VIRGINIA DEPARTMENT OF ENERGY
MINED LAND REPURPOSING PROGRAM

Coal Combustion By-Products Guidelines

Virginia Energy's Mined Land Repurposing Program (DMLR) will implement the requirements of "Coal Combustion By-Product Regulations" under §9 VAC 20-85 *et. seq.* for the use of coal combustion by-products (CCB) on permits issued under the Virginia Coal Surface Mining Reclamation Regulations.

These guidelines establish minimum standards for the owners or operators of coal surface mining permits that wish to accept CCB for mine reclamation or mine refuse disposal on a Virginia Energy/DMLR permitted site.

An application to use CCB on a Virginia Energy permit must provide or comply with the following administrative requirements and management standards –

Section I – ADMINISTRATIVE REQUIREMENTS

A. The permit application must provide a demonstration of legal right to enter and begin surface coal mining and reclamation operations for the CCB site, as required by §4VAC25-130-778.15.
B. The notification requirements of §4VAC 25-130-773.13(a) shall apply and the public notice advertisement and notice to the local governing bodies must make specific reference to the proposed use of CCB.
C. The permit application shall provide a general description of the intended uses of the CCB, as part of the operation plan (Section 10). The operation plan shall provide –
    1) A description of the nature, purpose, and location of the CCB site, and how the CCB will be stored prior to use, if applicable. Reference should be made as to where in the application the location of the CCB site is identified on the applicable permit application and/or geologic maps
    2) The estimated beginning and ending dates for the CCB operation.
    3) An estimate of the volume of CCB that will be utilized.
    4) A description of the proposed type of CCB to be used, including the physical and chemical characteristics of the material. The chemical description shall contain the results of the chemical analysis (TCLP) conducted per §9VAC20-60 for the constituents identified under Table 1 of §9VAC20-85-150 (A)(3)(d). The description shall contain a statement that the project will not manage CCB that contain any constituent at a level exceeding those identified in Table 1 of §9VAC20-85-150 (A)(3)(d).
    5) An assessment of the environmental impacts when CCB use will involve mixing, layering, or blending with mine spoil or refuse. Acid-base testing and balancing must be conducted on all materials to be used, including the CCB so the proper assessment may be rendered. If CCB is to be placed in refuse subject to quarterly acid-base testing, the CCB must also be tested quarterly for acid-base accountability.

D. The location restrictions and design/construction details identified in Section II, Management Standards, must be certified by a registered professional engineer licensed to practice in the Commonwealth of Virginia. The certification shall not contain any qualifications or exemptions from the requirements of these guidelines and/or §9VAC20-85 *et. seq.*
E. The permit application shall include operational and closure plans describing how the standards of Section II will be met.
F. Once a permit is issued, the permittee may modify the design and operation of the project by submitting a revision application to the DMLR. The revision shall include a new certified operational and/or closure plan.

Section II – MANAGEMENT STANDARDS

Location Restrictions - Consistent with §9VAC20-85-70, CCB shall not be placed –

A. In areas subject to base floods unless it can be shown that CCB can be protected from inundation or washout and that flow of water is not restricted;
B. With the vertical separation between the CCB and the maximum seasonal water table or bedrock less than two feet;
C. Closer than (all distances are to be measured in the horizontal plane) –
    1) 100 feet of any perennial or intermittent stream (§4VAC25-130-816.57 or §4VAC 25-130-817.57);
    2) 100 feet of any water well (other than a monitoring well) in existence at the onset of the project;
    3) 25 feet of a bedrock outcrop, unless the outcrop is properly treated to minimize infiltration into fractured zones;
    4) 100 feet of a sinkhole; or,
    5) 25 feet from the permit boundary.
D. In wetlands, unless applicable federal, state, and local permits are obtained;
E. On the site of an active or inactive dump, unpermitted landfill, lagoon, or similar facility, even if such facility is closed.

Operational Plan, Including Closure – The permit application operations plan addressing the CCB site shall be prepared in accordance with §§4VAC25-130-780.11, 4VAC25-130-780.18, 4VAC25-130-780.21, 4VAC25-130-780.25, 4VAC25-130-780.29, and 4VAC25-130-780.35 or the comparable sections of Part 4VAC25-130-784. The plan shall include –

A. Cross-sections and applicable maps identifying the CCB location.
B. Design standards for -
    1) Run-on, grading, and run-off;
    2) Placement and compaction; and,
    3) Side slopes and top slopes which shall be in accordance with the applicable requirements of Parts 4VAC25-130-780 or 4VAC25-130-784 and the

performance standards of Parts 4VAC25-130-816 or 4VAC25-130-817 in order to -

a) Control and reduce the infiltration of surface water through the CCB and to control the run-off from the placement area to other areas and to surface waters,
b) Ensure stability,
c) Control erosion of the fill slopes, and
d) Prevent ponding of water on the top of the fill.

C. The measures that will be taken to ensure run-off will not be permitted to drain or discharge into surface waters, unless such is authorized under the NPDES permit.
D. A narrative as to how, once the final grade is attained, the placed material shall be covered in accordance with the requirements of §§4VAC25-130-816.22, 4VAC25-130-816.71(g), and 4VAC25-130-816.83(b) or the comparable sections of Part 4VAC25-130.817.
E. A description of the storage, stockpiling, or other processing/handling practices of the CCB which may be used prior to the final placement or use, reuse, or reclamation of the CCB, so as to protect human health and safety and the environment.
F. The efforts to be employed to prevent and control the tracking of mud or CCB onto public roads, so as to minimize nuisances.
G. The methods that will be used to control fugitive dust at the site so that it does not become a nuisance or hazard. The fugitive dust control plan will also be reviewed by the Department of Environment Quality's (DEQ) Air Division.
H. Acknowledge and certify that the CCB does or shall not contain any solid waste, including but not limited to hazardous, infectious, construction, debris, demolition, industrial, petroleum contaminated soil, or municipal solid waste (as prohibited by §4VAC25-130-816.89 or §4VAC25-130-817.89. The prohibition does not apply to solid wastes from the extraction, beneficiation, and processing of ores and minerals, including coal, conditionally exempted under §9VAC20-80-160 (A)(2) of the Solid Waste Management Regulations.

Probable Hydrologic Consequences (PHC) Assessment and Water Monitoring Plans –

A. The NPDES monitoring will be in accordance with the DMLR NPDES program.
B. The PHC assessment shall address the use of CCB on the permit site.
C. Surface and/or ground water monitoring shall be conducted in accordance with the approved NPDES and permit requirements.

Miscellaneous -

A. Slurry injection of CCB into mine voids shall be addressed under §4VAC25-130-816.41(i) or §4VAC25-130-817.41(h) and the EPA UIC requirements.
B. The use of CCB as a soil amendment shall be in accordance with the requirements of the Virginia Department of Agriculture and Consumer Services (VDACS) or the DEQ/Virginia Energy. If VDACS approves the CCB as a soil amendment, no

additional testing is necessary. However, if VDACS approval is not received, Virgina Energy in consultation with DEQ may require information and testing.

C. Pursuant to §9VAC20-85-170, a variance to these guidelines may be granted if the applicant or operator seeking to use CCBs demonstrates to the Virginia Energy and DEQ satisfaction that granting the variance will not result in an additional risk to the public health or the environment beyond the risk which would be imposed without the variance.

Should you have any questions concerning these guidelines, please contact the Technical Services Manager at (276) 523-8156.