



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549-4628

April 23, 2010

Via U.S. Mail

Robert B. Mahoney
Chief Financial Officer
801 Crescent Centre Drive, Suite 600
Franklin, Tennessee 37067

**Re: Noranda Aluminum Holding Corporation
Amendment No. 5 to Registration Statement on Form S-1
Filed March 29, 2010
File Number 333-150760**

Dear Mr. Mahoney:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your filing in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to contact us at the telephone numbers listed at the end of this letter.

Amendment No. 5 to Registration Statement on Form S-1, filed March 29, 2010

Financial Statements

Noranda Aluminum Holding Corporation

Note 25. Business Segment Information, page F-64

1. We note your response to our prior comment number 15 and we are unable to agree with your conclusion. Please modify your Form S-1 to include additional

segment information in your financial statements for the components of your “Upstream Segment” specifically your bauxite mining, alumina refining and aluminum smelting operations.

Closing Comments

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities Act of 1933 and that they have provided all information investors require for an informed investment decision. Since the company and its management are in possession of all facts relating to a company’s disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the

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securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

You may contact Kevin Stertzell at (202) 551-3723 or Mark Shannon, Accounting Branch Chief at (202) 551-3299 if you have questions regarding comments on the financial statements and related matters. You may contact Ken Schuler, Mining Engineer, at (202) 551-3718 with questions about engineering comments. Please contact Tracey L. McNeil at (202) 551-3392 or, in her absence, the undersigned at (202) 551-3611 with any other questions.

Sincerely,

Anne Nguyen Parker
Branch Chief

cc: Via Facsimile
Andrew J. Nussbaum
(212) 403-2376