



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

Mail Stop 7010

August 1, 2006

via U.S. mail and facsimile

Jeffrey M. Lipton
Chief Executive Officer
Nova Chemicals Corporation
1550 Coraopolis Heights Road
Moon Township, Pennsylvania 15108

**RE: Nova Chemicals Corporation
Form 40-F for the Fiscal Year Ended December 31, 2005
File No. 1-13064**

Dear Mr. Lipton:

We have reviewed your response letter dated July 19, 2006 and have the following additional comment.

Form 40-F for the Fiscal Year Ended December 31, 2005

Note 21 – Segmented Information, page 31

1. We have reviewed your response to prior comment 2 in our letter dated June 20, 2006. We note your conclusion that you have two operating and reportable segments – Olefins / Polyolefins and Styrenics – through the first quarter of 2006. We understand that you base this conclusion primarily on the following:
 - Both the Olefins / Polyolefins and Styrenics divisions each have a segment manager that reports to the chief executive officer, whom you have identified as your chief operating decision maker (CODM).
 - The CODM approves performance metrics for each of the divisions and regularly reviews performance against these targets, but does not approve or regularly review performance metrics for units below the division level.
 - Even if you aggregated operating segments, you believe that the chemistry involved in the production and the economics of the products in each division are similar.

With respect to your first point, you state that the segment managers (i.e. division presidents) are directly accountable to and maintains regular contact with your CEO to discuss operating activities, financial results, forecasts and plans for the division. You also state that none of the areas or group of areas within the division represents additional operating segments because none of these areas has a segment manager who is directly accountable and maintains regular contact with the CEO. However, we refer you to paragraph 14 of SFAS 131, which states “a single manager may be the segment manager for more than one operating segment.” Accordingly, your division presidents could be viewed as segment managers over more than one operating segment.

With respect to your second point, we note that your CODM receives discrete financial information presented in more detail than the two operating segments that you have identified. We note from your response that you do not consider this additional detail to indicate that you have more operating segments, in part because your CEO does not regularly review this breakdown in order to make business decisions. Please tell us why your CODM receives this detailed information. For example, we note in your response that the CODM does review Olefins / Polyolefins and Styrenics information at the level of the performance products. However, it is unclear to us the purposes for which your CODM uses the remainder of the information in the monthly reports. Please also explain in detail how your CODM allocates resources and assesses performance, the information he considers, and the nature of the discussions he has with the division presidents.

With respect to your third point, please clarify your conclusion that areas within each of the Olefins / Polyolefins and Styrenics divisions are economically similar. For example, we note that gross margin percentages for Global SM vary significantly from those of EPS-Europe from 2003 to 2005. Similarly, we note significant differences in the EBIT percentages for SPS-Europe and SPS-NA from 2003 to 2005. In the Olefins / Polyolefins division, we note a similar disparity amongst each area's gross margin and EBIT percentages. In addition, we note differences in the trends in the financial indicators for each of the areas. For example, AST and LLDPE's gross margin percentages and EBIT percentages are improving, whereas the remaining areas are experiencing declines. To help us understand your response, please revise the historical analysis you have provided to us such that it is consistent with and ties to your internal reports. For example, we note that your historical analysis separately breaks out Styrenics performance products, whereas your internal reports do not. Please also provide us with any additional information that would explain any differences in the trends and these financial indicators depict (e.g. if gross profit margin is decreasing for one operation and increasing for another) and the performance of these individual areas.

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As appropriate, 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 provides 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.

You may contact Tracey McKoy, Staff Accountant, at (202) 551-3772 or, in her absence, me at (202) 551-3255 if you have questions regarding comments on the financial statements and related matters.

Sincerely,

Nili Shah
Accounting Branch Chief