
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 11-K

(Mark One)

- Annual Report Pursuant to Section 15(d) of the Securities Exchange Act of 1934**
For the fiscal year ended December 31, 2008
- Transition Report Pursuant to Section 15(d) of the Securities Exchange Act of 1934**
For the transition period from _____ to _____.

Commission file number: 1-13105

Arch Coal, Inc. Employee Thrift Plan

(Full title of the plan and the address of the plan, if different from that of the issuer named below)

Arch Coal, Inc.
One CityPlace Drive, Suite 300
St. Louis, Missouri 63141

(Name of issuer of the securities held pursuant to the plan and the address of its principal executive office)

*ARCH COAL, INC.
EMPLOYEE THRIFT PLAN
FINANCIAL STATEMENTS
DECEMBER 31, 2008*

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Report of Independent Registered Public Accounting Firm

To The Pension Committee
Arch Coal, Inc. Employee Thrift Plan

We have audited the accompanying statement of net assets available for benefits of the Arch Coal, Inc. Employee Thrift Plan (the Plan) as of December 31, 2008 and 2007, and the related statement of changes in net assets available for benefits for the years then ended. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits at December 31, 2008 and 2007, and the changes in net assets available for benefits for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

As discussed in Note 3 to the financial statements, the Company adopted Statement of Financial Accounting Standards No. 157, *Fair Value Measurements*, as of January 1, 2008.

/s/ RubinBrown LLP

St. Louis, Missouri
June 26, 2009

**ARCH COAL, INC. EMPLOYEE THRIFT PLAN
STATEMENT OF NET ASSETS AVAILABLE FOR BENEFITS**

	December 31,	
	2008	2007
Assets		
Investments, At Fair Value (Note 3)		
Money market	\$ 1,660,650	\$ 2,855,837
Mutual funds	143,106,710	212,749,496
Guaranteed investment account	58,563,311	55,425,773
Company stock	22,387,100	32,456,196
Brokerage securities	7,772,231	14,211,712
Participant loans (Note 4)	13,661,732	13,068,103
Net Assets Reflected At Fair Value	247,151,734	330,767,117
Receivables		
Employer contributions receivable	613,354	—
Employer correction contribution receivable (Note 8)	—	2,000,000
Employee contributions receivable	793,456	—
Total Receivables	1,406,810	2,000,000
Adjustment From Fair Value To Contract Value For Fully Benefit-Responsive Investment Contracts	2,246,423	(431,713)
Net Assets Available For Benefits	\$ 250,804,967	\$ 332,335,404

See the accompanying notes to financial statements.

**ARCH COAL, INC. EMPLOYEE THRIFT PLAN
STATEMENT OF CHANGES IN NET ASSETS
AVAILABLE FOR BENEFITS**

	For The Years Ended December 31,	
	2008	2007
Additions To Net Assets Attributed To:		
Contributions		
Salary deferral	\$ 21,569,194	\$ 18,822,753
Employer	15,540,598	16,777,799
Employee after-tax	1,464,768	1,267,997
Rollover	886,051	1,493,489
Total Contributions	39,460,611	38,362,038
Deductions From Net Assets Attributed To:		
Benefits paid directly to participants	21,808,914	34,206,968
Administrative fees	12,300	11,156
Total Deductions	21,821,214	34,218,124
Investment Income (Loss) (Note 3)		
Dividends and interest	9,239,721	18,661,425
Net appreciation (depreciation) in fair value of investments	(108,409,555)	7,391,119
Net Investment Income (Loss)	(99,169,834)	26,052,544
Net Increase (Decrease)	(81,530,437)	30,196,458
Net Assets Available For Benefits — Beginning Of Year	332,335,404	302,138,946
Net Assets Available For Benefits — End Of Year	\$ 250,804,967	\$332,335,404

See the accompanying notes to financial statements.

ARCH COAL, INC. EMPLOYEE THRIFT PLAN
NOTES TO FINANCIAL STATEMENTS
December 31, 2008 And 2007

1. Description Of The Plan

The Arch Coal, Inc. Employee Thrift Plan (the Plan) was established by Arch Coal, Inc. (the Company) for the benefit of the eligible employees of the Company, its subsidiaries and controlled affiliates.

The following description of the Plan provides only general information. Participants should refer to the Plan Agreement for a more complete description of the Plan's provisions.

Certain provisions of the Plan as described below do not apply to or have been modified for certain subsidiaries and affiliates of the Company.

General

The Plan, which has been adopted by Arch Coal, Inc., is a defined contribution plan, which includes a 401(k) provision. The Plan covers substantially all salaried employees, nonunion hourly employees, and certain union employees where specified by applicable collective bargaining agreements of the Company, its subsidiaries, and any controlled affiliates that elect to participate in the Plan. It is subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA).

On June 29, 2007, the Company completed the sale of its Mingo Logan subsidiary's Ben Creek mining complex to Alpha Natural Resources, LLC. The divestiture of the complex resulted in the termination of 215 employees, who became eligible to withdraw their balances from the Plan.

Contributions

Participants may elect to defer between 1% and 50% of compensation. Highly compensated employees may contribute up to 16%, with the exception of the highly compensated hourly employees at Mingo Logan and Mountain Laurel who may contribute up to 17%. The employer is required to make matching contributions equal to 100% of participant contributions up to the first 6% of eligible compensation.

Effective March 1, 2008, the Plan was amended to allow highly compensated hourly employees at Mingo Logan and Mountain Laurel to contribute up to 16% of eligible compensation.

ARCH COAL, INC. EMPLOYEE THRIFT PLAN

Notes To Financial Statements (*Continued*)

The Plan includes an automatic enrollment provision for all eligible employees. The automatic enrollment provided for default deferral contributions of 6% of eligible compensation. The contributions will be invested in both equity and fixed income investments. The participant has the option to make changes to the deferral percentage and investment allocation at any time.

Participant Accounts

Each participant's account is credited with the participant's contributions; the employer's matching contribution, if applicable, or employer nondiscretionary contribution, if applicable, and an allocation of Plan earnings. The allocation of earnings is determined by the earnings of the participant's investment selection based on each participant's account balance, as defined in the Plan agreement. The benefit to which a participant is entitled is the benefit that can be provided from the participant's account.

Vesting

Participants are fully vested in their contributions plus actual earnings. All eligible employees of the Company at December 31, 1997 became fully vested in the Plan. Eligible employees hired subsequent to December 31, 1997 vest in Company contributions and earnings upon the completion of three full years of service. The hourly employees at Mingo Logan and Mountain Laurel are fully vested after the completion of two full and consecutive years of service.

All participants become fully vested upon death while employed, total disability, or normal retirement age, regardless of the number of months of participation.

Participant Loans

Active participants, with some exceptions, may borrow from their fund accounts a minimum of \$500 or up to a maximum equal to the lesser of \$50,000 or 50% of their vested account balances. Loan terms range from one to five years or longer for the purchase of a primary residence. The loans are secured by the balance in the participant's account and bear interest at the prime rate listed in the Wall Street Journal on the first day of the month the loan is processed. Principal and interest are paid ratably through payroll deductions.

Payment Of Benefits

Upon death, termination of service, or attainment of age 70-1/2, a participant may receive a lump-sum amount equal to the value of the participant's vested interest in his or her account. Participant accounts with vested balances of \$1,000 or less will be automatically distributed unless otherwise instructed.

ARCH COAL, INC. EMPLOYEE THRIFT PLAN

Notes To Financial Statements *(Continued)*

Forfeited Accounts

Forfeited amounts of employer contributions are used to offset future Company matching contributions of the Plan. At December 31, 2008 and 2007, forfeited amounts that became available to reduce future Company contributions were \$861,806 and \$418,932, respectively. During the Plan years ended December 31, 2008 and 2007, \$618,407 and \$192,487, respectively, in forfeited funds were used to offset Company contributions.

Investment Options

Upon enrollment in the Plan, a participant may direct contributions in a number of investment options offered by the Plan.

Withdrawals

Subject to certain qualifications, participants may take an in-service withdrawal of their after-tax or company matching contributions. A participant who has reached age 59-1/2 or experienced a qualifying financial hardship may withdraw all or part of his or her vested account. Hardship withdrawals will be approved only if they conform to the Plan provisions and established Internal Revenue Service safe harbors.

2. Summary Of Significant Accounting Policies

Basis Of Accounting

The financial statements of the Plan are prepared under the accrual basis of accounting.

Estimates And Assumptions

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of additions to and deductions from net assets during the reporting period. Actual results could differ from those estimates.

ARCH COAL, INC. EMPLOYEE THRIFT PLAN

Notes To Financial Statements (*Continued*)

Risks And Uncertainties

The Plan invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect participants' account balances and the amounts reported in the statement of net assets available for benefits.

Investment Valuation And Income Recognition

The Plan's investments are reported at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. See Note 3 for a discussion of fair value measurements.

Investment income is recorded as earned on the accrual basis. Purchases and sales of securities are recorded on a trade-date basis. Dividends are recorded on the ex-dividend date.

As described in Financial Accounting Standards Board Staff Position, FSP AAG INV-1 and SOP 94-4-1, *Reporting of Fully Benefit-Responsive Investment Contracts Held by Certain Investment Companies Subject to the AICPA Investment Company Guide and Defined-Contribution Health and Welfare and Pension Plans* (the FSP), investment contracts held by a defined-contribution plan are required to be reported at fair value. However, contract value is the relevant measurement attribute for that portion of the net assets available for benefits of a defined-contribution plan attributable to fully benefit-responsive investment contracts because contract value is the amount participants would receive if they were to initiate permitted transactions under the terms of the plan. As required by the FSP, the Statement of Net Assets Available for Benefits presents the fair value of the investment contracts as well as the adjustment of the fully benefit-responsive investment contracts from fair value to contract value. The Statement of Changes in Net Assets Available for Benefits is prepared on a contract value basis.

Payment Of Benefits

Benefits are recorded when paid.

ARCH COAL, INC. EMPLOYEE THRIFT PLAN

Notes To Financial Statements (Continued)

3. Investments

The Company has established a Pension Committee to oversee the activities of the Plan and has appointed the Vice President — Human Resources as the Plan Administrator. Mercer Fiduciary Trust Company is the Trustee for the Plan and Mercer HR Services is the Plan Recordkeeper.

Investments, At Fair Value

	December 31,	
	2008	2007
Money Market	\$ 1,660,650	\$ 2,855,837
Mutual Funds		
American Century Income and Growth Fund	15,712,585 *	26,975,227 *
Growth Fund of America	15,671,703 *	27,844,828 *
Investment Company of America	4,420,739	3,787,854
Black Rock Small Cap Core Equity Fund	1,985,880	3,279,890
Dodge & Cox Balanced Fund	18,083,515 *	27,707,522 *
Franklin Templeton Balance Sheet Fund	9,443,162	20,148,075 *
Julius Baer International Equity Fund	11,562,049	25,451,843 *
PIMCO Total Return Fund	21,721,712 *	16,826,961
Putnam Asset Allocation: Balanced Fund	13,842,042 *	18,557,507
Putnam S&P 500 Index	20,053,231 *	24,396,716 *
Putnam Vista Fund	3,955,676	10,891,592
Wells Fargo Advantage Outlook 2010	1,211,344	1,875,639
Wells Fargo Advantage Outlook 2020	1,812,897	2,220,572
Wells Fargo Advantage Outlook 2030	1,513,526	1,419,013
Wells Fargo Advantage Outlook 2040	2,116,649	1,366,257
Total Mutual Funds	143,106,710	212,749,496
Guaranteed Investment Account (At Fair Value)	58,563,311 *	55,425,773 *
Company Stock	22,387,100 *	32,456,196 *
Brokerage Securities	7,772,231	14,211,712 *
Participant Loans	13,661,732 *	13,068,103
	\$ 247,151,734	\$ 330,767,117

* Investment represents 5% or more of net assets.

ARCH COAL, INC. EMPLOYEE THRIFT PLAN

Notes To Financial Statements (Continued)

During 2008 and 2007, the Plan's investments, including gains and losses on investments bought and sold, as well as held during the year, appreciated (depreciated) in value as follows:

	2008	2007
Mutual funds	\$ (76,070,878)	\$ (5,187,032)
Company stock	(25,481,582)	11,405,856
Brokerage securities	(6,857,095)	1,172,295
	\$ (108,409,555)	\$ 7,391,119

The Plan has entered into a benefit-responsive investment contract (investment contract) with Invesco Ltd (Invesco) which maintains the contributions in a managed account. The account is credited with earnings on the underlying investments and charged for participant withdrawals and administrative expenses. The investment contract issuer is not contractually obligated to repay the principal and a specified interest rate to the Plan. However, the underlying assets of the fund carry guaranteed rates of interest.

As described in Note 2, because the investment contract is fully benefit-responsive, contract value is the relevant measurement attribute for that portion of the net assets available for benefits attributable to the investment contract. Contract value, as reported to the Plan by Invesco, represents contributions made under the investment contract, plus earnings, less participant withdrawals and administrative expenses. Participants may ordinarily direct the withdrawal or transfer of all or a portion of their investment at contract value.

There are no reserves against contract value for credit risk of the investment contract issuer. Interest income on the Invesco Stable Value Fund is calculated and credited daily based on the aggregate contract yield of the underlying investments. Interest rates are reset on a monthly basis. The investment contracts included in this fund had an average yield of 3.91% and 4.88% for the years ended December 31, 2008 and 2007, respectively. The average crediting interest rate was 4.46% and 4.96% at December 31, 2008 and 2007, respectively.

Certain events limit the ability of the Plan to transact at contract value with the issuer. Such events include the following: (1) amendments to the Plan documents (including complete or partial Plan termination or merger with another plan), or (2) the decision by the Plan Sponsor to withdraw all assets from the funds and reinvest in another investment vehicle. The Plan Administrator does not believe that the occurrence of any such value event, which would limit the Plan's ability to transact at contract value with participants, is probable.

ARCH COAL, INC. EMPLOYEE THRIFT PLAN

Notes To Financial Statements (*Continued*)

The contract permits the company or Invesco to terminate the agreement upon 90-days notice to the other party.

Fair Value Measurements

Effective January 1, 2008, the Plan has adopted Statement of Financial Accounting Standards (FAS) No. 157, *Fair Value of Measurements*, which establishes a framework for measuring fair value. That framework provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy under FAS 157 are described below:

Level 1 Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that the Plan has the ability to access.

Level 2 Inputs to the valuation methodology include:

- Quoted prices for similar assets or liabilities in active markets;
- Quoted prices for identical or similar assets or liabilities in inactive markets;
- Inputs other than quoted prices that are observable for the asset or liability;
- Inputs that are derived principally from or corroborated by observable market data by correlation or other means.

If the asset or liability has a specified (contractual) term, the Level 2 input must be observable for substantially the full term of the asset or liability.

Level 3 Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

ARCH COAL, INC. EMPLOYEE THRIFT PLAN

Notes To Financial Statements (*Continued*)

The asset's or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs.

Following is a description of the valuation methodologies used for assets measured at fair value. There have been no changes in the methodologies used at December 31, 2008 or 2007.

Company Stock And Brokerage Securities

Valued at the closing price reported on the active market on which the individual securities are traded.

Mutual Funds And Money Market

Valued at the net asset value (NAV) of shares held by the Plan at year end, based on quoted market prices.

Participant Loans

Valued at amortized cost, which approximates fair value.

Guaranteed Investment Account

Valued at fair value by discounting the related cash flows based on current yields of similar instruments with comparable durations considering the credit-worthiness of the issuer.

The method described above may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the Plan believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

ARCH COAL, INC. EMPLOYEE THRIFT PLANNotes To Financial Statements *(Continued)*

The following table sets forth by level, within the fair value hierarchy, the Plan's assets at fair value as of December 31, 2008:

	Level 1	Level 2	Level 3	Total
Money market	\$ 1,660,650	\$ —	\$ —	\$ 1,660,650
Mutual funds	143,106,710	—	—	143,106,710
Guaranteed investment account	—	58,563,311	—	58,563,311
Company stock	22,387,100	—	—	22,387,100
Brokerage securities	7,772,231	—	—	7,772,231
Participant loans	—	—	13,661,732	13,661,732
Total assets at fair value	\$174,926,691	\$58,563,311	\$13,661,732	\$247,151,734

The table below sets forth a summary of changes in the fair value of the Plan's Level 3 assets for the year ended December 31, 2008.

	Participant Loans
Balance, beginning of year	\$13,068,103
Purchases, sales, issuances and settlements (net)	593,629
Balance, end of year	<u>\$13,661,732</u>

4. Participant Loans

Participant loans are secured by participants' vested balances. The loans are due in bi-weekly payments including principal and interest at varying rates reflective of the prime rate as of the time of issue. At December 31, 2008, the interest rates on the participant loans range from 4% to 9.5%. The final installments are due at various dates through November 2023.

ARCH COAL, INC. EMPLOYEE THRIFT PLAN

Notes To Financial Statements *(Continued)*

5. Plan Termination

Although it has not expressed intent to do so, the Company has the right under the Plan to discontinue its contributions at any time and to terminate the Plan, subject to the provisions of ERISA. In the event of Plan termination, participants will become 100% vested in their accounts.

6. Income Tax Status

The Plan obtained its latest determination letter on September 26, 2002 in which the Internal Revenue Service stated that the Plan, as then designed, was in compliance with the applicable requirements of the Internal Revenue Code. The Plan has been amended since receiving the determination letter. The Plan Administrator believes the amendments made will maintain the tax qualification of the Plan and the related trust will continue to be tax exempt.

7. Employer Correction Contribution Receivable

During 2008, the Company found that 64 participants did not have the correct contribution deducted from their pay and deposited into their account for various years between 2001 and 2007. At that time, management had estimated these corrections plus earnings would be approximately \$2,000,000. The actual correction for employee deferrals, Company match, and earnings amounted to \$812,890 and were deposited into the participants' accounts in October 2008. In addition, the Company determined that the employer match had not been calculated correctly for 88 participants for that same period. The shortfall in employer match and earnings totaled \$44,775 and was deposited into the participants' accounts in October 2008.

ARCH COAL, INC. EMPLOYEE THRIFT PLAN

Notes To Financial Statements (Continued)

8. Reconciliation Of Financial Statements To Form 5500

Following is a reconciliation of net assets available for benefits and net decrease per the financial statements to the Form 5500:

	<u>December 31,</u>	
	<u>2008</u>	<u>2007</u>
Net assets available for benefits per the financial statements	\$250,804,967	\$332,335,404
Adjustment from contract value to fair value for fully benefit-responsive contracts	(2,246,423)	431,713
Net assets available for benefits per the Form 5500	\$248,558,544	\$332,767,117
		For The
		Year Ended
		December 31,
		2008
Net decrease per the financial statements		\$81,530,437
Adjustment from contract value to fair value for fully benefit-responsive contracts prior year		(431,713)
Adjustment from contract value to fair value for fully benefit-responsive contracts current year		<u>(2,246,423)</u>
Net decrease per the Form 5500		<u>\$78,852,301</u>

**Report Of Independent Registered Public Accounting Firm
On Supplementary Information**

Our audits were performed for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedule of assets held at end of year is presented for purposes of additional analysis and is not a required part of the basic financial statements, but is supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Income Security Act of 1974. This supplemental schedule is the responsibility of the Plan's management. The supplemental schedule has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

/s/ RubinBrown LLP

St. Louis, Missouri
June 26, 2009

ARCH COAL, INC. EMPLOYEE THRIFT PLAN
E.I.N.: 43-0921172 PLAN NO.: 006
SCHEDULE OF ASSETS HELD AT END OF YEAR
Page 1 Of 2
December 31, 2008

Identity Of Issuer	Description Of Investment	Current Value
Money Market		
Federated	Prime Obligation Money Market Fund	\$ 1,660,650
Mutual Funds		
American Century	American Century Income and Growth Fund	15,712,585
American Fund Corporation	Growth Fund of America	15,671,703
American Fund Corporation	Investment Company of America	4,420,739
Black Rock Funds	Black Rock Small Cap Core Equity Fund	1,985,880
Dodge & Cox Funds	Dodge & Cox Balanced Fund	18,083,515
Franklin Investments	Franklin Templeton Balance Sheet Fund	9,443,162
Julius Baer Group	Julius Baer International Equity Fund	11,562,049
PIMCO Investments	PIMCO Total Return Fund	21,721,712
Putnam Investments*	Putnam Asset Allocation: Balanced Fund	13,842,042
Putnam Investments*	Putnam S&P 500 Index	20,053,231
Putnam Investments*	Putnam Vista Fund	3,955,676
Wells Fargo	Wells Fargo Advantage Outlook 2010	1,211,344
Wells Fargo	Wells Fargo Advantage Outlook 2020	1,812,897
Wells Fargo	Wells Fargo Advantage Outlook 2030	1,513,526
Wells Fargo	Wells Fargo Advantage Outlook 2040	2,116,649
Total Mutual Funds		143,106,710
Company Stock		
Arch Coal, Inc. *	Common stock	22,387,100
Brokerage Securities		
Putnam*	Putnam Direct Personal Choice Retirement Account (Participant Directed Brokerage Accounts)	7,772,231
Balance Carried Forward		174,926,691

* Represents party-in-interest

The above information is a required disclosure for IRS Form 5500, Schedule H, Part IV, line 4i.

ARCH COAL, INC. EMPLOYEE THRIFT PLAN
E.I.N.: 43-0921172 PLAN NO.: 006
SCHEDULE OF ASSETS HELD AT END OF YEAR
Page 2 Of 2
December 31, 2008

Identity Of Issuer	Description Of Investment	Current Value
Balance Brought Forward		\$ 174,926,691
Guaranteed Investment Account — Invesco Stable Value Fund		
Bank of America NT & SA	01-257	13,078,872
ING Life & Annuity	60034	13,178,555
JP Morgan Chase Bank	433119-MGC	10,245,890
Monumental Life Insurance Co.	MDA-00589TR	8,831,708
State Street Bank & Trust Co.	103077	10,230,110
State Street Bank & Trust Co.	MC7930	2,998,176
Total Guaranteed Investment Account		<u>58,563,311</u>
Participant Loans	Bearing interest at 4% -9.5%, due at various dates through November 2023	<u>13,661,732</u>
		<u>\$ 247,151,734</u>

The above information is a required disclosure for IRS Form 5500, Schedule H, Part IV, line 4i.

Signatures

Pursuant to the requirements of the Securities Exchange Act of 1934, the trustees (or other persons who administer the employee benefit plan) have duly caused this annual report to be signed on their behalf by the undersigned thereunto duly authorized.

Arch Coal, Inc. Employee Thrift Plan

By: /s/ Sheila B. Feldman _____

Sheila B. Feldman
Plan Administrator

June 26, 2009

Exhibit Index

Exhibit

Description

23.1

Consent of Independent Registered Public Accounting Firm



RobinBrown LLP
*Certified Public Accountants
& Business Consultants*

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Saint Louis, MO 63105

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**CONSENT OF INDEPENDENT REGISTERED
PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in the Registration Statement (Form S-8 No. 333-32777) pertaining to the Arch Coal, Inc. Employee Thrift Plan of our report dated June 26, 2009 with respect to the financial statements and supplemental schedule of Arch Coal, Inc. Employee Thrift Plan included in this Annual Report on Form 11-K for the year ended December 31, 2008.

/s/ RubinBrown LLP

St. Louis, Missouri
June 26, 2009

