



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3030

March 30, 2009

VIA U.S. MAIL AND FAX (416) 213-4699

Mr. Douglas S. Prince
Executive Vice President, Finance and Chief Financial Officer
MDS Inc.
Suite 300, West Tower
2700 Matheson Blvd., East
Mississauga, Ontario, Canada L4W 4V9

Re: MDS Inc.
Form 40-F for the year ended October 31, 2008
Filed January 9, 2009
File No. 001-15016

Dear Mr. Prince:

We have reviewed your filings and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. Where indicated, we think you should revise your documents 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 call us at the telephone numbers listed at the end of this letter.

Form 40-F for the year ended October 31, 2008

1. Corporate Structure

1.2 Current Organization

1. We see that you own 99.6% non-controlling interest in LPBP Inc. Please tell us how you determined your interest is non-controlling if you own 99.6% of the company. Please also clarify how you account for this interest.

Management's Discussion and Analysis

Liquidity and Capital Resources

2. We see disclosures herein that "With the write-off of the MAPLE Facilities and the write-down of MDS Pharma Services goodwill, the Company's cumulative net income is below the amount defined in the covenant. At this time, the Company cannot determine when it will overcome this restriction.". We also see disclosures herein that "We remain in compliance with all covenants for our Senior Unsecured Notes and our bank credit facility." Please reconcile the facts outlined in the referenced disclosures. Tell us how the classification of the majority of your debt as long-term is impacted by your cumulative net income being below the amount defined in the referenced debt covenant. Also address any other implications related to your compliance (or non-compliance) with debt covenants.

Guarantees

3. We noted your disclosure that the terms of your indemnification agreements will vary based upon the contract, may not be subject to limitation in certain cases and the nature of these indemnifications prevents you from making a reasonable estimate of the maximum potential amount that you could be required to pay. Please clarify for us in your response to this comment and in future filings whether any related amounts you may be required to pay are material and provide the disclosures outlined by FIN 45 as necessary.

Critical Accounting Policies and Estimates

4. Regarding your impairment analysis of goodwill, and in the interest of providing readers with a better insight into management's judgments into accounting for goodwill, please consider disclosing the following in future filings:
 - we note that you indicate that the fair value of your reporting units are estimated using both discounted cash flows and comparable company market valuations. In addition to disclosing each of the valuation methodologies used to value goodwill, please include sufficient information to enable a reader to understand how each of the

methods used differ, the assumed benefits of a valuation prepared under each method, and why management selected these methods as being the most meaningful for the company in preparing the goodwill impairment analyses.

- A qualitative and quantitative description of the material assumptions used and a sensitivity analysis of those assumptions based upon reasonably likely changes.
- If applicable, how the assumptions and methodologies used for valuing goodwill in the current year have changed since the prior year highlighting the impact of any changes.

Financial Statements

Note 3. Summary of Significant Accounting Policies

Basis of Presentation

5. We note that the financial statements are presented in U.S. dollars. In future filings, please revise the financial statement footnote narratives throughout the filing to quantify all amounts in terms of U.S. dollars. We will not object if you wish to also quantify these amounts in terms of Canadian dollars. However, the current presentation of only Canadian dollar disclosures in certain footnotes (for example, the second paragraph of Note 2) is confusing.

Revenue Recognition

6. We note your discussion as part of the financial highlights of MDS Analytical Technologies that “currently, MDS generates the majority of its income associated with these joint ventures from the net income of the joint ventures, and not from it’s sales to the joint ventures.” But we also note from other disclosures that your “reported revenues are related to products manufactured and services performed for the joint ventures....” Please clarify what you mean by the referenced disclosures and confirm to us that intercompany profits and losses are eliminated until realized as if the joint venture company were consolidated, consistent with the guidance of paragraph 19.a. of APB 18. Please also revise your revenue recognition policy in future filings to clearly tell investors how you recognize revenue with regards to the joint ventures.

Comprehensive Income

7. We see you indicate herein that comprehensive income is presented in (your) consolidated statements of shareholders’ equity. In future filings you should disclose a total amount for comprehensive income as required by paragraph 14 of SFAS 130. Alternatively, tell us where such a total is currently disclosed.

Note 11. Goodwill

8. We see that you performed Step 2 of the goodwill impairment test for the MDS Pharma Services reporting unit and you determined that the fair values of the reporting unit's assets (primarily intangibles) were in excess of the value currently recorded on MDS Pharma Services statement of financial position. Please tell us if you performed a related impairment analysis of your long-lived assets that are part of this segment based on the results of your Step 2 test. If so, tell us the results of the tests.
9. In this regard, we see that you perform your annual goodwill impairment test as of October 31 or earlier upon the occurrence of certain events or substantive changes in circumstances. Further, we also noted your disclosure that you consider the relationship between your market capitalization and your book value when reviewing for indicators of impairment. In light of the recent significant decreases in your stock price and the resulting decrease in your market capitalization, please tell us if you performed an interim impairment test at January 31, 2009 or at any time since October 31, 2008 and the results of any such tests.

Note 29. Asset Retirement Obligation

10. We see from your disclosures that you have identified an asset retirement obligation relating to future site remediation costs of a facility located in Kanata, Ontario but you are unable to estimate your future liability based on the fact that you cannot estimate a range of potential settlement dates. Please respond to the following:
 - Please tell us the nature of the remediation.
 - Please tell us about the timing of the remediation, for example, we note that you plan to use the facility for an indefinite period of time, tell us if the remediation will begin only when you stop using the facility or if it would be done while you are still using the facility.
 - Please tell us about the C\$15.4 million letter of credit in support of future site remediation costs, including who required this letter of credit, how the amount was determined and how you factored this into your estimate of your potential liability.
 - Based upon the guidance in SFAS 143 and FIN 47, it appears that uncertainty about the timing of any payments should be factored into the measurement of any such obligations. Please clarify for us why you believe the referenced uncertainties impede you from estimating your liability.

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. 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 amendments responses to our comments.

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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 Exchange Act of 1934 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.

In connection with responding to our comments, please provide, in writing, a 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.

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 our review of your filing or in response to our comments on your filing.

You may contact Julie Sherman, Staff Accountant, at (202) 551-3640 or me at (202) 551-3603 if you have any questions regarding these comments. In this regard, do not hesitate to contact Angela Crane, Accounting Branch Chief, at (202) 551-3554.

Sincerely,

Jay Webb
Reviewing Accountant