

April 21, 2015

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, 2014 Filed February 27, 2015 Definitive Proxy Statement on Schedule 14A Filed March 20, 2015 Response Dated April 7, 2015 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 April 13, 2015 regarding the Annual Report on Form 10-K filed by Arch Coal, Inc. ("Arch Coal") for Arch Coal's fiscal year ended December 31, 2014 (the "Form 10-K") and the Definitive Proxy Statement on Schedule 14A filed by Arch Coal on March 20, 2015 (the "Proxy Statement"). Set forth below are the Staff's comments and our responses.

Form 10-K for Fiscal Year Ended December 31, 2014 Financial Statements and Supplementary Data, page F-1 Notes to Consolidated Financial Statements, page F-10 Note 26. Segment Information, page F-50

COMMENT NO. 1:

We note your proposed disclosure for "corporate, other and eliminations" in Management's Discussion and Analysis in response to comment 3. Please further revise to quantify the material components of corporate, other and eliminations for each period presented

and discuss the underlying factors for material changes between periods. Please provide us your proposed disclosures.

RESPONSE:

We acknowledge the Staff's comment. In future filings, as appropriate, we will provide disclosure that incorporates the comment provided by the Staff.

Draft disclosures based on the Form 10-K are as follows (changes from the Form 10-K noted in **bold** or strikethrough below):

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

Operational Performance

Corporate, Other and Eliminations- Adjusted EBITDA increased \$54 million in 2014 when compared to 2013 due to \$19.0 million of reduced expenses recorded in the Statement of Operations line items "Selling, general and administrative expenses," which is primarily the result of management initiatives to reduce costs, together with \$11.5 million of reduced expenses recorded in the line item "Change in fair value of coal derivatives and coal trading activities, net" and \$17.0 million of reduced settlement expense and reduced land holding costs.

Definitive Proxy Statement on Schedule 14A Filed March 20, 2015 Executive Compensation, page 40

COMMENT NO. 2:

We note your response to comment 4. Please show us how you propose to revise discussion of your CEO's compensation based on fiscal year 2014 executive compensation.

RESPONSE:

We acknowledge the Staff's comment and are providing a draft of revised disclosure below. We would note to the Staff in particular that a change we propose is to add a table showing the respective target opportunities available to our NEOs as percentages of their base salaries under the 2014 long-term incentive program. The varying percentages reflected in that table, which are based on an individual's position and responsibilities, cause payouts to our NEOs under our 2014 long-term incentive program to vary in relative terms according to those percentages. While our CEO would receive a larger payout than any other of our NEOs under given circumstances as a result of a higher target opportunity as a percentage of his base salary,

there are not materially different policies or decisions that impact awards to our CEO as compared to our other NEOs. With this information included, we are providing information with respect to our 2104 long-term incentive program that is consistent with the information that already is in the Proxy Statement with respect to our NEO base salaries (beginning on page 49) and our annual incentive compensation program (beginning on page 50).

Draft disclosures based on the Proxy Statement are as follows (changes from the Proxy Statement noted in **bold** or strikethrough below):

PAGE 53 LONG-TERM INCENTIVE PROGRAM OVERVIEW

The Committee designed our long-term incentive program to promote decision-making that creates long-term value for our stakeholders. The Committee believes that an effective long-term incentive program should also create strong retention incentives for those key employees who are most likely to influence our long-term performance. In addition, we attempt to align the long-term interests of our executives with those of our stockholders by allocating a significant portion of the long-term incentive program to awards whose values are tied to the value of our common stock.

The following table shows the target opportunities available to the NEOs as a percentage of their base salaries, under the 2014 long-term incentive program:

Name	Target as a % of Base Salary
John W. Eaves	350%
John T. Drexler	275%
Paul A. Lang	300%
Kenneth D. Cochran	250%
Robert G. Jones	250%

The following table shows the components of our long-term incentive program for each of the last three years and for 2015, together with the percentage associated with such portion of the award compared to the total award granted in that year. Long-term incentive awards contain various incentive levels based on the participant's accountability and potential influence on our performance, with target opportunities established as a percentage of base salary based on the

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median market data. Each of the components used in the 2014 and 2015 long-term incentive program for the NEOs is described in greater detail below.

Compensation Component	2012	2013	2014	2015
Performance shares		_	35%*	35%*
Performance units	30%	30%	30%	30%
Restricted stock/restricted stock units	35%	35%	35%	35%
Stock options	35%	35%	_	_

*Performance shares include a Total Stockholder Return (TSR) modifier.

While each of these components are used in the percentages set forth above for each of the NEO's long-term compensation packages (including our CEO), some Some or all of these performance measures may be used for our other employees, and the performance measures may differ for various groups or classifications of employees. We believe that the performance measures for our performance units and performance shares, together with the TSR modifier potentially applicable to the performance shares, align our NEOs' long-term compensation packages with the long-term interests of our stakeholders.

If the target level performance is achieved with respect to a particular performance measure (subject to the TSR modifier discussed below), the applicable payout percentage for that performance measure will equal 100%. Achievement at the threshold or maximum performance level results in an applicable payout percentage that varies based on the performance measure, as further discussed below.

* * *

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 and Proxy Statement, please contact me at 314-994-2700 at your earliest convenience.

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Sincerely,

ARCH COAL, INC.

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

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