

As filed with the Securities and Exchange Commission
on November 4, 2004

Registration No. 333-32516
Registration No. 333-106411

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

**POST-EFFECTIVE AMENDMENT NO. 5
TO 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 office, including zip code)

**ALCOA SAVINGS PLAN FOR BARGAINING EMPLOYEES
ALCOA SAVINGS PLAN FOR NON-BARGAINING EMPLOYEES
ALCOA SAVINGS PLAN FOR SUBSIDIARY AND AFFILIATE EMPLOYEES
REYNOLDS METALS COMPANY SAVINGS PLAN FOR HOURLY EMPLOYEES**
(Full Title of Plans)

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

EXPLANATORY NOTE

Effective April 30, 2004, the assets of the Reynolds Metals Company Savings Plan for Hourly Employees were distributed to participants.

In connection with this distribution, the offering of Alcoa Inc. common stock, par value \$1.00 per share (“Common Stock”), and plan interests under the Reynolds Metals Company Savings Plan for Hourly Employees has terminated.

This Amendment No. 5 incorporates by reference the contents of Registration Statement on Form S-8 (File No. 333-32516) and Registration Statement on Form S-8 (File No. 333-106411) (the “Registration Statements”), each to the extent not modified by this Amendment No. 5. This Amendment No. 5 is being filed to delete the Reynolds Metals Company Savings Plan for Hourly Employees from the Registration Statements.

With this filing, the following plans are covered by the Registration Statements, each with the respective number of shares of Common Stock allocated from the aggregate amount originally registered under Registration Statement No. 333-32516 and Registration Statement No. 333-106411, as adjusted for the 2-for-1 stock split effective June 9, 2000:

<u>Plan Name</u>	<u>Post-Split Shares As Reallocated</u>
Alcoa Savings Plan for Bargaining Employees	4,860,000
Alcoa Savings Plan for Non-Bargaining Employees	14,604,327
Alcoa Savings Plan for Subsidiary and Affiliate Employees	4,000,000

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 Amendment No. 5 to the Registration Statements 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 Amendment No. 5 to the Registration Statements, 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 Amendment No. 5 to the Registration Statements. Alcoa incorporates by reference in this Amendment No. 5 to the Registration Statements the documents listed below and any future filings that it or the plans may make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 until all of the securities that may be offered by the Registration Statements 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;
- Quarterly Reports on Form 10-Q for the fiscal quarters ended March 31, 2004, June 30, 2004 and September 30, 2004;
- Current Reports on Form 8-K filed on April 8, 2004, September 9, 2004, September 13, 2004, September 28, 2004 and October 29, 2004; and
- Annual Reports on Form 11-K of the plans for the most recent fiscal year.

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 5. INTERESTS OF NAMED EXPERTS AND COUNSEL

Incorporated by reference to Registration Statement No. 333-32516 and Registration Statement No. 333-106411.

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. Indemnification may be provided by Pennsylvania corporations 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.

Alcoa's Articles and By-laws were amended by the shareholders 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. Expenses incurred with respect to any claim may be advanced by Alcoa, 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 policy with an aggregate limit of \$175 million, with certain specified deductible amounts, for liability of directors and officers and reimbursement to Alcoa for indemnification provided to directors and officers. The policy has an expiration date of October 1, 2005 and provides liability insurance and reimbursement coverage for Alcoa, and its directors and officers that are permitted by the laws of Pennsylvania referred to above.

ITEM 7. EXEMPTION FROM REGISTRATION CLAIMED

Not applicable.

ITEM 8. EXHIBITS

<u>Exhibit Number</u>	<u>Description</u>
(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*
- (5)(a) Opinion of Denis A. Demblowski*
- (5)(b) Opinion of Thomas F. Seligson*
- (15) Letter regarding unaudited interim financial information.
- (23)(a) Consent of PricewaterhouseCoopers LLP.
- (23)(b) Consent of Counsel (included as part of Exhibits 5(a) and 5(b))*

* Filed previously

ITEM 9. UNDERTAKINGS

Incorporated by reference to Registration Statement No. 333-32516 and Registration Statement No. 333-106411.

SIGNATURES

The Registrant. Pursuant to the requirements of the Securities Act of 1933 and the provisions of Rule 478 of the Securities and Exchange Commission promulgated thereunder, 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 Post-Effective Amendment No. 5 to the Registration Statements to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of New York, the State of New York, on this 4th day of November 2004.

ALCOA INC.

By /s/ Lawrence R. Purtell

Lawrence R. Purtell
Executive Vice President and General Counsel
(Agent for Service named in the Registration Statement)

The Plans. Pursuant to the requirements of the Securities Act of 1933, the Benefits Management Committee has duly caused this Post-Effective Amendment No. 5 to the Registration Statements to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of New York, the State of New York, on this 4th day of November 2004.

Alcoa Inc. Benefits Management Committee

By: /s/ Richard B. Kelson

Richard B. Kelson, Member

By: /s/ A. Hamish Petrie

A. Hamish Petrie, Member

By: /s/ William B. Plummer

William B. Plummer, Member

INDEX TO EXHIBITS

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* Filed previously

November 4, 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 the interim condensed consolidated financial information of Alcoa Inc. and its subsidiaries (the "Company") for the three month period ended March 31, 2004 and 2003 and our report dated July 7, 2004 on our review of the interim condensed consolidated financial information of the Company for the three-month and six-month periods ended June 20, 2004 and 2003 and our report dated October 7, 2004, except for Note P, as to which the date is October 26, 2004, on our review of the interim condensed consolidated financial information of the Company for the three-month and nine-month periods ended September 30, 2004 and 2003 and included in the Company's quarterly report on Form 10-Q for the quarters ended March 31, 2004, June 30, 2004 and September 30, 2004 are incorporated by reference in the Registration Statement on Form S-8.

Very truly yours,

/s/ PricewaterhouseCoopers LLP
PricewaterhouseCoopers LLP
Pittsburgh, Pennsylvania

CONSENT OF INDEPENDENT ACCOUNTANTS

We hereby consent to the incorporation by reference in the Registration Statement on Form S-8 of our report dated January 8, 2004 relating to the financial statements, which appears in the 2003 Annual Report to Shareholders of Alcoa Inc. and its subsidiaries (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 appears in such Annual Report on Form 10-K.

We also consent to the incorporation by reference in the Registration Statement on Form S-8 of our reports dated June 10, 2004 relating to the financial statements, which appears in the Annual Report of the Alcoa Savings Plan for Bargaining Employees, the Alcoa Savings Plan for Non-Bargaining Employees, the Alcoa Savings Plan for Subsidiary and Affiliate Employees and the Reynolds Metals Company Savings Plan for Hourly Employees on Form 11-K for the year ended December 31, 2003.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP
Pittsburgh, Pennsylvania
November 4, 2004