
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

**Post-Effective Amendment No. 1
to
FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

ALCOA INC.

(Exact Name of Registrant as Specified in its Charter)

Pennsylvania
(State or Other Jurisdiction of
Incorporation or Organization)

25-0317820
(I.R.S. Employer
Identification Number)

**390 Park Avenue
New York, New York 10022-4608
212-836-2600**

(Address, including Zip Code, and Telephone Number, including Area Code, of Registrant's Principal Executive Offices)

**Audrey Strauss
Executive Vice President, Chief Legal Officer and Secretary
Alcoa Inc.
390 Park Avenue
New York, New York 10022-4608
212-836-2731**

(Name, Address, including Zip Code, and Telephone Number, including Area Code, of Agent for Service)

Copy to:

**Karessa L. Cain
Wachtell, Lipton, Rosen & Katz
51 West 52nd Street
New York, New York 10019
212-403-1000**

Approximate date of commencement of proposed sale to the public: From time to time after the effectiveness of this Registration Statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

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.

Large accelerated filer

Accelerated filer

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

Smaller reporting company

**EXPLANATORY NOTE –
DEREGISTRATION OF SECURITIES**

This Post-Effective Amendment relates to the Registration Statement on Form S-3 (Commission File No. 333-201055), originally filed by Alcoa Inc., a Pennsylvania corporation (“Alcoa”), with the Securities and Exchange Commission (the “SEC”) on December 18, 2014 (as amended, the “Registration Statement”), registering 36,523,010 shares of Alcoa’s common stock for resale, from time to time, by the selling shareholder named in the Registration Statement and by such selling shareholder’s permitted transferees identified as selling shareholders in a prospectus supplement filed on March 20, 2015. The Registration Statement was declared effective by the SEC on January 29, 2015.

Alcoa has no further obligation to maintain effectiveness of the Registration Statement. In accordance with an undertaking made by Alcoa in the Registration Statement to remove from registration by means of a post-effective amendment any securities which remain unsold at the termination of the offering, this Post-Effective Amendment No. 1 is being filed to terminate the effectiveness of the Registration Statement and to remove from registration all securities registered but not sold under the Registration Statement. As a result of this deregistration, no securities remain registered for resale pursuant to the Registration Statement.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, Alcoa Inc. certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 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 New York, State of New York, on November 19, 2015.

ALCOA INC.

By: /s/ AUDREY STRAUSS

Name: Audrey Strauss

Title: Executive Vice President, Chief Legal Officer
and Secretary

Note: Pursuant to Rule 478 of the Securities Act of 1933, as amended, no other person is required to sign this Post-Effective Amendment No. 1 to the Registration Statement.