

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

June 17, 2010

Mr. Matthew C. Wolsfeld Chief Financial Officer, Northern Technologies International Corporation 4201 Woodland Rd. Circle Pines, MN 55014

Re: Northern Technologies International Corporation

Form 10-K for the year ended August 31, 2009

File No. 1-11038

Dear Mr. Wolsfeld:

We have reviewed your response to our letter dated May 13, 2010 and have the following comments. Where indicated, we think you should revise your disclosures in response to these comments. If you disagree, we will consider your explanation as to why our comments are inapplicable or a revision is unnecessary. 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.

Form 10-K for the fiscal year ended August 31, 2009

MD&A — Liquidity and Capital Resources, page 37

1. We have read your proposed disclosures in response to prior comment three. Given the significant time periods that receivables appear to remain outstanding, please enhance your proposed disclosures in future annual and quarterly filings to also disclose the actual days outstanding by receivable type for each period. For certain receivables, it appears that your proposed disclosures focus on fluctuations in days outstanding rather than also addressing actual days outstanding. Please revise future annual and quarterly filings to also discuss the typical contractual terms of receivables, the reasons why receivables exceeded those terms, and when and how you assess receivables for collectability.

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<u>Consolidated Financial Statements</u> <u>Consolidated Statements of Operations, page 45</u>

2. We have considered your response to prior comment four and will not object to your proposed format or to providing that format in future filings. However, when you file your next Form 10-Q, please include, on an unaudited basis, your statements of operations for the years ended August 31, 2009 and 2008 based on the revised format. Also, please clarify in future filings the specific nature of the line item "corporate joint venture and holding companies expense" and better title it to reflect the nature of these expenses.

6. Investments in Corporate Joint Ventures, page 52

3. We have read your response to prior comment six. Based on the additional information you provided, it appears to us that your German joint venture and ASEAN are individually significant to consolidated assets and/or income. Based on the number and significance of your equity investees, we strongly encourage you to revise future annual and quarterly filings to separately provide disclosures under Rule 8-03 of Regulation S-X for each equity investee that is significant individually and to provide combined disclosures for all other equity investees. Regardless of your disclosures under Rule 8-03 of Regulation S-X, please revise MD&A in future annual and quarterly filings to separately disclose and discuss the impact of each significant equity investee as well as the impact of all equity investees. Notwithstanding our prior comment, we will not object if you disclose and discuss joint venture product sales in MD&A to explain fluctuations in "fees for services provided to corporate joint ventures" as long as you clearly indicate that joint venture product sales are not your product sales and you do not combine or discuss joint venture product sales with your product sales. Also, please confirm that you will provide additional disclosures regarding when and how you evaluate corporate joint ventures for impairment in future filings.

13. Geographic and Segment Information, page 57

4. Based on the information you provided in response to prior comment seven, it is not clear to us the significance of or distinction between Zerust-North America and Zerust Oil & Gas, including if these are separate product lines, separate customer types, or separate operating segments that have been aggregated. Please advise. Also, please revise future filings to provide enterprise-wide geographic disclosures for "fees for services provided to corporate joint ventures".

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 supplemental response letter that keys your responses to our comments and provides any requested supplemental information. Detailed letters greatly facilitate our review. Please file your supplemental 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, please direct them to Mindy Hooker, Staff Accountant, at (202) 551-3732, Anne McConnell, Senior Staff Accountant, at (202) 551-3709, or to the undersigned at (202) 551-3689.

Sincerely,

John Hartz Sr. Asst. Chief Accountant