



UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

DIVISION OF
CORPORATION FINANCE

April 3, 2014

Via E-mail

John T. Drexler
Chief Financial Officer
Arch Coal, Inc.
One City Place Drive, Suite 300
St. Louis, MO 63141

**Re: Arch Coal, Inc.
Form 10-K for the Year Ended December 31, 2013
Filed February 28, 2014
Form 8-K Furnished February 4, 2014
File No. 001-13105**

Dear Mr. Drexler:

We have reviewed your filing and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Form 10-K for the Year Ended December 31, 2013

Notes to Consolidated Financial Statements

1. Basis of Presentation

Inventories, page F-11

1. It appears from your disclosure that the coal inventory costs include labor, supplies, equipment costs, transportation costs and operating overhead. Please provide us with a detailed discussion of the costs that are included in operating overhead, particularly whether depreciation, depletion and amortization are included in your inventory balance. To the extent depreciation, depletion and amortization are not included in your inventoried costs; please tell us your basis for excluding them.

Form 8-K Furnished February 4, 2014

2. We note your disclosure of “cash cost per ton” on page 4 of Exhibit 99.1. This appears to be a non-GAAP measure, please confirm that you will revise your future earnings releases to comply with the reporting requirements of Regulation G. In addition, please provide us with a detailed discussion of how this measure relates to the “cost per ton sold” measure disclosed on page 60 for the December 31, 2013 10-K.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are in possession of all facts relating to a company’s disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

You may contact Suying Li at (202) 551-3335 or Angela Halac at (202) 551-3398 if you have questions regarding comments on the financial statements and related matters.

Sincerely,

/s/Tia L. Jenkins

Tia L. Jenkins
Senior Assistant Chief Accountant
Office of Beverages, Apparel, and
Mining