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August 20, 2013

Mr. Ed Mussler, PE  
Permitting Branch Head  
NC DENR Solid Waste Section  
16461 Mail Service Center  
Raleigh, NC 27699-1646

Fac/Perm/Co ID #	Date	Doc ID#
01-05	05/26/15	DIN 24361

**Re: Permit Renewal for Cobles Construction and Demolition Landfill  
Alamance County, NC - NC DENR Permit # 01-05**

Dear Mr. Mussler:

Please find the enclosed permit renewal submittal for the Cobles Construction and Demolition (C&D) Landfill in Liberty, Alamance County, North Carolina. This submittal consists of an updated closure and post closure care plan as well as certification for closure of 9.8 acres of the landfill that was completed between the fall of 2012 and the spring of 2013.

The current permit to operate was issued on January 20, 2012 and expires on January 30, 2014. No changes have been made to the Facility Plan, Engineering Plan or Operations Plan since that approval.

Since the permit to construct Phase 3A and 3B was originally issued in 2009, Cobles Sandrock was required to institute financial assurance for closure and post closure care obligations in the amount of \$1,301,874. Cobles Sandrock planned to meet this requirement through the payment of five installment of \$260,374.80 in 2010 through 2014. These payments were made in 2010 and 2011 totaling 520,749.60. Due to the pending closure, funds for the 2012 installment were diverted to pay for closure which reduced the overall site risk and alleviated some for the financial assurance burden at the site.

The approved closure plan indicates that no more than 16 acres of the landfill will be open at any one time. With the enclosed closure construction documentation, the revised closure plan limits the open acreage to no more than 4 acres at any time. The revised closure plan includes new closure and post closure care estimates to reflect this change. Cobles Sandrock proposes to deduct the fund balance for financial assurance paid in 2010 and 2011 from the revised estimate and complete the obligation to pay the remaining obligation in 2 remaining installments (2013 and 2014). This change is reflected in the table below:

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Year	Payment Amount	Original Program Balance	Revised Program Balance
Estimate		\$1,301,874.00	\$938,448.00
2010	\$260,374.80	\$1,041,499.20	
2011	\$260,374.80	\$ 781,124.40	
2012	\$0.00	\$ 781,124.40	\$417,698.40
2013	\$208,849.20		\$208,849.20
2014	\$208,849.20		\$0.00
Total	\$938,448.00		

Cobles Sandrock has been working with NC DENR for several years to resolve issues related to the Potential Assessment of Corrective Action (PACA) financial assurance requirement that is required with this renewal application. Cobles Sandrock has maintained a pollution liability insurance policy, as required and approved by the terms of their franchise agreement with Alamance County, since the landfill has been in operation. To date, there has been no definitive reason given by the Division why this mechanism does not meet the requirements set forth by statute. Cobles Sandrock respectfully requests that this mechanism be reviewed by NC DENR and, if not found to be acceptable, specific guidance be given on the insufficiencies, acceptable insurance language and information on vendors that are able to provide a policy that is acceptable to the Department.

Please do not hesitate to contact me during the review of this application if there are any comments or concerns related its contents at 336-323-0092 or by e-mail at [eandrews@joyceengineering.com](mailto:eandrews@joyceengineering.com).

Sincerely,  
**JOYCE ENGINEERING, INC.**



Evan Andrews, PE  
Regional Manager

Cc: Kent and Brenda Coble

Enclosure: Partial Closure Certification Report  
Revised Closure & Post Closure Plan  
Pollution Liability Insurance Policy

## CLOSURE & POST-CLOSURE CARE PLAN (.0543)

### CLOSURE

#### 1. Description of Cap System:

The cap system to be used is designed to minimize infiltration and erosion. The cap system will consist of:

- A low-permeability infiltration layer of at least 18 inches with a permeability not greater than  $1.0 \times 10^{-5}$  cm/sec;
- An erosion layer that contains a minimum of 18 inches of earthen material that is capable of sustaining native plant growth.

Construction of the cap system will conform to the plans prepared in accordance with Rule .0540 of this Section and the following requirements:

- (A) post-settlement surface slopes will be a minimum of five percent and a maximum of 33 percent or as shown on the closure plan drawings; and
- (B) a gas venting or collection system will be installed below the low-permeability barrier to minimize pressures exerted on the barrier.

#### Procedures for Cap Installation

The construction of the cap will be in accordance with the specifications provided in Appendix IV.

#### 2. Closure Area

The maximum closure area during Phase 3 of the landfill is 4 acres.

#### 3. Waste Inventory

The projected total tonnage in place at the end of Phase 3 is approximately 865,280 tons. This amount includes the tonnages from Phase 1 and Phase 2 in addition to the tonnage from Phase 3, which is estimated to be 440,131 tons.

#### 4. Schedule

As of this permit renewal, Phase 3 has a projected operating life of approximately 17 years. Thus, closure of the entire landfill is not anticipated until 2030, assuming waste disposal in Phase 3 begins continues at the current annual tonnage. Prior to beginning final closure, Coble's Sandrock will notify the Division that a notice of intent to close the facility has been placed in the operating record. An itemized list of closure milestones and a proposed schedule follow. Closure activities are proposed to begin within 30 days of final receipt of waste. Construction of the closure cap is to be completed within 180 days following the initiation of closure activities. The total length of the proposed closure period is 210 days following the final receipt of waste.

Approximate closure milestones are shown below.

Proposed Closure Milestones and Schedule

Milestone	Proposed Schedule from the Date of Final Receipt of Waste
Testing of borrow sources	Within 6 months prior to closure
Grading of intermediate cover	Within 30 to 60 days
Placement of soil cap	30 to 150 days
Final inspection of cap by P.E.	150 to 180 days
Construction of stormwater controls	90 to 180 days
Seeding and mulching	150 to 180 days
Preparation of survey plat	180 to 210 days
Submittal of closure certification	180 to 210 days

5. Cost Estimate for Closure

Closure Cost Estimate for Largest Area (4 Acres) To Be Closed At Once

Component	Quantity	Unit	Unit Cost	Total
Mobilization	1	LS	\$5,000	\$5,000
18" Clay (10 <sup>-5</sup> cm/sec)	9,680	CY	\$3.50	\$211,750
18" Vegetative Soil	9,680	CY	\$3.50	\$211,750
Seeding/Re-vegetation	4	ACRE	\$1,500	\$37,500
Survey	1	LS	\$5,000	\$5,000
			Subtotal:	\$471,000
Engineering/CQA (~5%)				\$4,188
			<b>TOTAL</b>	<b>\$87,948</b>

## 6. Closure Certification

A professional engineer, registered in the State of North Carolina, will verify that the closure has been completed in accordance with the Closure Plan. The contents of the signed Certification Report will be as described below.

### Certification Reports:

The CQA report will contain the results of all the construction quality assurance and construction quality control testing including documentation of any failed test results, descriptions of procedures used to correct the improperly installed material, and results of all retesting performed. The CQA report will contain as-built drawings noting any deviation from the approved engineering plans and will also contain a comprehensive narrative including, but not limited to, daily reports from the project engineer, a series of color photographs of major project features, and documentation of proceedings of all progress and troubleshooting meetings. The CQA report will be submitted after completion of construction of the cap system in accordance with the requirements of Rule .0543. The CQA report must bear the seal of the project engineer and a certification that construction was completed in accordance with the CQA Plan and acceptable engineering practices.

## 7. Deed Recordation

Following closure, the owner or operator will record a notation on the deed to the landfill facility property at the local county Register of Deeds office, or some other instrument that is normally examined during title search, and notify the Division that the notation has been recorded and a copy has been placed in the operating record. The notation on the deed shall in perpetuity notify any potential purchaser of the property that the land has been used as a C&D landfill unit or facility and its use is restricted under the closure plan approved by the Division.

## POST CLOSURE

Post-closure activities will be conducted at the landfill for a period of 30 years following closure of the landfill. The length of the period can be increased or decreased in accordance with Division directives.

### 1. Contact

Coble's Sandrock, Inc. will handle questions and/or problems which might occur during the post-closure care period.

CONTACT PERSON: Mr. Kent Coble  
OWNER: Mr. Kent Coble  
ADDRESS: 5833 Foster Store Road  
Liberty, North Carolina 27298

PHONE NUMBER: (336) 565-4750  
FAX: (336) 565-4752

## 2. Security

Access to the site will be controlled by the use of barriers and gates at roadway entrances. These control devices will be maintained throughout the post-closure care period, and inspected as part of the monthly inspection program. All barriers and gates will be clearly marked with signs stating the name and nature of the facility and the person to contact in case of emergency or breach of security.

## 3. Post-Closure Maintenance

Post-closure maintenance and monitoring will be conducted at the landfill for a period of 30 years after final closure. The Division may decrease the length of the post-closure period if the owner or operator demonstrates that the reduced period is sufficient to protect human health and the environment, and the Division approves this demonstration. The period might be increased by the Division if the Division determines that the lengthened period is necessary to protect human health and the environment. Monitoring will include semi-annual sampling of groundwater and surface water, quarterly gas monitoring, and quarterly inspection of the final cover and monitoring and control systems. Maintenance needs identified through the monitoring program will be initiated no later than 60 days after the discovery, and within 24 hours if a danger or eminent threat to human health or the environment is indicated. Minor cap maintenance may be deferred until there is a sufficient amount of work to justify the mobilization of equipment and personnel.

Soil will be added to the cap as necessary to correct the effects of settlement and subsidence of the soil cap and to prevent run-on and run-off from eroding the final cap.

Stormwater control devices, surveyed benchmarks, groundwater monitoring wells, surface water monitoring/sampling gauges and LFG wells will be protected and maintained.

Vegetation will be mowed twice per year, fertilized once every three years and re-seeded (as necessary) once every three years.

The security fencing, gates, and access roads will be maintained and repaired, as necessary.

## 4. Inspection Plan

Routine inspections will be conducted throughout the post-closure care period. These inspections will be carried out quarterly unless problems are detected that indicate that more frequent visits are warranted. Potential impacts to the public and environment will be considered in determining the inspection frequency. Items to be included in the monthly inspection will be as follows:

- Access and security control,
- Stormwater management,
- Erosion and sediment control,
- Gas management,
- Groundwater and landfill gas monitoring systems, and
- Vector control.

The quarterly inspections will be carried out by someone properly trained and knowledgeable about landfills, such as the landfill owner, operator or engineering consultant. The results of the inspections will be documented. Please see Appendix IX for an example Post Closure Inspection Form. If inspections indicate that repairs are necessary, repairs will be initiated as soon as practicable.

In addition to the routine quarterly inspections, special inspections will be performed and documented after events which may likely cause damage to the integrity of the landfill cover, such as heavy rainfall events. Inspection may also be necessary following written or verbal complaints, vandalism or fires. Following special inspections, any necessary repairs will be initiated as soon as practicable.

Records of all inspections will be kept in the operating record.

#### 5. Post-Closure Land Use

The primary land use for the site after closure of the landfill will be open dormant green space.

Post-Closure Cost Estimate

An estimate of post-closure care costs is provided on the following page. All costs are given in 2013 dollars.

ITEM	UNIT	QUANTITY	UNIT COST	ANNUAL COST
<b>INSPECTIONS/ RECORD KEEPING</b>	per trip	4	\$500	<b>\$2,000</b>
<b>MONITORING</b>				
Explosive gases (quarterly)	per trip	4	\$400	\$1,600
Groundwater/Surfacewater (semi-annually)				
Sampling	per trip	2	\$2,700	\$5,400
Analysis	per trip	2	\$2,300	\$4,600
Reporting	per trip	2	\$2,650	\$4,300
<b>Subtotal</b>				<b>\$15,900</b>
<b>ROUTINE MAINTENANCE</b>				
Mowing	acre	19.2	\$100	\$1,920
Fertilizing	acre	2	\$100	\$200
Reseeding	acre	2	\$1,000	\$2,000
Vector and Rodent Control	acre	19.2	\$25.0	\$480
<b>Subtotal</b>				<b>\$4,600</b>
<b>WELL MAINTENANCE</b>				
Groundwater Wells	lump sum	1	\$5,00	\$500
Gas Detection Probes	lump sum	1	\$250	\$250
<b>Subtotal</b>				<b>\$750</b>
<b>CAP REPAIR</b>	lump sum	1	\$5,000	<b>\$5,000</b>
<b>TOTAL OF ABOVE ITEMS</b>				
				<b>\$26,250</b>
<b>ENGINEERING</b>	-	-	3%	\$787.50
<b>CONTINGENCY</b>	-	-	5%	\$1,312.50
<b>TOTAL ANNUAL POST-CLOSURE COST</b>				<b>\$28,350</b>
<b>TOTAL 30 POST CLOSURE COST</b>				<b>\$938,448</b>

Notes:

1. All costs include labor by a third party in 2013 dollars.
2. Water quality monitoring costs are estimated.
3. Cost for groundwater wells assumes maintenance of each well during the period.
4. Cost for the gas probes assumes maintenance of each probe during the period.