

MARYLAND DEPARTMENT OF THE ENVIRONMENT

Land and Materials Administration • Minerals, Oil & Gas Division

1800 Washington Blvd. • Suite 655 • Baltimore, Maryland 21230

410-537-3557 • 1-800-633-6101 x3557 • www.mde.maryland.gov

**Addendum to Application for Permit to Surface Mine when Coal Combustion
Byproducts will be utilized as backfill material**

**Submitted Pursuant to Title 15 Subtitle 8 Environment Article
Annotated Code of Maryland and COMAR 26.21**

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I. General Information

1. Name of Facility generating CCB's to be utilized as backfill material

2. Address of facility generating CCB's

3. Acreage to be reclaimed with CCB's

Note: The area of exposed CCB's may not exceed 5 acres at a time

4. Estimated quantities of CCB's to be placed annually

5. Type of CCB's to be utilized in reclamation

II. Information specific to site and CCB's to be utilized

6. Provide a dust control plan, must address transport, placement and haul roads (this can be an attachment)

7. Provide an analysis of the CCB's (this can be an attachment)

8. Description of Geologic Formation underlying and in close proximity to the site.

9. Provide Ground Water Elevation data for the site. A minimum of a 12-month sampling period that is representative is to be used.(this can be an attachment)

10. What is the maximum expected Ground Water elevation at the site?

11. Describe how elevations in items 7 and 8 were derived.

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12. Representative background ground water quality data from monitoring wells for the parameters set forth in Table I in Regulation 07A or other parameters required by the Department;
13. Test boring logs, well completion reports, piezometric measurements, chemical or physical soil analyses, or both, and accompanying geotechnical analyses; (can be an attachment)
14. A description of how coal combustion byproducts will be placed, including a detailed description of fill construction and phasing
15. Describe projected future use of the site;
16. The volume and type of available cover material to be used
17. Proposed operating procedures, including:
 - (a) Hours of operation;
 - (b) Necessary equipment to handle materials delivered to the site;
 - (c) Means to control dust and wind erosion; and
 - (d) Procedures to be followed upon delivery of the coal combustion byproducts.

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18. Methods of controlling runoff or run-on to the site and a detailed description of the sediment and erosion control system to be implemented

19. A description of proposed methods of covering and stabilizing completed areas

III. Leachate Control and Collection

20. A description, including flow diagrams, of the processes generating leachate, including raw materials, intermediate byproducts, final products, and process streams;

21. A description of the design features and systems intended to protect ground water from leachate, including a detailed description of the proposed liner and leachate collection system;

22. A discussion as to how leachate will be collected, removed from the site, and ultimately disposed of;

23. A description of quality assurance/quality control protocols;

IV. Initial and Ongoing Characterization

24. Provide a sampling plan, for the initial characterization of the coal combustion byproducts.

25. Submit a monitoring plan that includes at least the following information:

(a) A description of a system for monitoring the quality of the waters of the State around and beneath the site, including:

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(b) A description of the number, location, and types of monitoring wells and sampling stations;

(c) The methods of construction of the monitoring wells; and

(d) A monitoring well location map;

(27) A schedule for the frequency of the analyses;

(28) A description of sampling and analyses procedures;

(29) A list of parameters to be monitored;

(30) A schedule of reporting periods;

V. CLOSURE

(31) Provide a closure plan for the site

VI. Map

A topographic map which is an accurate depiction of the site at the time the application is filed, prepared to a scale not smaller than 1 inch equals 100 feet, which depicts the property boundaries, on-site buildings and structures, and obvious surficial features, including but not limited to:

(a) Current and proposed affected lands;

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- (b) Springs and seeps;
- (c) Streams, whether intermittent or perennial;
- (d) Rock outcrops;
- (e) Sink holes;
- (f) Surface impoundments;
- (g) Existing wells within 1,250 feet of the boundaries of the site;
- (h) 100-year flood plain and any nontidal wetlands;
- (i) 100-year flood plain and any nontidal wetlands
- (j) The location of any buried or overhead power transmission lines, utility pipelines, or storage tanks on the site;
- k) show minimum 200 foot buffer for lands not owned by permittee or owner
- l) monitoring wells
- m) leachate collection system (provide details)
- n) phasing for CCB placement
- o) original, existing and post placement contours
- p) cross sections to show the following:
 - 1. maximum expected ground water elevation at the site
 - 2. separation from ground water
 - 3. liner
 - 4. thickness of fill
 - 5. cover
- q) geologic cross sections to clearly identify subsurface conditions