



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

DIVISION OF
CORPORATION FINANCE

March 30, 2012

Via Facsimile

Mr. William H. Weideman
Chief Financial Officer
The Dow Chemical Company
2030 Dow Center
Midland, MI 48674

**Re: The Dow Chemical Company
Form 10-K for the Fiscal Year Ended December 31, 2011
Filed February 15, 2012
File No. 1-03433**

Dear Mr. Weideman:

We have reviewed your filing 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 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, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Form 10-K for the Fiscal Year Ended December 31, 2011

General

1. You stated in your letter to us dated April 7, 2009 that you, through your foreign subsidiaries and affiliates, sold products into Iran, Sudan, and Syria. You also advised us in that letter that you did not anticipate any significant changes in your business with those countries in the near future. In addition, it appears from your website that nationals of Iran can request your product safety data sheets. As you know, Iran, Sudan, and Syria are designated as state sponsors of terrorism by the State Department and subject to U.S. economic sanctions and export controls. Please describe to us any past, current, and anticipated contacts with Iran, Sudan, and Syria, whether through direct or indirect arrangements, since your April 2009 letter. Your response should describe any products, materials, components, equipment, technology, or services you have provided into each of the referenced countries, directly or indirectly, and any agreements, commercial

arrangements, or other contacts with the governments of those countries or entities controlled by them.

2. Please discuss for us the materiality of the contacts with Iran, Sudan, and Syria you describe in response to the foregoing comment, and whether those contacts constitute a material investment risk for your security holders. You should address materiality in quantitative terms, including the approximate dollar amounts of any revenues, assets, and liabilities associated with each of the referenced countries since your April 2009 letter. Also, address materiality in terms of qualitative factors that a reasonable investor would deem important in making an investment decision, including the potential impact of corporate activities upon a company's reputation and share value. Various state and municipal governments, universities, and other investors have proposed or adopted divestment or similar initiatives regarding investment in companies that do business with U.S.-designated state sponsors of terrorism. Your materiality analysis should address the potential impact of the investor sentiment evidenced by such actions directed toward companies that have business contacts with Iran, Sudan, or Syria.

Item 1A. Risk Factors, page 17

3. We note your risk factor on page 17 relating to the risks associated with the availability and volatility of feedstocks and energy. In future filings, please revise this risk factor to provide specific examples of how changes in the pricing or availability of feedstocks and energy have impacted the operation of your business, including discussing any specific material impact on operating results. In particular, we note that the cost of feedstocks have a notable impact on your financial results, and that, according to your disclosure on page 29, your prices rose 14 percent in 2011 driven largely by a "significant increase in feedstock costs." Further, we note your recent efforts to capitalize on the increased availability and historically low prices of natural gas, including restarting an ethylene cracker in Louisiana and building a new ethylene cracker in Texas. Please ensure your risk factor discusses the material risks to the company that may result from your increasing reliance on natural gas and your focus on increasing your ethylene production capacity.

Item 7. Management's Discussion and Analysis, page 28

Results of Operations, page 31

4. In future filings, please expand your discussion in this section to discuss known material trends and uncertainties that will have, or are reasonably likely to have, a material impact on your revenues or income or result in your liquidity decreasing or increasing in any material way. As an example, we note that in your earnings call for your fourth quarter 2011 results, you discuss the impact of the sovereign debt issues in Western Europe, the destocking that has occurred across supply chains, and the increasing availability of low-cost natural gas. While you include a short discussion of the "Feedstocks and Energy

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Outlook for 2012” on page 50, this discussion does not identify how trends in feedstock prices – and in particular, in the price of natural gas – have impacted, and will impact, your results of operations. An overview discussion of such known material trends and uncertainties should be included in your Management’s Discussion and Analysis so that investors can ascertain the likelihood that past performance is indicative of future performance. Please provide us with draft disclosure showing us how you will present a discussion of such known material trends and uncertainties in future filings. See Item 303 of Regulation S-K and SEC Release No. 33-8350.

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 Erin Jaskot at (202) 551-3442 or Jay Ingram at (202) 551-3397 if you have questions regarding these comments.

Sincerely,

/s/ John Cash

John Cash
Accounting Branch Chief