

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549-7010

Mail Stop 4631

September 1, 2009

By U.S. Mail and Facsimile

Mr. William T. Hull Chief Financial Officer 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, 2008 Definitive Proxy Statement on Schedule 14A filed March 13, 2009 Form 10-Q for the Fiscal Quarter Ended March 31, 2009 Form 10-Q for the Fiscal Quarter Ended June 30, 2009 File No. 001-14437

Dear Mr. Hull:

We have reviewed your response letter dated August 7, 2009 and have the following additional comments. If you disagree, we will consider your explanation as to why our comments are inapplicable or a revision is unnecessary. After reviewing this information, we may or may not raise additional comments.

Form 10-K for the Fiscal Year Ended December 31, 2008

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 17

<u>Critical Accounting Policy, page 28</u> Goodwill and Intangible Assets, page 29

- 1. We note your response to prior comment 5 and your intention to include additional disclosures in your next 10-K. Please be advised that we believe you should provide such disclosures in your next Exchange Act filing (Form 10-Q for the period ended September 30, 2009). Also, please better explain to us and clarify in your next Exchange Act filing:
 - Your basis for determining that continued and significant declines in your sales and operating results and Boeing's announcement of further delays related to the Dreamliner did not result in a re-evaluation of goodwill;

Mr. William T. Hull RTI International Metals, Inc. September 1, 2009 Page 2

- In addition to the discount rates, please quantify other material assumptions used in your discounted cash flow analyses, including trends in sales and operating results; and
- Reconcile the fair values of your reporting units to your market capitalization.

Please provide us your proposed disclosures on a supplemental basis.

Definitive Proxy Statement on Schedule 14A filed March 13, 2009

Analysis of Compensation Awards for Our Named Executive Officers, page 22

2. We note your response to comment 12 in our letter dated July 31, 2009. Please clarify whether in future filings you will disclose specific individual and corporate performance goals, targets, and objectives, etc. used in determining compensation for your named executive officers.

Transactions with Related Persons, page 40

3. We note your response to comment 14 in our letter dated July 31, 2009. In future filings, in addition to the information provided in your last response, please describe the standard applied by your executive management and your Office of the Chairman to determine whether related party transactions should be approved, ratified, or rejected. See Item 404(b)(1)(ii) of Regulation S-K.

Form 10-Q for the Fiscal Quarter Ended June 30, 2009

Note 11 – Commitments and Contingencies, page 12 Duty Drawback Investigation, page 13

4. Please tell us and clarify in future filings the specific facts and circumstances that resulted in the additional charges you recorded related to the US Customs investigation during the current period, your basis for determining such amount, and your expectations regarding when your internal investigation and the US Customs investigation are expected to be completed.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 21 Operating Income (Loss), page 25

5. Please tell us and clarify in future filings the specific nature of the "continuing cost overruns on certain energy market projects and manufacturing execution issues at one of the Fabrication Group's facilities" and your basis for determining that these issues were corrected during the current period.

Mr. William T. Hull RTI International Metals, Inc. September 1, 2009 Page 3

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Please respond to these comments within 10 business days, or tell us when you will provide us with a response. Please provide us with a response letter that keys your responses to our comments and provides any requested information. Detailed letters greatly facilitate our review. Please furnish your response on EDGAR as a correspondence file. Please understand that we may have additional comments after reviewing your responses to our comments.

You may contact Hagen Ganem, Staff Attorney, at (202) 551-3330 or Craig Slivka, Special Counsel, at (202) 551-3729, if you have any questions regarding comments on legal matters. If you have any questions regarding comments on financial statements or related matters, you may contact Dale Welcome, Staff Accountant, at (202) 551-3865, Anne McConnell, Senior Staff Accountant, at (202) 551-3709 or, in their absence, to the undersigned at (202) 551-3768.

Sincerely,

John Cash Accounting Branch Chief