.
- 16 (3) If the facility contains areas capable of impounding by topography, a breach plan must be
17 included which ensures that there shall be no place within the facility capable of
18 impounding. The breach plan shall include at minimum proposed grading contours
19 superimposed on the existing topographic map as well as necessary engineering
20 calculations, construction details and construction specifications.
- 21 (4) A permanent vegetation and stabilization or capping plan by synthetic liner or other
22 means if needed. These plans shall include at minimum, proposed grading contours
23 superimposed on the existing topographic map where applicable as well as necessary
24 engineering calculations, construction details, construction specifications and all details
25 for the establishment of surface area stabilization.
- 26 (5) A statement indicating that the impoundment facility has not received sluiced coal ash
27 material for at least three years and there are no future plans to place coal ash in the
28 facility by sluicing methods.

29 (b) Preliminary Submittal Determination and Approval. – The submitted document shall undergo a
30 preliminary review by the Division of Energy, Mineral, and Land Resources for completeness
31 and approval of the proposed geotechnical investigation plan scope of work.

- 32 (1) The owner shall be notified by letter with results of the preliminary review including
33 approval or revision request relative to the proposed scope of work included in the
34 geotechnical investigation plan.
- 35 (2) Upon receipt of a letter issued by the Division approving the preliminary geotechnical
36 plan scope of work, the owner may proceed with field work and development of the
37 geotechnical report.

38 (c) Final Submittal Determination and Approval. – Upon receipt of the geotechnical report, the
39 Division of Energy, Mineral, and Land Resources shall complete the submittal review.

- 40 (1) If it is determined that sufficient evidence has been presented to clearly show that the
41 facility no longer functions as a dam in its current state, a letter decommissioning the
42 facility shall be issued by the Division of Energy, Mineral, and Land Resources and the

1 facility shall no longer be under jurisdiction of the Dam Safety Law of 1967, G.S. 143-
2 215.23.

3 (2) If modifications such as breach construction and/or implementation of a permanent
4 vegetation or surface lining plan are needed, such plans shall be reviewed per standard
5 procedures for consideration of letter of approval to modify and/or breach.

6 (3) If approved, such plans shall follow standard procedure for construction including:
7 construction supervision by a North Carolina registered professional engineer, as-built
8 submittal by a North Carolina registered professional engineer, and follow up final
9 inspection by Division of Energy, Mineral, and Land Resources staff.

10 (4) Final approval shall be issued by the Division of Energy, Mineral, and Land Resources in
11 the form of a letter decommissioning the facility and the facility shall no longer be under
12 jurisdiction of the Dam Safety Law of 1967, G.S. 143-215.23.

13
14 SECTION 10(c). G.S. 143-[new] "Closure Plans Schedule":

15 Notwithstanding Sections 11(a) and 11(b):

16 (a) The closure plan for Riverbend shall be submitted to the Department no later than 60 days after
17 the Act is ratified and shall include detailed provisions that ensure all ash in the impoundments
18 will be moved to a lined structural fill, a lined landfill, or an alternative disposition approved by
19 Department.

20 (b) The closure plan for Asheville shall be submitted to the Department no later than 60 days after
21 the Act is ratified and include detailed provisions that ensure all ash in the impoundments will be
22 moved to a lined structural fill, a lined landfill, or an alternative disposition approved by the
23 Department.

24 (c) The closure plan for Dan River shall be submitted to the Department no later than 90 days after
25 the Act is ratified and include detailed provisions that ensure all ash in the impoundments will be
26 moved to a lined structural fill, a lined landfill, or an alternative disposition approved by the
27 Department.

28 (d) The closure plan for Sutton shall be submitted to the Department no later than 90 days after the
29 Act is ratified, and include detailed provisions that ensure all ash in the impoundments will be
30 moved to a lined structural fill, a lined landfill, or an alternative disposition approved by
31 Department.

32
33 SECTION 11. This Act is effective when it becomes law.