## GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2019

S

## FILED SENATE Mar 21, 2019 S.B. 328 PRINCIPAL CLERK D

## SENATE BILL DRS45151-MH-94

Short Title:	Increase Rqmts. for Small Structural Fills.	(Public)
Sponsors:	Senator Sawyer (Primary Sponsor).	
Referred to:		
	A BILL TO BE ENTITLED	

1		A BILL TO BE ENTITLED
2	AN ACT	TO SUBJECT ALL PROJECTS USING COAL COMBUSTION PRODUCTS AS
3	STRU	CTURAL FILL TO THE SAME REQUIREMENTS FOR PERMITTING, DESIGN
4	AND C	CONSTRUCTION, CLOSURE, AND POST-CLOSURE.
5	The Gener	al Assembly of North Carolina enacts:
6		SECTION 1. Subpart 3 of Part 2I of Article 9 of Chapter 130A of the General
7	Statutes re-	ads as rewritten:
8		"Subpart 3. Use of Coal Combustion Products in Structural Fill.
9		09.218. Applicability.
10		ovisions of this Subpart shall apply to the siting, design, construction, operation, and
11		projects that utilize coal combustion products for structural fill.
12	"§ 130A-3	09.219. Permit requirements for projects using coal combustion products for
13		structural fill.
14	(a)	Permit Requirements. –
15		(1) Projects using coal combustion products as structural fill involving the
16		placement of less than 8,000 tons of coal combustion products per acre or less
17		than 80,000 tons of coal combustion products in total per project, which
18		proceed in compliance with the requirements of this section and rules adopted
19		thereunder, are deemed permitted. Any person proposing such a project shall
20		submit an application for a permit to the Department upon such form as the
21		Department may prescribe, including, at a minimum, the information set forth
22		in subdivision (1) of subsection (b) of this section.
23		(2) No person shall commence or operate a project using coal combustion
24		residuals as structural fill involving the placement of 8,000 or more tons of
25		coal combustion products per acre or 80,000 or more tons of coal combustion
26		products in total per project without first receiving an individual permit from
27		the Department. Any person proposing such a project shall submit an
28		application for a permit to the Department upon such form as the Department
29		may prescribe, including, at a minimum, the information set forth in
30		subdivisions (1) and (2) of subsection (b) (b1) of this section.
31	<del>(b)</del>	Information to Be Provided to the Department. At least 60 days before initiation of
32		project using coal combustion products as structural fill, the person proposing the
33	1 0	ll submit all of the following information to the Department on a form as prescribed
34	by the Dep	artment:



General	Assem	bly Of North Carolina	Session 201
	(1)	For projects involving placement of less than 8,000 tons	of coal combustic
		products per acre or less than 80,000 tons of coal combust	
		per project, the person shall provide, at a minimum, the fol	
		a. The description of the nature, purpose, and location	
		b. The estimated start and completion dates for the p	
		c. An estimate of the volume of coal combustion pro-	
		the project.	
		d. <u>A Toxicity Characteristic Leaching Procedure</u>	analysis from
		representative sample of each different coal co	
		source to be used in the project for, at a minimum,	
		constituents: arsenic, barium, cadmium, lead, c	
		selenium, and silver.	in oninum, moreur
		e. A signed and dated statement by the owner of the	a land on which th
		structural fill is to be placed, acknowledging and c	
		of coal combustion products as structural fill o	
		agreeing to record the fill in accordance with the r	
		130A-390.219 [130A-309.223].	equilements of O.
		f. The name, address, and contact information for t	the generator of th
		coal combustion products.	the generator of th
			ombustion produc
		g. Physical location of the project at which the coal c were generated.	ombustion produc
	(2)	6	of coal combusti
	(2)	For projects involving placement of 8,000 or more tons products per acre or 80,000 or more tons of coal combust	
		products per acre of 30,000 of more tons of coar combust per project, the person shall provide all information re	
		subdivision (1) of this subsection and shall provide consti	
		project, including a stability analysis as the Departme	
		required by the Department, a stability analysis shall be pure scaled by a professional anginaer in accordance with	
		sealed by a professional engineer in accordance with practices. A construction plan shall, at a minimum, include	
		monitoring system and an encapsulation liner system in c	-
		requirements of G.S. 130A-309.220.	compliance with t
(b1)	Infor	mation to Be Provided to the Department. – At least 60 days	before initiation
		ect using coal combustion products as structural fill, the pe	
	1 0	mit all of the following information to the Department on a	
by the D		• •	i ionn as presento
<u>by the D</u>	<u>(1)</u>	The description of the nature, purpose, and location of the	project
	$\frac{(1)}{(2)}$	The estimated start and completion dates for the project.	<u>project.</u>
	$\frac{(2)}{(3)}$	An estimate of the volume of coal combustion product	s to be used in t
	<u>(3)</u>		s to be used in th
	(A)	project. A Toxicity Characteristic Leaching Procedure analysis fr	om a ranracantati
	<u>(4)</u>	<u>A Toxicity Characteristic Leaching Procedure analysis fr</u> sample of each different coal combustion product's source	*
		•	
		project for, at a minimum, all of the following constituer	
	(5)	cadmium, lead, chromium, mercury, selenium, and silver.	
	<u>(5)</u>	A signed and dated statement by the owner of the land on	
		fill is to be placed, acknowledging and consenting the approximation are ducts as structural fill on the approximation of the structural fill on the approximation of the structural fill on the structural fi	
		combustion products as structural fill on the property and the fill in accordance with the maximum arts of $C = 120 \text{ A}$	
		the fill in accordance with the requirements of G.S. 130A	
	<u>(6)</u>	The name, address, and contact information for the ge	enerator of the co
	/ <b>-</b> `	combustion products.	
	<u>(7)</u>	Physical location of the project at which the coal combu-	stion products we
		generated.	

General	Assemb	oly Of North Carolina	Session 2019
	<u>(8)</u>	Construction plans for the project, including a s Department may require. If required by the Department shall be prepared, signed, and sealed by a professional with sound engineering practices. A construction pl include a groundwater monitoring system and an em-	ment, a stability analysis al engineer in accordance lan shall, at a minimum, acapsulation liner system
19 130 4	200 22	in compliance with the requirements of G.S. 130A-3	
"§ 130A-		). Design, construction, and siting requirements	for projects using coal
(-)		ustion products for structural fill.	
(a)	-	n, Construction, and Operation of Structural Fill Sites.	
	(1)	A structural fill site must be designed, constructed maintained in such a manner as to minimize the pote of constituents of coal combustion residuals to the	ential for harmful release
	( <b>2</b> )	nuisance to the public.	
	(2)	Coal combustion products shall be collected and tran	1
		will prevent nuisances and hazards to public h combustion products shall be moisture condition	
		transported in covered trucks to prevent dusting.	neu, as necessary, anu
	(3)	Coal combustion products shall be placed uniformly	and shall be compacted
	$(\mathbf{J})$	to standards, including in situ density, compaction ef	-
		specified by a registered professional engineer for a s	
	(4)	Equipment shall be provided that is capable of place	
		coal combustion products and handling the earthw	
		periods that coal combustion products are received a	
	(5)	The coal combustion product structural fill proje	
		maintained and operated as a nondischarge system	
		surface water resulting from the project.	1 0
	(6)	The coal combustion product structural fill proj	ect shall be effectively
		maintained and operated to ensure no violations of	f groundwater standards
		adopted by the Environmental Management Commi	ssion pursuant to Article
		21 of Chapter 143 of the General Statutes due to the	
	(7)	Surface waters resulting from precipitation shall be	2
		active coal combustion product placement area durin	g filling and construction
		activity.	~ ~
	(8)	Site development shall comply with the North	Carolina Sedimentation
	$\langle 0 \rangle$	Pollution Control Act of 1973, as amended.	
	(9)	The structural fill project shall be operated with	
		measures to minimize airborne emissions and to pre- nuisance or safety hazard and shall not violate	0
		regulations.	applicable all quality
	(10)	Coal combustion products utilized on an exterior slop	e of a structural fill shall
	(10)	not be placed with a slope greater than 3.0 horizonta	
	(11)	Compliance with this subsection shall not insulate	
	(11)	operators of a structural fill project from claims for da	-
		groundwater, or air resulting from the operation of t	-
		If the project fails to comply with the requireme	1 0
		constructor, generator, owner, or operator shall no	
		shall take any immediate corrective action as m	• •
		Department.	, <u>1</u>
(b)	Liner	s, Leachate Collection System, Cap, and Groundwa	ater Monitoring System
		• •	
· · ·	for Lar	<del>ge S</del> tructural Fills. – <del>For projects <u>Projects</u> involving pla</del>	acement of 8,000 or more

1			actural fill shall have an encapsulation liner system. The encapsulation
2	•		nstructed on and around the structural fill and shall be designed to
3	efficiently contain	n, collec	ct, and remove leachate generated by the coal combustion products, as
4	well as separate the	he coal	combustion products from any exposure to surrounding environs. At a
5	minimum, the con	mponen	ts of the liner system shall consist of the following:
6	(1)	A base	e liner, which shall consist of one of the following designs:
7		a.	A composite liner utilizing a compacted clay liner. This composite
8			liner is one liner that consists of two components: a geomembrane liner
9			installed above and in direct and uniform contact with a compacted
10			clay liner with a minimum thickness of 24 inches (0.61 m) and a
11			permeability of no more than 1.0 x 10-=ss 7 =ks centimeters per
12			second.
13		b.	A composite liner utilizing a geosynthetic clay liner. This composite
14			liner is one liner that consists of three components: a geomembrane
15			liner installed above and in uniform contact with a geosynthetic clay
16			liner overlying a compacted clay liner with a minimum thickness of
17			18 inches (0.46 m) and a permeability of no more than 1.0 x 10-=ss 5
18			=ks centimeters per second.
19	(2)	A lead	chate collection system, which is constructed directly above the base
20		liner a	nd shall be designed to effectively collect and remove leachate from the
21		projec	
22	(3)	A cap	system that is designed to minimize infiltration and erosion as follows:
23		a.	The cap system shall be designed and constructed to (i) have a
24			permeability less than or equal to the permeability of any base liner
25			system or the in situ subsoils underlying the structural fill, or the
26			permeability specified for the final cover in the effective permit, or a
27			permeability no greater than $1 \ge 10$ -=ss 5 =ks centimeters per second,
28			whichever is less; (ii) minimize infiltration through the closed
29			structural fill by the use of a low-permeability barrier that contains a
30			minimum 18 inches of earthen material; and (iii) minimize erosion of
31			the cap system and protect the low-permeability barrier from root
32			penetration by use of an erosion layer that contains a minimum of six
33			inches of earthen material that is capable of sustaining native plant
34			growth.
35		b.	The Department may approve an alternative cap system if the owner
36			or operator can adequately demonstrate (i) the alternative cap system
37			will achieve an equivalent or greater reduction in infiltration as the
38			low-permeability barrier specified in sub-subdivision a. of this
39			subdivision and (ii) the erosion layer will provide equivalent or
40			improved protection as the erosion layer specified in sub-subdivision
41	(4)		a. of this subdivision.
42	(4)		undwater monitoring system, that which shall be approved by the
43		-	tment and, at a minimum, consists of all of the following:
44		a.	A sufficient number of wells, installed at appropriate locations and
45			depths, to yield groundwater samples from the uppermost aquifer that
46			represent the quality of groundwater passing the relevant point of
47			compliance as approved by the Department. A down-gradient
48			monitoring system shall be installed at the relevant point of
49 50			compliance so as to ensure detection of groundwater contamination in
50			the uppermost aquifer.

1       b.       A proposed monitoring plan, which shall be certified by a licensed geologist or professional engineer to be effective in providing early detection of any release of hazardous constituents from any point in a structural fill or leachate surface impoundment to the uppermost aquifer, so as to be protective of public health, safety, and welfare; the environment; and natural resources.         7       c.       A groundwater monitoring program, which shall include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide an accurate representation of groundwater quality at the background and down-gradient wells.         11       Monitoring shall be conducted through construction and the post-closure care period. The sampling procedures and frequency shall be protective of public health, safety, and welfare; the environment; and natural resources.         16       detection monitoring program for all Appendix I constituents. For purposes of this subdivision, the term "Appendix I constituents. For purposes of this subdivision, the term "Appendix I is detected in Monitoring," including subsequent amendments and editions.         19       e.       An assessment monitoring program and corrective action plan if one or more of the constituents listed in Appendix I is detected in exceedance of a groundwater protection standard.         21       (c)       Siting for Structural Fill Facilities. – Coal combustion products used as a structural fill shall not be placed:         24       (1)       Within 50 horizontal feet of a private dwelling or well.         26       (3)       Within in 100-year floodplain except as authorized under		General Assembly Of N	North Carolina	Session 2019
6       environment; and natural resources.         7       c.       A groundwater monitoring program, which shall include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide an accurate representation of groundwater quality at the background and down-gradient wells.         11       Monitoring shall be conducted through construction and the post-closure care period. The sampling procedures and frequency shall be protective of public health, safety, and welfare; the environment; and natural resources.         13       d.       A detection monitoring program for all Appendix I constituents. For purposes of this subdivision, the term "Appendix I" means Appendix I to 40 C.F.R. Part 258, "Appendix I Constituents for Detection Monitoring," including subsequent amendments and editions.         19       e.       An assessment monitoring program and corrective action plan if one or more of the constituents listed in Appendix I is detected in exceedance of a groundwater protection standard.         21       (1)       Within 50 feet of any property boundary.         23       (2)       Within 50 horizontal feet of a private dwelling or well.         24       (3)       Within 50 horizontal feet of the top of the bank of a perennial stream or other surface water body.         24       (4)       Within a 100-year floodplain except as authorized under G.S. 143-215.54A(b). A site located in a floodplain shall not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain or result in washout of solid waste so as to pose a hazard to human life, wildlife or l	2 3 4	b.	geologist or professional engineer to be detection of any release of hazardous con structural fill or leachate surface impo	effective in providing early astituents from any point in a bundment to the uppermost
7       c.       A groundwater monitoring program, which shall include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide an accurate representation of groundwater quality at the background and down-gradient wells. Monitoring shall be conducted through construction and the post-closure care period. The sampling procedures and frequency shall be protective of public health, safety, and welfare; the environment; and natural resources.         13       be protective of public health, safety, and welfare; the environment; and natural resources.         14       and natural resources.         15       d.       A detection monitoring program for all Appendix I constituents. For purposes of this subdivision, the term "Appendix I" means Appendix I to 40 C.F.R. Part 258, "Appendix I Constituents for Detection Monitoring," including subsequent amendments and editions.         19       e.       An assessment monitoring program and corrective action plan if one or more of the constituents listed in Appendix I is detected in exceedance of a groundwater protection standard.         22       (c) Siting for Structural Fill Facilities. – Coal combustion products used as a structural fill shall not be placed:         24       (1) Within 50 feet of any property boundary.         25       (2) Within 300 horizontal feet of the top of the bank of a perennial stream or other surface water body.         29       (5) Within a 100-year floodplain except as authorized under G.S. 143-215.54A(b). A site located in a floodplain shall not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain or result				ealth, safety, and welfare; the
9monitoring results that provide an accurate representation of10groundwater quality at the background and down-gradient wells.11Monitoring shall be conducted through construction and the12post-closure care period. The sampling procedures and frequency shall13be protective of public health, safety, and welfare; the environment;14and natural resources.15d.A detection monitoring program for all Appendix I constituents. For16purposes of this subdivision, the term "Appendix I" means Appendix17I to 40 C.F.R. Part 258, "Appendix I Constituents for Detection18Monitoring," including subsequent amendments and editions.19e.An assessment monitoring program and corrective action plan if one20or more of the constituents listed in Appendix I is detected in21exceedance of a groundwater protection standard.22(c)Siting for Structural Fill Facilities. – Coal combustion products used as a structural23fill shall not be placed:24(1)Within 50 feet of any property boundary.25(2)Within 300 horizontal feet of a private dwelling or well.26(3)Within four feet of the seasonal high groundwater table.29(5)Within a 100-year floodplain except as authorized under30G.S. 143-215.54A(b). A site located in a floodplain shall not restrict the flow31of the 100-year flood, reduce the temporary water storage capacity of the32floodplain or result in washout of solid waster so as to pose a hazard to human </td <td>7</td> <td>с.</td> <td></td> <td>hich shall include consistent</td>	7	с.		hich shall include consistent
11Monitoring shall be conducted through construction and the12post-closure care period. The sampling procedures and frequency shall13be protective of public health, safety, and welfare; the environment;14and natural resources.15d.A detection monitoring program for all Appendix I constituents. For16purposes of this subdivision, the term "Appendix I" means Appendix17I to 40 C.F.R. Part 258, "Appendix I Constituents for Detection18Monitoring," including subsequent amendments and editions.19e.An assessment monitoring program and corrective action plan if one20or more of the constituents listed in Appendix I is detected in exceedance of a groundwater protection standard.22(c)Siting for Structural Fill Facilities. – Coal combustion products used as a structural23fill shall not be placed:24(1)Within 50 feet of any property boundary.25(2)Within 300 horizontal feet of the top of the bank of a perennial stream or other surface water body.28(4)Within four feet of the seasonal high groundwater table.29(5)Within a 100-year floodplain except as authorized under G.S. 143-215.54A(b). A site located in a floodplain shall not restrict the flow of the floodplain or result in washout of solid waste so as to pose a hazard to human life, wildlife or land or water resources.34(6)Within 50 horizontal feet of a wetland, unless, after consideration of the chemical and physical impact on the wetland, the United States Army Corps	9		monitoring results that provide an	accurate representation of
12post-closure care period. The sampling procedures and frequency shall13be protective of public health, safety, and welfare; the environment;14and natural resources.15d.A detection monitoring program for all Appendix I constituents. For16purposes of this subdivision, the term "Appendix I" means Appendix17I to 40 C.F.R. Part 258, "Appendix I Constituents for Detection18Monitoring," including subsequent amendments and editions.19e.An assessment monitoring program and corrective action plan if one20or more of the constituents listed in Appendix I is detected in21exceedance of a groundwater protection standard.22(c)Siting for Structural Fill Facilities. – Coal combustion products used as a structural23fill shall not be placed:24(1)Within 50 feet of any property boundary.25(2)Within 300 horizontal feet of a private dwelling or well.26(3)Within 50 horizontal feet of the top of the bank of a perennial stream or other27surface water body.28(4)Within a 100-year floodplain except as authorized under30G.S. 143-215.54A(b). A site located in a floodplain shall not restrict the flow31of the 100-year flood, reduce the temporary water storage capacity of the32floodplain or result in washout of solid waste so as to pose a hazard to human33life, wildlife or land or water resources.34(6)Within 50 horizontal feet of a wetland, unless, after consideration of the				-
14and natural resources.15d.A detection monitoring program for all Appendix I constituents. For16purposes of this subdivision, the term "Appendix I" means Appendix17I to 40 C.F.R. Part 258, "Appendix I Constituents for Detection18Monitoring," including subsequent amendments and editions.19e.An assessment monitoring program and corrective action plan if one20or more of the constituents listed in Appendix I is detected in21exceedance of a groundwater protection standard.22(c)Siting for Structural Fill Facilities. – Coal combustion products used as a structural23fill shall not be placed:24(1)Within 50 feet of any property boundary.25(2)Within 300 horizontal feet of a private dwelling or well.26(3)Within 50 horizontal feet of the top of the bank of a perennial stream or other27surface water body.28(4)Within four feet of the seasonal high groundwater table.29(5)Within a 100-year floodplain except as authorized under30of the 100-year flood, reduce the temporary water storage capacity of the31floodplain or result in washout of solid waste so as to pose a hazard to human33life, wildlife or land or water resources.34(6)Within 50 horizontal feet of a wetland, unless, after consideration of the				•
15d.A detection monitoring program for all Appendix I constituents. For16purposes of this subdivision, the term "Appendix I" means Appendix17I to 40 C.F.R. Part 258, "Appendix I Constituents for Detection18Monitoring," including subsequent amendments and editions.19e.20An assessment monitoring program and corrective action plan if one21or more of the constituents listed in Appendix I is detected in22(c)23fill shall not be placed:24(1)25(2)26(3)27Within 50 feet of any property boundary.26(3)27within 50 horizontal feet of the top of the bank of a perennial stream or other27surface water body.28(4)29(5)Within a 100-year floodplain except as authorized under30of the 100-year flood, reduce the temporary water storage capacity of the31floodplain or result in washout of solid waste so as to pose a hazard to human33life, wildlife or land or water resources.34(6)Within 50 horizontal feet of a wetland, unless, after consideration of the				nd welfare; the environment;
16purposes of this subdivision, the term "Appendix I" means Appendix17I to 40 C.F.R. Part 258, "Appendix I Constituents for Detection18Monitoring," including subsequent amendments and editions.19e. An assessment monitoring program and corrective action plan if one20or more of the constituents listed in Appendix I is detected in21exceedance of a groundwater protection standard.22(c)Siting for Structural Fill Facilities. – Coal combustion products used as a structural23fill shall not be placed:24(1)Within 50 feet of any property boundary.25(2)Within 300 horizontal feet of a private dwelling or well.26(3)Within 50 horizontal feet of the top of the bank of a perennial stream or other27surface water body.28(4)Within four feet of the seasonal high groundwater table.29(5)Within a 100-year floodplain except as authorized under30of the 100-year flood, reduce the temporary water storage capacity of the31floodplain or result in washout of solid waste so as to pose a hazard to human33life, wildlife or land or water resources.34(6)Within 50 horizontal feet of a wetland, unless, after consideration of the35chan and physical impact on the wetland, the United States Army Corps		d		Annondix Loonstituents For
17I to 40 C.F.R. Part 258, "Appendix I Constituents for Detection18Monitoring," including subsequent amendments and editions.19e. An assessment monitoring program and corrective action plan if one20or more of the constituents listed in Appendix I is detected in21exceedance of a groundwater protection standard.22(c) Siting for Structural Fill Facilities. – Coal combustion products used as a structural23fill shall not be placed:24(1)Within 50 feet of any property boundary.25(2)Within 300 horizontal feet of a private dwelling or well.26(3)Within 50 horizontal feet of the top of the bank of a perennial stream or other27surface water body.28(4)Within four feet of the seasonal high groundwater table.29(5)Within a 100-year floodplain except as authorized under30of the 100-year flood, reduce the temporary water storage capacity of the31floodplain or result in washout of solid waste so as to pose a hazard to human33life, wildlife or land or water resources.34(6)Within 50 horizontal feet of a wetland, unless, after consideration of the35chemical and physical impact on the wetland, the United States Army Corps		d.	010	11
18Monitoring," including subsequent amendments and editions.19e.An assessment monitoring program and corrective action plan if one or more of the constituents listed in Appendix I is detected in exceedance of a groundwater protection standard.21(c) Siting for Structural Fill Facilities. – Coal combustion products used as a structural fill shall not be placed:24(1)Within 50 feet of any property boundary.25(2)Within 300 horizontal feet of a private dwelling or well.26(3)Within 50 horizontal feet of the top of the bank of a perennial stream or other surface water body.28(4)Within four feet of the seasonal high groundwater table.29(5)Within a 100-year floodplain except as authorized under G.S. 143-215.54A(b). A site located in a floodplain shall not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain or result in washout of solid waste so as to pose a hazard to human life, wildlife or land or water resources.34(6)Within 50 horizontal feet of a wetland, unless, after consideration of the chemical and physical impact on the wetland, the United States Army Corps				
20or more of the constituents listed in Appendix I is detected in21exceedance of a groundwater protection standard.22(c) Siting for Structural Fill Facilities. – Coal combustion products used as a structural23fill shall not be placed:24(1)Within 50 feet of any property boundary.25(2)Within 300 horizontal feet of a private dwelling or well.26(3)Within 50 horizontal feet of the top of the bank of a perennial stream or other27surface water body.28(4)Within four feet of the seasonal high groundwater table.29(5)Within a 100-year floodplain except as authorized under30G.S. 143-215.54A(b). A site located in a floodplain shall not restrict the flow31of the 100-year flood, reduce the temporary water storage capacity of the33life, wildlife or land or water resources.34(6)Within 50 horizontal feet of a wetland, unless, after consideration of the35chin 50 horizontal feet of a wetland, the United States Army Corps				
<ul> <li>21 exceedance of a groundwater protection standard.</li> <li>22 (c) Siting for Structural Fill Facilities. – Coal combustion products used as a structural</li> <li>23 fill shall not be placed:</li> <li>24 (1) Within 50 feet of any property boundary.</li> <li>25 (2) Within 300 horizontal feet of a private dwelling or well.</li> <li>26 (3) Within 50 horizontal feet of the top of the bank of a perennial stream or other</li> <li>27 surface water body.</li> <li>28 (4) Within four feet of the seasonal high groundwater table.</li> <li>29 (5) Within a 100-year floodplain except as authorized under</li> <li>30 G.S. 143-215.54A(b). A site located in a floodplain shall not restrict the flow</li> <li>31 of the 100-year flood, reduce the temporary water storage capacity of the</li> <li>33 life, wildlife or land or water resources.</li> <li>34 (6) Within 50 horizontal feet of a wetland, unless, after consideration of the</li> <li>35 chemical and physical impact on the wetland, the United States Army Corps</li> </ul>	19	e.	An assessment monitoring program and	corrective action plan if one
<ul> <li>(c) Siting for Structural Fill Facilities Coal combustion products used as a structural fill shall not be placed:</li> <li>(1) Within 50 feet of any property boundary.</li> <li>(2) Within 300 horizontal feet of a private dwelling or well.</li> <li>(3) Within 50 horizontal feet of the top of the bank of a perennial stream or other surface water body.</li> <li>(4) Within four feet of the seasonal high groundwater table.</li> <li>(5) Within a 100-year floodplain except as authorized under G.S. 143-215.54A(b). A site located in a floodplain shall not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain or result in washout of solid waste so as to pose a hazard to human life, wildlife or land or water resources.</li> <li>(6) Within 50 horizontal feet of a wetland, unless, after consideration of the chemical and physical impact on the wetland, the United States Army Corps</li> </ul>				
<ul> <li>fill shall not be placed:</li> <li>(1) Within 50 feet of any property boundary.</li> <li>(2) Within 300 horizontal feet of a private dwelling or well.</li> <li>(3) Within 50 horizontal feet of the top of the bank of a perennial stream or other surface water body.</li> <li>(4) Within four feet of the seasonal high groundwater table.</li> <li>(5) Within a 100-year floodplain except as authorized under G.S. 143-215.54A(b). A site located in a floodplain shall not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain or result in washout of solid waste so as to pose a hazard to human life, wildlife or land or water resources.</li> <li>(6) Within 50 horizontal feet of a wetland, unless, after consideration of the chemical and physical impact on the wetland, the United States Army Corps</li> </ul>				
<ul> <li>(1) Within 50 feet of any property boundary.</li> <li>(2) Within 300 horizontal feet of a private dwelling or well.</li> <li>(3) Within 50 horizontal feet of the top of the bank of a perennial stream or other surface water body.</li> <li>(4) Within four feet of the seasonal high groundwater table.</li> <li>(5) Within a 100-year floodplain except as authorized under G.S. 143-215.54A(b). A site located in a floodplain shall not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain or result in washout of solid waste so as to pose a hazard to human life, wildlife or land or water resources.</li> <li>(6) Within 50 horizontal feet of a wetland, unless, after consideration of the chemical and physical impact on the wetland, the United States Army Corps</li> </ul>			uctural Fill Facilities. – Coal combustion	products used as a structural
<ul> <li>(2) Within 300 horizontal feet of a private dwelling or well.</li> <li>(3) Within 50 horizontal feet of the top of the bank of a perennial stream or other surface water body.</li> <li>(4) Within four feet of the seasonal high groundwater table.</li> <li>(5) Within a 100-year floodplain except as authorized under G.S. 143-215.54A(b). A site located in a floodplain shall not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain or result in washout of solid waste so as to pose a hazard to human life, wildlife or land or water resources.</li> <li>(6) Within 50 horizontal feet of a wetland, unless, after consideration of the chemical and physical impact on the wetland, the United States Army Corps</li> </ul>		_	n 50 feet of any property boundary	
<ul> <li>26 (3) Within 50 horizontal feet of the top of the bank of a perennial stream or other surface water body.</li> <li>28 (4) Within four feet of the seasonal high groundwater table.</li> <li>29 (5) Within a 100-year floodplain except as authorized under G.S. 143-215.54A(b). A site located in a floodplain shall not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain or result in washout of solid waste so as to pose a hazard to human life, wildlife or land or water resources.</li> <li>34 (6) Within 50 horizontal feet of a wetland, unless, after consideration of the chemical and physical impact on the wetland, the United States Army Corps</li> </ul>				or well
<ul> <li>surface water body.</li> <li>within four feet of the seasonal high groundwater table.</li> <li>Within a 100-year floodplain except as authorized under</li> <li>G.S. 143-215.54A(b). A site located in a floodplain shall not restrict the flow</li> <li>of the 100-year flood, reduce the temporary water storage capacity of the</li> <li>floodplain or result in washout of solid waste so as to pose a hazard to human</li> <li>life, wildlife or land or water resources.</li> <li>Within 50 horizontal feet of a wetland, unless, after consideration of the</li> <li>chemical and physical impact on the wetland, the United States Army Corps</li> </ul>				
<ul> <li>Within a 100-year floodplain except as authorized under</li> <li>G.S. 143-215.54A(b). A site located in a floodplain shall not restrict the flow</li> <li>of the 100-year flood, reduce the temporary water storage capacity of the</li> <li>floodplain or result in washout of solid waste so as to pose a hazard to human</li> <li>life, wildlife or land or water resources.</li> <li>Within 50 horizontal feet of a wetland, unless, after consideration of the</li> <li>chemical and physical impact on the wetland, the United States Army Corps</li> </ul>	27		-	-
30G.S. 143-215.54A(b). A site located in a floodplain shall not restrict the flow31of the 100-year flood, reduce the temporary water storage capacity of the32floodplain or result in washout of solid waste so as to pose a hazard to human33life, wildlife or land or water resources.34(6)35Within 50 horizontal feet of a wetland, unless, after consideration of the36chemical and physical impact on the wetland, the United States Army Corps			•••	
31of the 100-year flood, reduce the temporary water storage capacity of the32floodplain or result in washout of solid waste so as to pose a hazard to human33life, wildlife or land or water resources.34(6)35Within 50 horizontal feet of a wetland, unless, after consideration of the35chemical and physical impact on the wetland, the United States Army Corps			• • •	
32floodplain or result in washout of solid waste so as to pose a hazard to human33life, wildlife or land or water resources.34(6)Within 50 horizontal feet of a wetland, unless, after consideration of the chemical and physical impact on the wetland, the United States Army Corps				
<ul> <li>33</li> <li>34</li> <li>35</li> <li>36</li> <li>16</li> &lt;</ul>				
34(6)Within 50 horizontal feet of a wetland, unless, after consideration of the chemical and physical impact on the wetland, the United States Army Corps				as to pose a nazard to numan
35 chemical and physical impact on the wetland, the United States Army Corps				s after consideration of the
of Engineers issues a permit or waiver for the fill.	36		gineers issues a permit or waiver for the fil	• 1
37 "§ 130A-309.221. Financial assurance requirements for large-projects using coal		"§ 130A-309.221. Fi	nancial assurance requirements for	<del>large</del> projects using coal
38 combustion products for structural fill.				
39 (a) For projects involving placement of 8,000 or more tons of coal combustion products			• •	-
<ul> <li>40 per acre or 80,000 or more tons of coal combustion products in total per project, the <u>The</u> applicant</li> <li>41 for a permit or a permit holder to construct or operate a structural fill shall establish financial</li> </ul>		<b>1</b>	1	
41 for a permit of a permit holder to construct of operate a structural fin shall establish maneral 42 assurance that will ensure that sufficient funds are available for facility closure, post-closure		1 1	-	
43 maintenance and monitoring, any corrective action that the Department may require, and to				• •
44 satisfy any potential liability for sudden and nonsudden accidental occurrences, and subsequent			• •	
45 costs incurred by the Department in response to an incident at a structural fill project, even if the		-		1 0
46 applicant or permit holder becomes insolvent or ceases to reside, be incorporated, do business,				be incorporated, do business,
47 or maintain assets in the State.				
48 (b) To establish sufficient availability of funds under this section, the applicant for a 49 permit or a permit holder may use insurance, financial tests, third-party guarantees by persons			•	

48 (b) To establish sufficient availability of funds under this section, the applicant for a
 49 permit or a permit holder may use insurance, financial tests, third-party guarantees by persons
 50 who can pass the financial test, guarantees by corporate parents who can pass the financial test,
 51 irrevocable letters of credit, trusts, surety bonds, or any other financial device, or any combination

of the foregoing shown to provide protection equivalent to the financial protection that would be 1 2 provided by insurance if insurance were the only mechanism used. 3 The applicant for a permit or a permit holder and any parent, subsidiary, or other (c) 4 affiliate of the applicant, permit holder, or parent, including any joint venturer with a direct or 5 indirect interest in the applicant, permit holder, or parent shall be a guarantor of payment for 6 closure, post-closure maintenance and monitoring, any corrective action that the Department may 7 require, and to satisfy any potential liability for sudden and nonsudden accidental occurrences 8 arising from the operation of the hazardous waste facility. 9 Assets used to meet the financial assurance requirements of this section shall be in a (d) 10 form that will allow the Department to readily access funds for the purposes set out in this section. 11 Assets used to meet financial assurance requirements of this section shall not be accessible to the 12 permit holder except as approved by the Department. 13 The Department may provide a copy of any filing that an applicant for a permit or a (e) 14 permit holder submits to the Department to meet the financial responsibility requirements under 15 this section to the State Treasurer. The State Treasurer shall review the filing and provide the Department with a written opinion as to the adequacy of the filing to meet the purposes of this 16 17 section, including any recommended changes. 18 (f) In order to continue to hold a permit for a structural fill, a permit holder must maintain 19 financial responsibility as required by this Part and must provide any information requested by 20 the Department to establish that the permit holder continues to maintain financial responsibility. 21 (g) An applicant for a permit or a permit holder shall satisfy the Department that the 22 applicant or permit holder has met the financial responsibility requirements of this Part before 23 the Department is required to otherwise review the application. 24 "§ 130A-309.222. Closure of projects using coal combustion products for structural fill. 25 Closure of Structural Fill Projects. <del>(a)</del> 26 No later than 30 working days or 60 calendar days, whichever is less, after (1)27 coal combustion product placement has ceased, the final cover shall be applied 28 over the coal combustion product placement area. 29 The final surface of the structural fill shall be graded and provided with (2)30 drainage systems that do all of the following: 31 Minimize erosion of cover materials. <del>a.</del> 32 Promote drainage of area precipitation, minimize infiltration, and <del>b.</del> 33 prevent ponding of surface water on the structural fill. 34 (3)Other erosion control measures, such as temporary mulching, seeding, or silt 35 barriers shall be installed to ensure no visible coal combustion product 36 migration to adjacent properties until the beneficial end use of the project is 37 realized. 38 (4)The constructor or operator shall submit a certification to the Department 39 signed and sealed by a registered professional engineer or signed by the 40 Secretary of the Department of Transportation or the Secretary's designee 41 certifying that all requirements of this Subpart have been met. The report shall 42 be submitted within 30 days of application of the final cover. 43 <del>(b)</del> Additional Closure and Post Closure Requirements for Large Structural Fill Projects. 44 - For projects involving placement of 8,000 or more tons of coal combustion products per acre 45 or 80,000 or more tons of coal combustion products in total per project, a constructor or operator 46 shall conduct post-closure care. Post-closure care shall be conducted for 30 years, which period 47 may be increased by the Department upon a determination that a longer period is necessary to protect public health, safety, and welfare; the environment; and natural resources, or decreased 48 49 upon a determination that a shorter period is sufficient to protect public health, safety, and 50 welfare; the environment; and natural resources. Additional closure and post-closure requirements include, at a minimum, all of the following: 51

	General A	ssemb	ly Of N	North Carolina	Session 2019
1		(1)	Subm	it a written closure plan that includes all of the follo	wing:
2			<del>a.</del>	A description of the cap liner system and the meth	-
3				used to install the cap that conforms to the re	equirement in G.S.
4				<del>130A-309.220(b).</del>	•
5			<del>b.</del>	An estimate of the largest area of the structura	al fill project ever
6				requiring the cap liner system at any time of	
7				construction period that is consistent with the dra	
8				the structural fill.	
9			<del>e.</del>	An estimate of the maximum inventory of coal co	mbustion products
10				ever on-site over the construction duration of the s	
11 12			<del>d.</del>	A schedule for completing all activities necessary to criteria set forth in this section.	<del>o satisfy the closure</del>
13		(2)	<b>Subm</b>	it a written post-closure plan that includes all of the	following:
14			<del>a.</del>	A description of the monitoring and maintenance	
15				for the project and the frequency at which these	
16				performed.	
17			<del>b.</del>	The name, address, and telephone number of the	e person or office
18				responsible for the project during the post closure	period.
19			<del>e.</del>	A description of the planned uses of the pr	
20				post-closure period. Post-closure use of the proper	ty must not disturb
21				the integrity of the cap system, base liner sys	tem, or any other
22				components of the containment system or th	
23				monitoring systems, unless necessary to comply wi	
24				of this subsection. The Department may approve	
25				constructor or operator demonstrates that distu	
26				system, base liner system, or other component (	
27				system will not increase the potential threat to pu	•
28				and welfare; the environment; and natural resource	
29			<del>d.</del>	The cost estimate for post-closure activities re-	equired under this
30				section.	
31		<del>(3)</del>		ain the integrity and effectiveness of any cap system,	
32				stem as necessary to correct the defects of settle	
33				on, or other events and preventing run on and runc	off from eroding or
34 25		$(\mathbf{A})$		wise damaging the cap system.	a Dananturant maar
35		<del>(4)</del>		ain and operate the leachate collection system. The	
36 37				the constructor or operator to stop managing leachate nstration that leachate from the project no longer pose	
38				and the environment.	es à threat to numan
38 39		(5)		or and maintain the groundwater monitoring system	in accordance with
40		(5)		130A-309.220 and monitor the surface water in ac-	
40 41				<del>C 13B .0602.</del>	cordance with 1574
42	<del>(c)</del>	Comp		of Post-Closure Care. Following completion of th	e post-closure care
43	· · ·			operator shall submit a certification, signed by a reg	
44				ent, verifying that post-closure care has been comp	
45				n, and include the certification in the operating reco	
46	-		-	Closure and post-closure requirements for pr	
47	<u>,,</u>			products for structural fill.	- <u></u>
48	<u>(a)</u>			post-closure requirements include, at a minimum, all	of the following:
49	<u></u>	(1)	-	ter than 30 working days or 60 calendar days, which	-
50		<u>_</u>		ombustion product placement has ceased, apply the	
51				ombustion product placement area.	

Ge	eneral Assemb	oly Of North Carolina	Session 2019
1	(2)	The final surface of the structural fill shall be grad	ded and provided with
2		drainage systems that do all of the following:	-
3		a. Minimize erosion of cover materials.	
4		b. Promote drainage of area precipitation, min	imize infiltration, and
5		prevent ponding of surface water on the structu	
6	<u>(3)</u>	Install other erosion control measures, such as tempor	
7	<u>(0)</u>	or silt barriers to ensure no visible coal combustion	
8		adjacent properties until the beneficial end use of the	· ·
9	<u>(4)</u>	Submit a certification to the Department signed and	
10	<u></u>	professional engineer or signed by the Secretary	• •
11		Transportation or the Secretary's designee certifying	-
12		this Subpart have been met. The report shall be subm	
13		application of the final cover.	<u>inted within 50 duys of</u>
13	<u>(5)</u>	<u>Submit a written closure plan that includes all of the fo</u>	ollowing.
15	<u>(5)</u>	<u>a.</u> <u>A description of the cap liner system and the n</u>	-
16		used to install the cap that conforms to	-
17		G.S. 130A-309.220(b).	<u>s the requirement in</u>
18		b. An estimate of the largest area of the strue	ctural fill project ever
19		requiring the cap liner system at any tin	1 0
20		construction period that is consistent with the	•
20		the structural fill.	diawings prepared for
22			al combustion products
23		<u>c.</u> <u>An estimate of the maximum inventory of coa</u> ever on-site over the construction duration of t	
23		<u>d.</u> <u>A schedule for completing all activities necessa</u>	
24 25		<u>A selectule for completing an activities necessa</u> criteria set forth in this section.	<u>il y to satisfy the closure</u>
26	<u>(6)</u>	Submit a written post-closure plan that includes all of	the following.
20 27	<u>(0)</u>	<u>a.</u> A description of the monitoring and maintena	
28		for the project and the frequency at which the	
20 29		performed.	nese activities must be
30		b. The name, address, and telephone number of	of the person or office
31		responsible for the project during the post-clos	
32			-
33		<u>c.</u> <u>A description of the planned uses of the</u> post-closure period. Post-closure use of the pr	
34		the integrity of the cap system, base liner	1 0
35		components of the containment system of	
36		monitoring systems, unless necessary to compl	
37		of this subsection. The Department may app	• •
38		<u>constructor or operator demonstrates that d</u>	
39		system, base liner system, or other component	
40		system, base finer system, or other components system will not increase the potential threat t	
41		and welfare; the environment; and natural reso	•
42		<u>d.</u> <u>The cost estimate for post-closure activitie</u>	
43		section.	<u>is required under unis</u>
+3 44	<u>(7)</u>	Maintain the integrity and effectiveness of any cap syst	em including renairing
45	<u>(7)</u>	the system as necessary to correct the defects of s	• • •
+5 46		erosion, or other events and preventing run-on and	
+0 47		otherwise damaging the cap system.	runon nom croung of
+7 48	(0)	<u>Maintain and operate the leachate collection system</u>	The Denartment may
+o 49	<u>(8)</u>	-	
49 50		allow the constructor or operator to stop managing leac	-
		demonstration that leachate from the project no longer	poses a unreat to numan
51		health and the environment.	

	General Assembly Of North Carolina Session 2019
1	(9) Monitor and maintain the groundwater monitoring system in accordance with
2	G.S. 130A-309.220 and monitor the surface water in accordance with 15A
3	<u>NCAC 13B .0602.</u>
4	(b) Duration and Completion of Post-Closure Care. – Post-closure care shall be
5	conducted for 30 years, which period may be increased by the Department upon a determination
6	that a longer period is necessary to protect public health, safety, and welfare; the environment;
7	and natural resources, or decreased upon a determination that a shorter period is sufficient to
8	protect public health, safety, and welfare; the environment; and natural resources. Following
9	completion of the post-closure care period, the constructor or operator shall submit a certification,
10	signed by a registered professional engineer, to the Department, verifying that post-closure care
11	has been completed in accordance with the post-closure plan, and include the certification in the
12	operating record.
13	" 
14	SECTION 2. This act is effective when it becomes law and applies to contracts for
15	the use of structural fill executed on or after that date.