SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8 REGISTRATION STATEMENT

Under The Securities Act of 1933

ALCOA INC.

(Exact name of registrant as specified in its charter)

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

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

2004 ALCOA STOCK INCENTIVE PLAN ALCOA STOCK INCENTIVE PLAN (Full Title of Plan)

Lawrence R. Purtell
Executive Vice President and General Counsel
390 Park Avenue
New York, New York 10022-4608
(Name and address of agent for service)

Telephone number of agent for service (212) 836-2650

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount To be Registered (1)	Proposed Maximum Offering Price Per Share (2)	Proposed Maximum Aggregate Offering Price (2)	Amount of Registration Fees
Alcoa Inc. common stock, \$1.00 par value	111,493,376 shares	\$29.15	\$3,250,031,910.40	\$411,779.04
2004 Alcoa Stock Incentive Plan	45,190,198 shares			
Alcoa Stock Incentive Plan	66,303,178 shares			

- 1) Pursuant to Rule 416(a), this Registration Statement also covers additional securities that may be offered as a result of stock splits, stock dividends or similar transactions.
- (2) Estimated solely for the purpose of calculating the registration fee in accordance with Rule 457(h), 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 May 17, 2004.

This Registration Statement is being filed to register 45,190,198 shares of common stock, par value \$1.00 per share (Common Stock), of Alcoa Inc. (Alcoa) issuable pursuant to the provisions of the 2004 Alcoa Stock Incentive Plan (2004 Plan).

This Registration Statement also is being filed to register an additional 66,303,178 shares of Common Stock of Alcoa issuable pursuant to the provisions of the Alcoa Stock Incentive Plan (Prior Plan). The earlier Registration Statement on Form S-8 filed by Alcoa with the Securities and Exchange Commission on May 28, 1999 (File No. 333-79575) relating to the Prior Plan is incorporated by reference in this Registration Statement. This incorporation is made under General Instruction E of Form S-8 regarding the registration of additional securities of the same class as other securities for which there has been filed a Registration Statement on Form S-8 relating to the same employee benefit plan.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

ITEM 3. INCORPORATION OF DOCUMENTS BY REFERENCE

The Securities and Exchange Commission (SEC) allows Alcoa to "incorporate by reference" in this registration statement the information in the documents that it files with the SEC, which means that Alcoa can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be a part of this registration statement, and information in documents that Alcoa files later with the SEC will automatically update and supersede information contained in documents filed earlier with the SEC or contained in this registration statement. Alcoa incorporates by reference in this registration statement the documents listed below and any future filings that it may make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 (the "Exchange Act") until all of the securities that may be offered by this registration statement are sold, except that Alcoa is not incorporating by reference any information that is not deemed to be filed under those sections.

- Annual Report on Form 10-K for the fiscal year ended December 31, 2003; and
- Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2004.

Alcoa will furnish without charge to you, upon written or oral request, a copy of any or all of the documents described above, except for exhibits to those documents, unless the exhibits are specifically incorporated by reference into those documents. Requests for copies should be addressed to:

Alcoa Inc. Attention: Investor Relations 390 Park Avenue New York, New York 10022-4608 Telephone: (212) 836-2674

ITEM 4. DESCRIPTION OF SECURITIES

The Common Stock is registered under the Exchange Act and listed on the New York Stock Exchange and various foreign exchanges.

Set forth below is a description of the Common Stock. The following statements are summaries of, and are subject to the detailed provisions of, Alcoa's Articles of Incorporation and By-laws and to the relevant provisions of the Pennsylvania Business Corporation Law.

Alcoa currently has 1,800,000,000 shares of authorized Common Stock, par value \$1.00 per share.

Holders of Common Stock will receive dividends when and as declared by the Board of Directors of Alcoa. However, no dividend will be declared or paid on Common Stock if any Alcoa preferred stock is outstanding, unless all dividends accrued on all classes of Alcoa preferred stock and the current quarter yearly dividend on the Alcoa \$3.75 Cumulative Serial Preferred Stock have been paid or declared and a sum sufficient for payment has been set apart.

Holders of Common Stock have one vote per share.

Upon any liquidation, dissolution, or winding up of Alcoa, whether voluntary or involuntary, after payments to holders of Alcoa preferred stock in an amount fixed by the Board of Directors of Alcoa, plus accrued dividends, the remaining assets of Alcoa belong to and will be divided among the holders of Common Stock. The consolidation or merger of Alcoa with or into any other corporation(s) or a share exchange or division involving Alcoa pursuant to applicable law is not a liquidation, dissolution, or winding up of Alcoa under the Alcoa Articles.

Holders of Common Stock have no right to participate in any right of subscription to any increased or additional capital stock of Alcoa.

Common Stock does not have any applicable conversion, redemption, or sinking fund provisions and is not liable to further call or assessment by Alcoa. All issued and outstanding shares of Common Stock are paid fully and are non-assessable.

The Alcoa Articles provide for a classified Board of Directors, divided into three classes as nearly equal as possible, with each class serving a staggered three-year term. The Articles provide that shareholders voting 80 percent of the votes that would be entitled to be cast at an annual election of directors may remove directors, with or without cause. They also provide that vacancies are to be filled only by a majority vote of the remaining directors, unless a vacancy resulted because of a vote of the shareholders, in which case the shareholders may fill the vacancy.

A shareholder wishing to nominate directors at an annual meeting of Alcoa shareholders must provide written notice at least 90 days before the anniversary date of the prior year's meeting.

The Alcoa Articles require the approval of 80 percent of the votes entitled to be cast in order to amend the provisions in the Alcoa Articles relating to the classification of the Board of

Directors, nomination of directors, removal of directors, and certain other matters.

The Alcoa Articles provide that, unless a stock repurchase is made in either a tender offer or exchange offer for a class of capital stock that is made available to all holders of the class on the same basis, or in an open market purchase program approved by Alcoa's Board of Directors, Alcoa may not repurchase stock from a shareholder who owns five percent or more of Alcoa's voting stock at prices greater than the current fair market value without the affirmative vote of a majority of shares held by persons other than such five percent shareholder.

ITEM 5. INTERESTS OF NAMED EXPERTS AND COUNSEL

The validity of the Common Stock to be issued in connection with the Plan will be passed upon by Thomas F. Seligson, Esq., Counsel of Alcoa. Mr. Seligson is paid a salary by Alcoa, is a participant in various benefit plans offered by Alcoa to employees of Alcoa generally and beneficially owns, or has rights to acquire, an aggregate of less than 1% of Alcoa's outstanding common stock.

ITEM 6. INDEMNIFICATION OF DIRECTORS AND OFFICERS

Article V of the By-laws of Alcoa provides that Alcoa shall indemnify, under specified circumstances, persons who were or are directors, officers or employees of Alcoa or who served or serve other business entities at the request of Alcoa. Under these By-law provisions, a person who is wholly successful in defending a claim will be indemnified for any reasonable expenses. To the extent a person is not successful in defending a claim, reasonable expenses of the defense and any liability incurred are to be indemnified under these provisions only where independent legal counsel or other disinterested person selected by the Board of Directors determines that such person acted in good faith and in a manner such person reasonably believed to be in, or not opposed to, the best interests of Alcoa, and in addition with respect to any criminal action or proceeding, had no reasonable cause to believe the conduct of such person was unlawful. Any expense incurred with respect to any claim may be advanced by Alcoa if the recipient agrees to repay such amount if it is ultimately determined that such recipient is not to be indemnified pursuant to Article V.

The foregoing By-law provisions generally parallel Sections 1741 and 1745 of the Pennsylvania Business Corporation Law ("BCL"). Section 1746 and the By-laws both also provide that the indemnification provided for therein shall not be deemed exclusive of any other rights to which those seeking indemnification may otherwise be entitled.

Section 1746 of the BCL and the By-laws provide for increased indemnification protections for directors, officers and others. Pennsylvania corporations may provide indemnification in any case except where the act or failure to act giving rise to the claim for indemnification is determined by a court to have constituted willful misconduct or recklessness.

Section 1713 of the BCL also sets forth a framework whereby Pennsylvania corporations, with the approval of the shareholders, may limit the personal liability of directors for monetary damages except where the act or omission giving rise to a claim constitutes self-dealing, willful misconduct or recklessness. The section does not apply to a director's responsibility or liability under a criminal or tax statute and may not apply to liability under Federal statutes, such as the

Federal securities laws.

The shareholders amended Alcoa's Articles and By-laws to implement the increased protections made available to directors under the BCL as described in the preceding paragraph. Article VIII of the By-laws provides that, except as prohibited by law, every director of Alcoa shall be entitled as of right to be indemnified by Alcoa for expenses and any and all liability paid or incurred by such person by reason of such person being or having been a director of Alcoa. Alcoa may advance expenses incurred with respect to any claim, subject to certain exceptions. The shareholders have also approved a form of indemnity agreement. Alcoa has entered into such an indemnity agreement with each of its current directors.

Alcoa has purchased a one-year liability insurance program with an aggregate limit of \$175 million for the protection of directors and officers of the company. Included in that insurance limit is \$150 million of coverage for Alcoa for reimbursement of indemnification Alcoa provides to directors and officers. The insurance program has an expiration date of October 1, 2004.

ITEM 7. EXEMPTION FROM REGISTRATION CLAIMED

Not applicable.

ITEM 8.	EXHIBITS
Exhibit Number	Description
(4)(a)	Articles of Incorporation of Alcoa, as amended (incorporated by reference to Exhibit 3(a) to Alcoa's Quarterly Report on Form 10-Q for the quarter ended June 30, 2000).
(4)(b)	By-laws of Alcoa, as amended (incorporated by reference to Exhibit 4(b) to Alcoa's Post-Effective Amendment No. 2 to Registration Statement No. 333-32516 and Registration Statement No. 333-106411 on Form S-8, filed October 14, 2003).
(5)	Opinion of Thomas F. Seligson, Counsel of Alcoa.
(15)	Letter regarding unaudited interim financial information.
(23)(a)	Consent of PricewaterhouseCoopers LLP.
(23)(b)	Consent of Counsel (included as part of Exhibit 5).
(24)(a)	Power of Attorney of certain directors of Alcoa (incorporated by reference to Exhibit 24 to Alcoa's Annual Report on Form 10-K for the year ended December 31, 2003).
(24)(b)	Power of Attorney of certain directors of Alcoa.

ITEM 9. UNDERTAKINGS

The 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;
- (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) of this section do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in this 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; and
- (4) 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 Section 15(d) of the Exchange Act (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.

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 described in Item 6 above, or otherwise, the Registrant has been informed 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

The Registrant. 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 the City of Pittsburgh, the Commonwealth of Pennsylvania, on this 21st day of May, 2004.

ALCOA INC. (Registrant)

By

/s/ Charles D. McLane, Jr.

Charles D. McLane, Jr. Vice President and Corporate Controller (Principal Accounting Officer)

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/ Alain J.P. Belda	Chairman of the Board and Chief Executive Officer;	May 21, 2004	
Alain J.P. Belda	Director (Principal Executive Officer)	May 21, 2004	
/s/ Richard B. Kelson	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	May 21, 2004	
Richard B. Kelson	(Finicipal Financial Officer)		
/s/ Charles D. McLane, Jr.	Vice President and Corporate Controller (Principal Accounting Officer)	May 21, 2004	
Charles D. McLane, Ir.	Accounting Officer)		

Charles D. McLane, Jr.

Kathryn S. Fuller, Carlos Ghosn, Joseph T. Gorman, Judith M. Gueron, Sir Ronald Hampel, Klaus Kleinfeld, John P. Mulroney, Henry B. Schacht, Franklin A. Thomas and Ernesto Zedillo, each as a Director, on May 21, 2004, by Judith L. Nocito, their attorney-in-fact.

/s/ Judith L. Nocito

Judith L. Nocito Attorney-in-fact

INDEX TO EXHIBITS Number Description (4)(a)Articles of Incorporation of Alcoa, as amended (incorporated by reference to Exhibit 3(a) to Alcoa's Quarterly Report on Form 10-Q for the quarter ended June 30, 2000). (4)(b)By-laws of Alcoa, as amended (incorporated by reference to Exhibit 4(b) to Alcoa's Post-Effective Amendment No. 2 to Registration Statement No. 333-32516 and Registration Statement No. 333-106411 on Form S-8, filed October 14, 2003). (5) Opinion of Thomas F. Seligson, Counsel of Alcoa. Letter regarding unaudited interim financial information. (15)Consent of PricewaterhouseCoopers LLP. (23)(a)(23)(b)Consent of Counsel (included in Exhibit 5). Power of Attorney of certain directors of Alcoa (incorporated by reference to Exhibit 24 to Alcoa's Annual Report on Form 10-K for the year (24)(a)

ended December 31, 2003).

Power of Attorney of certain directors of Alcoa.

(24)(b)

May 21, 2004

Alcoa Inc. 201 Isabella Street Pittsburgh, PA 15212-5858

Ladies and Gentlemen:

This opinion is furnished in connection with the registration by Alcoa Inc. (the "Company") pursuant to a Registration Statement on Form S-8 (the "Registration Statement") under the Securities Act of 1933, as amended (the "1933 Act"), of an aggregate of 45,190,198 shares of common stock, \$1.00 par value ("Common Stock"), of the Company, that are to be offered and sold by the Company through the 2004 Alcoa Stock Incentive Plan (the "2004 Plan") and an aggregate of 66,303,178 shares of Common Stock of the Company, that are to be offered and sold by the Company through the Alcoa Stock Incentive Plan (the "Prior Plan") (collectively, the "Shares").

As a Counsel of the Company, I am of the opinion, based upon my familiarity with the affairs of the Company and upon my examination of the law and pertinent documents, that the Shares, when issued and sold pursuant to the 2004 Plan and the Prior Plan, respectively, will be legally issued, fully paid and non-assessable shares of Common Stock of the Company.

I hereby consent to the filing of this opinion with the Securities and Exchange Commission (the "Commission") as an Exhibit to the Registration Statement with respect to the Shares under the 1933 Act. 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 Securities Act or the Rules and Regulations of the Commission issued thereunder.

Very truly yours,

/s/ Thomas F. Seligson

Thomas F. Seligson Counsel May 21, 2004

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

Commissioners:

We are aware that our report dated April 6, 2004 on our review of interim condensed consolidated financial information of Alcoa Inc. and subsidiaries (the "Company") for the three-month period ended March 31, 2004 and 2003 which is included in the Company's quarterly report on Form 10-Q for the quarter then ended, is incorporated by reference in the Registration Statement on Form S-8 dated May 21, 2004.

Very truly yours,

/s/ PricewaterhouseCoopers LLP

Pittsburgh, Pennsylvania

CONSENT OF INDEPENDENT ACCOUNTANTS

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of Alcoa Inc. and subsidiaries (the "Company") of our report dated January 8, 2004 relating to the financial statements, which appears in the 2003 Annual Report to Shareholders of the Company, which is incorporated by reference in the Company's Annual Report on Form 10-K for the year ended December 31, 2003. We also consent to the incorporation by reference of our report dated January 8, 2004, relating to the financial statement schedules, which appear in such Annual Report on Form 10-K.

/s/ PricewaterhouseCoopers LLP Pittsburgh, Pennsylvania May 21, 2004

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS that each of the undersigned Directors of Alcoa Inc. (the "Company") hereby constitutes and appoints RICHARD B. KELSON, WILLIAM B. PLUMMER, CHARLES D. MCLANE, JR. and JUDITH L. NOCITO, or any of them, his or her true and lawful attorneys-in-fact and agents, with full power of substitution, to do any and all acts and things and to execute any and all instruments which said attorneys-in-fact 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 (the "1933 Act"), and any rules, regulations or requirements of the Securities and Exchange Commission (the "Commission") in respect thereof, in connection with the registration under the 1933 Act of the offer and sale or delivery of shares of common stock of the Company to be issued under the 2004 Alcoa Stock Incentive Plan (the "2004 Plan"), including specifically, but without limiting the generality of the foregoing, power and authority to sign the name of each of the undersigned in the capacity of Director of the Company to any registration statement on Form S-8, or on such other form as may be appropriate, to be filed with the Commission in respect of said shares and the 2004 Plan, 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 any such amendments or supplements thereto, granting unto each of said attorneys-in-fact and agents 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 the undersigned might or could do in person; and each of the undersigned hereby ratifies and confirms all that said attorneys-in-fact and agents, or any of them, shall do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, each of the undersigned has subscribed these presents this 29th day of April, 2004.

/s/	Kathryn S. Fuller
Kath	aryn S. Fuller
/s/	Carlos Ghosn
Carl	os Ghosn
/s/	Joseph T. Gorman
Jose	ph T. Gorman
/s/	Judith M. Gueron
Judi	th M. Gueron
/s/	Sir Ronald Hampel
Sir F	Ronald Hampel
/s/	Klaus Kleinfeld
Klar	s Kleinfeld

/s/ John P. Mulroney
John P. Mulroney
/s/ Henry B. Schacht
Henry B. Schacht
/s/ Franklin A. Thomas
Franklin A. Thomas
/s/ Ernesto Zedillo

Ernesto Zedillo