



Engineering. Environmental. Answers.

1840 East Three Notch Street  
Andalusia, AL 36421  
Post Office Box 278  
Andalusia, AL 36420  
Tel (334) 222-9431  
Fax (334) 222-4018

[www.cdge.com](http://www.cdge.com)

October 27, 2020

Blake Holden  
Alabama Department of Environmental Management  
P.O. Box 301463  
Montgomery, AL 36130

**Re: Minor Modification:  
Alternate Cover 50/50 Shredded Green Waste/Soil Mixture  
MacBride Landfill (No. 02-11)**

Dear Mr. Holden,

Please accept this letter on behalf of the Baldwin County Solid Waste Department as a minor modification to use a shredded green waste/ soil mixture as an alternative cover at the MacBride Landfill. The facility's request is consistent with EPA's previous research and development guidance as outlined in the report titled *The Use of Alternative Materials for Daily Cover at Municipal Solid Waste Landfills (September 1993)*.

A summary of the proposed facility Operating Plan, and the applicable regulatory requirements concerning weekly cover have been addressed below.

#### **I. Regulatory Requirements for Use of Alternative Cover**

*In accordance with ADEM Admin Code 335-13-4-.23, Section 1.a.1- A minimum of six inches of compacted earth or other alternative cover material that includes but is not limited to foams, geosynthetic or waste products, and is approved by the Department shall be added at the conclusion of each week's operation or as otherwise specified by the Department to control disease vectors, fires, odors, blown litter and scavenging.*

As it relates to the above mentioned regulatory requirements, the proposed alternative cover (shredded green waste/soil mixture consisting of 50% soil by volume) provides protection of public health by controlling vectors, not sustaining a breeding environment, being free of toxic materials, being odorless, and pathogen free.

In addition to the control of vectors by the mechanisms mentioned, the proposed alternate cover will provide odor control through the incorporation of the 50% soil by volume. Previous laboratory tests have shown that mixtures with more than 30% to 50% soil experience performance similar to soil as it relates to hydraulic conductivity, combustibility, resistance to burrowing from birds and rodents, erosion resistance to wind and water, and waste mass

ALBERTVILLE

ANDALUSIA

AUBURN

DOTHAN

GADSDEN

HOOVER

HUNTSVILLE



Engineering. Environmental. Answers.

stability. Therefore, the proposed alternate cover will meet the regulatory requirements for alternate cover as identified in ADEM Rule 335-13-4-.23 (**Specific Requirements for Inert-Construction/Demolition Landfills and Industrial Landfills**)

## **II. Operational Plan for Proposed Alternative Cover**

The proposed alternative cover will consist of a shredded green waste/soil mixture used in conjunction to achieve the weekly cover requirements as stipulated in 335-13-4-.23. The proposed mixture shall be achieved using shredded green waste with on-site soil with the mixture consisting of at least 50% daily soil material by volume. The alternate cover may be pre-mixed by incorporating a “windrow” method consisting of mixing the proposed soil and green waste at the working face, with the mixture containing at least 50% soil by volume. This mixing will be achieved using a dozer prior to placement on the working face. The material mixing will be completed by placing a windrow of shredded green waste adjacent to a windrow of daily soil cover material and making multiple passes through the material with the dozer. After achieving a blend of at least 50% soil by volume the alternate cover will be used to cover the working face following each weekly lift.

If you have any questions, please feel free to call.

Sincerely,  
**CDG Engineers & Associates, Inc.**

A handwritten signature in blue ink that reads "Laura Kate Young". The signature is fluid and cursive, with the first name "Laura" being more prominent than the last name "Young".

Laura Kate Young  
Project Engineer

cc. Terri Graham and Ed Fox