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 12, 2013 (August 6, 2013)

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))

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

Item 1.04 Mine Safety — Reporting of Shutdowns and Patterns of Violations.

On August 6, 2013, Cumberland River Coal Company, a subsidiary of Arch Coal, Inc., received an imminent danger order under section 107(a) of the Federal Mine Safety and Health Act of 1977 at the Pine Branch 1 mine in Wise County, Virginia for miners traveling under an unsupported mine roof section.

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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: August 12, 2013

Arch Coal, Inc.

By: /s/ Robert G. Jones Robert G. Jones

Senior Vice President — Law, General Counsel and Secretary