



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-4631

June 7, 2013

Via Facsimile

Mr. William F. Oplinger
Chief Financial Officer
Alcoa Inc.
390 Park Avenue
New York, NY 10022-4608

Re: Alcoa Inc.
Form 10-K for Fiscal Year Ended December 31, 2012
Filed February 15, 2013
Response Letter Dated May 3, 2013
File No. 1-03610

Dear Mr. Oplinger,

We have reviewed your response and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by amending your filing, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Form 10-K for Fiscal Year Ended December 31, 2012

Management's Discussion and Analysis of Financial Condition and Results of Operations

Segment Information

1. We note your response to our prior comment numbers 2-4 in your letter dated May 3, 2013 and are unable to agree with your conclusions. We believe that average cost per ton information, for at least your alumina and primary metals segments, is material information that will enhance an investor's understanding of your results of operations

and will allow investors to evaluate uncertainties associated with your production costs. We further note that other marketplace participants in metals industries such as steel, copper, etc., routinely disclose average cost information without competitive harm. Please refer to Instruction 3 to Item 303(a) of Regulation S-K and provide the requested disclosure in future filings beginning with your next quarterly report.

Critical Accounting Policies

Goodwill, page 74

2. We note your response to our prior comment number 7 in your letter dated May 3, 2013 and the current disclosures in your filing. In regard to your assessments of your alumina and primary metals reporting units please provide us, and enhance your disclosures in future filings to include: a more comprehensive description of the specific material assumptions that drive the estimated fair values, a discussion of the uncertainties associated with each key assumption; a discussion of potential events, trends and/or circumstances that could have a negative effect on estimated fair values, and sensitivity analyses that demonstrate how changes in each key assumption would impact estimated fair values.

Closing Comments

You may contact Kevin Stertzelt at (202) 551-3723, or Anne McConnell at (202) 551-3709 if you have questions regarding comments on the financial statements and related matters. Please contact me at (202) 551-3768 with any other questions.

Sincerely,

/s/ W. John Cash

W. John Cash
Branch Chief