

July 5, 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 June 7, 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**

**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.**

**Response:** We have reviewed Instruction 3 to Item 303(a) of Regulation S-K and believe that our previous disclosures are in accordance with the requirements set forth therein. However, in response to the Staff's comment, the Company will expand the tabular information presentation in future quarterly and annual filings (beginning with its next quarterly report) to include the average cost per ton for the Alumina and Primary Metals segments.

### 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.**

**Response:** In response to the Staff's comment, we will include additional disclosures in future annual filings to address the Staff's comments regarding the material assumptions (including any significant associated uncertainties) that drive the estimated fair values of our Alumina and Primary Metals reporting units, including a discussion of the events, trends or circumstances that might have a negative impact on estimated fair values. As requested by the Staff, we have included a preliminary example of our proposed disclosure below. We would anticipate including this disclosure, updated for changes as appropriate, in the Critical Accounting Policies and Estimates portion of Management's Discussion and Analysis of Financial Condition and Results of Operations.

During the 2012 annual impairment test of goodwill, management proceeded directly to the two-step quantitative impairment test for three reporting units as follows: the Primary Metals segment, the Alumina segment, and the Global Rolled Products segment. For Global Rolled Products, the estimated fair value exceeded carrying value by more than 150%, resulting in no impairment. For Primary Metals and Alumina, the estimated fair values exceeded their carrying values by 9.2% and 7.4%, respectively, resulting in no impairment. These two reporting units have goodwill of \$1,748 and \$171, respectively.

The Company utilizes DCF models (which include fifteen years of forecasted cash flows, plus an estimated terminal value) to estimate fair values of the Primary and Alumina reporting units. For the first several years in the model, the cash flows are based on the current operating and capital plans as prepared by management and approved by executive management. These plans are normally based on existing operating performance, as adjusted for current trends regarding commodity pricing and currency rates, as well as known or expected near-term changes in: product mix; operating costs; operating configuration and system-wide capacity. These plans also incorporate required or anticipated near-term capital projects and working capital changes. In a DCF model, the earlier years have a more pronounced impact on the calculated value as compared to later periods. As such, if economic conditions were to deteriorate or events were to occur resulting in the ultimate operating results for these initial years being significantly lower than what is reflected in the DCF, that would have an unfavorable effect on estimated fair values. Much of such short-term variances for the Alumina and Primary Metals segments are attributable to significant movements in underlying commodity prices and currency rates.

After these initial years, the DCF models incorporate various longer-term assumptions for the Alumina and Primary Metals reporting units, the most significant of which are described in detail below:

- The estimated future price of aluminum, which is based on the current published forward curve of the London Metal Exchange at the time the DCF is prepared. As discussed above, fluctuations in the commodity price of aluminum can have a significant impact on near-term operating results; however, this impact becomes more muted on a longer-term basis, as significant cost components typically adjust to levels that are more consistent with historical relationships between industry revenues and costs.
- Estimated currency rates, which are based upon spot rates in effect at the time the DCF is prepared. The prices for alumina and aluminum are quoted in U.S. dollars; however, much of our operating costs are incurred in local currencies. As a result, the strength of the U.S. dollar in relation to the currency of certain countries where our operating locations are situated (the Australian and Canadian dollar, the European euro, and the Brazilian real) has a significant impact on the profitability of our refining and smelting operations. A stronger U.S. dollar relative to these currencies has a positive impact on operating results and cash flows while a weaker U.S. dollar has the opposite effect.
- Weighted-average cost of capital (WACC), which is based on Alcoa's current WACC at the time the DCF is prepared, as adjusted to reflect the specific betas associated with the Alumina and Primary Metals reporting units; these beta adjustments are determined annually with the assistance

of third-party valuation experts. The WACC has a significant impact on the estimated fair values since this is the rate used to discount the projected cash flows of the reporting units. As the WACC increases, the estimated fair value based on the DCF decreases, and vice versa. There is uncertainty associated with WACC as it is affected by the market price of the Company's common stock and public debt, each of which in turn is affected by numerous factors, including the Company's credit rating.

- Operating margin percentage. As discussed above, the early years of the DCF reflect the operating margin percentage that is included in management's approved annual operating plans and consistent with management expectations. Beyond this initial time horizon, the operating margin percentage is based on management's view of the industry, strategic initiatives and consideration of historical operating margins. The undiscounted operating cash flows (excluding capital expenditures) included in the DCF model for the later annual periods are a direct result of this assumed operating percentage, and therefore changes in this assumption could have a significant impact on estimated fair values, i.e., a decrease in operating margin percentage would decrease the estimated fair value, and vice versa.
- Capital expenditures. Both the Alumina and Primary Metals businesses are highly capital-intensive and require significant investment to both maintain and improve/grow the businesses, commonly referred to as sustaining and growth capital expenditures, respectively. The levels of capital expenditures for the initial years of the model are based on management's current capital plan, and include amounts for both sustaining and growth investments. Absent significant changes in operating configuration, the level of sustaining capital expenditures for our portfolio of refineries and smelters is reasonably predictable, comprising many projects of varying amounts across all locations; after the initial years, the model includes estimates for the portfolios that are consistent with expectations and past history. With proper maintenance and sustaining capital investment, refineries and smelters can operate for many years at highly predictable levels of production. The returns on sustaining capital expenditures are essentially reflected in the operating margin percentage discussed above.

In contrast, the level of growth capital is typically a function of a relatively small number of large projects at select locations that are designed to improve performance and/or increase production. The returns on growth capital expenditures often take several years or longer to materialize; as such, inclusion of significant growth capital expenditures in the early years of the DCF has a pronounced negative impact on the estimated fair values. However, there is a higher level of management discretion, and

therefore increased uncertainty, regarding the amount and timing of growth capital. Given the cyclical nature of both Alumina and Primary Metals, during periods of lower pricing and reduced profitability, the level of growth capital expenditures tends to decline; the opposite is true when pricing and operating results are strong. Therefore, in the event pricing levels in the forecast periods are lower than management's expectations, certain growth projects included in the DCF may possibly be deferred by management, which would mitigate the near-term negative impact such capital spending would have on estimated fair values.

- Changes in working capital are based on management's approved operating plan in the early years and are calculated as a percentage of revenue in the later years. The Company has achieved a number of initiatives to significantly lower working capital each of the past four years. This performance has showed that management is able to manage the working capital necessary to operate the business at consistent levels relative to revenue generation, resulting in maximum cash utilization. If working capital levels as a percentage of revenue were to rise above the forecasted levels, the estimated fair value of the reporting unit would decrease, and vice versa. The DCF models do not reflect any significant cash flows that may result in the future from the Company's ongoing efforts to reduce investment in working capital.

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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