



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

Mail Stop 7010

May 31, 2006

By U.S. Mail and Facsimile

Mr. William H. Weideman
Vice President and Controller
The Dow Chemical Company
2030 Dow Center
Midland, Michigan 48674

**Re: The Dow Chemical Company
Form 10-K for the Fiscal Year Ended December 31, 2005
Form 10-Q for the Fiscal Quarter Ended March 31, 2006
File No. 1-3433**

Dear Mr. Weideman:

We have reviewed your response letter dated May 11, 2006 and have the following additional comments. If you disagree, we will consider your explanation as to why our comments are inapplicable or a revision is unnecessary. After reviewing this information, we may or may not raise additional comments.

General

1. We note that your response letter dated May 11, 2006 did not provide the Tandy language that we requested in our comment letter dated April 14, 2006. In connection with your response 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 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.

Prior Comment 1

2. We note the additional disclosures you proposed regarding your asset retirement obligations. Please clarify your proposed disclosures as follows:

- revise the second sentence of your proposed policy to clarify that asset retirement obligation are recorded in the period in which they are incurred “and reasonably estimable”;
- revise the third paragraph of your proposed policy to quantify the number of sites where estimates of potential settlement dates cannot be reasonably made, including the number of sites where capping of underground storage wells and required demolition activities have not been recorded; and
- revise your proposed disclosure under Commitments and Contingent Liabilities to clarify if the asset retirement obligations for which the fair value cannot be reasonably estimated are material to your financial statements based on current costs and, if material, consider quantifying the current costs.

Prior Comment 2

3. We note the additional information you provided regarding the formation of MEGlobal. Please tell us if the below market ethylene supply agreement is with MEGlobal or PIC. Since it appears that you will supply all of the requirements of this below market agreement, it remains unclear to us why you recorded only 50% of the fair value of your obligation. Please advise. In addition, please confirm that your US GAAP equity income in MEGlobal includes the expenses they recognize for the fair value of the ethylene supply contract.

Form 8-K dated April 12, 2006

4. We note that you presented measures that you identify as EBIT, excluding certain items, by operating segment and on a consolidated basis. It appears to us that these are non-GAAP measures that may not comply with Item 10 of Regulation S-K and should not be included in future filings.

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Please respond to these comments within 10 business days, or tell us when you will provide us with a response. Please provide us with a response letter that keys your responses to our comments and provides any requested information. Detailed letters greatly facilitate our review. Please file your response on EDGAR as a correspondence file. Please understand that we may have additional comments after reviewing your responses to our comments.

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If you have any questions regarding these comments, you may contact Dale
Welcome, Staff Accountant, at (202) 551-3865, Anne McConnell, Senior Staff
Accountant, at (202) 551-3709 or, in their absence, to the undersigned at (202) 551-3768.

Sincerely,

John Cash
Accounting Branch Chief