

ARCH COAL INC  
Form 8-K  
February 22, 2010

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, DC 20549**

**FORM 8-K  
CURRENT REPORT**

**Pursuant to Section 13 or 15(d)  
of the Securities Exchange Act of 1934**

**Date of report (Date of earliest event reported): February 22, 2010 (February 22, 2010)**

**Arch Coal, Inc.**

(Exact name of registrant as specified in its charter)

Delaware  
(State or other  
jurisdiction of  
incorporation)

1-13105  
(Commission File Number)

43-0921172  
(I.R.S. Employer  
Identification No.)

CityPlace One  
One CityPlace Drive, Suite 300  
St. Louis, Missouri 63141

(Address, including zip code, of principal executive offices)

Registrant's telephone number, including area code: (314) 994-2700

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
  - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
  - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
  - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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**Item 7.01 Regulation FD Disclosure.**

Beginning on February 22, 2010, and at other times thereafter, the attached slides will be presented to various investors by the Senior Management team of Arch Coal, Inc. The slides from the presentation are attached hereto as Exhibit 99.1 and are hereby incorporated by reference.

A copy of the slides will be available at <http://investor.archcoal.com/events.cfm> for 30 days.

**Item 9.01 Financial Statements and Exhibits.**

(d) Exhibits

The following exhibit is attached hereto and furnished herewith.

Exhibit

No.	Description
99.1	Arch Coal, Inc. Investor Presentation Slides

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**Signatures**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Dated: February 22, 2010

Arch Coal, Inc.

By: /s/ Robert G. Jones  
Robert G. Jones  
Senior Vice President--Law, General  
Counsel and Secretary

**Exhibit Index**

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