



UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-4631

Mail Stop 4631

February 23, 2010

Via U.S. mail and facsimile @ (713) 600-3850

John V. Sobchak
Vice President and Chief Financial Officer
KMG Chemicals, Inc.
9555 W. Sam Houston Parkway S., Suite 600
Houston, TX 77099

**RE: KMG Chemicals, Inc.
Form 10-K for the Fiscal Year Ended July 31, 2009
Filed October 15, 2009
Definitive Proxy Statement on Schedule 14A filed on October 30, 2009
File No. 000-29278**

Dear Mr. Sobchak:

We have reviewed the above referenced filings and have the following comments. Where indicated, we think you should revise your disclosures in future filings 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 supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not 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 on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Annual Report on Form 10-K for the Fiscal Year Ended July 31, 2009

Item 1. Business, page 1

1. Based on the risk factor "Our business may be adversely affected by cyclical and seasonal effects" on page 12, it appears that you consider the seasonal effects on your business to be material. In future filings, please expand your business disclosure with regard to these seasonal effects in accordance with Item

101(c)(1)(v) of Regulation S-K. We note only limited disclosure in the last paragraph on page 18, where you state that sales of your animal health products are seasonal.

Item 1A. Risk Factors, page 6

2. In future filings, please remove the sentence “additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our operations.”

Item 3. Legal Proceedings, page 14

3. With respect to the 1998 Matamoros lawsuit, in future filings, please ensure that your disclosure in this section complies with Item 103 of Regulation S-K, including disclosure about the name of the court of the agency in which a proceeding is pending and the actual date the proceeding was instituted.

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

Outlook for Fiscal Year 2010, page 24

4. At the end of the first paragraph you disclose that your “new cost structure for the business will yield a significant improvement in profitability.” In future filings, please elaborate on such efficiencies and cost structure improvements.

Item 9A. Controls and Procedures, page 53

Disclosure Controls and Procedures, page 53

5. We note your disclosure that controls and procedures “are designed to ensure that information required to be disclosed by a company in the reports that it files under the Exchange Act is recorded, processed, summarized and reported within the time periods specified by the Securities and Exchange Commission.” This description appears to be based on the definition of disclosure controls and procedures set forth in Rules 13a-15(e) and 15d-15(e) under the Exchange Act. As described, however, the evaluation does not fully conform to the definition in those rules. Specifically, the description does not indicate that your controls and procedures are designed to ensure that information required to be disclosed by the company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company’s management, including its principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. Please confirm this to us and revise accordingly in future filings. Alternatively,

you may simply state in future filings that your certifying officers concluded on the applicable dates that your disclosure controls and procedures were effective.

Item 15. Exhibits, Financial Statement Schedules, and Reports on Form 10-K, page 56

6. Pursuant to Item 601(b)(2) of Regulation S-K, in future filings, please file asset purchase agreements and similar documents as number (2) exhibits. As examples, we note Exhibits 10.26, 10.30, 10.31 and 10.36.
7. We note that you have not filed the schedules and exhibits to the Amended and Restated Credit Agreement dated December 31, 2007 (Exhibit 10.39). Please file a complete copy of this agreement with your next Exchange Act report.
8. We note that a number of the listed exhibits are marked with symbols, indicating the presence of related footnote disclosure; however, we are unable to locate it. Please advise or otherwise ensure that in future filings you include appropriate disclosure.

Signatures

9. In future filings, please have the annual report signed by the principal accounting officer. Please see General Instructions D.2.b. and c of Form 10-K.

Definitive Proxy Statement on Schedule 14A

Compensation Discussion and Analysis, page 10

Executive Compensation, page 10

Base Salary, page 12

10. The disclosure in this section regarding the rationale for the salary increases is too general. In particular, there is no discussion of how the general factors noted in the middle of the first paragraph translated into the different percentages of salary increases. To the extent that the increases reflected solely market adjustments, please so state. In future filings please revise your disclosure accordingly.

Annual Incentive Compensation, page 12

11. In future filings, in accordance with Instruction 5 of Item 402(b) of Regulation S-K, please explain how return on assets was calculated from your audited financial statements.

12. In future filings, please disclose the specific performance targets (including strategic goals) used to determine the annual incentive bonus amount. Please refer to Item 402(b)(2)(v) of Regulation S-K.
13. With respect to the personal objectives for each of the named executive officers, in accordance with Item 402(b)(2)(vii) of Regulation S-K, your disclosure should discuss in reasonable detail how the specific items of individual performance influence the compensation committee's decisions in arriving at specific compensation amounts. In future filings please describe the individual goals and performance objectives for each named executive officer. If a named executive officer's personal performance is measured against pre-established personal goals or individual objectives, please disclose the objectives and describe how performance or non-performance impacted the committee's decision to award the personal objective component of the annual incentive bonus. Please note that to the extent that the committee's decisions regarding a named executive officer's individual performance were based upon a subjective evaluation, please ensure to disclose each executive officer's personal objectives by also identifying the specific contributions made by each executive and contextualize those achievements for purposes of demonstrating how they resulted in specific compensation decisions. Although quantitative targets for subjective or qualitative assessments may not be required, you should provide insight of how qualitative inputs are translated into objective pay determinations.

Performance-Based Stock Awards, page 14

14. We note that the named executives were granted performance-based Series 1 and Series 2 awards of restricted shares of common stock; however, your CD&A provides little analysis as to how the ultimate level of these equity awards was determined. For each named executive officer, please provide in your future filings a substantive analysis and insight into why the compensation committee determined that the levels of equity compensation were appropriate in light of the factors considered in deriving those payouts.

Executive Severance Plan, page 16

15. In future filings please identify here the named executive officers who are eligible for the ESP benefits (i.e., Mr. Kremling, as set forth on your page 23 disclosure). Also, please briefly explain what constitutes a qualifying termination under the ESP.

Summary Compensation Table, page 19

16. Please tell us why you have not reported executive compensation for fiscal years 2008 and 2007 in accordance with Item 402(c)(1) of Regulation S-K. Otherwise, in future filings please disclose executive compensation for each of the last three completed fiscal years.
17. In the “Bonus” column you have reported \$500 received by each executive officer. We are unable to locate CD&A disclosure or any other narrative disclosure related to such bonus. Please advise with a view toward future disclosure. Please see Item 402(e)(1) of Regulation S-K.
18. Based on your footnote (2) disclosure to the Grants of Plan-Based Awards in Fiscal Year 2009 table found on page 20 that you did not grant any stock options in 2009, please explain how you are reporting the numbers in the “Stock Awards” and “Option Awards” columns.

Grants of Plan-Based Awards in Fiscal Year 2009, page 20

19. Based on your summary compensation table disclosure of your “Non-Equity Incentive Plan Compensation” on page 19, it appears that you have omitted here disclosure about estimated future pay-outs under non-equity incentive plan awards, in accordance with Item 402(d)(2)(iii) of Regulation S-K. Please advise, or otherwise include appropriate disclosure in your future filings.

* * * *

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 letter that keys your responses to our comments and provide any requested supplemental information. Detailed response letters greatly facilitate our review. Please file your response letter on EDGAR. Please understand that we may have additional comments after reviewing responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings reviewed by the staff to be certain that they have provided all information investors 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 connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

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- the company is responsible for the adequacy and accuracy of the disclosure in their filings;
- 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 Era Anagnosti, Staff Attorney, at (202) 551-3369 or, in her absence Craig Slivka, Special Counsel, at (202) 551-3729 if you have questions regarding our comments.

Sincerely,

Pamela A. Long
Assistant Director