



April 12, 2013

Ms. Tia L. Jenkins
Senior Assistant Chief Accountant
Office of Beverages, Apparel, and Mining
Division of Corporation Finance
Securities and Exchange Commission
100 F Street, N.E.
Washington, DC 20549

Re: Arch Coal, Inc.
Form 10-K for Fiscal Year Ended December 31, 2012
Filed March 1, 2013
File No. 001-13105

Dear Ms. Jenkins:

We are providing this letter in response to the comments of the staff of the Securities and Exchange Commission (the "Staff") contained in your letter dated March 22, 2013 regarding the Annual Report on Form 10-K filed by Arch Coal, Inc. ("Arch Coal") for Arch Coal's fiscal year ended December 31, 2012 (the "Form 10-K"). Set forth below are the Staff's comments and our responses.

Pursuant to Rule 12b-4 of the Securities Exchange Act of 1934, as amended, Arch Coal requests that, upon completion of this review, the Staff return to us all supplemental materials provided in connection with this review.

Form 10-K for Fiscal Year Ended December 31, 2012

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 58

Results of Operations, page 59

COMMENT NO. 1:

When you list multiple factors that contributed to a material change in a financial statement line item between periods, please quantify, where possible, the extent to which each factor contributed to the overall change in that line item. For example, your cost of sales increased in

2012 from 2011 primarily from the impact of the acquisition of the ICG operations and an increase in transportation costs as a result of the increase in export shipments. These factors were partially offset by the impact of lower thermal coal demand in all operating segments which resulted in your decision to close or idle mining operations and curtail production. Please quantify the impact of each factor and provide us with draft disclosures to be included in future filings.

RESPONSE:

In future filings, when we list multiple factors that contributed to a material change in a financial statement line item, we will quantify the impact of each factor where possible. For the example noted, our disclosure would be revised as follows:

Our cost of sales increased in 2012 from 2011 primarily from the impact of the acquisition of the ICG operations (\$237.8 million) and an increase in transportation costs as a result of the increase in export shipments (\$248.6 million). These factors were partially offset by the impact of lower thermal coal demand in all operating segments which resulted in our decision to close or idle mining operations and curtail production (\$241.5 million).

Critical Accounting Policies, page 74

Goodwill, page 75

COMMENT NO. 2:

We note that you recorded \$480 million of goodwill with the acquisition of International Coal Group, Inc. (ICG) in June 2011. Please explain the methodology used to determine the amount of goodwill you assigned to the various reporting units. Please tell us the reporting units you have identified and your consideration of the factors in ASC 350-20-35-33 in determining these reporting units.

RESPONSE:

In the ICG acquisition, we acquired the following reporting units:

- 11 active mining complexes (Beckley, East Kentucky, Eastern, Hazard/Flint Ridge, Imperial, Knott County/Raven, Patriot, Sentinel, Sycamore No. 2, Vindex, and Viper);

- one mining complex that was in development at the time of the acquisition (Tygart Valley 1, which has subsequently been renamed as the Leer mine complex); and

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- one development opportunity for which ICG had begun technical evaluation, but had not yet started active development (Tygart 2). Upon acquisition, Arch Coal installed dedicated management to manage the permitting process and detailed mine planning for operations at this unit.

Discrete financial information is available for the active mining complexes and those results are reviewed by segment management. This is the case for the development properties as well. Although neither Leer nor Tygart 2 had reached the production stage at the time of acquisition, the units met the definition of a business, as the guidance is applied to development stage entities in ASC 805-10-55. That analysis follows:

- Planned principal activities had begun at both locations. At Leer, permits had been received and actual construction of the mine and support facilities had begun. At Tygart 2, drilling and evaluation of coal quality and mineability had occurred and mine planning and permitting was in process.
- Employees and other inputs and processes that could be applied to those inputs were in place. Employment levels were commensurate with the stage of the development that each project had achieved.
- Both units were pursuing a plan to produce coal.
- Both units had access to customers that will purchase their production. At the time of acquisition, both ICG and Arch Coal had existing metallurgical coal customers, as well as market intelligence identifying other existing metallurgical coal buyers or planned new steel production.

In allocating the acquired goodwill to reporting units, we considered the guidance in ASC 350-20-35-41, “Goodwill shall be assigned to reporting units of the acquiring entity that are expected to benefit from the synergies of the combination... The methodology used to determine the amount of goodwill assigned to a reporting unit shall be reasonable and supportable and applied in a consistent manner.”

In our valuation of individual assets acquired, the expected value of all identified synergies was reflected in the value of the acquired mineral reserves; as these synergies were available to third party market participants and were therefore not the reason for the existence of goodwill in the valuation of ICG. We therefore considered the strategic rationale for the acquisition and the primary value drivers of the acquired entity to determine which reporting units would have a fair value in excess of the value of the individual assets acquired and liabilities assumed.

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Although the assets acquired in the ICG transaction included a variety of coal products and qualities, the primary strategic driver for the acquisition was ICG’s metallurgical coal production and reserves, and specifically, the higher quality metallurgical coals (low volatile coal and high volatile grade A coal). Prior to the acquisition, Arch Coal had a significant presence in the lower quality metallurgical markets but no reserves or production of the higher quality products. The acquisition made Arch Coal one of the largest metallurgical coal producers in the United States and globally and broadened Arch Coal’s portfolio of metallurgical products. ICG’s higher quality metallurgical coal was the primary target of the acquisition, as Arch Coal’s management believes that these coals are in the shortest supply and will command the largest price premium from customers.

The reporting units that were the primary producers of the high quality metallurgical coal at the time of the acquisition were Sentinel (1.3MM tons of annual production of high volatile A coal) and Beckley (1.1MM tons annually of premium low volatile coal). The reporting units under development, Leer and Tygart 2, will produce high volatile grade A coal. Over the estimated life of the acquired reporting units, these four units will account for approximately 90% of the total acquired high quality metallurgical production. These four properties accounted for the majority of the net present value and expected earnings of the acquired entity, based on the cash flow models used in the valuation of the acquired entity. They were also expected to be the four most profitable operations (as measured by EBITDA margin) and the four with the highest estimated internal rate of return.

Because these four units were the primary strategic assets and primary financial drivers of the acquisition, we determined that substantially all of the excess fair value for the acquisition resides in these units. Therefore the goodwill was allocated to Beckley, Sentinel, Leer and Tygart 2.

COMMENT NO. 3:

We note you fully impaired certain reporting units in your Appalachia segment acquired with your purchase of ICG. However, you continue to attribute \$265 million of goodwill to two other reporting units in this segment which are in the development stage. Please tell us the methods and key assumptions you used, specifically metallurgical coal pricing and how these assumptions were determined for these reporting units. In addition, expand your disclosures in future filings to discuss the methods and key assumptions and the degree of uncertainty associated with these key assumptions.

RESPONSE:

In our discussion of critical accounting policies in Management’s Discussion and Analysis, we note that we utilize a discounted cash flow (DCF) technique to value the reporting units to which goodwill has been assigned and that the significant assumptions in the DCF include future

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projections of sales volumes, prices and costs to produce and the discount rate. Further, we indicated that for the remaining units for which goodwill has not been impaired that fair values were less sensitive to near-term pricing and more dependent on the long-term outlook for global demand for metallurgical coal.

Each of these is discussed further below, and in the supplemental material provided to the Staff in the form of [Supplemental Schedule A](#):

Sales Volumes — Production volumes are based on a production plan that is prepared by the mine complex personnel. Based on the quality of the coal produced, an estimate is made of the sales volumes into various markets (metallurgical vs. thermal and domestic vs. international). The two units in development for which goodwill has not been impaired (Leer and Tygart 2) will sell coal into both metallurgical and thermal markets, based on the quality of the coal produced and the processing that will occur after extraction.

Coal Prices - The first five years of coal pricing is based on our internal budget (or most recent forecast) pricing, which is derived from an analysis of current market conditions and forecasts of supply and demand changes over the forecast period. This analysis is an in-depth review of worldwide coal consumption and production, with separate analysis of the trends for thermal coal and metallurgical coal. The analysis contemplates the impact of new sources of both coal demand (new coal fired power plants and new steel mills) and supply (new developments as well as expansions of existing mines), competing fuels (e.g., natural gas, nuclear energy and renewables), as well as environmental regulations (existing and proposed). In addition to the base case, we develop both upside and downside pricing scenarios.

These prices are compared with third party price forecasts and recent sales transactions for reasonableness. However, we do not use the third party information as a basis for our forecast because the third parties are typically financial institutions or industry analysts and are not marketplace participants. Because metallurgical coal pricing is short term in nature (domestic pricing is typically negotiated on an annual basis, while international pricing is determined quarterly or even monthly), we do not believe that there are any marketplace participant forecasts of long-term pricing and have therefore used our internal analysis.

It should be noted that in addition to price, one other downside risk was factored into the estimated cash flows. In the downside scenarios, we assumed a lower percentage of the mines overall production would be sold into metallurgical markets.

Costs to Produce — Costs to produce, including both operating costs and capital spending, are based on mine level development and operating plans that are prepared as part of our ongoing budgeting and forecasting efforts. These forecasts cover the first five years of the projection period.

Discount Rate — We calculate an overall discount rate for Arch Coal and then determine if any adjustments to that rate are required to adequately reflect the risk profile of the individual reporting units. We engaged a third party valuation firm to assist us in calculating the base

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discount rate based on coal industry data as of October 1, 2012 (the date of our annual impairment test).

In addition, we acknowledge the Staff's comment to expand our disclosures in future filings to discuss the methods and key assumptions and the degree of uncertainty associated with these key assumptions. In future filings we will include a discussion on the methods and key assumptions and the degree of uncertainty associated with the key assumptions.

[Financial Statements and Supplementary Data, page F-1](#)
[Consolidated Statements of Operations, page F-5](#)

COMMENT NO. 4:

We note that your cost of sales excludes depreciation and depletion. In future filings, please clarify by changing the description of the line item per the guidance in SAB Topic 11.B.

RESPONSE:

We acknowledge the Staff's comment to change the description of the line item per the guidance in SAB Topic 11.B. In future filings we will change the description of this line item in accordance with SAB Topic 11.B.

[Notes to Consolidated Financial Statements, page F-10](#)
[Note 23. Commitments and Contingencies, page F-45](#)

COMMENT NO. 5:

We note your disclosure that you are a party to numerous claims and lawsuits with respect to various matters and the company provides for costs related to contingencies when a loss is probable and the amount is reasonably determinable. In future filings, please add disclosure on how you account for contingencies if there is a reasonable possibility that a loss has been incurred. See ASC 450-20-50-3.

RESPONSE:

We acknowledge the Staff's comment to add disclosure on how we account for contingencies if there is a reasonable possibility that a loss has been incurred. In future filings we will ensure that our disclosure includes how we account for contingencies if there is a reasonable possibility that a loss has been incurred.

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Arch Coal acknowledges that:

- Arch Coal 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
- Arch Coal 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.

Thank you for your consideration. If you require any additional information on these issues, or if I can provide you with any other information that will facilitate your continued review of the Form 10-K, please contact me at 314-994-2700 at your earliest convenience.

Sincerely,

ARCH COAL, INC.

By: /s/ John T. Drexler
John T. Drexler
Senior Vice President and
Chief Financial Officer