



# Department of Environmental Quality



To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.

Dave Freudenthal, Governor

John Corra, Director

December 20, 2005

Mr. Stephen C. Skordas  
Mine Manager  
Arch of Wyoming, LLC  
P. O. Box 460  
Hanna, WY 82327

Permit No. CT-4136

Dear Mr. Skordas:

The Division of Air Quality of the Wyoming Department of Environmental Quality has completed final review of Arch of Wyoming, LLC's application to establish a 2.1 million ton per year surface and underground coal mine known as the Carbon Basin Mines, located approximately four (4) miles north of Elk Mountain, Wyoming.

Following this agency's proposed approval of the request as published November 17, 2005 and in accordance with Chapter 6, Section 2(m) of the Wyoming Air Quality Standards and Regulations, the public was afforded a 30-day period in which to submit comments concerning the proposed modification, and an opportunity for a public hearing. No public comments have been received. Therefore, on the basis of the information provided to us, approval to modify the Carbon Basin Mines as described in the application is hereby granted pursuant to Chapter 6, Section 2 of the regulations with the following conditions:

1. That authorized representatives of the Division of Air Quality be given permission to enter and inspect any property, premise or place on or at which an air pollution source is located or is being constructed or installed for the purpose of investigating actual or potential sources of air pollution and for determining compliance or non-compliance with any rules, standards, permits or orders.
2. That all substantive commitments and descriptions set forth in the application for this permit, unless superseded by a specific condition of this permit, are incorporated herein by this reference and are enforceable as conditions of this permit.
3. That a permit to operate, in accordance with Chapter 6, Section 2(a)(iii) of the WAQSR, is required after a 120 day start-up period in order to operate this facility.
4. That all notifications, reports and correspondences associated with this permit shall be submitted to the Stationary Source Compliance Program Manager, Air Quality Division, 122 West 25<sup>th</sup> Street, Cheyenne, WY 82002 and a copy shall be submitted to the District Engineer, Air Quality Division, 152 North Durbin Street, Suite 100, Casper, WY 82601.
5. That written notification of the anticipated date of initial start-up, in accordance with Chapter 6, Section 2(i) of the WAQSR, is required not more than 60 days or less than 30 days prior to such date. Notification of the actual date of start-up is required 15 days after start-up.

Herschler Building • 122 West 25th Street • Cheyenne, WY 82002 • <http://deq.state.wy.us>

ADMIN/OUTREACH  
(307) 777-7758  
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ABANDONED MINES  
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AIR QUALITY  
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FAX 777-5616

INDUSTRIAL SITING  
(307) 777-7369  
FAX 777-6937

LAND QUALITY  
(307) 777-7756  
FAX 777-5864

SOLID & HAZ. WASTE  
(307) 777-7752  
FAX 777-5973

WATER QUALITY  
(307) 777-7781  
FAX 777-5973



6. That the date of commencement of construction shall be reported to the Administrator within 30 days of commencement. In accordance with Chapter 6, Section 2(h) of the WAQSR, approval to construct or modify shall become invalid if construction is not commenced within 24 months after receipt of such approval or if construction is discontinued for a period of 24 months or more. The Administrator may extend the period based on satisfactory justification of the requested extension.

#### Carbon Basin Mines

7. That Arch of Wyoming, LLC shall comply with the following requirements for the fogger units at Carbon Basin Mines:
  - a) That the opacity from the fogger units shall be limited to a maximum of 20 percent as determined by Method 9 of 40 CFR, Part 60, Appendix A.
  - b) That the fogger units shall be operated during all times that the respective coal processing facility is operating including loading of the crusher feed hopper.
  - c) Weekly inspections of the fogger systems shall be conducted by Arch of Wyoming to determine any repair measures necessary to minimize fugitive dust emissions and maintain proper operation of the control system. Corrective action and repair measures must be initiated in an expeditious manner when the control device is determined to be improperly maintained or operated.
8. That the crusher feed hopper shall be limited to less than 20 percent opacity, per the requirements of Subpart Y. Compliance with the 20 percent opacity limit at the crusher feed hopper will be determined by Method 9 of 40 CFR, Part 60, Appendix A.
9. Topsoiled areas shall be stabilized as soon as feasible after topsoil laydown. When appropriate, topsoiled areas shall be chiseled to roughen the surface to lessen wind erosion potential. Backfilled and regraded areas that will not be topsoiled or seeded for an extended period of time and are subject to wind-blown erosion shall be ripped to roughen the surface to help reduce wind erosion.
10. That all haul roads and stockpiles within the Carbon Basin Mines shall be treated with suitable chemical dust suppressants and/or water to control fugitive dust emissions. All treated road surfaces shall be maintained on a continuous basis to the extent that the surface treatment remains a viable control measure. Records of the number and size of water trucks, water truck operations, water usage, roads watered, roads treated, length of roads treated, and other operational parameters shall be maintained such that an annual report on dust control measures can be filed with the Division in order to assess compliance with this condition. The report shall include a map showing which roads were treated and what treatments were used on road segments. The annual report shall be submitted to the Division by April 1<sup>st</sup> of each year.
11. The maximum coal production by year shall not exceed the production rate of 2.1 million tons per year as described in the mine plan contained in the application. Annual coal and overburden production rates shall be reported with the annual report required for dust control measures by Condition 10.

12. That a maximum of 120,000 tons per year of coal may be processed through the in-pit crusher at the Carbon Basin Mines. Annual coal throughput through the in-pit crusher shall be reported with the annual report required for dust control measures by Condition 10.
13. That Arch of Wyoming, LLC will limit public access to the lands defined by the Administrator as necessary to conduct mining operations. All fencing of the Lands Necessary to Conduct Mining boundary shall be equipped with locked gates and signs posted at fixed intervals identifying the enclosed area and prohibiting access.
14. That Arch of Wyoming, LLC shall comply with the requirements of 40 CFR, Part 60, Subpart Y for the coal handling system at the Carbon Basin Mine.
15. That Arch of Wyoming, LLC will adhere to their program to mitigate coal fires that result from spontaneous combustion. All fires are to be extinguished within 24 hours unless operational safety issues are present. A production supervisor will document extinguishing measures utilized when fires are considered significant. All documentation shall be maintained and made available to the Division upon request.
16. That Arch of Wyoming, LLC's shall operate, in accordance with the requirements of 40 CFR, Parts 50 and 58, an approved ambient particulate monitoring program that includes an ambient particulate monitoring network, with wind speed and direction instruments at the Carbon Basin Mines. The data generated by the network shall be submitted in an approved format on a quarterly basis, within 60 days following the end of the quarter. Arch of Wyoming, LLC shall maintain a quality assurance plan for the monitoring network, as required by 40 CFR, Part 58 and shall be approved by the Division.
17. That the ambient monitoring program required in Condition #16 shall be operational prior to Arch of Wyoming, LLC producing more than 200,000 tons of coal from the Carbon Basin Mines. Arch of Wyoming, LLC shall submit for approval the locations of the ambient monitor(s) prior to start-up of the monitoring program.
18. That Arch of Wyoming, LLC shall maintain a meteorological station at their Carbon Basin Mines acceptable to the Division. Surface air meteorological data measurements shall be collected at the Carbon Basin Mines, as specified in the EPA document: Meteorological Monitoring Guidance for Regulatory Modeling Applications. The meteorological data measurements shall consist of hourly observations of:
  - a. Wind speed using an anemometer height of 10 meters
  - b. Wind direction
  - c. Ambient temperature
19. The meteorological data specified in Condition #18 shall be submitted in an electronic format on a quarterly basis and shall be compiled in a joint frequency distribution (JFD) utilizing the modified sigma theta method for stability. The meteorological station required in Condition #18 shall be operational prior to Arch of Wyoming, LLC producing more than 200,000 tons of coal from the Carbon Basin Mines.

### **Seminole II Processing Area**

20. That Arch of Wyoming, LLC may only process run-of-mine coal at the Seminole II Processing Area.
21. That the water sprays shall be operated during all times that the respective coal processing facility is operating.
22. That all haul roads/stockpiles within the Seminole II Processing Area shall be treated with suitable chemical dust suppressants and/or water to control fugitive dust emissions. All treated road surfaces shall be maintained on a continuous basis to the extent that the surface treatment remains a viable control measure. Records of water truck operations, water usage, chemical usage, roads watered, roads treated, length of roads treated, and other operational parameters shall be maintained such that an annual report on dust control measures can be filed with the Division in order to assess compliance with this condition. The annual report shall be submitted to the Division by April 1st of each year.
23. That Arch of Wyoming, LLC shall comply with the requirements of 40 CFR, Part 60, Subpart Y for the coal handling system at the Seminole II Processing Area.

### **Haul Roads from Carbon Basin Mines to Seminole II**

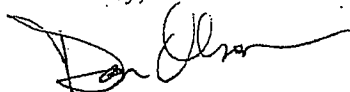
24. That all unpaved portions of the haul route from the Carbon Basin Mine to Highway 72 utilized during the calendar year shall be treated with suitable chemical dust suppressants and/or water to control fugitive dust emissions. At a minimum, two (2) applications of dust suppressant shall be applied for each calendar year. All treated road surfaces shall be maintained on a continuous basis to the extent that the surface treatment remains a viable control measure. Records of the number and size of water trucks, water truck operations, water usage, roads watered, roads treated, length of roads treated, and other operational parameters shall be maintained such that an annual report on dust control measures can be filed with the Division in order to assess compliance with this condition. The report shall include a map showing which roads were treated and what treatments were used on road segments. The annual report shall be submitted to the Division by April 1<sup>st</sup> of each year.
25. That all unpaved portions of the haul route from Highway 30 to the Seminole II Processing Area utilized during the calendar year shall be treated with suitable chemical dust suppressants and/or water to control fugitive dust emissions. At a minimum, two (2) applications of dust suppressant shall be applied for each calendar year. All treated road surfaces shall be maintained on a continuous basis to the extent that the surface treatment remains a viable control measure. Records of the number and size of water trucks, water truck operations, water usage, roads watered, roads treated, length of roads treated, and other operational parameters shall be maintained such that an annual report on dust control measures can be filed with the Division in order to assess compliance with this condition. The report shall include a map showing which roads were treated and what treatments were used on road segments. The annual report shall be submitted to the Division by April 1<sup>st</sup> of each year.

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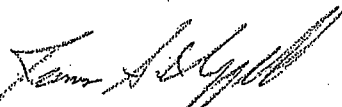
It must be noted that this approval does not relieve you of your obligation to comply with all applicable county, state, and federal standards, regulations or ordinances. Special attention must be given to Chapter 6, Section 2 of the Wyoming Air Quality Standards and Regulations, which details the requirements for compliance with conditions 3, 5, and 6. Any appeal of this permit as a final action of the Department must be made to the Environmental Quality Council within sixty (60) days of permit issuance per Section 16, Chapter I, General Rules of Practice and Procedure, Department of Environmental Quality.

If we may be of further assistance to you, please feel free to contact this office.

Sincerely,



Dan Olson  
Administrator  
Air Quality Division



John V. Corra  
Director  
Dept. of Environmental Quality

cc: Chris Hanify

DO/cs