



west virginia department of environmental protection

Division of Water & Waste Management
601 57th Street SE Charleston, WV 25304
304-926-0499 Fax: 304-926-0496

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.wvdep.org

REMINING VARIANCE REQUEST INFORMATION SHEET

1. APPLICANT

Central Appalachia Mining, LLC
PO Box 1169
Pikeville, KY 41502

2. NAME AND LOCATION OF THE STREAM

The streams for which the revised water quality criteria are requested are Mauchlinville Branch, unnamed tributary of Mauchlinville Branch, Web Fork, Prater Creek, unnamed tributary of Thacker Creek, and Thacker Creek which is a tributary of the Tug Fork River. The location of these streams are near the Town of Edgarton in Magnolia District of Mingo County.

3. USE DESIGNATIONS OF THE STREAM

The designated uses applicable to the streams subject to the application are Category A, Public Water Supply; Category B1, Warm Water Fishery; and Category C, Water Contact Recreation.

4. PRE-LAW MINING DEMONSTRATION AND DEMONSTRATION OF NON-COMPLIANCE WITH ESTABLISHED NUMERIC CRITERIA

The application includes a copy of a portion of the map of the Majestic Quadrangle of the 7.5 Minute Series of the US Department of the Interior Geological Survey. The map, which was prepared in 1964 and photorevised in 1977, shows shading and stippling (indicating areas previously surface mined) in the areas proposed to be remined for this project.

Table 1 includes the average values calculated from the baseline sampling data from the three streams collected twice monthly during two separate intervals, September 2003 through April 2004 and January 2010 through June 2011, and the applicable numeric criterion for dissolved aluminum established in 47CSR2, *Requirements Governing Water Quality Standards* (noted as “WQS” in the table). The values recorded indicate non-compliance with the instream numeric criteria for dissolved aluminum (Al) for the streams subject to the application.

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TABLE 1

	Mauchlinville Branch (SW 1-3)	Unnamed Tributary of Thacker Creek (SW 1-5)	Thacker Creek (SW 1-6)	WQS
Average Dissolved Aluminum (mg/L)	1.66	8.37	4.98	0.750

5. PROPOSED ALTERNATE DISSOLVED ALUMINUM CRITERIA

5.A. Mouth of Mauchlinville Branch of Thacker Creek (SW 1-3)

A two-part alternate criterion for dissolved aluminum is requested. A maximum allowable limit of 4.58 mg/l is proposed to apply in the stream at all times. This value is based upon applying a 5% reduction to the single highest instream dissolved aluminum concentration (4.82 mg/l) recorded during the baseline monitoring conducted at SW 1-3. Additionally, the company proposes that the 12-month rolling average for dissolved aluminum meet an allowable value of 1.57 mg/l, which represents a 5% improvement over the average value (1.66 mg/l) from the baseline sampling at SW 1-3.

5.B. Mouth of Unnamed Tributary of Thacker Creek (SW 1-5)

A two-part alternate criterion for dissolved aluminum is requested. A maximum allowable limit of 12.91 mg/l is proposed to apply in the stream at all times. This value is based upon applying a 5% reduction to the single highest instream dissolved aluminum concentration (13.59 mg/l) recorded during the baseline monitoring conducted at SW 1-5. Additionally, the company proposes that the 12-month rolling average for dissolved aluminum meet an allowable value of 7.95 mg/l, which represents a 5% improvement over the average value (8.37 mg/l) from the baseline sampling at SW 1-5.

5.C. Thacker Creek (SW 1-6)

A two-part alternate criterion for dissolved aluminum is requested. A maximum allowable limit of 9.61 mg/l is proposed to apply in the stream at all times. This value is based upon applying a 5% reduction to the single highest instream dissolved aluminum concentration (10.12 mg/l)



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recorded during the baseline monitoring conducted at SW 1-6. Additionally, the company proposes that the 12-month rolling average for dissolved aluminum meet an allowable value of 4.73 mg/l, which represents a 5% improvement over the average value (4.98 mg/l) from the baseline sampling at SW 1-6.

6. ABSTRACT OF SUPPORTIVE DOCUMENTATION DEMONSTRATING THE REVISION IS APPROPRIATE

Central Appalachia Mining, LLC filed an application requesting the variance from standards in April 2011. Their application includes baseline sampling data taken for at least a 12-month period prior to submission of the NPDES Permit application with WVDEP. As noted above, the data demonstrate that the applicable numeric criteria for dissolved aluminum are not being met in the streams as a result of the historic mining practices.

In addition, the application describes the reclamation practices to be instituted to improve water quality in the three streams. The application indicates that proposed reclamation measures will encompass practical measures employing special handling of the acid mine drainage (AMD) producing black shale strata and the creation of valley fills which will serve incidentally, based upon the mass balance which exhibits values exceeding the current acidity values in the stream, as buffers to the water entering the streams. The black shale encountered during the second cut reminding that requires special handling can easily be identified due to the dark color of the shale and its location above the Lower Cedar Grove seam. This will make it easier for the field operations persons to segregate the black shale during the overburden handling phase of the mining operation. This black shale, where practicable, will be encapsulated within the backfill areas of the permit. A layer of sandstone-type material will be placed on the pit floor to a minimum thickness of four feet. The black shale material will be placed upon this pad to keep it from water that might migrate along the near impermeable pit floor. The black shale material will be placed a minimum of ten horizontal feet away from the vertical highwall so to minimize effects from water that may migrate downward along the face of the highwall. The black shale material will be covered with the remainder of the material available for backfilling. The cover material will be reasonably compacted to help assure that water infiltration into the black shale material is minimized. The cover material will consist of the materials in the overburden that do not exhibit a potential to contribute to the

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creation of AMD. As these materials weather, the fine particles will help to seal the AMD producing materials from rainwater infiltration. No acid producing black shale material, uncovered during the mining of the Lower Cedar Grove Seam, will be placed in any valley fill.

Additional information is provided which outline the Best Management Practices to be employed on site.

The application further states that the abatement plan is the only practicable plan possible in the area. No known feasible options exist to improve water quality in the area that do not include the mining of additional mineral reserves in the area.

Through the implementation of the proposed abatement plan, the applicant will be applying best available technology (BAT) economically achievable using best professional judgment. For the portion of the remining that has no preexisting seeps or outlets, the applicant will be required to meet applicable technology-based limits representing BAT at the outfall.

7. IMPLICATIONS OF THE VARIANCE FOR THE COMMUNITY AND OTHER USERS OF THE WATERS

The application indicates that the abatement activities will result in lower instream concentrations of dissolved aluminum, which will bring the concentrations of this parameter closer to compliance with the numeric water quality criteria outlined in 47CSR2, *Requirements Governing Water Quality Standards*.

It is believed that the potential to improve water quality in the regime of the proposed operation exists and it is felt that the plans set forth in the application will serve to help accomplish this goal.



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The WV Department of Environmental Protection has scheduled a public hearing and comment period pertaining to this remining variance request for Central Appalachia Mining, LLC. The hearing will be held at DEP's Charleston headquarters, 601 57th Street S.E., Charleston, WV 25304, in the Coopers Rock Training Room on October 3, 2011 at 6:00 p.m. In addition to oral comments provided at the hearing, the agency will accept written comments at any time up to the conclusion of the public hearing. No comments will be accepted after that time. Written comments may be submitted to the following address:

Kevin Coyne
Water Quality Standards Program
WV Department of Environmental Protection
601 57th Street SE
Charleston, WV 25304

Comments may also be e-mailed to dep.comments@wv.gov

The application and other supporting documentation are on file at DEP's Charleston headquarters at 601 57TH Street, SE Charleston, WV or can be found on the agency website www.dep.wv.gov/wqs. Hardcopies of this information may also be obtained by calling (304) 926-0499, ext. 1035.