



DIVISION OF
CORPORATION FINANCE

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

December 23, 2011

Via Facsimile

Mr. William T. Hull
Chief Financial Officer
RTI International Metals, Inc.
Westpointe Corporate Center One – 5th Floor
1550 Coraopolis Heights Road
Pittsburgh, PA 15108-2973

Re: RTI International Metals, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2010
Filed March 1, 2011
File No. 1-14437

Dear Mr. Hull:

We have reviewed your filings 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 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, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Form 10-K for the Fiscal Year Ended December 31, 2010

Item 1. Business, page 1

Patents and Trademarks, page 7

1. In future filings, please disclose the duration of your patents and discuss their importance to each segment. See Item 101(c)(1)(iv) of Regulation S-K.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 18

Results of Operations, page 20

2. In future annual and quarterly filings, please expand your results of operations to provide a more comprehensive and quantified discussion and analysis of the factors that impacted your results between comparative periods. In this regard, please:
- Quantify volumes shipped and average realized selling prices per volume sold for each period presented and discuss the reasons for changes in each amount during each period;
 - Quantify and discuss the reasons for changes in total and segment gross profit margins, as well as average costs per volume sold, for each period presented. Address the main cost drivers affecting cost of sales, including how these costs impacted gross profit margins for the periods presented, and management's expectation of how these costs may impact future results. Your disclosure should include a discussion of your significant raw materials and the extent to which your results of operations have been or are expected to be impacted by changes in the prices of these raw materials;
 - Quantify and discuss the underlying factors you attribute to the significant changes in selling, general and administrative expenses as a percentage of sales;
 - Quantify and discuss the reasons for changes in your effective interest rate that impacted interest expense between the comparable periods; and
 - Quantify and discuss changes in your effective income tax rate from period-to-period.

Please include your proposed disclosures in your response.

Critical Accounting Policies, page 31

Goodwill, page 31

3. Please explain to us, and revise future filings to address, if or how you consider your market capitalization, relative to your net book value, in evaluating goodwill impairment, including the reasonableness of your fair value estimates. Please also explain to us any other qualitative and quantitative factors you consider in your analysis.

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 the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. 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.

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In responding to our comments, please provide a written statement from the company acknowledging that:

- 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.

You may contact Dale Welcome at (202) 551-3865 or Anne McConnell at (202) 551-3709 if you have questions regarding comments on the financial statements and related matters. Please contact Sherry Haywood at (202) 551-3345 or Craig Slivka at (202) 551-3729 with any other questions.

Sincerely,

/s/ John Cash

John Cash
Accounting Branch Chief