



December 30, 2015

Mr. Chris Yde, Supervisor  
Coal and Uranium Program  
Industrial and Energy Minerals Bureau  
Montana Department of Environmental Quality  
PO Box 200901  
Helena, MT 59620-0901

Permit ID: C1979012  
Revision Type: Amendment  
Permitting Action: Application  
Subject: APPAM5, Arrowhead Amendment

Dear Chris:

Spring Creek is hereby submitting an application to amend lands into Surface Mining Permit C1979012 for a transportation corridor connecting Spring Creek Mine with Youngs Creek Mine in Wyoming. This amendment is referred to as the Arrowhead Amendment (AHA).

Upon approval, this proposed amendment will add approximately 4,334 acres to the approved permit area. The entire application is loaded into the MDEQ ePermit system for your review. MDEQ will also be provided a Permit Update Affidavit, table of contents, and a Map Affidavit upon approval of this application.

Spring Creek has met with the Department numerous times during the permit preparation phase of this application and appreciates the Department's guidance and support. Your valuable input has resulted in a comprehensive, more rounded permit application and also allowed your department to better understand the intricacies encountered while gathering baseline material and how the transportation corridor will be used in our mining operations.

Although the choice of route for the haulroad is discussed in extensive detail in the Fish & Wildlife plan for minimizing disturbance, it is worth summarizing here. SCM analyzed at least five distinct alternatives to the selected corridor route to identify the option that would result in the least potential to affect wildlife and wildlife habitats during construction, maintenance, and operation of the road. The route was selected based on factors such as distance to wildlife features (e.g., raptor nests and grouse leks), options to reduce line-of-sight and noise factors through the use of natural (topography) or manmade (placement of topsoil piles, etc.) barriers between the road corridor and wildlife features, big game use in and through the area, slope gradients for traffic needs and erosion control concerns, travel distance to minimize noise and dust issues to the extent

possible, land ownership and access, etc. In short, SCM has used this process of elimination to come up with a haul route that would provide the least amount of impact to wildlife features and habitat in addition to avoiding public lands and minimizing the impact while crossing creeks along the route.

### **Other Required Permits**

The following permits will be pursued concurrently with your review of the AHA:

- MPDES permit
- Air Quality
- USACOE 404 Permit – Since the NWP21 permit is so restrictive (in acreage) for coal mines, SCM/CPE is pursuing a Standard Permit. We have initiated contact with the USACOE and will keep the Department apprised at all stages of this process. The Aquatics Resource Inventory and the resultant USACOE Jurisdictional Determination (JD) comprises Appendix L2B of this application.

### **Application Materials**

Pertinent updates addressing the ARMs have been addressed accordingly; including but not limited to the Legal, Financial, Compliance sections (303), Baseline studies, Operations, Reclamation, and all affected maps.

Where possible, permit text revisions were made using Track Changes in Word to highlight changes made with this amendment.

Appendix 313D has been updated to document pre-mine slopes and special features for the AHA. MR219 was submitted on November 30<sup>th</sup> to provide the existing Appendix 313D documents without embedded attachments. Since this minor revision was not approved prior to this submittal, SCM has also re-loaded all of those files with this submittal.

Wildlife sections of this permit have undergone significant modifications. Plate 11, which heretofore has represented wildlife data has been removed from the permit with the reader being directed to the much more comprehensive Annual Wildlife Report and to section 17.24.312 that explicitly demonstrates how SCM complies with the Montana Executive Order on Sage-grouse.

New appendices (or additions to old) were added to accommodate additional baseline and are listed here:

- Appendix G6 – Contains 3 separate archaeological studies
- Appendix I, Volume 5 - Contains pre-mine hydrology specific to the AHA area.
- Appendix N – Contains all baseline related to Topography, Geology, Mineral Assessment and Strata Quality Characteristics (17.27.304(1)(g)) specific to the AHA area.

- Appendix B4 – Contains all vegetation baseline and pre-mine land use specific to the AHA area.
- Appendix A3 – Contains all soils baseline specific to the AHA area.
- Appendix 04 – Contains all alluvial valley floor studies specific to the AHA area.  
This appendix is loaded into the ePermit system and was also sent to the MDEQ on 10/13/15 for a pre-Application determination.
- Appendix L2B – contains the Aquatics Resources Inventory of the AHA area and the US Army Corp of Engineers Jurisdictional Determination.

Since the AHA adds a significant amount of “real-estate” to the mapping of Spring Creek, most subject areas will be covered by 2 sheets for each map. For example, the Field Map will be named Plate 8 FIELD 1 20151001 APPAM5 and Plate 8 FIELD 2 20151001 APPAM5, with 1 representing Sheet 1 which covers the original SCM permit area and with 2 representing Sheet 2 covering the AHA area. Similarly the coordinate system for each map is noted in the legend. Sheets 1 are designated with Decker Holmes coordinate system which is the coordinate system for the main mine area. Because the AHA is several miles south of SCM, a different coordinate system was required and Sheets 2 are designated using the CPE83 coordinate system. The large majority of Sheet 1 maps were only revised to update the title block and include the AHA permit boundary.

Per past practices, the reclamation bond will be updated upon Departmental approval of:

- Post mine topography
- Plate 4A, (Land Use and Revegetation Map);
- Text within Section 17.24.313; and
- Addendum 313A

### **Post Mining Topography**

The PMT for the AHA very closely follows premine topography to allow for minimal impact to drainage basins. This minimal change is best reflected in the Slope Comparison as contained in Appendix 313D.

### **Contemporaneous Reclamation**

The reclamation plan for the haul road being reclaimed in the last term of mining, allows for maximum flexibility for Spring Creek to mine coal in a cost-effective manner.

### **Technical Vegetation Standards**

Technical Standards have been revised to reflect the new land use types encountered in the AHA.

**ePermit Related**

During the loading of AHA files into the ePermit system, occasionally files would be found that had embedded documents, did not contain all intended material, or were simply not named according to plan. In these instances, files were replaced to correct appropriately. The ePermit system auto-generated list will reflect these changes. It should be noted that SCM/CPE does encounter the inability to load larger files into the ePermit system. Those files that we are unable to upload will be sent to you via the FTP site.

Thank you in advance for your review of this amendment package. We appreciate the effort you have invested in helping us develop a quality application and look forward to incorporating the Arrowhead Amendment into the mine permit.

If you have any questions or comments, please contact me at (406) 757-4236 or via email at [gabriel.johnson@cldpk.com](mailto:gabriel.johnson@cldpk.com).

Sincerely,



Gabe Johnson  
Environment Engineer  
Cloud Peak Energy, Spring Creek Mine