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): January 12, 2011 (January 11, 2011)

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)
- 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))
- o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 2.02 Results of Operations and Financial Condition.

On January 11, 2011, Arch Coal, Inc. (the "Company") issued a press release updating guidance on its 2010 forecasted results. A copy of the press release is attached hereto as Exhibit 99.1.

The information contained in Item 2.02 and the exhibit attached hereto shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall they be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such a filing.

Item 7.01 Regulation FD Disclosure.

On January 11, 2011, the Company issued a press release. 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 filed herewith.

Exhibit No.	Description
99.1	Press release dated January 11, 2011.

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: January 11, 2011 Arch Coal, Inc.

By: /s/ Robert G. Jones

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

Secretary

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Exhibit Index

Exhibit No.

99.1

Description
Press release dated January 11, 2011.

News from Arch Coal, Inc.



For Further Information:

Deck S. Slone
Vice President, Government, Investor and Public Affairs
314/994-2717

FOR IMMEDIATE RELEASE

Arch Coal Revises Earnings Guidance for Full Year 2010, Announces Fourth Quarter 2010 Earnings Conference Call

ST. LOUIS (January 11, 2011) — Arch Coal, Inc. (NYSE:ACI) today announced that it expects its 2010 earnings per diluted share on a GAAP basis to be between \$0.94 per share and \$0.98 per share, including amortization of coal supply agreements and early debt extinguishment costs. Excluding these charges, adjusted earnings per diluted share ("EPS") for full year 2010 would be in the range of \$1.11 per share to \$1.15 per share, which is below the adjusted EPS annual guidance range of \$1.25 per share to \$1.40 per share given on Oct. 29, 2010.

The company also now expects its adjusted earnings before interest, taxes, depreciation, depletion and amortization ("EBITDA") to be in the \$718 million to \$726 million range for full year 2010, which would be the second highest in company history.

"Lower shipment levels, partially driven by poor Eastern rail service, contributed to the guidance revision for 2010," said Steven F. Leer, Arch's chairman and chief executive officer. "In addition, the Mountain Laurel operation was impacted in December by geologic challenges, which marginally affected our planned production during the quarter."

Moreover, geologic challenges are now expected to force the longwall at Mountain Laurel to be idle for most of the first quarter of 2011 while additional development work is completed on the next longwall panel. The longwall is scheduled to restart in mid- to late-April. During the outage, Mountain Laurel will supply coal to customers from its five continuous miner operations as well as from existing inventories.

While the idling of the longwall at Mountain Laurel will have an impact on Arch's financial performance during the first quarter of 2011, the company expects to make up some portion of the delayed production as the year progresses. Despite the temporary longwall outage, Arch expects to achieve record-setting coking and pulverized coal injection (PCI) shipments of at least 7 million tons from its Central Appalachian operations during 2011. The company has committed roughly 3 million tons of coal into metallurgical markets for 2011 delivery.

Arch's fourth quarter 2010 earnings release will be distributed via PR Newswire before the market opens on Friday, Jan. 28, and will be posted to the company's Web site at that time. The company also will discuss its fourth quarter and full year 2010 financial results in a conference call that will be broadcast live over the Internet at 11:00 a.m. E.S.T. The webcast will be accessible via the "investor" section of the Arch Coal Web site at http://investor.archcoal.com.

St. Louis-based Arch Coal, Inc. 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.

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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.

Arch Coal, Inc. and Subsidiaries Reconciliation of Non-GAAP Measures (In thousands)

Included in the accompanying release, we have disclosed certain non-GAAP measures as defined by Regulation G. The following reconciles these items to results as reported under GAAP.

Reconciliation of 2010 Targets

Adjusted EBITDA

Adjusted EBITDA is defined as net income attributable to the Company before the effect of net interest expense, income taxes, depreciation, depletion and amortization and the amortization of acquired sales contracts. Adjusted EBITDA may also be adjusted for items that may not reflect the trend of future results.

Adjusted EBITDA is not a measure of financial performance in accordance with generally accepted accounting principles, and items excluded to calculate Adjusted EBITDA are significant in understanding and assessing our financial condition. Therefore, Adjusted EBITDA should not be considered in isolation nor as an alternative to net income, income from operations, cash flows from operations or as a measure of our profitability, liquidity or performance under generally accepted accounting principles. We believe that Adjusted EBITDA presents a useful measure of our ability to service and incur debt based on ongoing operations. Furthermore, analogous measures are used by industry analysts to evaluate operating performance. In addition, acquisition and financing related expenses are excluded to make results more comparable between periods. Investors should be aware that our presentation of Adjusted EBITDA may not be comparable to similarly titled measures used by other companies. The table below shows how we calculate Adjusted EBITDA.

	Targeted Results		
	Year Ended	Year Ended December 31, 2010	
	Low	High	
	(U	(Unaudited)	
Net income attributable to Arch Coal, Inc.	\$ 153,700	\$160,100	
Income tax expense	16,800	18,300	
Interest expense, net	140,300	139,900	
Depreciation, depletion and amortization	364,800	365,300	
Amortization of acquired sales contracts, net	35,600	35,600	
Loss on early extinguishment of debt	6,800	6,800	
Adjusted EBITDA	\$718,000	\$726,000	

Adjusted net income and adjusted diluted earnings per common share

Adjusted net income and adjusted diluted earnings per common share are adjusted for the after-tax impact of acquisition and financing related costs and are not measures of financial performance in accordance with generally accepted accounting principles. We believe that adjusted net income and adjusted diluted earnings per common share better reflect the trend of our future results by excluding items relating to significant transactions. The adjustments made to arrive at these measures are significant in understanding and assessing our financial condition. Therefore, adjusted net income and adjusted diluted earnings per share should not be considered in isolation, nor as an alternative to net income or diluted earnings per common share under generally accepted accounting principles.

		Targeted Results Year Ended December 31, 2010	
	Low	High	
		naudited)	
Net income attributable to Arch Coal		\$160,100	
Amortization of acquired sales contracts, net	35,600	35,600	
Loss on early extinguishment of debt	6,800	6,800	
Tax impact of adjustments	(15,476)	(15,476)	
Adjusted net income attributable to Arch Coal	\$180,624	\$187,024	
Diluted weighted average shares outstanding	163,200	163,200	
Adjusted diluted earnings per share	\$ 1.11	\$ 1.15	