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): August 2, 2010 (August 2, 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:

- o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- o 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))

Item 7.01 Regulation FD Disclosure.

On August 2, 2010, Arch Coal, Inc. (the "Company") issued a press release announcing the commencement of an offering of \$500.0 million aggregate principal amount of senior unsecured notes due 2020 pursuant to an automatic shelf registration statement on Form S-3 filed previously with the Securities and Exchange Commission. A copy of the press release is attached hereto as Exhibit 99.1.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

The following exhibits are attached hereto and furnished herewith.

Exhibit No.	Description
99.1	Press release dated August 2, 2010.

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: August 2, 2010 Arch Coal, Inc.

By: /s/ Robert G. Jones

Robert G. Jones Senior Vice President--Law, General Counsel and

Secretary

Exhibit Index

Exhibit No. 99.1

Description
Press release dated August 2, 2010.



FOR IMMEDIATE RELEASE

Arch Coal Proposes \$500 Million Senior Notes Offering

ST. LOUIS (August 2, 2010) — Arch Coal, Inc. (NYSE:ACI) today announced its intention to offer \$500.0 million aggregate principal amount of senior notes due 2020. The offering will be made pursuant to Arch's existing universal shelf registration statement filed with the Securities and Exchange Commission (the "SEC"). The interest rate and other financial terms of the senior notes will be determined upon the pricing of such notes.

Arch intends to use the net proceeds from the offering and cash on hand to fund the repurchase or redemption of \$500.0 million aggregate principal amount of Arch Western Finance's outstanding 6.75% senior notes due 2013. As of today, there was \$950.0 million in aggregate principal amount of Arch Western Finance's 6.75% senior notes due 2013 outstanding.

This press release shall not constitute an offer to sell or a solicitation of an offer to buy any securities, nor shall there be any sale of these securities in any state or jurisdiction in which such an offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or jurisdiction.

BofA Merrill Lynch, Citi, Morgan Stanley & Co. Incorporated and J.P. Morgan are the joint book-runners for the senior notes offering.

Arch has filed a registration statement (including a prospectus) with the SEC for the offering to which this communication relates. Interested investors should read the prospectus in that registration statement and the applicable prospectus supplement and other documents Arch has filed or will file with the SEC at www.sec.gov before investing.

The preliminary prospectus supplement and the final prospectus supplement relating to the offering, when available, in each case with the accompanying prospectus, may be obtained from BofA Merrill Lynch, 4 World Financial Center, New York, NY 10080, Attention: Preliminary Prospectus Department, or e-mail Prospectus.Requests@ml.com, from Citi, Syndicate Desk, 390 Greenwich Street, New York, New York 10013, or by telephone at (212) 723-6020, from Morgan Stanley & Co. Incorporated, Prospectus Department, 180 Varick Street 2/F, New York, New York 10014, or by telephone at (866) 718-1649 and from J.P. Morgan Securities, 383 Park Avenue, 3rd Floor, New York, New York 10179, attention: Syndicate Desk, or by telephone at (800) 245-8812.

St. Louis-based Arch Coal is the second largest U.S. coal producer. Through its national network of mines, Arch supplies cleaner-burning, low-sulfur coal to fuel roughly 8 percent of the nation's electricity. The company also ships coal to domestic and international steel manufacturers as well as international power producers.

Forward-Looking Statements: This press release contains "forward-looking statements" — that is, statements related to future, not past, events. In this context, forward-looking statements often address our expected future business and financial performance, and often contain words such as "expects," "anticipates," "intends," "plans," "believes," "seeks," or "will." Forward-looking statements by their nature address matters that are, to different degrees, uncertain. For us, particular uncertainties arise from changes in the demand for our coal by the domestic electric generation industry; from legislation and regulations relating to the Clean Air Act and other environmental initiatives; from operational, geological, permit, labor and weather-related factors; from fluctuations in the amount of cash we generate from operations; from future integration of acquired businesses; and from numerous other matters of national, regional and global scale, including those of a political, economic, business, competitive or regulatory nature. These uncertainties may cause our actual future results to be materially different than those expressed in our forward-looking statements. We do not undertake to update our forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required by law. For a description of some of the risks and uncertainties that may affect our future results, you should see the risk factors described from time to time in the reports we file with the Securities and Exchange Commission.

FOR FURTHER INFORMATION: Media — Kim Link 314-994-2936 Investors — Deck Slone 314-994-2717