

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2009

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HOUSE DRH70312-LDf-65D (03/10)

Short Title: Increase Public Safety for Coal Ash Disposal.

(Public)

Sponsors: Representatives Harrison and Fisher (Primary Sponsors).

Referred to:

1 A BILL TO BE ENTITLED
2 AN ACT (1) TO CLARIFY AND EXPAND THE REQUIREMENTS FOR THE
3 PERMITTING OF COMBUSTION PRODUCTS LANDFILLS AND STRUCTURAL
4 FILL FACILITIES IN ORDER TO ADEQUATELY PROTECT THE PUBLIC HEALTH
5 AND THE ENVIRONMENT; (2) TO AUTHORIZE THE DEPARTMENT OF
6 ENVIRONMENT AND NATURAL RESOURCES TO CHARGE AND COLLECT FEES
7 FROM OPERATORS OF COMBUSTION PRODUCTS LANDFILLS AND
8 STRUCTURAL FILL FACILITIES; (3) TO DIRECT THE DEPARTMENT OF
9 ENVIRONMENT AND NATURAL RESOURCES TO REQUIRE MONITORING AND
10 CORRECTIVE ACTION FOR EXISTING COMBUSTION PRODUCTS SURFACE
11 IMPOUNDMENTS, PROHIBIT THE CONSTRUCTION OF NEW COAL
12 COMBUSTION PRODUCTS SURFACE IMPOUNDMENTS, AND PROVIDE FOR THE
13 PHASING OUT OF EXISTING COMBUSTION PRODUCTS SURFACE
14 IMPOUNDMENTS; AND (4) TO REMOVE THE EXEMPTION FROM THE DAM
15 SAFETY ACT FOR EXISTING COMBUSTION PRODUCTS SURFACE
16 IMPOUNDMENTS.

17 The General Assembly of North Carolina enacts:

18 **SECTION 1.** G.S. 130A-290(a)(2b) reads as rewritten:

19 "(2b) "Combustion products" means the solid and liquid waste generated by the
20 burning of coal and the solid and liquid waste that is generated through the
21 process of controlling the emissions that result from the burning of coal.
22 "Combustion products" includes the residuals, including fly ash, bottom ash,
23 boiler slag, scrubber sludge, mill rejects, and flue gas desulfurization residue
24 produced by a coal-fired generating unit or produced by any other
25 burning of coal for commercial purposes. "Combustion products" also
26 includes waste from fluidized bed combustion and any other waste that is
27 uniquely associated with the burning of coal, often by being mixed with the
28 ash, slag, or sludge."

29 **SECTION 2.** G.S. 130A-290(a)(2c) reads as rewritten:

30 "(2c) "Combustion products landfill" means a facility or unit for the disposal of
31 combustion products, ~~where the landfill is located at the same facility with~~
32 ~~the coal-fired generating unit or units producing the combustion products,~~
33 ~~and where the landfill is located wholly or partly on top of a facility that is,~~
34 ~~or was, being used for the disposal or storage of such combustion products,~~
35 including, but not limited to, landfills, wet and dry ash ponds, and structural



1 fill facilities.products. "Combustion products landfill" does not include a
2 combustion products surface impoundment."

3 **SECTION 3.** G.S. 130A-290(a) is amended by adding a new subdivision to read:

4 "(2d) "Combustion products surface impoundment" means a topographic
5 depression, excavation, or diked area that is primarily formed from earthen
6 materials, that is either lined or unlined, and that is designed to hold
7 accumulated combustion products in the form of liquid wastes, wastes
8 containing free liquids, or sludges, and that is not backfilled or otherwise
9 covered during periods of deposition. "Combustion products surface
10 impoundment" includes an impoundment that is dry due to the deposited
11 liquid having evaporated, volatilized, or leached. "Combustion products
12 surface impoundment" includes an impoundment that is wet with exposed
13 liquid. "Combustion products surface impoundment" includes lagoons,
14 ponds, aeration pits, settling ponds, tailings ponds, and sludge pits, when
15 these structures are designed to hold accumulated combustion products.
16 "Combustion products surface impoundment" includes a combustion
17 products surface impoundment that has been covered with soil after the final
18 deposition of combustion products at the impoundment."

19 **SECTION 4.** G.S. 130A-295.4 reads as rewritten:

20 **"§ 130A-295.4. Combustion products landfills.**

21 (a) The definitions set out in G.S. 130A-290(a) apply to this section.

22 (b) The Department may permit a combustion products landfill to be ~~constructed~~
23 ~~partially or entirely within areas that have been formerly used for the storage or disposal of~~
24 ~~combustion products at the same facility as the coal fired generating unit that generates the~~
25 ~~combustion products, provided the~~constructed or expanded, provided the permit includes all of
26 the following conditions:

27 (1) No waste disposal unit of the landfill shall be constructed or expanded
28 within any of the following:

29 a. A 100-year floodplain or land removed from a 100-year floodplain
30 designation pursuant to 44 Code of Federal Regulations Part 72 (1
31 October 2006 Edition) as a result of man-made alterations within the
32 floodplain such as the placement of fill, except as authorized by
33 variance granted under G.S. 143-215.54A(b). This subdivision does
34 not apply to land removed from a 100-year floodplain designation (i)
35 as a result of floodplain map corrections or updates not resulting
36 from man-made alterations of the affected areas within the
37 floodplain, or (ii) pursuant to 44 Code of Federal Regulations Part 70
38 (1 October 2006 Edition) by a letter of map amendment.

39 b. A wetland, fault area, seismic impact zone, unstable area, or karst
40 terrain.

41 (2) No waste disposal unit of the landfill shall be constructed or expanded
42 beneath the seasonal high groundwater table.

43 (3) Each waste disposal unit of the landfill ~~is~~ shall be constructed or expanded
44 with a bottom liner system ~~consisting~~ that provides for dual liners and that
45 satisfies the additional requirements under subsection (b1) of this section.

46 (4) Each waste disposal unit of the landfill shall have a cap or cover that is
47 designed to minimize air pollutants and leaching and to protect surface
48 waters.

49 (5) Each disposal unit of the landfill shall be constructed or expanded to have at
50 least one upgradient well and at least three downgradient wells to provide

1 groundwater monitoring in accordance with subdivision (5) of this
2 subsection.

3 (6) Each disposal unit of the landfill shall be consistently monitored for
4 groundwater contamination, and this monitoring shall include
5 comprehensive testing for constituents of combustion products.

6 (7) Each permit shall be subject to the environmental compliance provisions of
7 130A-295.3 and the siting requirements for sanitary landfills under G.S.
8 130A-295.6(b) through G.S. 130A-295.6(d).

9 (8) Each permit shall include a response plan that satisfies the additional
10 requirements under subsection (c) of this section.

11 (9) Each applicant for a permit shall satisfy the financial responsibility
12 requirements of G.S. 130A-295.2 and shall also show the financial ability to
13 clean up any pollution that results from the placement of combustion
14 products into the environment.

15 (b1) The bottom liner system of a combustion products landfill shall consist of three
16 components in accordance with this section. Of the required three components, the upper two
17 components shall consist of two separate flexible membrane liners, with a leak detection
18 system and a fluid landfill waste collection and removal system between the two liners. The
19 third component shall consist of a minimum of two feet of soil underneath the bottom of those
20 liners, with the soil having a maximum permeability of 1×10^{-7} centimeters per second. The
21 flexible membrane liners shall have a minimum thickness of thirty one-thousandths of an inch
22 (0.030"), except that liners consisting of high-density polyethylene shall be at least sixty
23 one-thousandths of an inch (0.060") thick. The lower flexible membrane liner shall be installed
24 in direct and uniform contact with the compacted soil layer. The Department may approve an
25 alternative to the soil component of the composite liner system if the Department finds, based
26 on modeling, that the alternative liner system will provide an equivalent or greater degree of
27 impermeability.

28 (c) An applicant for a permit for a combustion products landfill shall develop and
29 provide to the Department a response plan, which shall describe the circumstances under which
30 corrective measures are to be taken at the landfill in the event of exceedances of permitted
31 levels of coal combustion products constituents based on monitoring well data or the detection
32 of leaks in the leak detection system between the upper two liner components at amounts
33 exceeding an amount specified in the response plan (as expressed in average gallons per day
34 per acre of landfill, defined as an Action Leakage Rate). The response plan shall also describe
35 the remedial actions that the landfill is required to undertake in response to detection of leakage
36 in amounts in excess of the Action Leakage Rate. Remedial action under this subsection is not
37 complete until water quality standards at the monitoring wells have been restored and
38 maintained for at least three consecutive years. The Department shall review the response plan
39 as a part of the permit application for the landfill. Compliance with performance of the landfill
40 to prevent releases of waste to the environment ~~may shall~~ be determined based on leakage rate
41 rather than and monitoring well data.

42 (d) The Department may charge and collect fees from operators of combustion products
43 landfills permitted under this section. All fees collected under this section shall be credited to
44 the Solid Waste Management Account and shall be used to support the solid waste management
45 program established pursuant to G.S. 130A-294.

46 (e) Beginning January 1, 2010, no person shall construct a combustion products surface
47 impoundment.

48 (f) For the purpose of protecting human health and the environment, the Department
49 shall require monitoring and corrective action for combustion products landfills and
50 combustion products surface impoundments that were constructed before January 1, 2010. The

1 Department shall develop a program for the phasing out of combustion products surface
2 impoundments that were constructed before January 1, 2010.

3 (g) Any provision of this section or any rules adopted pursuant to this section are
4 subject to any provision of federal law or regulation that is more restrictive."

5 **SECTION 5.** Part 2 of Article 9 of Chapter 130A of the General Statutes is
6 amended by adding the following new section to read:

7 **"§ 130A-295.3A. Structural fill facilities; beneficial end uses of combustion products.**

8 (a) The definitions set out in G.S. 130A-290(a) apply to this section. In addition, as
9 used in this section, the following definitions apply:

10 (1) "Beneficial end use" means projects promoting public health and
11 environmental protection, offering equivalent success relative to other
12 alternatives, and preserving natural resources. Beneficial end use of
13 combustion products means the procedure whereby combustion products are
14 directly used either:

15 a. As an ingredient in an industrial process to make a product, unless
16 distinct components of the combustion products are recovered as
17 separate end products.

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

20 (2) "Structural fill" means an engineered fill with a projected beneficial end use
21 that is constructed using products that are properly placed and compacted.

22 (b) The Department shall develop a permit system governing the establishment,
23 operation, and closure of structural fill facilities. The permit shall also address the siting,
24 design, construction, and recordation of structural fill facilities. The permit shall be subject to
25 the environmental compliance provisions of G.S. 130A-295.3 and the siting requirement for
26 sanitary landfills under G.S. 130A-295.6(b) through G.S. 130A-295.6(d). The permit shall
27 require monitoring, including monitoring of leachate for any heavy metals that could be present
28 in coal ash. The permit shall require corrective action for any environmental damage associated
29 with the facility.

30 (c) The Department may charge and collect fees from operators of structural fill
31 facilities permitted under subsection (b) of this section. All fees collected under this section
32 shall be credited to the Solid Waste Management Account and shall be used to support the solid
33 waste management program established pursuant to G.S. 130A-294.

34 (d) The Department may permit the beneficial end use of combustion products.
35 Permitted uses shall be only those uses that are considered safe by conservative engineering
36 and water quality protection standards.

37 (e) The Department may adopt rules to implement this section.

38 (f) Any provision of this section or any rules adopted pursuant to this section are
39 subject to any provision of federal law or regulation that is more restrictive."

40 **SECTION 6.** G.S. 143-215.25A(a) reads as rewritten:

41 "(a) Except as otherwise provided in this Part, this Part does not apply to any dam:

42 (1) Constructed by the United States Army Corps of Engineers, the Tennessee
43 Valley Authority, or another agency of the United States government, when
44 the agency designed or approved plans for the dam and supervised its
45 construction.

46 (2) Constructed with financial assistance from the United States Soil
47 Conservation Service, when that agency designed or approved plans for the
48 dam and supervised its construction.

49 (3) Licensed by the Federal Energy Regulatory Commission, or for which a
50 license application is pending with the Federal Energy Regulatory
51 Commission.

- 1 (4) ~~For use in connection with electric generating facilities under the jurisdiction~~
2 ~~of the North Carolina Utilities Commission, except that a dam operated by a~~
3 ~~small power producer, as defined in G.S. 62-3(27a), shall be subject to the~~
4 ~~provisions of this Part even though the dam is constructed pursuant to a~~
5 ~~certificate of public convenience and necessity issues by the North Carolina~~
6 ~~Utilities Commission.~~
- 7 (5) Under a single private ownership that provides protection only to land or
8 other property under the same ownership and that does not pose a threat to
9 human life or property below the dam.
- 10 (6) That is less than 15 feet in height or that has an impoundment capacity of
11 less than 10 acre-feet, unless the Department determines that failure of the
12 dam could result in loss of human life or significant damage to property
13 below the dam."

14 **SECTION 7.** The duty of regulating combustion products surface impoundments,
15 as defined in G.S. 130A-290, as amended by Section 3 of this act, shall be transferred from the
16 North Carolina Utilities Commission to the Department of Environment and Natural Resources,
17 Division of Waste Management.

18 **SECTION 8.** This act becomes effective January 1, 2010.