

June 24, 2010

VIA EDGAR AND FACSIMILE

Securities and Exchange Commission Division of Corporation Finance 100 F Street, N.E. Washington, D.C. 20549 Fax: (703) 813-6968

Attn: Mr. John Hartz

Senior Assistant Chief Accountant

Re: Northern Technologies International Corporation

Form 10-K for the Year Ended August 31, 2009

File Number: 1-11038

Dear Mr. Hartz:

This letter is in response to your letter, dated June 17, 2010, to the undersigned as Chief Financial Officer of Northern Technologies International Corporation ("NTIC"), regarding NTIC's annual report on Form 10-K for the fiscal year ended August 31, 2009.

For your convenience, please note that your comments are repeated below in italicized type, and the numbered items below correspond to the number of the corresponding comment set forth in your letter. Our responses are provided below each comment.

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

MD&A — Liquidity and Capital Resources, page 37

1. Comment: 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.

Response: As requested, we will enhance our proposed disclosures in future annual and quarterly filings to disclose the actual days outstanding by receivable type for each time period. In addition, in future annual and quarterly filings, we will discuss the typical contractual terms of receivables, the reasons why receivables exceeded those terms, and when and how we assess receivables for collectability.

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

2. Comment: 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.

Response: As requested, in our next quarterly report on Form 10-Q, we will include, on an unaudited basis, our statements of operations for the years ended August 31, 2009 and 2008 based on the revised format previously proposed by us. In addition, in future filings, we will clarify the specific nature of the line item "corporate joint venture and holding company expense" and better title it to reflect the nature of these expenses.

Investments in Corporate Joint Ventures, page 52

Comment: 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.

Response: As requested, in future annual and quarterly filings, we will separately provide disclosures under Rule 8-03 of Regulation S-X for each equity investee that is significant individually and provide combined disclosures for all other equity investees. In addition, we will revise the MD&A section in our 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. In addition, if we disclose and discuss joint venture product sales in the MD&A section of our future annual and quarterly filings to explain fluctuations in "fees for services provided to corporate joint ventures," we will clearly indicate that joint venture product sales are not our product sales and we will not combine or discuss our joint venture product sales with our product sales. In addition, in future filings, we will provide additional disclosures regarding when and how we evaluate corporate joint ventures for impairment.

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Geographic and Segment Information, page 57

4. Comment: Based on the information you provided in response to prior comment seven, it is not clear to us the significant 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".

Response: We supplementally advise the Staff that Zerust-North America and Zerust Oil & Gas have been aggregated into one reporting segment. In addition, please note that the Company has not yet incurred revenues from its Zerust Oil & Gas business, but has budgeted for such revenues in fiscal year 2010. In the reports that NTIC's chief operating decision maker receives, the financial information for Zerust — North America includes Zerust Oil & Gas. However, Zerust Oil & Gas is a new market opportunity for NTIC, so management also reviews Zerust Oil & Gas financial information separately to assist in determining future product commitment. The products sold through Zerust Oil & Gas are the same or very close derivatives of NTIC's traditional Zerust North America products. Zerust Oil & Gas products and NTIC's traditional Zerust North America products are sold through the same internal and external sales people and are produced in similar manners by the same employees of NTIC.

As requested, in future filings, we will provide enterprise-wide geographic disclosures for "fees for services provided to corporate joint ventures".

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In connection with this response, Northern Technologies International Corporation acknowledges that:

- 1. Northern Technologies International Corporation 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
- 3. Northern Technologies International Corporation 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.

After you have had an opportunity to review the above response to your comment, please call me at (763) 225-6637 to discuss any further questions or comments you might have concerning the responses contained in this letter.

Very truly yours,

Matthew C. Wolsfeld, CPA

Chief Financial Officer and Corporate Secretary (principal financial officer and principal accounting officer)

cc: Mark J. Stone, Audit Committee Chair, NTIC
Amy E. Culbert, Oppenheimer Wolff & Donnelly LLP
Michael McKee, Baker Tilly Virchow Krause, LLP