

Registration No. 33-\_\_\_\_\_

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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.)

425 Sixth Avenue, Alcoa Building,  
Pittsburgh, Pennsylvania 15219-1850  
(Address of principal executive office, including zip code)

LONG TERM STOCK INCENTIVE PLAN

OF ALUMINUM COMPANY OF AMERICA  
(Full Title of Plan)

Denis A. Demblowski,  
Assistant Secretary and Managing General Attorney  
425 Sixth Avenue, Alcoa Building,  
Pittsburgh, Pennsylvania 15219-1850  
(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	Proposed maximum aggregate offering price	Amount of registration fee
Aluminum Company of America, common stock \$1 par value ...	8,8000,000	\$44.50(1)	\$391,600,000(1)	\$135,034.49

(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 June 14, 1995

The contents of Registration Statement No. 33-49109 on Form S-8 are incorporated herein by reference.

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 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 16th day of June, 1995.

ALUMINUM COMPANY OF AMERICA  
(Registrant)

/s/Ronald R. Hoffman  
Ronald R. Hoffman  
Executive Vice President  
Human Resources, Quality and  
Communications

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.

Signature -----	Title -----	Date ----
/s/Paul H. O'Neill Paul H. O'Neill	Chairman of the Board and Chief Executive Officer (Principal Executive Officer)	June 16, 1995
/s/Jan H. M. Hommen Jan H. M. Hommen	Executive Vice President & Chief Financial Officer (Principal Executive Officer)	June 16, 1995
/s/Earnest J. Edwards Earnest J. Edwards	Vice President & Controller (Principal Accounting Officer)	June 16, 1995

Kenneth W. Dam, John P. Diesel, Joseph T. Gorman, Judith M.  
Gueron, Ronnie C. Hampel, John P. Mulroney, Paul H. O'Neill,  
Sir Arvi Parbo, Henry B. Schacht, Forrest N. Shumway, Franklin A.  
Thomas and Marina v.N. Whitman, each as a Director, on June 16,  
1995, by Barbara S. Jeremiah, their attorney-in-fact.

/s/Barbara S. Jeremiah  
Barbara S. Jeremiah  
Attorney-in-fact

INDEX TO EXHIBITS

Exhibit Number	Description
5	Opinion of Denis A. Demblowski, Managing General Attorney of the Company.
15	Letter from Independent Public Accountants regarding unaudited financial information.
23(a)	Consent of Coopers & Lybrand L.L.P.
23(b)	Consent of Counsel (included in Exhibit 5).
24	Powers of Attorney for certain officers and directors of the Company.

June 16, 1995

Aluminum Company of America  
1501 Alcoa Building  
Pittsburgh, PA 15219

Ladies and Gentlemen:

You have requested my opinion as to the legality of any original issue shares, up to 8,800,000 shares, of common stock, par value \$1.00 per share, of Aluminum Company of America (the "Company") which may be distributed pursuant to the Company's Long Term Stock Incentive Plan (the "Plan") (formerly named the "Employee's Stock Option Plan"), 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 Managing General Attorney 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 Plan 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 Plan 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  
Managing General Attorney

June 15, 1995

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 report dated April 7, 1995, accompanying interim financial information of Aluminum Company of America and subsidiaries for the three month period ended March 31, 1995 and included in Alcoa's Quarterly Report on Form 10-Q for the quarter then ended, is incorporated by reference in this registration statement. Pursuant to Rule 436(c) under the Securities Act of 1933, this report 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/COOPERS & LYBRAND L.L.P.

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 Long Term Stock Incentive Plan of Aluminum Company of America and the shares of common stock to be issued in accordance with the Plan, of our reports dated January 11, 1995 on our Audits of the consolidated financial statements and financial statement schedule of Aluminum Company of America and consolidated subsidiaries as of December 31, 1994 and 1993, and for each of the three years in the period ended December 31, 1994 which reports are incorporated by reference or included in the Company's 1994 Annual Report on Form 10-K for the fiscal year ended December 31, 1994.

/s/COOPERS & LYBRAND L.L.P.

Pittsburgh, Pennsylvania  
June 15, 1995

## POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each of the undersigned Directors of Aluminum Company of America (the "Company") hereby constitutes and appoints JAN H. M. HOMMEN, HOWARD W. BURDETT, EARNEST J. EDWARDS and BARBARA S. JEREMIAH, or any of them, his or her true and lawful attorneys and agents to do any and all acts and things and execute any and all instruments which said attorneys and agents, or any of them, may deem necessary or advisable or may be required to enable the Company to comply with the Securities Act of 1933, as amended, and any rules, regulations or requirements of the Securities and Exchange Commission in respect thereof, in connection with the registration under said Act of shares of common stock of the Company to be issued and distributed pursuant to the Long Term Stock Incentive Plan of the Company or any successor plan, including specifically, but without limiting the generality of the foregoing, power and authority to sign the name of each of the undersigned Directors of the Company in the capacity of Director thereof to any registration statement to be filed with the Securities and Exchange Commission in respect of said Plan or successor plan and shares of common stock, or either of them, to any and all pre-effective amendments, post-effective amendments and supplements to any such registration statement, and to any instruments or documents filed as part of or in connection with any such registration statement or pre-effective amendments or post-effective amendments or supplements thereto; and the undersigned hereby ratifies and confirms all that said attorneys and agents, or any of them, shall do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, the undersigned has subscribed these presents on the date set opposite his or her name below.

/s/Kenneth W. Dam Kenneth W. Dam	1/13/95	/s/Sir Arvi Parbo Sir Arvi Parbo	1/13/95
/s/John P. Diesel John P. Diesel	1/13/95	/s/Henry B. Schacht Henry B. Schacht	1/13/95
/s/Joseph T. Gorman Joseph T. Gorman	1/13/95	/s/Forrest N. Shumway Forrest N. Shumway	1/13/95
/s/Judith M. Gueron Judith M. Gueron	1/13/95	/s/Franklin A. Thomas Franklin A. Thomas	1/13/95
/s/Ronnie C. Hampel Ronnie C. Hampel	1/13/95	/s/Marina v.N. Whitman Marina v.N. Whitman	1/13/95
/s/John P. Mulroney John P. Mulroney	1/13/95		