



DIVISION OF  
CORPORATION FINANCE

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

December 1, 2010

**Via U.S. Mail and Facsimile (212) 878-1877**

Joseph C. Muscari, Chief Executive Officer  
Minerals Technologies Inc.  
The Chrysler Building  
405 Lexington Avenue  
New York, New York 10174-0002

**Re: Minerals Technologies Inc.  
Form 10-K for the Fiscal Year Ended December 31, 2009  
Definitive Proxy Statement on Schedule 14A  
File No. 001-11430**

Dear Mr. Muscari:

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 amending your filing, 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 or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Form 10-K for the year ended December 31, 2009

Item 1. Business, page 3

Processed Minerals - Products and Markets, page 5

1. We note you refer to talc reserves found on your Barrett's property near Dillon, Montana. Please forward to our engineer as supplemental information and not as part of your filing, your information that establishes the legal, technical, and economic feasibility of your materials designated as reserves, as required by Section C of Industry Guide 7. The information requested includes, but is not limited to:
  - Property and geologic maps

- Description of your sampling and assaying procedures
- Drill-hole maps showing drill intercepts
- Representative geologic cross-sections and drill logs
- Description and examples of your cut-off calculation procedures
- Cutoff grades used for each category of your reserves and resources
- Justifications for the drill hole spacing used to classify and segregate proven and probable reserves
- A detailed description of your procedures for estimating reserves
- Copies of any pertinent engineering or geological reports, and executive summaries of feasibility studies or mine plans which including the cash flow analyses
- A detailed permitting and government approval schedule for the project, particularly identifying the primary environmental or construction approval(s) and your current location on that schedule.

To minimize the transfer of paper, please provide the requested information on a CD, formatted as Adobe PDF files and provide the name and phone number for a technical person our engineer may call, if he has technical questions about your reserves.

In the event your company desires the return of this supplemental material, please make a written request with the letter of transmittal and include a pre-paid, pre-addressed shipping label to facilitate the return of the supplemental information. Please note that you may request the return of this information pursuant to the provisions of Rule 418(b).

If there are any questions concerning the above request, please phone Mr. George K. Schuler, Mining Engineer at (202) 551-3718.

2. High quality and/or purity limestone, dolomite products and talc are generally defined by the calcium carbonate ( $\text{CaCO}_3$ ) content or another appropriate measurement, such as a general electric brightness percentage (% GEB). Does this apply to your limestone, dolomite, and/or talc properties? If so, please disclose the appropriate quality/grade measurement for your reserves in future filings.

Raw Materials, page 6

3. With a view towards future disclosure, please discuss the availability of raw materials. Refer to Item 101(c)(1)(iii) of Regulation S-K.

4. We note the disclosure regarding the long-term supply agreements. Please advise us as to the consideration you have given to filing these agreements as exhibits to the Form 10-K.

Patents and Trademarks, page 7

5. With a view towards future disclosure, please discuss the duration of your intellectual property. Refer to Item 101(c)(1)(iv) of Regulation S-K.

Item 1A. Risk Factors, page 8

6. We note the disclosure in the introductory paragraphs that the disclosure in this section is based on or permitted by the Private Securities Litigation Reform Act of 1995 and that the disclosure in this section is limited to factors that could cause your “actual results to differ materially from historical and expected results.” Please be advised that the disclosure required by Item 1A of Form S-1 is based on Item 503(c) of Regulation S-K and is not limited in this manner. Please revise in future filings to discuss all material risks as contemplated by Item 503(c) of Regulation S-K. For example, we note that many of the risk factors discussed on page 19 are not discussed in this section. Please revise accordingly in future filings.
7. The subheadings in this section are too vague and generic to adequately describe the risk that follows. The subheadings should clearly and succinctly convey the actual risk to an investor and not merely state a fact about your business or industry or describe a generic effect on your company. Please carefully review each subheading with this comment in mind and revise accordingly in future filings so that each subheading reflects the risk that follows. Refer to Item 503(c) of Regulation S-K.

Adverse General Economic, Business and Industry Conditions, page 8

8. We note that you develop products for the paper, steel, construction and automotive industries. Given your disclosure on pages 19 and 26 of specific risks and challenges in these industries, please revise your risk factor disclosure in future filings to provide specific and quantitative disclosure of the risks and adverse conditions in the industries you serve.

Risks of Doing Business Abroad, page 9

9. Please revise in future filings to specifically identify the risks to your company in its operations abroad. For example, we note your disclosure on page 27 regarding your operations in Indonesia, Brazil, Thailand, China and South Africa.

Availability and Cost of Raw Materials, page 10

10. Please revise this risk factor in future filings to specifically describe the risks associated with the raw materials you use in your company's operations. For example, we note your disclosure in the third paragraph under "Raw Materials" on page six and in the last paragraph on page 32. Please quantify in future filings, to the extent material, the impact of the rising raw material costs on your financial results.

Properties, page 11

11. We note your statement in regards to the duration of your reserves at your current usage levels for limestone, dolomite, and talc on page 5 and the list of your facilities on this page. In future filings, please disclose your proven and/or probable reserves associated with your mining/quarry operations and include your annual mine production for each facility.

Item 3. Legal Proceedings, page 12

12. We note that you have not disclosed the name of the courts in which the proceedings are pending, the dates instituted, and the principal parties involved in the proceedings. With a view towards future disclosure, please provide us with this information. Refer to Item 103 of Regulation S-K.

Definitive Proxy Statement on Schedule 14A filed March 31, 2010

Director Stock Ownership Requirements, page 9

13. Please disclose in future filings whether your directors meet the ownership requirements.

The Board's Role in Risk Oversight, page 9

14. We note your disclosure in response to Item 402(s) of Regulation S-K. Please describe the process you undertook to reach the conclusion that your company's compensation policies and procedures are not reasonably likely to have a material adverse effect on your company.

Company Level Financial Targets, page 24

15. In the last paragraph, you state that the company's performance factor was 80.6% and on page 26 you refer to the 2009 company financial performance as 80.6% of target. However, your disclosure in this section only indicates a target performance range (from the threshold to the maximum). Please disclose in future filings the company performance targets on which you base your target payouts as listed in the table on page 26.

Business Unit Level Financial Targets, page 24

16. We note the disclosure in the last sentence of this section that you do not publicly report the financial targets at the Business Unit or sub-Business Unit levels. Please advise us as to the basis for not disclosing the financial targets at the Business Unit level, given that it appears one or more of these Business Units represent reportable segments.

Personal Performance Financial Metrics, page 25

17. We note the disclosure in the second and third paragraph regarding the resulting payouts. With a view towards future disclosure, please tell us how these amounts were calculated.

Review of Individual Names Executive Officers Performance, page 25

18. The disclosure in this section does not explain how the individual performance metrics for the annual incentive awards translated into the actual award. With a view towards future disclosure, please provide us with a materially complete explanation of how the actual award amounts were calculated.

Long-term Incentives, page 27

19. We note the disclosure in the second paragraph. With a view toward future disclosure, please explain how the total long-term incentive value as a percentage of salary is determined. In this regard, we note that you merely disclose the range of percentages.

Officer Stock Ownership Guidelines, page 9

20. Please disclose in future filings whether your officers meet the ownership guidelines.

Performance Units Granted in 2009, page 27

21. With a view towards future disclosure, please provide further detail regarding how you calculate the value of each performance unit after applying the appropriate weighting to each of the three measures. It may be appropriate to provide a calculation example so that it is clear how the value of each performance units is determined.

2009 Value Realized as compared to 2009 Target Total Direct Remuneration . . . , page 29

22. Please note that your alternative compensation table should not overshadow or detract from the required Summary Compensation Table. Please present this table in future filings after your presentation of the Summary Compensation table to ensure that the Summary Compensation Table is given more prominence in your filing. Please also include a statement that the alternative table is not a substitute for the information required under the rules. Finally, please provide a materially complete explanation of the

differences between compensation amounts presented in the alternative table and the compensation amounts presented in the required tables. For additional guidance, refer to Staff Observations in the Review of Executive Compensation Disclosure, available at: <http://www.sec.gov/divisions/corpfin/guidance/execcompdisclosure.htm>.

Forms 10-Q for the quarters ended April 4, 2010, July 4, 2010, and October 3, 2010

Changes in Internal Control Over Financial Reporting

23. We note the disclosure that there was no change in your internal control over financial reporting “other than the ongoing implementation of the ERP system discussed above”. In future filings, please revise to state clearly, if correct, that there were changes in your internal control over financial reporting that occurred during the quarter that have materially affected, or are reasonably likely to materially affect, your internal control over financial reporting.

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.

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 Chambre Malone at (202) 551-3262 or, in her absence, Andrew Schoeffler at (202) 551-3748 if you have questions regarding the comments.

Sincerely,

Pamela Long  
Assistant Director