

**UNITED STATES  
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.)

**390 Park Avenue**  
**New York, New York 10022-4608**  
(Address of principal executive offices, including zip code)

**ALCOA RETIREMENT SAVINGS PLAN FOR SALARIED EMPLOYEES**  
**ALCOA RETIREMENT SAVINGS PLAN FOR BARGAINING EMPLOYEES**  
**ALCOA RETIREMENT SAVINGS PLAN FOR HOURLY NON-BARGAINING EMPLOYEES**  
**ALCOA RETIREMENT SAVINGS PLAN FOR FASTENER SYSTEMS EMPLOYEES**  
(Full Title of the Plans)

**Audrey Strauss**  
**Executive Vice President, Chief Legal Officer and Secretary**  
**390 Park Avenue**  
**New York, New York 10022-4608**  
**(212) 836-2731**  
(Name, Address and Telephone Number, Including Area Code, of Agent for Service)

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer  Accelerated filer   
Non-accelerated filer  (Do not check if a smaller reporting company) Smaller reporting company

**CALCULATION OF REGISTRATION FEE**

<b>Title of Securities to be Registered</b>	<b>Amount to be Registered (1)</b>	<b>Proposed Maximum Offering Price Per Share (2)</b>	<b>Proposed Maximum Aggregate Offering Price (2)</b>	<b>Amount of Registration Fee</b>
Alcoa Inc. common stock, \$1.00 par value	32,700,000 shares	\$7.97	\$260,619,000	\$26,244.33

(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.

The number of shares of common stock of Alcoa Inc. (“Alcoa”), par value \$1.00 per share (“Common Stock”), to be registered is to be allocated as follows: 25,200,000 shares to the Alcoa Retirement Savings Plan for Salaried Employees, 4,300,000 shares to the Alcoa Retirement Savings Plan for Bargaining Employees, 300,000 shares to the Alcoa Retirement Savings Plan for Hourly Non-Bargaining Employees and 2,900,000 shares to the Alcoa Retirement Savings Plan for Fastener Systems Employees.

(2) Estimated solely for the purpose of calculating the registration fee, based on the average of the high and low prices of shares of the Common Stock reported on the New York Stock Exchange on February 19, 2016.

The contents of the earlier Registration Statements on Form S-8 filed by Alcoa with the Securities and Exchange Commission on March 15, 2000 (File No. 333-32516), on June 24, 2003 (File No. 333-106411), on September 20, 2005 (File No. 333-128445), on September 26, 2007 (File No. 333-146330), on September 8, 2008 (File No. 333-153369), on November 25, 2008 (File No. 333-155668), on July 30, 2010 (File No. 333-168428), on November 23, 2010 (File No. 333-170801), and on July 27, 2012 (File No. 333-182899) each as amended from time to time (the “Earlier Registration Statements”), relating to the Alcoa Retirement Savings Plan for Salaried Employees, the Alcoa Retirement Savings Plan for Bargaining Employees, the Alcoa Retirement Savings Plan for Hourly Non-Bargaining Employees and the Alcoa Retirement Savings Plan for Fastener Systems Employees (the “Plans”), are 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.

This Registration Statement is being filed to register an additional 32,700,000 shares of Common Stock for offer and sale under the Alcoa Retirement Savings Plan for Salaried Employees, the Alcoa Retirement Savings Plan for Bargaining Employees, the Alcoa Retirement Savings Plan for Hourly Non-Bargaining Employees and the Alcoa Retirement Savings Plan for Fastener Systems Employees, of which 25,200,000 shares, 4,300,000 shares, 300,000 shares and 2,900,000 shares, respectively, are being allocated to such plans.

With this filing, the following respective number of shares of Common Stock, as adjusted for the 2-for-1 stock split effective June 9, 2000, are allocated to the Plans from the aggregate amount originally registered under the Earlier Registration Statements and this Registration Statement:

<b>Plan Name</b>	<b>Shares</b>
Alcoa Retirement Savings Plan for Salaried Employees	95,177,678
Alcoa Retirement Savings Plan for Bargaining Employees	50,760,000
Alcoa Retirement Savings Plan for Hourly Non-Bargaining Employees	15,800,000
Alcoa Retirement Savings Plan for Fastener Systems Employees	7,200,000

**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 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 or the Plans file 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 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 this Registration Statement are sold, except that Alcoa is not incorporating by reference any information that is deemed to have been furnished and not filed in accordance with SEC rules.

- Alcoa’s Annual Report on Form 10-K for the fiscal year ended December 31, 2015;
- Alcoa’s Current Reports on Form 8-K and 8-K/A filed on January 14, 2016, February 1, 2016 (two filings), February 4, 2016 and February 23, 2016 (in each case, except to the extent furnished but not filed); and
- The description of Alcoa’s Common Stock contained in Alcoa’s Registration Statement on Form S-3 (File No. 333-197371), initially filed July 11, 2014, as amended by Amendment No. 1 on Form S-3/A on July 25, 2014.

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 6. Indemnification of Directors and Officers**

Alcoa has purchased a directors and officers liability insurance policy with an aggregate limit of \$500 million for liability of directors and officers. The insurance also includes within that limit \$250 million of coverage, subject to a deductible, for reimbursement to Alcoa for indemnification provided to directors and officers. The policy has an expiration date of October 1, 2016 and provides liability insurance and reimbursement coverage for Alcoa, and its directors and officers that is permitted by the laws of Pennsylvania.

**Item 8. Exhibits.**

The following exhibits are filed with or incorporated by reference into this Registration Statement (numbering corresponds to Exhibit Table in Item 6.01 of Regulation S-K).

<u>Exhibit Number</u>	<u>Description</u>
4(a)	Articles of Incorporation of Alcoa, as amended September 22, 2014 (incorporated by reference to Exhibit 3(a) to Alcoa's Quarterly Report on Form 10-Q for the quarter ended September 30, 2014).
4(b)	By-Laws of Alcoa, as amended effective February 5, 2016 (incorporated by reference to Exhibit 3 to Alcoa's Current Report on Form 8-K filed February 4, 2016).
4(c)	Alcoa Retirement Savings Plan for Salaried Employees, incorporated by reference to Exhibit 4(s) to Alcoa's Annual Report on Form 10-K for the year ended December 31, 2015.
4(d)	Alcoa Retirement Savings Plan for Bargaining Employees, incorporated by reference to Exhibit 4(p) to Alcoa's Annual Report on Form 10-K for the year ended December 31, 2015.
4(e)	Alcoa Retirement Savings Plan for Hourly Non-Bargaining Employees, incorporated by reference to Exhibit 4(q) to Alcoa's Annual Report on Form 10-K for the year ended December 31, 2015.
4(f)	Alcoa Retirement Savings Plan for Fastener Systems Employees, incorporated by reference to Exhibit 4(r) to Alcoa's Annual Report on Form 10-K for the year ended December 31, 2015.
5	Opinion of Thomas F. Seligson, Counsel of Alcoa.
23(a)	Consent of PricewaterhouseCoopers LLP.
23(b)	Consent of Counsel (included as part of Exhibit 5).
24	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, 2015).



## INDEX TO EXHIBITS

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February 26, 2016

Alcoa Inc.  
390 Park Avenue  
New York, NY 10022-4608

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 32,700,000 shares of common stock, \$1.00 par value, of the Company (the "Shares"), that are to be offered and sold by the Company through the Alcoa Retirement Savings Plan for Salaried Employees, the Alcoa Retirement Savings Plan for Bargaining Employees, the Alcoa Retirement Savings Plan for Hourly Non-Bargaining Employees and the Alcoa Retirement Savings Plan for Fastener Systems Employees (collectively, the "Plans").

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 Plans, 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 1933 Act or the Rules and Regulations of the Commission issued thereunder.

Very truly yours,

/s/ Thomas F. Seligson

Thomas F. Seligson  
Counsel

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated February 19, 2016 relating to the consolidated financial statements and the effectiveness of internal control over financial reporting, which appears in Alcoa Inc.'s Annual Report on Form 10-K for the year ended December 31, 2015.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP

Pittsburgh, Pennsylvania

February 26, 2016