

August 14, 2012

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, 2011**  
**Filed February 16, 2012**  
**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 18, 2012 (the "Comment Letter"), relating to the Form 10-K for the fiscal year ended December 31, 2011 (file no. 1-03610) (the "2011 10-K"), filed by the Company on February 16, 2012. 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.

The Company requests confidential treatment of the highlighted portions of this letter in accordance with 17. C.F.R. section 200.83.

The EDGAR submission of this letter does not contain the portions for which confidential treatment is requested. The location of the information subject to the confidential treatment request is indicated in the EDGAR submission with [\*\*\*\*\*]. A complete paper copy of this letter, including the portions for which confidential treatment is requested, is being provided supplementally to the Staff.

**FORM 10-K FOR FISCAL YEAR ENDED DECEMBER 31, 2011**

**Legal Proceedings, page 31**

**Litigation**

**General**

- 1. We note your response to our prior comment number two in your letter dated May 4, 2012. The information you provided regarding the cases where you are unable to reasonably predict an outcome or estimate a range of reasonably possible loss, is useful in understanding the basis for your conclusions and would be helpful information for investors. Please expand your disclosures in future filings to provide similar insights.**

**Response:** We appreciate the Staff's comment and in future filings will provide any additional information about the Company's inability to reasonably predict an outcome or estimate a range of reasonably possible loss that the Company concludes would be material and helpful to investors.

**European Commission Matters, page 34**

- 2. We note your response to our prior comment number three; however, the basis for your accrual regarding the electricity tariff matter in Italy remains unclear to us. Please explain why, despite your expectation that you will be required to make a payment in excess of your accrual, you believe your accrual represents your best estimate of the probable outcome of this contingency. Please describe what amounts might be recovered in the event you make a payment in excess of your accrual and why these recoveries are considered probable. It may be helpful if you provide a more thorough analysis of how you determined the \$230 million liability you recorded in 2009 and how you determined a payment in the range of \$300 to \$500 million will be required.**

**Response:** As discussed with the Staff on the call between certain representatives of the Company and the Staff on July 18, 2012, and as disclosed in our Form 10-Q for the quarterly period ended June 30, 2012, management's estimate of the ultimate probable loss associated with this matter is based on internal and external legal analysis of the European Commission's (EC) decision; this analysis reflects the distinctions drawn by the EC between the Company's two smelters in Portovesme and Fusina, Italy, the facts and circumstances surrounding the two affected smelters, and the legal arguments available to the Company in respect of each smelter and the characteristics of the electricity market in each location. Such estimate of the ultimate probable loss, after the judicial appellate process is completed, which may take several years, remains unchanged from the reserve established in 2009 of \$197 million (€159 million) (the U.S. dollar amount reflects the effects of foreign currency movements since 2009; the Euro amount is unchanged). Such estimate is the low end of the range of reasonably possible

loss, which is \$197 million (€159 million) to \$375 million (€303 million), and is management's best estimate of the probable outcome of this contingency despite management's expectation, as disclosed in the 2011 10-K, that the Italian Government may make a payment request in the range of \$300 million to \$500 million based on a calculation prepared by the Italian Government.

As disclosed in the Company's Form 10-Q for the quarterly period ended June 30, 2012 (filed on July 26, 2012), in June 2012, in accordance with the requirements of the EC's decision, the Italian Government formally requested a recovery from the Company in the amount of \$375 million (€303 million), representing the gross recovery, including interest, related to the EC decision for both Italian smelters. This total was reduced by \$65 million (€53 million) of amounts owed by the Italian Government to Alcoa under the tariff structure that were not subject to recovery as unlawful state aid per the EC's decision, resulting in a net payment request of \$310 million (€250 million). We note that the June 2012 payment request by the Italian Government was within the range of the Company's previous estimate (as disclosed in the 2011 10-K) that a payment in the range of \$300 million to \$500 million could be required.

Alcoa will be required to fund this €250 million while the appellate process continues over the next several years. The Company will commence payments of five quarterly installments of \$62 million (€50 million) beginning in the fourth quarter of 2012; however, it is possible Alcoa may be required to accelerate payment or pay in a lump sum. Management anticipates that any amounts required to be funded in excess of the Company's reserve will be recorded as a non-current asset pending the final judicial resolution of this matter.

In response to the Staff's comment and to reflect the above-described developments during the second quarter of 2012, we expanded the disclosures regarding this matter in our second quarter Form 10-Q, as filed with the Commission on July 26, 2012. For the Staff's convenience, we have included the relevant sections of the revised disclosure below:

In July 2006, the European Commission (EC) announced that it had opened an investigation to establish whether an extension of the regulated electricity tariff granted by Italy to some energy-intensive industries complies with European Union (EU) state aid rules. The Italian power tariff extended the tariff that was in force until December 31, 2005 through November 19, 2009 (Alcoa has been incurring higher power costs at its smelters in Italy subsequent to the tariff end date). The extension was originally through 2010, but the date was changed by legislation adopted by the Italian Parliament effective on August 15, 2009. Prior to expiration of the tariff in 2005, Alcoa had been operating in Italy for more than 10 years under a power supply structure approved by the EC in 1996. That measure provided a competitive power supply to the primary aluminum industry and was not considered state aid from the Italian

Government. The EC's announcement expressed concerns about whether Italy's extension of the tariff beyond 2005 was compatible with EU legislation and potentially distorted competition in the European market of primary aluminum, where energy is an important part of the production costs.

On November 19, 2009, the EC announced a decision in this matter stating that the extension of the tariff by Italy constituted unlawful state aid, in part, and, therefore, the Italian Government is to recover a portion of the benefit Alcoa received since January 2006 (including interest). The amount of this recovery will be based on a calculation that is being prepared by the Italian Government (see below). In late 2009, after discussions with legal counsel and reviewing the bases on which the EC decided, including the different considerations cited in the EC decision regarding Alcoa's two smelters in Italy, Alcoa recorded a charge of \$250 (€173), which included \$20 (€14) to write off a receivable from the Italian Government for amounts due under the now expired tariff structure and \$230 (€159) to establish a reserve. On April 19, 2010, Alcoa filed an appeal of this decision with the General Court of the EU. Alcoa will pursue all substantive and procedural legal steps available to annul the EC's decision. On May 22, 2010, Alcoa also filed with the General Court a request for injunctive relief to suspend the effectiveness of the decision, but, on July 12, 2010, the General Court denied such request. On September 10, 2010, Alcoa appealed the July 12, 2010 decision to the European Court of Justice (ECJ); this appeal was dismissed on December 16, 2011.

In June 2012, Alcoa received formal notification from the Italian Government with a calculated recovery amount of \$375 (€303); this amount was reduced by \$65 (€53) of amounts owed by the Italian Government to Alcoa, resulting in a net payment request of \$310 (€250). Alcoa has been in discussions with the Italian Government regarding the timing of such payment. Alcoa will commence payment of the requested amount in five quarterly installments of \$62 (€50) beginning in the fourth quarter of 2012. It is possible that Alcoa may be required to accelerate payment or pay in a lump sum. Notwithstanding the payment request or the timing of such payments, Alcoa's reserve remains \$197 (€159) (the U.S. dollar amount reflects the effects of foreign currency movements since 2009), which represents Alcoa's estimate of the most probable loss of the ultimate outcome of this matter and the low end of the range of reasonably possible loss, which is \$197 (€159) to \$375 (€303). The full extent of the loss will not be known until the final judicial determination, which could be a period of several years.

3. **It appears, based on your disclosure and your response, that the \$20 million receivable from the Italian government represented an amount previously owed to the company under the tariff arrangement, which was deemed by the courts as “unlawful state aid.” If our understanding is accurate, please confirm that you are not considering this receivable as an offset against any amounts you might otherwise be required to pay to settle this matter.**

**Response:** We hereby confirm the Staff’s understanding that the \$20 million (€14 million) receivable referenced in our disclosure was an amount owed to the Company under the tariff arrangement that was deemed by the EC to be unlawful state aid. We further confirm we are not considering this amount as an offset against amounts we may be required to pay to the Italian Government. We direct the Staff to our updated disclosure on this matter in note G to the consolidated financial statements as included in our Form 10-Q for the second quarter, which was filed on July 26, 2012.

## **Management’s Discussion and Analysis of Financial Condition and Results of Operations**

### **Segment Information**

#### **Alumina, page 54**

4. **We note your response to our prior comment number five. With regard to your bauxite mining activities, it appears to us that your views and disclosures are not consistent with other major participants in the alumina/aluminum production industry. As your bauxite mining operations represent a key discrete activity and input to your alumina and aluminum production, it appears to us this activity represents material information that is important to understanding the economics of your business. As such, please revise your disclosures to provide the information previously requested. Please provide us your draft disclosure revisions as part of your response.**

**Response:** Consistent with our conversation with the Staff on July 18, 2012, we reviewed the annual filings of various other aluminum industry participants. We noted that, in all instances except one, the nature of management’s discussion and analysis of alumina and aluminum operations for these other industry participants did not include a discrete or robust discussion of their bauxite mining operations. The one exception we noted involved a registrant that had significant third-party bauxite sales, and in fact, had a separate bauxite segment. For all other industry participants, it appeared the results of the bauxite mining operations were simply reflected in the overall alumina or aluminum segment results. As we have previously discussed with the Staff, we do not sell bauxite to third parties or to other segments, and segment management does not evaluate our mining operations separately from our alumina operations. In most periods, fluctuations in our alumina segment operating results are a function of changes in sales price of alumina; production levels; certain key raw materials, notably energy and

caustic soda; and currency movements. When comparing operating results between periods for the alumina segment, costs of mining bauxite typically are more stable (and therefore have a less significant impact on changes in performance) as compared to these other factors. The Company advises the Staff that, in future interim and annual filings, in the event the results of our bauxite operations have a significant impact on alumina segment performance when comparing periods, we will highlight this in our Management's Discussion and Analysis. In addition, in future annual filings, we intend to disclose the annual production levels of our bauxite mines (see response to Comment No. 13 below).

5. **Similar to our observations noted above, we understand that electrical power is a key driver of costs associated with aluminum production in your primary metals segment. We further note that your smelters generally require long-term power supply solutions in order to be economic. As such, it continues to appear to us that a discussion of the key costs of electricity supply inputs to your primary metals segment would be material information to investors. Please revise your disclosures to provide the information we previously requested and provide us your draft disclosure revisions as part of your response.**

**Response:** Similar to our response to the Staff's comment number 4 above, following our conversation of July 18, 2012, and in response to the Staff's previous comment number five, we reviewed the annual filings of other aluminum industry participants and noted for those that have energy assets, all but one include the results of such assets in their overall results of operations for their respective aluminum segment. The one exception occurred where the registrant had significant sales to third parties and had a separate energy segment. As previously communicated to the Staff, the level of our sales of power to third parties is not material to our alumina or aluminum revenues, and there are no power sales to other segments. Further, segment management does not evaluate performance of our energy operations independently from the aluminum operations. Periodic variances in the results of our aluminum and alumina segments are not driven by the operating performance of our energy assets. Rather, such variances are driven by changes in realized pricing; production levels; alumina costs; externally-purchased energy and other raw materials (notably coke and pitch); and currency movements. The Company advises the Staff that, in future interim and annual filings, should the results of our energy assets have a significant impact on variations in alumina or aluminum segment performance, we will include this in our discussion of results of operations.

In addition, to better assist the reader in understanding the electricity generation capacity of Company-owned facilities, in future annual filings we plan to include the following table as part of the description of our business in Part I, Item 1:

<u>Country</u>	<u>Facility</u>	<u>Alcoa Consolidated Capacity (MW)</u>	<u>[Fiscal Year] Generation (MWh)</u>
Australia	Anglesea	150	
Brazil	Barra Grande	161	
	Estreito	149	
	Machadinho	119	
	Serra do Facão	64	
Canada	Manicouagan	132	
Suriname	Afobaka	156	
United States	Tapoco	351	
	Warrick	524	
	Yadkin	215	
<b>TOTAL</b>		<b>2,021</b>	

We also note the Staff's comments above on energy costs being a key input cost in the aluminum smelting process. We agree and would direct the Staff to disclosures included in the "Business" portion of our 2011 Form 10-K, beginning on page 15. In this section, we include a detailed discussion of all of our significant sources of energy (internal and external) for our upstream assets. We also indicate energy represents approximately 25% of the Company's alumina refining costs (primarily natural gas, fuel oil and electricity) and 26% of aluminum production costs (primarily electricity). We believe this information provides the reader with information necessary to understand this key input cost. In addition, in future interim and annual filings, consistent with our existing practice, we will include relevant commentary in our Management's Discussion and Analysis when operating performance varies significantly due to cost of energy (whether purchased externally or not).

**Critical Accounting Policies and Estimates, Goodwill, page 69**

- We note your response to our prior comment number seven. Please explain to us how you determined which six reporting units to perform a qualitative assessment in 2011, including if or how you considered your market capitalization to determine if a two step review was necessary. Also, since your market capitalization was and continues to be significantly less than your estimate of the fair values of your reporting units, please provide us the actual assumptions you used in assessing the primary metals reporting unit in 2011. Please help us more fully understand why you believe your market capitalization is not representative of the fair values of your reporting units.**

**Response:** In response to the Staff's comment, we early adopted the new guidance issued by the Financial Accounting Standards Board in September 2011 regarding the option to first assess qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the estimated fair value of a reporting unit is less than its carrying amount. Because we want to maintain current discounted cash flow models related to each of our reporting units, as opposed to only updating the models if there is a more likely than not indication of negative qualitative factors, we adopted a policy of proceeding directly to the traditional two-step quantitative impairment test on an annual basis for at least three of our nine reporting units. As a result, each reporting unit will be subjected to the two-step quantitative test at least once every three years. We developed a matrix establishing when we would perform the two-step test over for each reporting unit over the next three years (i.e., 2011 through 2013). For 2011, we selected the primary metals, building and construction systems, and soft alloy extrusions reporting units. The remaining six reporting units were therefore assessed first on a qualitative basis. These qualitative assessments did not result in an indication that it was more likely than not that the estimated fair value exceeded the corresponding carrying value of each of the respective reporting units.

As part of our qualitative assessments for six of our reporting units, we did consider our market capitalization as one of many factors to determine if a two-step review was necessary. We concluded that our market capitalization did not fully reflect the underlying fundamentals of the aluminum industry and the underlying estimated aggregate future cash flows of the Company, but rather was more a reflection of declining commodity prices for aluminum, as discussed more fully below.

During the last several years, commodity prices (including aluminum) have been highly volatile. This volatility began with the global financial crisis in 2008 and has continued through today's macroeconomic environment. The current sovereign debt crisis in Europe, the looming fiscal concerns in the United States, and the slowdown in China have all had an adverse impact on commodity prices, which do not necessarily reflect industry fundamentals. As a consequence, we become even more susceptible to significant and volatile fluctuations in the market price of our common stock, which is strongly correlated to the price of aluminum as quoted on the London Metal Exchange (LME).

To help illustrate this point, in the fourth quarter of 2008, during the onset of the global financial crisis, at which time the LME had dropped by more than 50% to approximately \$1,500 per metric ton, our share price reached a closing low of \$6.85. Our share price remained depressed during the early part of 2009, reaching a closing low of \$5.22 in the first quarter of 2009, when LME averaged \$1,365 per metric ton. Beginning in the second quarter of 2009 and over the ensuing two years, the LME experienced continued volatility, but generally trended upward,



ultimately reaching \$2,786 per metric ton in early May 2011, its highest point since mid-2008. Our share price followed a similar pattern over this period, ranging from \$8.96 (July 2009) to a high of \$18.47 (April 2011). The European debt crisis began to surface in the third quarter of 2011, at which point LME prices began to decline (LME averaged approximately \$2,400 and \$2,100 per metric ton in the third and fourth quarter, respectively), a trend that has continued into 2012, with second quarter LME prices averaging approximately \$1,980 per metric ton. Again, the price of our common stock has mirrored this movement, reaching a low of \$8.45 in the fourth quarter and \$8.21 during the first half of 2012.

We believe commodity prices, and therefore the market price of our common stock, are currently being depressed due to this turmoil, and, therefore, looking at our market capitalization over a short-term period is not appropriate. In developing the fair value of our reporting units, the Company assesses the estimated future cash flows using assumptions we believe are reasonable and consistent with anticipated and past performance, including expected movements in LME prices. Accordingly, the discounted cash flow models we use reflect more of a long-term view (15 years) and we believe is therefore more indicative of the fair value of the Company and its underlying businesses.

In addition to the significant impact of commodity prices, and as discussed in the Financial Accounting Standards Board's Accounting Standards Codification 350-20-35-23, control premiums may effectively cause a company's aggregate fair value of its reporting unit(s) to exceed its current market capitalization due to the ability of a controlling shareholder to benefit from synergies and other intangible assets that arise from such control. As a result, the measurement of fair value of an entity with a collection of assets and liabilities that operate together to produce cash flows is different from the fair value measurement of that entity's individual securities, hence, the reason a control premium is paid.

As requested by the Staff, the following significant assumptions were used in the 2011 quantitative assessment of the Primary Metals reporting unit. In light of the ongoing volatility in commodity prices, as discussed more fully below, we currently anticipate proceeding directly to the two-step quantitative test for the Primary Metals reporting unit as part of our annual goodwill impairment analysis in 2012.

Rule 83 Confidential Treatment Request Made by Alcoa Inc. – Request Number 1

- [\*\*\*\*\*];
- [\*\*\*\*\*];
- [\*\*\*\*\*];
- [\*\*\*\*\*];
- [\*\*\*\*\*]; and
- [\*\*\*\*\*].

**Financial Statements**

**Note A – Summary of Significant Accounting Policies**

**Property Plants and Equipment, page 81**

7. **We note your response to our prior comment number eight. Please explain to us how you define a “unit” in your units-of-production calculations for each of the assets you describe in your response (smelter, mine, hydroelectric power facility) and also how you determine total units used as denominators in these calculations.**

**Response:** In response to the Staff’s comment, for the assets we described in our response to prior comment number eight, a unit in our units-of-production calculations is defined as a metric ton of aluminum produced for the smelter, a metric ton of bauxite produced for the mine, and a megawatt of power generated for the hydroelectric power facility. We determine total units used as denominators in these calculations as the product of the estimated useful life of the related asset class (typically limited to structures and certain equipment) and (i) the annual smelting capacity for the smelter, (ii) the current annual production capacity for the mine, and (iii) the annual generation capacity for the hydroelectric power facility.

The Company advises the Staff that once an asset achieves full operation, the units-of-production method yields results that are substantially consistent with those of the straight-line method. By utilizing the units of production method during the start-up phase of an asset (typically six-to-twelve months), operating results are not disproportionately burdened by depreciation levels more appropriately associated with facilities operating at full capacity.

8. **We note your response to our engineer’s comment number 16. Given the absence of mineral “reserves”, please explain what resource base you are using for DD&A calculations and why you believe these estimates of mineral resources are sufficiently reliable to warrant their use in DD&A calculations. Please tell us the full extent of assets, including their description and associated costs, which are being depreciated using a level of mineral resources.**

**Response:** In response to the Staff’s comment, the types of assets being depreciated using a level of mineral resources are mineral rights (\$49 million) and deferred mining costs (\$169 million – see response to item 9. below). The resource base we are using for DD&A calculations related to mineral rights and deferred mining costs are the areas where we are currently extracting bauxite (i.e., not the estimated tonnage of the entire mine). The amount of geological drilling and testing necessary to determine the economic viability of the specific bauxite deposit being mined is such that these reserves are considered to be proven. We therefore believe these estimates of mineral reserves are sufficiently reliable to warrant their use in DD&A calculations. This process has proven to be a consistent and rational basis for calculating DD&A and has not resulted in significant adjustments to our estimates.

9. **You have explained in your response that you do not determine or claim to have mineral reserves at any of your bauxite mines. Please note that under U.S. GAAP, it is not appropriate to capitalize mine development costs in the absence of mineral reserves. As such, please explain to us how and why you determined that capitalizing \$221 million of overburden removal costs at December 31, 2011 is appropriate. In addition, please tell us what amounts, if any, you have capitalized associated with waste dumps, haulage ways, water treatment facilities, and other mine infrastructure.**

**Response:** In response to the Staff’s comment, the \$221 million mentioned in our previous response contains more than overburden removal. Specifically, this amount includes deferred mining costs of \$169 million, which primarily consists of costs related to the construction of access and haul roads, detailed drilling and geological analysis to further define the grade and quality of the known bauxite, and overburden removal costs. This \$221 million total also contains \$52 million for the acquisition of a participating interest in a gas field that is unrelated to deferred mining costs; based on the overall insignificant level of our investment and early stage of development, we believe further exploration-related disclosures are not warranted at this time.

We believe the \$169 million of deferred mining costs are appropriately capitalized since these costs were incurred during the development stage of the mine life cycle; specifically, they relate to sections of the related mines where we are either currently extracting bauxite or are preparing for production in the near-term. These sections are outlined and planned incrementally and generally are

mined over periods ranging from one to five years, depending on mine specifics. The amount of geological drilling and testing necessary to determine the economic viability of the bauxite deposit being mined is such that the reserves are considered to be proven, and the mining costs are amortized based on this level of reserves. As these reserves are exploited, our process has not yielded significant variability or fluctuations in the amount of expected vs. actual production.

- 10. You state you have capitalized \$49 million related to mineral rights. Since, as you also state, you do not establish mineral reserves on your properties, please explain how you determine whether or not mineral rights costs are impaired. To the extent any of your mineral rights are being amortized, please explain your basis for amortization.**

**Response:** The Company advises the Staff that this \$49 million amount relates to specific acquisitions of land, including underlying mineral rights, primarily in Jamaica, where we are currently mining bauxite. The underlying bauxite reserves are known at the time of purchase based on associated drilling and analysis, and are considered to be proven reserves. The acquisition cost of the land and mineral rights is amortized as the bauxite is produced based on the level of minable tons determined at the time of purchase.

In general, we do not purchase mineral rights for our bauxite in this fashion. In most instances we have a mining concession and pay for mineral rights on a royalty basis.

**Note Q – Segment and Geographic Area Information, page 120**

- 11. We note the supplemental materials you have provided to us as part of your response. The materials provided appear to represent an overview of financial data typically supplied to a board of directors on a quarterly or periodic basis. As previously requested, please provide us copies of the detailed materials your CODM receives on a regular basis, which he uses to assess and discuss results with segment management.**

**Response:** We advise the Staff that the materials previously provided represent the monthly reporting package provided to the Chief Operating Decision Maker (CODM). As discussed during our conversation with the Staff on July 18, 2012, segment management also makes monthly presentations to the CODM to review historical and forecast segment operations, including non-financial results. In response to the Staff's comment, we have supplementally provided the Staff with copies of the most recent presentations delivered to the CODM on July 16, 2012, by each of the three Group Presidents (who, as discussed in our previous response, constitute segment managers as contemplated by ASC 280-10-50-7); these presentations are representative of the form and content of presentations reviewed during other months.

*Copies of each of these presentations have been provided separately to the Staff via Federal Express. The Company has requested Confidential Treatment for these documents and also requested they be returned to the Company when the Staff's review is completed.*

### Engineering Comments

12. **We note your response to comment 15 stating that you have provided the information requested in aggregate and your present sources of bauxite are sufficient to meet your needs for the foreseeable future. We re-issue comment 15. Please disclose separately the bauxite production from each of your mines along with the expected duration of your mining activities at each mining location.**

**Response:** We advise the Staff to see our response to Comment No. 13 below.

13. **We note your response to comment 16 in which you state you inadvertently referenced reserves and do not believe you are engaged in significant mining operations, but instead are engaged in the aluminum business as a vertically integrated aluminum company, self-sufficient in your feedstock materials. In addition you state that you have no bauxite sales, bauxite mining is incidental to your business, and your mining techniques differ significantly from other mining companies. Further you acknowledge you prepare detailed assessments within your mining areas to achieve a uniform quality/supply of blended feedstock for your refineries. We re-issue comment 16. Neither Regulation S-K nor Industry Guide 7 exempts companies from the reporting requirements due to vertical integration or revenues generated by their ultimate value added products. Your mining and minerals processing operations, i.e. alumina refineries, related infrastructure, and/or aluminum smelters are considered an extension of your mining operations, as mining companies typically concentrate mineral products prior to shipment/sales and are not considered separate unrelated business activities. We acknowledge your belief that aluminum oxide is a common ordinary mineral, but note commercial deposits are found only in select locations globally and the comparison of your surface mining activities presents no significant differences to other mining/processing activities addressed by other companies producing gold, copper, coal, limestone/cement, crushed rock, or sand & gravel products.**

**Response:** Consistent with our conversation with the Staff on July 18, 2012, we reviewed the annual filings of various other aluminum industry participants. We noted that, in all instances except one, the companies did disclose bauxite reserves, categorizing them as either proven or probable. As a result, while we continue to believe the Company is not engaged in significant mining operations as contemplated by Industry Guide 7, we do acknowledge inclusion of reserve information may be relevant and useful to readers of our financial statements.

Accordingly, in future annual filings, the Company plans to include a table in the Bauxite Interests section of the Business discussion included in Part I setting forth, for each mining project, the level of proven and probable reserves, as well as the most recent annual bauxite production.

As discussed with the Staff on July 18, 2012, the Company has already performed a significant amount of work estimating the level of bauxite resources in our concessions/deposits. This work is performed in connection with short-term and mid-term mining planning and development, as well as related to capital expenditure decisions. As a result of this work, we do have reserve amounts we currently consider to be either proven or probable.

In accordance with the Staff's request, below please find our proposed disclosure that we intend to include in future annual filings related to our bauxite interests (see pages 5 and 6 of the 2011 10-K for the location of this proposed revised disclosure). Note we are still finalizing our estimates of total proven and probable reserves for each of our mining locations, which will be included in our 2012 Form 10-K.

### **Bauxite Interests**

Aluminum is one of the most plentiful elements in the earth's crust. Aluminum is produced primarily from bauxite, an ore containing aluminum in the form of aluminum oxide, commonly referred to as alumina. Aluminum is made by extracting alumina from bauxite and then removing oxygen from the alumina. Alcoa processes most of the bauxite that it mines into alumina. The company obtains bauxite from its own resources and from those belonging to the AWAC enterprise, located in the countries listed in the chart below, as well as pursuant to both long-term and short-term contracts and mining leases. In 2011, Alcoa consumed 43.0 million metric tons (mt) of bauxite from AWAC and its own resources, 6.4 million mt from related third parties and 1.1 million mt from unrelated third parties.

Alcoa has adopted the following self-imposed best practice guidelines for resource development at its operating mines. The quality control required by our refineries is such that very detailed drill information is needed to perform the short-term mine scheduling, grade forecasting and grade control functions. This means the level of certainty and confidence in the data is extremely high at the 1, 3 and 5-year Mine Plan levels. Wider spaced drilling results maintain a moderate level of confidence for 10 year Mine Plans and a lower level of confidence for 25 year Mine Plans. Exploration drilling on a much wider spacing is used to ensure the long term bauxite supply is sufficient and results are used for strategic mine planning options and making large capital decisions. On an annual basis, the in-fill drilling program maintains this level of confidence in resource development on a rolling basis. Extending the in-fill drilling program beyond the levels currently maintained would be very costly and add little to the efficient running of the mine.

Alcoa's present bauxite resources are sufficient to meet the forecasted requirements of its alumina refining operations for the foreseeable future. The following table provides information regarding the company's bauxite interests:

**Alcoa Active Bauxite Interests<sup>1</sup>**

Country	Project	Owners' Mining Rights (% Entitlement)	Expiration Date of Mining Rights	Probable Reserves (mmt)	Proven Reserves (mmt)	Average Grade of Alumina Al <sub>2</sub> O <sub>3</sub>	Reactive Silica Content SiO <sub>2</sub>	Annual Production (mmt)
Australia	Darling Range Mines	Alcoa of Australia Limited (AofA) <sup>2</sup> (100%)	2045					
Brazil	Poços de Caldas	Alcoa Alumínio S.A. (Alumínio) <sup>3</sup> (100%)	2020 <sup>4</sup>					
	Juruti <sup>6</sup>	Alcoa World Alumina Brasil Ltda. (AWA Brasil) <sup>2</sup> (100%)	2100 <sup>4</sup>					
Jamaica	Clarendon/Manchester Plateau	Alcoa Minerals of Jamaica, L.L.C. <sup>2</sup> (55%) Clarendon Alumina Production Ltd. <sup>9</sup> (45%)	2042					
Suriname	Caramacca	Suriname Aluminum Company, L.L.C. (Suralco) <sup>2</sup> (55%) N.V. Alcoa Minerals of Suriname (AMS) <sup>10</sup> (45%)	2012 <sup>11</sup>					
	Coermotibo	Suralco (55%) AMS <sup>10</sup> (45%)	2033 <sup>11</sup>					
	Onverdacht	Suralco (55%) AMS <sup>10</sup> (45%)	2033 <sup>11</sup>					
<b>Equity interests:</b>								
Brazil	Trombetas	Mineração Rio do Norte S.A. (MRN) <sup>5</sup> (100%)	2046 <sup>4</sup>					
Guinea	Boké	Compagnie des Bauxites de Guinée (CBG) <sup>7</sup> (100%)	2038 <sup>8</sup>					
Saudi Arabia	Al Ba'itha	Saudi Arabian Mining Company (74.9%) AWAC <sup>2</sup> (25.1%)	2037 <sup>8</sup>					

**14. We note your response to comment 17 in which you state you inadvertently referenced reserves in your filing and will correct this reference in future filings. We re-issue comment 17. Please provide us with the relevant documents which formed the basis for this disclosure.**

**Response:** In response to the Staff's comment, we have supplementally provided the Staff with the requested information on a CD, formatted as Adobe PDF files. Please contact Kim Horne, President Global Mining, who is located in Australia, at 61-8-9316 5291 if your engineer has any technical questions. We are requesting Confidential Treatment for this information, which we would like returned to the Company when the Staff's review is completed.

\* \* \* \* \*



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) 836-2689 or Graeme Bottger, Vice President and Controller, at (412) 553-2169.

Sincerely,

/s/ Charles D. McLane, Jr.

Charles D. McLane, Jr.

Executive Vice President and Chief Financial Officer