SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

FORM S-8 REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

ARCH COAL, INC.

(Exact name of registrant as specified in its charter)

DELAWARE (State or Other Jurisdiction of Incorporation or Organization)

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

CITY PLACE ONE, SUITE 300 ST. LOUIS, MISSOURI 63141 (314) 994-2700

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

> ARCH COAL, INC. 1997 STOCK INCENTIVE PLAN (Full Title of the Plan)

> > JEFFRY N. QUINN, ESQ.

SENIOR VICE PRESIDENT -- LAW AND HUMAN RESOURCES, SECRETARY AND GENERAL COUNSEL

ARCH COAL, INC. CITY PLACE ONE, SUITE 300

ST. LOUIS, MISSOURI 63141

(314) 994-2700

(Name, address, including zip code, and telephone number, including area code, of agent for service)

CALCULATION OF REGISTRATION FEE

PROPOSED PROPOSED
TITLE OF MAXIMUM MAXIMUM AMOUNT OF
SECURITIES AMOUNT TO BE OFFERING PRICE AGGREGATE REGISTRATION
TO BE REGISTERED REGISTERED PER SHARE(1) OFFERING PRICE(1) FEE(1) Common Stock, 6,000,000 \$28.9375 \$173,625,000 \$52,613.64 \$.01 par value Shares(2) per share

(1) Computed pursuant to Rule 457(h) solely for the purpose of determining the registration fee.

(2) This Registration Statement also covers such additional shares of Common Stock as may be issuable pursuant to antidilution provisions.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

ITEM 3. INCORPORATION OF DOCUMENTS BY REFERENCE.

The following documents filed by Arch Coal, Inc. (the "Registrant") with the Securities and Exchange Commission pursuant to the Securities and Exchange Act of 1934, as amended (the "Exchange Act"), are incorporated by reference into this Registration Statement:

- (a) The Proxy Statement/Prospectus dated May 30, 1997 filed as part of the Registrant's Registration Statement on Form S-4 (No. 333-28149) pursuant to the Securities Act of 1933, as amended;
- (b) All reports filed by the Registrant pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"); and
- (c) The description of the Registrant's Common Stock, par value \$.01 per share (the "Common Stock"), contained in the Registrant's Registration Statement on Form 8-B filed on June 17, 1997 under the Exchange Act.

All documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, prior to the filing of a post-effective amendment which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this Registration Statement and to be a part hereof from the date of filing of such documents. Any statement contained herein or in a document incorporated or deemed to be incorporated herein by reference shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement.

ITEM 4. DESCRIPTION OF SECURITIES.

The description of the Common Stock, and related Preferred Stock Purchase Rights, contained in Item 1 of the Registrant's Registration Statement on Form 8-B filed on June 17, 1997 under the Exchange Act is incorporated herein by reference. The securities are registered under Section 12(b) of the Exchange

ITEM 5. INTEREST OF NAMED EXPERTS AND COUNSEL.

Not applicable.

ITEM 6. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

In accordance with Delaware law, Article Ninth of the Company's Restated Certificate of Incorporation, as amended, contains provisions that result in the elimination of the personal

liability of directors to the Company and its stockholders for monetary damages for breaches of their fiduciary duties as a director, except for (i) breach of a director's duty of loyalty to the company or to the stockholders, (ii) acts of omissions not in good faith or that involve intentional misconduct or a knowing violation of law, (iii) dividend or stock repurchases or redemptions that are illegal under Delaware law, and (iv) any transaction for which a director receives an improper personal benefit. These provisions pertain only to breaches of duty by directors as directors and not in any other capacity, such as officers. As a result of the inclusion of such provisions, stockholders may be unable to recover monetary damages against directors for actions taken by them that constitute negligence or gross negligence or that are in violation of their fiduciary duties, although it may be possible to obtain injunctive or other equitable relief with respect to such actions. If equitable remedies are found not to be available to stockholders in any particular case, stockholders may not have any effective remedy against the challenged conduct.

The Company believes that such provisions are necessary to attract and retain qualified individuals to serve as directors. In addition, such provisions will allow directors to perform their duties in good faith without concern for the application of monetary liability in the event that a court determines their conduct to have been negligent or grossly negligent. On the other hand, the potential remedies available to a Company stockholder have been limited and it is possible that directors may not demonstrate that same level of diligence or care since they are protected by these provisions.

Under Section 145 of the Delaware General Corporation law, corporation has the power to indemnify directors and officers under certain prescribed circumstances and subject to certain limitations against certain costs and expenses, including attorneys' fees actually and reasonably incurred in connection with any action, suit or proceeding, whether civil, criminal, administrative or investigative, to which any of them is a party by reason of this being a director or officer of the corporation if it is determined that he acted in accordance with the applicable standard of conduct set forth in such statutory provision. Article V of the Company Bylaws provides that the Company will indemnify any person who may be involved, as a party or otherwise, in a claim, action, suit or proceeding (other than any claim, action, suit or proceeding brought by or in the right of the Company) by reason of the fact that such person is or was a director or officer of the Company, or is or was serving at the request of the Company as a director or officer of any other corporation or entity, against certain liabilities, costs and expenses. The Company is also authorized to and does maintain insurance on behalf of any person who is or was a director or officer of the Company , or is or was serving at the request of the Company as a director or officer of any other corporation or entity, against any liability asserted against such person and incurred by such person in any such capacity or arising out of his status as such, whether or not the Company would have the power to indemnify such person against such liability under the Delaware General Corporation law.

The company has entered into indemnity agreements with persons who are or were or shall be directors and/or officers of the Company, Ashland Coal, Inc. and/or AMC Merger Corporation; and other persons who are or were serving, shall serve, or shall have served at the request of the company as a director, officer, partner, trustee, fiduciary, employee or agent of another foreign or domestic corporation or non-profit corporation, cooperative, partnership, joint venture, trust, employee benefit plan, or other incorporated or unincorporated enterprise.

Directors of the Company who are officers of certain shareholders of the Company also may be entitled to indemnification under the provisions of that shareholders' Bylaws providing for the indemnity of officers who serve, at the request of such shareholders, as a director of another corporation.

Under the Plan, the Company is required to indemnify the Committee, the individual members thereof and persons acting as authorized delegates of the Committee against all expenses (including attorneys' fees), costs, judgements and settlements incurred in connection with any claim, made or threatened, by reason of the performance of any action pursuant to the plan if the Committee or its members or authorized delegates did not act in willful violation of the law or regulation under which such liability, loss, cost or expense arises.

ITEM 7. EXEMPTION FROM REGISTRATION CLAIMED.

Not applicable.

ITEM 8. EXHIBITS.

Reference is made to the Exhibit Index filed herewith.

ITEM 9. UNDERTAKINGS.

- (a) The undersigned registrant hereby undertakes:
 - (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and
 - (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

PROVIDED, HOWEVER, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the registration statement is on Form S-3 or Form S-8, and the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial BONA FIDE offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial BONA FIDE offering thereof.
- (c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers, and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in St. Louis, Missouri on July 1, 1997.

ARCH COAL, INC.

By:/s/ Jeffry N. Quinn Jeffry N. Quinn Senior Vice President - Law and Human Resources, General Counsel and Secretary

POWER OF ATTORNEY

Each person whose signature appears below hereby severally constitutes and appoints Steven F. Leer, Patrick A. Kriegshauser, Jeffry N. Quinn, and James P. Pye his true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for such person and in such person's name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement on Form S-8, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent or his substitute may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities and on the dates indicated.

SIGNATURES	TITLE	DATE
/s/ Steven F. Leer Steven F. Leer	President, Chief Executive Officer and Director	July 1, 1997
/s/ Patrick Kriegshauser Patrick A. Kriegshauser	Senior Vice President, Treasurer and Chief Financial Officer (Principal Financial Officer)	July 1, 1997
/s/ James P. Pye James P. Pye	Controller (Principal Accounting Officer)	July 1, 1997

Chairman of the Board of Directors	July 1, 1997
Director	July 1, 1997
	Director Director

ARCH COAL, INC.

EXHIBIT INDEX

Exhibit Number

Description

- 4.1 Restated Certificate of Incorporation of the Registrant (incorporated herein by reference to Exhibit 3.2 to the Registrant's Registration Statement on Form S-4 (No. 333-28149) filed with the Commission on May 30, 1997 (the "Form S-4"))
- 4.2 Restated and Amended By-laws of the Registrant (incorporated herein by reference to Exhibit 3.4 to the Form S-4)
- 4.3 Arch Coal, Inc. 1997 Stock Incentive Plan (filed herewith)
- 4.4 Stockholders Agreement, dated as of April 4, 1997, among Carboex International, Ltd., Ashland Inc. and the Registrant (incorporated herein by reference to Exhibit 4.1 to the Form S-4).
- 4.5 Registration Rights Agreement, dated as of April 4, 1997, among the Registrant, Ashland Inc., Carboex International, Ltd. and the entities listed on Schedules I and II thereto (incorporated herein by reference to Exhibit 4.2 to the Form S-4).
- 4.6 Agreement Relating to Nonvoting Observer, executed as of April 4, 1997, among Carboex International, Ltd., Ashland Inc. and the Registrant (incorporated herein by reference to Exhibit 4.3 to the Form S-4).
- 4.7 The Registrant has not filed certain instruments with respect to longterm debt since the total amount of securities authorized thereunder does not exceed 10% of the total assets of the Registrant and its subsidiaries on a consolidated basis. The Registrant agrees to furnish a copy of any such agreement to the Commission upon request.
- 5.1 Opinion of Jeffry N. Quinn regarding the validity of the Common Stock (filed herewith)
- 23.1 Consent of Arthur Andersen LLP (filed herewith)
- 23.2 Consent of Jeffry N. Quinn (included in Exhibit 5.1)
- 24.1 Power of Attorney (included in Signature Page)
- 99.1 Arch Coal, Inc. 1997 Stock Incentive Plan (incorporated by reference to Exhibit 10.19 of the Form S-A).

[Arch Coal Letterhead]

July 1, 1997

Board of Directors Arch Coal, Inc. City Place One, Suite 300 St. Louis, Missouri 63141

Ladies and Gentlemen:

I have acted as counsel to Arch Coal, Inc., a Delaware corporation (the "Company"), in connection with the filing of a Registration Statement on Form S-8 ("Registration Statement") with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "Act"), covering the offering and sale of up to 6,000,000 shares of the Company's Common Stock, par value \$.01 per share (the "Common Stock"), under the Company's 1997 Stock Incentive Plan (the "Plan").

In connection herewith, I have examined and relied without independent investigation as to matters of fact upon such certificates of public officials, such statements and certificates of officers of the Company and originals or copies certified to our satisfaction of the Registration Statement, the Restated Certificate of Incorporation and the By-laws of the Company, proceedings of the Board of Directors of the Company and such other corporate records, documents, certificates and instruments as we have deemed necessary or appropriate in order to enable us to render the opinions expressed below. In rendering this opinion, I have assumed the genuineness of all signatures on all documents examined by us, the authenticity of all documents submitted to us as originals and the conformity to authentic originals of all documents submitted to us as certified or photostatted copies.

Based upon the foregoing and in reliance thereon, and subject to the qualifications and limitations stated herein, I am of the opinion that:

- (1) The Company is a corporation validly existing in good standing under the laws of the State of Delaware;
- (2) When,
 - (i) the Registration Statement shall have become effective under the Act; and
 - (ii) the shares of Common Stock being offered and sold by the Company pursuant to the Plan shall have been duly issued and sold in accordance with the terms of the Plan;

then such shares of Common Stock will be legally issued, fully paid and non-assessable.

This opinion is not rendered with respect to any laws other than the General Corporation Law of the State of Delaware and the Act.

I hereby consent to the filing of this opinion as an exhibit to the Registration Statement. I also consent to your filing copies of this opinion as an exhibit to the Registration Statement with agencies of such states as you deem necessary in the course of complying with the laws of such states regarding the offering and sale of such shares of Common Stock.

In giving this consent, I do not admit that I am in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Securities and Exchange Commission thereunder.

Very truly yours,

Jeffry N. Quinn

CONSENT OF INDEPENDENT PUBLIC ACCOUNTANTS

As independent public accountants, we hereby consent to the incorporation by reference in this registration statement of our report dated January 16, 1997, except with respect to the matters discussed in Note 13 as to which the date is May 20, 1997, included in Arch Mineral Corporation's Form S-4 Registration Statement (No. 333-28149), and to all references to our Firm included in this registration statement.

/s/ ARTHUR ANDERSEN LLP ARTHUR ANDERSEN LLP

St. Louis, Missouri June 30, 1997