



May 2, 2012

Mr. John Reynolds
Assistant Director
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, 2011
Filed February 29, 2012
Proxy Statement
Filed March 16, 2012
File No. 001-13105

Dear Mr. Reynolds:

We are providing this letter in response to the comment of the staff of the Securities and Exchange Commission (the "Staff") contained in your letter dated May 2, 2012 regarding the Annual Report on Form 10-K filed by Arch Coal, Inc. ("Arch Coal") for Arch Coal's fiscal year ended December 31, 2011 and Arch Coal's Definitive Proxy Statement filed on March 16, 2012. Set forth below is the Staff's comment and our response.

Form DEF 14A, filed March 16, 2012

COMMENT NO. 1:

We note your statement in the Form 10-K, on page 85, that the Item 201(d) of Regulation S-K disclosure is included under the caption "Equity Compensation Plan Information" in your 2011 Proxy Statement but we are unable to locate such a heading in the proxy, and, as a result, the required disclosure. Please confirm in future filings that you will include the disclosure required by Item 201(d) of Regulation S-K or advise us as applicable.

RESPONSE:

We acknowledge the Staff's comment and hereby confirm that we will include the disclosure required by Item 201(d) of Regulation S-K in future filings in which such disclosure is required.

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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