

Registration No. 333-62663

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

POST-EFFECTIVE AMENDMENT NO. 1
TO FORM S-8

REGISTRATION STATEMENT

Under

The Securities Act of 1933

ALUMINUM COMPANY OF AMERICA
(Exact name of issuer as specified in its charter)

Pennsylvania 25-0317820
(State of Incorporation) (I.R.S. Employer Identification No.)

201 Isabella Street, Alcoa Corporate Center,
Pittsburgh, Pennsylvania 15212-5858
(Address of principal executive office, including zip code)

THE FOLLOWING PLANS ARE ASSUMED BY ALUMINUM COMPANY OF AMERICA
BY REASON OF THE MERGER DESCRIBED IN THE EXPLANATORY NOTE:

ALUMAX INC., 1993 LONG TERM INCENTIVE PLAN
ALUMAX INC., 1995 EMPLOYEE EQUITY OWNERSHIP PLAN
ALUMAX INC., NON-EMPLOYEE DIRECTORS STOCK COMPENSATION PLAN
(Full Title of Plan)

Denis A. Demblowski,
Secretary and Senior Counsel
201 Isabella Street, Alcoa Corporate Center,
Pittsburgh, Pennsylvania 15212-5858
(Name and address of agent for service)

Telephone number of agent for service (412) 553-3856

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered	Proposed Maximum Offering Price Per Share(1)	Proposed Maximum Aggregate Offering Price(1)	Amount of Registration Fee
Aluminum Company of America, common stock, \$1 par value	341,250	60.625	20,688,281.25	6,103.04

- (1) Estimated solely for the purpose of calculating the registration fee, based on the average of the high and low prices of shares of the Registrant's common stock reported in the consolidated reporting system on August 28, 1998

EXPLANATORY NOTE

On July 31, 1998, Alcoa consummated its acquisition of all of the outstanding shares of common stock (the "Alumax Transaction") of Alumax Inc., a Delaware corporation ("Alumax"). On March 13, 1998, Alcoa commenced the Alumax Transaction with a cash tender offer (the "Offer") for one-half of the outstanding Alumax shares at \$50.00 per share. The Offer expired on June 16, 1998, at which time Alcoa accepted for payment 27,540,00 shares of Alumax common stock, representing approximately 51% of the outstanding Alumax common stock. The Offer was followed by a merger in which each remaining outstanding share of Alumax common stock was converted into 0.6975 of a share of Alcoa common stock.

Shares of Alcoa common stock will now be used to fund the Alumax Inc., 1993 Long Term Incentive Plan, the Alumax Inc., 1995 Employee Equity Ownership Plan and certain awards under the Alumax Inc., Non-Employee Directors Stock Compensation Plan.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

ITEM 3. INCORPORATION OF DOCUMENTS BY REFERENCE

The Registration Statement on Form S-8, File No. 333-62663, is incorporated by reference herein.

ITEM 8. EXHIBITS

Exhibit Number	Description
(5)	Opinion of Denis A. Demblowski, Senior Counsel of the Company.
(15)	Letter from Independent Public Accountants regarding unaudited financial information.
(23)(a)	Consent of PricewaterhouseCoopers LLP.
(23)(b)	Consent of Counsel (included as part of Exhibit 5).

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it meets all of the requirements for filing on Form S-8 and has duly caused this Post Effective Amendment No. 1 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Pittsburgh, the Commonwealth of Pennsylvania, on this 23rd day of November, 1998.

ALUMINUM COMPANY OF AMERICA
(Registrant)

/s/Robert F. Slagle
Robert F. Slagle
Executive Vice President -
Human Resources and
Communications

Pursuant to the requirements of the Securities Act of 1933, this Post Effective Amendment No. 1 to the registration statement has been signed below by the following persons in the capacities and on the dates indicated.

Signature -----	Title -----	Date ----
/s/Paul H. O'Neill Paul H. O'Neill	Chairman of the Board and Chief Executive Officer (Principal Executive Officer)	November 23, 1998
/s/Richard B. Kelson Richard B. Kelson	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	November 23, 1998
/s/Earnest J. Edwards Earnest J. Edwards	Senior Vice President and Controller (Principal Accounting Officer)	November 23, 1998

Kenneth W. Dam, Joseph T. Gorman, Judith M. Gueron, Sir Ronald Hampel, Hugh M. Morgan, John P. Mulrone, Paul H. O'Neill, Henry B. Schacht, Franklin A. Thomas and Marina v.N. Whitman, each as a Director, on November 23, 1998, by Denis A. Demblowski, their attorney-in-fact.

/s/Denis A. Demblowski
Denis A. Demblowski
Attorney-in-fact

INDEX TO EXHIBITS

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November 23, 1998

Aluminum Company of America
Alcoa Corporate Center
201 Isabella Street
Pittsburgh, PA 15212-5858

Ladies and Gentlemen:

You have requested my opinion as to the legality of any original issue shares, up to 341,250 shares, of common stock, par value \$1.00 per share, of Aluminum Company of America (the "Company") which may be distributed pursuant to the Alumax Inc. 1993 Long Term Incentive Plan, the Alumax Inc. 1995 Employee Equity Ownership Plan and the Alumax Inc. Non-Employee Directors Stock Compensation Plan (collectively the "Plans"), which shares of common stock you are seeking to register with the Securities and Exchange Commission under the provisions of the Securities Act of 1933, as amended.

As a Senior Counsel of the Company I am generally familiar with its legal affairs. In addition, I have examined such documents as I have deemed appropriate for the purpose of this opinion.

In my opinion, if authorized but previously unissued shares of common stock of the Company shall be issued and sold or delivered to participants in the Plans pursuant to the provisions thereof, the said shares of common stock will be legally issued, fully paid and non-assessable.

I hereby consent to be named, in the registration statement, and amendments thereof, by which the securities to be issued pursuant to the Plans are registered with the Securities and Exchange Commission, and in any prospectus which is a part thereof, as counsel for the Company who has passed upon the legality of the securities registered thereby. I further consent to the filing of this opinion as an exhibit to the registration statement. I do not concede by these consents that I come within the category of persons whose consent is required under Section 7 of the Securities Act of 1933, as amended, or by the rules and regulations of the Securities and Exchange Commission under that Act.

Very truly yours,

/s/Denis A. Demblowski
Denis A. Demblowski
Senior Counsel

November 23, 1998

Securities and Exchange Commission
450 Fifth Street, N.W.
Washington, DC 20549

Re: Aluminum Company of America Registration Statement on
Form S-8

We are aware that our reports dated April 6, 1998, July 7, 1998 except for Note i, for which the date is August 5, 1998 and October 6, 1998, on the review of the interim financial information of Aluminum Company of America and subsidiaries for the three month, six month and nine month periods ended March 31, June 30, and September 30, 1998 and included in Alcoa's Quarterly Report on Form 10-Q for the quarters then ended, are incorporated by reference in this registration statement. Pursuant to Rule 436(c) under the Securities Act of 1933, these reports should not be considered a part of the registration statement prepared or certified by us within the meaning of Sections 7 and 11 of that Act.

Very truly yours,

/s/PricewaterhouseCoopers LLP
PRICEWATERHOUSECOOPERS LLP

CONSENT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS

We hereby consent to the incorporation by reference in the Prospectus forming part of the Registration Statement on Form S-8, relating to the Alumax Inc. 1993 Long Term Incentive Plan, the Alumax Inc. 1995 Employee Equity Ownership Plan, and the Alumax Inc. Non-Employee Directors Stock Compensation Plan, the shares of common stock to be issued in accordance with the Plans, of our reports dated January 8, 1998, except for Note V, for which the date is February 6, 1998, on our audits of the consolidated financial statements and financial statement schedule of Aluminum Company of America and consolidated subsidiaries as of December 31, 1997 and 1996, and for each of the three years in the period ended December 31, 1997 which reports are incorporated by reference or included in the Company's 1997 Annual Report on Form 10-K for the fiscal year ended December 31, 1997.

/s/ PricewaterhouseCoopers LLP
PRICEWATERHOUSECOOPERS LLP

Pittsburgh, Pennsylvania
November 23, 1998