

July 25, 2013

Via EDGAR and Facsimile

United States Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549-4631

Attention: W. John Cash,
Branch Chief

**Re: Alcoa Inc.
Form 10-K for Fiscal Year Ended December 31, 2012
Filed February 15, 2013
File No. 1-03610**

Dear Mr. Cash:

On behalf of Alcoa Inc. (the "Company"), set forth below are responses to the comments of the Staff (the "Staff") of the Securities and Exchange Commission (the "Commission") contained in the Staff's letter dated July 19, 2013 (the "Comment Letter"), relating to the Form 10-K for the fiscal year ended December 31, 2012 (file no. 1-03610) (the "2012 10-K"), filed by the Company on February 15, 2013. The headings and numbered paragraphs of this letter correspond to the headings and paragraph numbers contained in the Comment Letter, and to facilitate your review, we have reproduced the text of the Staff's comments in boldfaced print below.

FORM 10-K FOR FISCAL YEAR ENDED DECEMBER 31, 2012

Critical Accounting Policies

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- We note your response to prior comment number two in our letter dated June 7, 2013. Please enhance your proposed disclosures in future filings to quantify the specific key assumptions that drive your fair value estimates and provide sensitivity analyses that demonstrate how changes in each assumption would impact your estimates. Also, please provide disclosure of any changes to your key assumptions from period to period.**

Response: In response to the Staff's comment, we will enhance our proposed disclosure in future annual filings (beginning with our Annual Report on Form 10-K

for the year ended December 31, 2013) to address the Staff's comments regarding the quantification of the specific key assumptions that drive the estimated fair values of our Alumina and Primary Metals reporting units, including both sensitivity analyses and significant changes in such key assumptions from period to period.

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The Company acknowledges the following:

- the Company is responsible for the adequacy and accuracy of the disclosure in the filing;
- Staff comments or changes to disclosure in response to Staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the Company may not assert Staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

If you have any questions with respect to the foregoing, please contact me at (212) 836-2685 or Graeme Bottger, Vice President and Controller, at (412) 553-2169.

Sincerely,

/s/ William F. Oplinger

William F. Oplinger

Executive Vice President and Chief Financial Officer