



# Fiscal 2013 Annual Report

Northern Technologies International Corporation

- Notice of 2014 Annual Meeting
- Proxy Statement
- Annual Report on Form 10-K - August 31, 2013

Environmentally Beneficial Materials Science

**Zerust**<sup>®</sup>  
OIL & GAS

**ZERUST**  **EXCOR**<sup>®</sup>

NaturTec<sup>®</sup>



For information on how NTIC products benefit the environment visit, [www.ntic.com/technology](http://www.ntic.com/technology)

## Our Mission:

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Our business model of commercializing clean and green technologies depends heavily on the talents, perseverance and integrity of both our employees and our worldwide federation of joint venture partners. We believe that our responsibilities are first to our worldwide customers, then to our people, next to our communities and finally to our shareholders. Therefore we must:

- *Exercise honor, humanity and disciplined management in our actions.*
- *See a unified world through the global perspectives of our people.*
- *Ensure that the environment becomes a better place because of what we do.*
- *Invest continuously in our future.*

## Our Environment:

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It is our mission at NTIC to use our advanced technologies to care for the world we live in, give back to society and strive to set an example for environmental leadership and responsibility.

At NTIC, we believe that there are no responsible alternatives to doing business other than through environmental sustainability. We also believe that environmental responsibility and corporate business will increasingly work together to grow both sustainability and the bottom line.

We encourage our employees, joint venture partners, distributors, affiliates and suppliers to carry out our environmental commitments at the individual level through:

- *Daily environmentally responsible business practices.*
- *Advanced R&D processes that promote the use of environmentally responsible raw materials, components and other biobased inputs.*
- *Education and programs to raise awareness about our technologies and how they can help solve current environmental challenges.*
- *Each NTIC employee is expected to practice an individual commitment to sustainability and environmental responsibility in the workplace.*

Through our individual commitments to lessen our environmental footprint and our advanced technologies which allow others to practice sustainability, we have the power to benefit ourselves as individuals, our federation of NTIC joint ventures and our environment for many generations to come.

## Our Technology Platforms:

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Zerust®/EXCOR® business unit manufactures and markets corrosion inhibiting technologies that provide customers with advanced solutions for corrosion issues across their production facilities and supply chains. The technology uses proprietary, non-toxic, chemical systems to create invisible molecular corrosion shields on metal surfaces. The Zerust®/EXCOR® teams support clients globally in a broad range of industries including automotive, electrical, electronic, medical, machine fabrications, steel production, military and marine. Zerust®/EXCOR® products and services allow customers to achieve substantial cost savings as well as reduce negative environmental impact caused by traditional corrosion prevention methods.



Zerust® Oil and Gas business unit provides advanced corrosion control technologies and services to the petrochemical industry. Zerust® Oil and Gas products and services utilize Zerust® proprietary corrosion inhibitors in combination with advanced cathodic protection systems to dramatically enhance corrosion protection of capital assets. These assets include above-ground storage tanks, various pieces of process equipment, buried and submerged pipelines, mothballed large capital equipment, pipeline flanges, valves, and welded joints. Zerust® Oil & Gas technologies are successfully implemented in refineries, offshore oil rigs, tank farms and retail gas stations in several countries.



Natur-Tec® business unit engineers and manufactures biobased and biodegradable plastic resins intended to replace conventional, petroleum-based plastics. Natur-Tec® has a broad bioplastics portfolio which spans flexible film, foam, rigid injection molded materials and engineered plastics. These applications allow for the production of 100% certified compostable finished products, such as bags, food service products, and product packaging. Natur-Tec® products are renewable resource based and do not contain conventional plastic materials. Natur-Tec® products provide sustainable alternatives to conventional plastics and enable industry and consumers to move closer to a carbon neutral footprint.

## To the Shareholders of Northern Technologies International Corporation (NTIC),

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During fiscal 2013, despite a dip in our total net sales, we achieved several key objectives in all three of the market segments that NTIC serves. Our competitive position, operations and balance sheet also are all stronger today than they were a year ago.

NTIC's total net sales decreased 1% in fiscal 2013 compared to fiscal 2012 to \$22.5 million due primarily to a \$2.1 million dip in product sales in Brazil when one key customer postponed fulfillment of a contract. This unexpected delay was partially offset by strong demand for both our expanded range of Zerust® corrosion solutions as well as for our Natur-Tec® bio-plastic products in North America.

While we are exceptionally pleased with our healthy sales growth in North America, comparably strong sales of Zerust® corrosion solutions and our Natur-Tec® bio-plastic resins and products in other regions eluded us as the financial recovery in various European countries continued to adversely affect not only the economies but also the currency values of Europe, along with those of key supplier countries like China and India. This resulted in our joint ventures reporting only \$113.2 million in sales during fiscal 2013, representing a modest 1% increase over fiscal 2012 sales.

Overall, NTIC earned \$0.76 per diluted share during fiscal 2013, as opposed to \$0.78 per diluted share during fiscal 2012. Zerust® in the Oil & Gas industry. Our Oil & Gas team continues to expand its range of industry specific corrosion solutions. The most recent target of these efforts has been focused on protecting the bottom plates of oil storage tanks, which are highly susceptible to aggressive corrosion and leaks. Following a number of successful implementations of this new technology in the Middle East, our team has been systematically targeting oil terminal operators and refineries resulting in a series of additional implementations. Having seen the need for and acceptance of our innovative solutions, we expect this to be a growth opportunity for us in fiscal 2014 and beyond. We also are working with certain government agencies to finalize these Zerust® solutions as industry requirements/standards.

Our sales to customers other than Petrobras in the Oil & Gas sector of both industry specific corrosion solutions as well as industrial Zerust® products increased substantially in fiscal 2013. Nevertheless, as a result of Petrobras postponing the bulk purchase of certain products under its \$3.7 million (BRL \$7.5 million) contract with our Brazilian subsidiary, we experienced a large dip in sales to customers in the Oil & Gas sector for fiscal 2013 in comparison to fiscal 2012.

Regardless, with recent new successes in a growing number of countries, we are confident that our expansion into the Oil & Gas market will continue. However, as this is still a relatively new market for us, we expect any associated benefits to our financial results will not be immediate and may be choppy with spikes in sales when opportunities are converted and revenue is recognized over the next few years.

### **Natur-Tec® Bioplastics**

During fiscal 2013, sales of our Natur-Tec® products grew to \$2 million, representing a 13% increase over fiscal 2012. With this increase, Natur-Tec® represented 9% of NTIC's consolidated net sales for fiscal 2013. North American demand for finished bio-plastic products continued to flourish during fiscal 2013, driven primarily by organic waste diversion initiatives expanding across municipalities nationwide. Natur-Tec® finished bio-plastic products, such as compostable bags and cutlery, facilitate the efficient collection and segregation of the food and yard waste generated by large corporations, as well as institutions such as universities and school districts. We received our first commercial volume order for Natur-Tec® resin from Italy in the first quarter of fiscal 2013. However, broader expansion into the Italian market was put on hold after the United Kingdom, as an EU member state, raised objections to legislation banning the use of non-biodegradable plastic shopping bags in Italy. These objections have now been addressed, and the most recent reports from Italy indicate that the ban on non-biodegradable plastic shopping bags is expected to be fully implemented by early 2014. Thereafter, we expect our resin sales to customers in Italy to pick-up during fiscal 2014.

NTIC's Indian joint venture company, Harita-NTI, experienced increased sales of Natur-Tec® products to the subcontractors of an iconic U.S. brand that has been implementing Natur-Tec® compostable packaging across its supply chain. We expect this application segment to be an area of strong growth in fiscal 2014 and beyond, as we continue to target and convert additional brands and manufacturers to the use of Natur-Tec® sustainable packaging solutions.

## Financial Strength

Sales of NTIC's Zerust® products decreased 2% to \$20.5 million during fiscal 2013 compared to \$21.0 million during fiscal 2012, due primarily to the \$2.1 million decrease in sales of product in Brazil. This decrease was partially offset by increased demand in North America. As previously mentioned, sales of Natur-Tec® products increased 13% to \$2.0 million during fiscal 2013 compared to fiscal 2012. Additionally, income provided by our joint venture operations increased 24% during fiscal 2013 compared to fiscal 2012.

Our total operating expenses increased 6% to \$14.7 million for fiscal 2013 and should remain reasonably stable in fiscal 2014 as we continue to work to hold expenses given the current uncertainties in the global economy. Overall, net income attributable to NTIC decreased 2% to \$3.4 million, or \$0.76 cents per diluted common share for fiscal 2013 compared to fiscal 2012.

As of August 31, 2013, our working capital was \$13.3 million, including \$4.3 million in cash and cash equivalents, compared to working capital of \$10.1 million, including \$4.1 million in cash and cash equivalents, as of August 31, 2012. As of August 31, 2013, we continued to have no borrowings outstanding under our \$3 million revolving line of credit.

## Corporate Governance

In November 2013, we welcomed Ms. Barbara Colwell as a new director of NTIC. Ms. Colwell's previous corporate governance experience includes serving as a director for Publishers Clearing House LLC and Mutual Trust Financial Group. In addition to her other diverse business interests, Ms. Colwell also serves on the Advisory Board of WomenCorporateDirectors (WCD). We expect her to bring valuable insights to our Board and management as we intend to further expand our markets in North America.

Mr. Pierre Chenu has continuously served as a director of NTIC for the past 10 years and previously served as our non-executive Chairman of the Board. Mr. Chenu, however, will not be standing for re-election in January 2014. On behalf of the NTIC Board and management, I would like to thank Mr. Chenu for his exceptionally long and dedicated service to NTIC, and wish him all the best for the future.

## Closing

In closing, I want to thank all the members of NTIC's global family of employees, joint venture partners, friends and colleagues from across our worldwide joint venture network for their hard work and dedication in making fiscal 2013's achievements possible. We believe our strong international presence will continue to serve as a key competitive advantage to us in an increasingly interconnected marketplace. While we believe the economy in certain regions will remain challenging during fiscal 2014, we believe that with our technical strength and market reach, we are well positioned to pursue continued profitable growth.



G. Patrick Lynch  
President & CEO, NTIC



**NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION**

**NOTICE OF ANNUAL MEETING OF STOCKHOLDERS**

**January 23, 2014**

The Annual Meeting of Stockholders of Northern Technologies International Corporation, a Delaware corporation, will be held at NTIC's corporate executive offices located at 4201 Woodland Road, Circle Pines, Minnesota 55014, beginning at 4:00 p.m., Central Standard Time, on Thursday, January 23, 2014, for the following purposes:

1. To elect seven persons to serve as directors until our next annual meeting of stockholders or until their respective successors are elected and qualified.
2. To approve, on an advisory basis, the compensation of our named executive officers, as disclosed in the accompanying proxy statement.
3. To indicate, on an advisory basis, whether future votes to approve the compensation of our named executive officers should occur every one, two or three years.
4. To ratify the selection of Baker Tilly Virchow Krause, LLP as our independent registered public accounting firm for the fiscal year ending August 31, 2014.
5. To transact such other business as may properly come before the meeting or any adjournment of the meeting.

Only stockholders of record at the close of business on November 26, 2013 will be entitled to notice of, and to vote at, the meeting and any adjournments thereof. A stockholder list will be available at our corporate offices beginning January 13, 2014 during normal business hours for examination by any stockholder registered on NTIC's stock ledger as of the record date, November 26, 2013, for any purpose germane to the Annual Meeting.

We are pleased again this year to use the "Notice and Access" method of providing proxy materials to our stockholders via the Internet. We believe that this process expedites your receipt of our proxy materials, lowers the costs of our Annual Meeting and reduces the environmental impact of our meeting.

By Order of the Board of Directors,

A handwritten signature in black ink, appearing to read "Matthew C. Wolsfeld", written over a light-colored background.

Matthew C. Wolsfeld  
*Corporate Secretary*

December 10, 2013  
Circle Pines, Minnesota

**Important: Whether or not you expect to attend the meeting in person, please vote by the Internet or telephone, or request a paper proxy card to sign, date and return by mail so that your shares may be voted. A prompt response is helpful and your cooperation is appreciated.**

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## INTERNET AVAILABILITY OF PROXY MATERIALS

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Again this year, instead of mailing a printed copy of our proxy materials, including our Annual Report to Stockholders, to each stockholder of record, we have decided to provide access to these materials in a fast and efficient manner via the Internet. We believe that this process expedites your receipt of our proxy materials, lowers the costs of our Annual Meeting and reduces the environmental impact of our meeting. On December 10, 2013, we began mailing a Notice of Internet Availability of Proxy Materials to stockholders of record as of November 26, 2013, and we posted our proxy materials on the website referenced in the Notice of Internet Availability of Proxy Materials ([www.proxyvote.com](http://www.proxyvote.com)). As more fully described in the Notice of Internet Availability of Proxy Materials, stockholders may choose to access our proxy materials at [www.proxyvote.com](http://www.proxyvote.com) or may request proxy materials in printed or electronic form. In addition, the Notice of Internet Availability of Proxy Materials and website provide information regarding how you may request to receive proxy materials in printed form by mail or electronically by email on an ongoing basis. For those who previously requested printed proxy materials or electronic materials on an ongoing basis, you will receive those materials as you requested.

**Important Notice Regarding the Availability of Proxy Materials for the  
Annual Meeting of Stockholders to be Held on January 23, 2014:**

**The Notice of Annual Meeting of Stockholders and Proxy Statement and Annual Report to  
Stockholders, including our Annual Report on Form 10-K for the fiscal year ended August 31,  
2013, are available at [www.proxyvote.com](http://www.proxyvote.com).**



**4201 Woodland Road, Circle Pines, Minnesota 55014**

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**PROXY STATEMENT FOR  
ANNUAL MEETING OF STOCKHOLDERS  
January 23, 2014**

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The Board of Directors of Northern Technologies International Corporation is soliciting your proxy for use at the 2014 Annual Meeting of Stockholders to be held on Thursday, January 23, 2014. The Board of Directors expects to make available to our stockholders beginning on or about December 10, 2013 the Notice of Annual Meeting of Stockholders, this proxy statement and a form of proxy on the Internet or has sent these materials to stockholders of NTIC upon their request.

**GENERAL INFORMATION ABOUT THE ANNUAL MEETING AND VOTING**

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**Date, Time, Place and Purposes of Meeting**

The Annual Meeting of Stockholders of Northern Technologies International Corporation (sometimes referred to as “NTIC,” “we,” “our” or “us” in this proxy statement) will be held on Thursday, January 23, 2014, at 4:00 p.m., Central Standard Time, at the principal executive offices of Northern Technologies International Corporation located at 4201 Woodland Road, Circle Pines, Minnesota 55014, for the purposes set forth in the Notice of Annual Meeting of Stockholders.

**Who Can Vote**

Stockholders of record at the close of business on November 26, 2013 will be entitled to notice of and to vote at the meeting or any adjournment of the meeting. As of that date, there were 4,434,838 shares of our common stock outstanding. Each share of our common stock is entitled to one vote on each matter to be voted on at the Annual Meeting. Stockholders are not entitled to cumulate voting rights.

**How You Can Vote**

Your vote is important. Whether you hold shares directly as a stockholder of record or beneficially in “street name” (through a broker, bank or other nominee), you may vote your shares without attending the Annual Meeting. You may vote by granting a proxy or, for shares held in street name, by submitting voting instructions to your broker, bank or other nominee.



If you are a stockholder whose shares are registered in your name, you may vote your shares in person at the meeting or by one of the three following methods:

- **Vote by Internet**, by going to the website address <http://www.proxyvote.com> and following the instructions for Internet voting shown on the Notice of Internet Availability of Proxy Materials or on your proxy card.
- **Vote by Telephone**, by dialing 1-800-690-6903 and following the instructions for telephone voting shown on the Notice of Internet Availability of Proxy Materials or on your proxy card.
- **Vote by Proxy Card**, by completing, signing, dating and mailing the enclosed proxy card in the envelope provided if you received a paper copy of these proxy materials.

If you vote by Internet or telephone, please do not mail your proxy card.

If your shares are held in “street name” (through a broker, bank or other nominee), you may receive a separate voting instruction form with this proxy statement or you may need to contact your broker, bank or other nominee to determine whether you will be able to vote electronically using the Internet or telephone.

The deadline for voting by telephone or by using the Internet is 11:59 p.m., Eastern Standard Time (10:59 p.m., Central Standard Time), on the day before the date of the Annual Meeting or any adjournments thereof. Please see the Notice of Internet Availability of Proxy Materials, your proxy card or the information your bank, broker, or other holder of record provided to you for more information on your options for voting.

If you return your signed proxy card or use Internet or telephone voting before the Annual Meeting, the named proxies will vote your shares as you direct. You have three choices on each matter to be voted on.

For the election of directors, you may:

- Vote **FOR** all seven nominees for director,
- **WITHHOLD** your vote from all seven nominees for director or
- **WITHHOLD** your vote from one or more of the seven nominees for director.

For Proposal Two—Advisory Vote on Executive Compensation and Proposal Four—Ratification of Selection of Independent Registered Public Accounting Firm, you may:

- Vote **FOR** the proposal,
- Vote **AGAINST** the proposal or
- **ABSTAIN** from voting on the proposal.

For Proposal Three—Frequency of Advisory Vote on Executive Compensation, you may vote for a frequency of every year, every two years or every three years, or you may abstain from voting on the proposal.

If you send in your proxy card or use Internet or telephone voting, but do not specify how you want to vote your shares, the proxies will vote your shares **FOR** all seven of the nominees for election to the Board of Directors in Proposal One—Election of Directors, **FOR** Proposal Two—Advisory Vote on Executive Compensation, for a frequency of every **ONE YEAR** on Proposal Three—Frequency of Advisory Vote on Executive Compensation and **FOR** Proposal Four—Ratification of Selection of Independent Registered Public Accounting Firm.

### **How Does the Board Recommend that You Vote**

The Board of Directors unanimously recommends that you vote:

- **FOR** all seven of the nominees for election to the Board of Directors in Proposal One—Election of Directors;
- **FOR** Proposal Two—Advisory Vote on Executive Compensation;
- for a frequency of every **ONE YEAR** on Proposal Three—Frequency of Advisory Vote on Executive Compensation; and
- **FOR** Proposal Four—Ratification of Selection of Independent Registered Public Accounting Firm.

### **How You May Change Your Vote or Revoke Your Proxy**

If you are a stockholder whose shares are registered in your name, you may revoke your proxy at any time before it is voted by one of the following methods:

- Submitting another proper proxy with a more recent date than that of the proxy first given by following the Internet or telephone voting instructions or completing, signing, dating and returning a proxy card to us.
- Sending written notice of your revocation to our Corporate Secretary.
- Attending the Annual Meeting and voting by ballot.

### **Quorum Requirement**

The presence at the Annual Meeting, in person or by proxy, of the holders of a majority (2,217,420 shares) of the outstanding shares of our common stock as of the record date will constitute a quorum for the transaction of business at the Annual Meeting. In general, shares of our common stock represented by proxies marked “For,” “Against,” “Abstain” or “Withheld” are counted in determining whether a quorum is present. In addition, a “broker non-vote” is counted in determining whether a quorum is present. A “broker non-vote” is a proxy returned by a broker on behalf of its beneficial owner customer that is not voted on a particular matter because voting instructions have not been received by the broker from the customer, and the broker has no discretionary authority to vote on behalf of such customer on such matter.

## **Vote Required**

Proposal One—Election of Directors will be decided by the affirmative vote of a plurality of shares of our common stock present in person or represented by proxy and entitled to vote at the Annual Meeting. A “plurality” for Proposal One means the individuals who receive the greatest number of votes cast “For” are elected as directors.

Proposal Two—Advisory Vote on Executive Compensation will be decided by the affirmative vote of a majority of shares of our common stock present in person or represented by proxy and entitled to vote at the Annual Meeting. Although this is a non-binding, advisory vote, the Compensation Committee and Board of Directors expect to take into account the outcome of the vote when considering future executive compensation decisions.

Proposal Three—Frequency of Advisory Vote on Executive Compensation will be decided by the affirmative vote of a plurality of shares of our common stock present in person or represented by proxy and entitled to vote at the Annual Meeting. A “plurality” for Proposal Three means the choice of frequency that receives the greatest number of votes cast. Although this is a non-binding, advisory vote, the Compensation Committee and Board of Directors expect to take into account the outcome of the vote when considering the frequency of future executive compensation advisory votes.

Proposal Four—Ratification of Selection of Independent Registered Public Accounting Firm will be decided by the affirmative vote of a majority of shares of our common stock present in person or represented by proxy and entitled to vote at the Annual Meeting.

If your shares are held in “street name” and you do not indicate how you wish to vote, your broker is permitted to exercise its discretion to vote your shares only on certain “routine” matters. Proposal One—Election of Directors, Proposal Two—Advisory Vote on Executive Compensation and Proposal Three—Frequency of Advisory Vote on Executive Compensation are not “routine” matters. Accordingly, if you do not direct your broker how to vote, your broker may not exercise discretion and may not vote your shares. This is called a “broker non-vote” and although your shares will be considered to be represented by proxy at the meeting, they will not be considered to be shares “entitled to vote” at the meeting and will not be counted as having been voted on the applicable proposal. Proposal Four—Ratification of Selection of Independent Registered Public Accounting Firm is a “routine” matter and, as such, your broker is permitted to exercise its discretion to vote your shares for or against the proposal in the absence of your instruction. Proxies marked “Withheld” on Proposal One—Election of Directors or “Abstain” on Proposal Two—Advisory Vote on Executive Compensation or Proposal Four—Ratification of Section of Independent Registered Public Accounting Firm will be counted in determining the total number of shares “entitled to vote” on such proposal and will have the effect of a vote “Against” a director or a proposal. If you “Abstain” from voting on Proposal Three—Frequency of Advisory Vote on Executive Compensation, the abstention will not have an effect on the outcome of the vote.

## **Other Business**

Our management does not intend to present other items of business and knows of no items of business that are likely to be brought before the Annual Meeting, except those described in this proxy statement. However, if any other matters should properly come before the Annual Meeting, the persons named in the enclosed proxy will have discretionary authority to vote such proxy in accordance with their best judgment on the matters.

## **Procedures at the Annual Meeting**

The presiding officer at the Annual Meeting will determine how business at the meeting will be conducted. Only matters brought before the Annual Meeting in accordance with our Bylaws will be considered.

Only a natural person present at the Annual Meeting who is either one of our stockholders, or is acting on behalf of one of our stockholders, may make a motion or second a motion. A person acting on behalf of a stockholder must present a written statement executed by the stockholder or the duly authorized representative of the stockholder on whose behalf the person purports to act.

## **Householding of Annual Meeting Materials**

Some banks, brokers and other nominee record holders may be participating in the practice of “householding” proxy statements and annual reports. This means that only one copy of this proxy statement or NTIC’s Annual Report to Stockholders may have been sent to multiple stockholders in each household. NTIC will promptly deliver a separate copy of either document to any stockholder upon written or oral request to NTIC’s Stockholder Information Department, Northern Technologies International Corporation, 4201 Woodland Road, Circle Pines, Minnesota 55014, telephone: (763) 225-6637. Any stockholder who wants to receive separate copies of this proxy statement or NTIC’s Annual Report to Stockholders in the future, or any stockholder who is receiving multiple copies and would like to receive only one copy per household, should contact the stockholder’s bank, broker, or other nominee record holder, or the stockholder may contact NTIC at the above address and phone number.

## **Proxy Solicitation Costs**

The cost of soliciting proxies, including the preparation, assembly, electronic availability and mailing of proxies and soliciting material, as well as the cost of making available or forwarding this material to the beneficial owners of our common stock will be borne by NTIC. Our directors, officers and regular employees may, without compensation other than their regular compensation, solicit proxies by telephone, e-mail, facsimile or personal conversation. We may reimburse brokerage firms and others for expenses in making available or forwarding solicitation materials to the beneficial owners of our common stock.

## PROPOSAL ONE – ELECTION OF DIRECTORS

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### Number of Directors

Our Bylaws provide that the Board of Directors will consist of at least one member or such other number as may be determined by the Board of Directors from time to time or by the stockholders at an annual meeting. The Board of Directors has fixed the number of directors at seven effective as of the date of the Annual Meeting.

### Nominees for Director

The Board of Directors has nominated the following seven individuals to serve as our directors until the next annual meeting of stockholders or until their successors are elected and qualified. All of the nominees named below are current members of the Board of Directors.

- Barbara D. Colwell
- Soo-Keong Koh
- Sunggyu Lee, Ph.D.
- G. Patrick Lynch
- Ramani Narayan, Ph.D.
- Richard J. Nigon
- Konstantin von Falkenhausen

Pierre Chenu, a current director, is not standing for re-election at the Annual Meeting. Mr. Chenu will continue to serve as a director of our company until the Annual Meeting. The Board of Directors thanks Mr. Chenu for his many years of service to the Board, including several years as non-executive Chairman of the Board.

Proxies can only be voted for the number of persons named as nominees in this proxy statement, which is seven.

### Information about Current Directors and Board Nominees

The following table sets forth as of November 27, 2013 the name, age and principal occupation of each current director and each individual who has been nominated by the Board of Directors to serve as a director of our company, as well as how long each individual has served as a director of NTIC.

<u>Name</u>	<u>Age</u>	<u>Principal Occupation</u>	<u>Director Since</u>
Pierre Chenu <sup>(1)</sup>	75	Retired	2003
Barbara D. Colwell <sup>(1)(2)</sup>	68	Director of NTIC and Certain Other Companies and Organizations	2013
Soo-Keong Koh <sup>(2)</sup>	62	Managing Director of EcoSave Pte Ltd.	2008
Sunggyu Lee, Ph.D. <sup>(3)</sup>	61	Russ Ohio Research Scholar in Syngas Utilization and Professor of Chemical and Biomolecular Engineering at Ohio University	2004
G. Patrick Lynch	46	President and Chief Executive Officer of NTIC	2004
Ramani Narayan, Ph.D.	64	Distinguished Professor in the Department of Chemical Engineering & Materials Science at Michigan State University	2004
Richard J. Nigon <sup>(1)(2)(3)</sup>	65	Senior Vice President of Cedar Point Capital, Inc.	2010
Konstantin von Falkenhausen <sup>(1)(3)</sup>	46	Partner of B Capital Partners AG	2012

- (1) Member of the Audit Committee
- (2) Member of the Nominating and Corporate Governance Committee
- (3) Member of the Compensation Committee

### **Additional Information about Current Directors and Board Nominees**

The following paragraphs provide information about each current director and nominee for director, including all positions he or she holds, his or her principal occupation and business experience for the past five years, and the names of other publicly-held companies of which the director or nominee currently serves as a director or has served as a director during the past five years. We believe that all of our directors and nominees display personal and professional integrity; satisfactory levels of education and/or business experience; broad-based business acumen; an appropriate level of understanding of our business and its industry and other industries relevant to our business; the ability and willingness to devote adequate time to the work of the Board of Directors and its committees; a fit of skills and personality with those of our other directors that helps build a board that is effective, collegial and responsive to the needs of our company; strategic thinking and a willingness to share ideas; a diversity of experiences, expertise and background; and the ability to represent the interests of all of our stockholders. The information presented below regarding each director and nominee also sets forth specific experience, qualifications, attributes and skills that led the Board of Directors to the conclusion that such individual should serve as a director in light of our business and structure.

*Pierre Chenu* has been a director of NTIC since 2003 and served as Non-Executive Chairman of the Board of NTIC from July 2005 to November 2012. Mr. Chenu is not standing for re-election as a director at the Annual Meeting. Mr. Chenu is currently retired. Prior to his retirement, Mr. Chenu served as Vice President, Worldwide Operations, Flat Glass Activities within the Asahi-Glaverbel Glass Group, a position he had served for five years. Prior to that, Mr. Chenu was a member of the Executive Committee of Glaverbel S.A., with various operating responsibilities in France, Spain, Italy, Russia, Germany, China and the United States. Before joining Glaverbel, Mr. Chenu worked for U.S. Steel in steel production in Pittsburgh, Pennsylvania and for Corning Inc. where he held various staff, line and executive positions in the United States, France and the United Kingdom. Mr. Chenu holds a Master's Degree in Engineering, with a specialty in metallurgy, from the University of Liege (Belgium) and a M.B.A. from Harvard University. Mr. Chenu is a citizen of Belgium. We believe Mr. Chenu's qualifications to sit on the Board of Directors include his significant executive and operational experiences both in the United States and internationally prior to his retirement, including his positions with Asahi-Glaverbel Glass Group, U.S. Steel and Corning Inc. The Board of Directors believes such operational experience is important to NTIC's management in operating NTIC's business and its various international joint ventures.

*Barbara D. Colwell* has been a director of NTIC since November 2013. Ms. Colwell is a member of the board of directors or advisory board of several non-profit organizations and private and mutual companies, including most notably, the Publishers Clearing House, LLC, Mutual Trust Financial Group, WomenCorporateDirectors, IPTAR (Institute for Psychoanalytic Training and Research) and the Belizean Grove. We believe Ms. Colwell's qualifications to sit on the Board of Directors include her current and prior experience on the boards of directors of other organizations and companies and, in particular, her experience serving on the audit committee, governance committee and compensation committee of Publishers Clearing House, LLC as well as her experience serving on the audit committee and compensation committee of Mutual Trust Financial Group.

*Soo-Keong Koh* has been a director of NTIC since May 2008. Mr. Koh is the Managing Director of Ecosave Pte Ltd., a company whose business is focused on environmental biotech and energy conservation technologies, a position he has held since April 2007. From January 1986 to April 2007, Mr. Koh served as Chief Executive Officer and President of Toll Asia Pte Ltd formerly SembCorp

Logistics Ltd (SembLog), a Singapore public listed company, which was acquired by Toll in May 2006. Mr. Koh has over 20 years of experience in the logistics industry. Mr. Koh holds a Bachelor of Engineering, a Master of Business Administration and a Postgraduate Diploma in Business Law from the University of Singapore (now known as the National University of Singapore). We believe Mr. Koh's qualifications to sit on the Board of Directors include his experience on other public company boards of directors and his significant executive experience with companies including those focused on environmental awareness, which has become a focus of NTIC during the past several years, especially in light of NTIC's Natur-Tec® bioplastics business. Mr. Koh's previous board of directors experience is helpful in guiding NTIC with respect to corporate governance matters, particularly in his role as Chair of the Nominating and Corporate Governance Committee. Additionally, Mr. Koh has specific executive experience with companies located in Asia, which is where several of NTIC's more significant joint ventures are located.

*Sunggyu Lee, Ph.D.* was elected a director of NTIC in January 2004. Dr. Lee is Russ Ohio Research Scholar in Syngas Utilization and Professor of Chemical and Biomolecular Engineering, Ohio University, Athens, Ohio. Previously, he held positions of Professor of Chemical and Biologic Engineering, Missouri University of Science and Technology, Rolla, Missouri from 2005 to 2010, C.W. LaPierre Professor and Chairman of Chemical Engineering at University of Missouri-Columbia from 1997 to 2005, and Robert Iredell Professor and Head of Chemical Engineering Department at the University of Akron, Akron, Ohio from 1988 to 1996. He has authored seven books and over 480 archival publications and received 29 U.S. patents in a variety of chemical and polymer processes and products. He is currently serving as Editor of Encyclopedia of Chemical Processing, Taylor & Francis, New York, NY and also as Book Series Editor of Green Chemistry and Chemical Engineering, CRC Press, Boca Raton, FL. Throughout his career, he has served as consultant and technical advisor to a number of national and international companies in the fields of polymers, petrochemicals and energy. He received his Ph.D. from Case Western Reserve University, Cleveland, Ohio in 1980. We believe Dr. Lee's qualifications to sit on the Board of Directors include his significant technical and industrial expertise with chemical and polymer processes and products. Such expertise is particularly with respect to assessing and operating NTIC's Natur-Tec® bioplastics business.

*G. Patrick Lynch*, an employee of NTIC since 1995, has been President since July 2005 and Chief Executive Officer since January 2006 and was appointed a director of NTIC in February 2004. Mr. Lynch served as President of North American Operations of NTIC from May 2004 to July 2005. Prior to May 2004, Mr. Lynch held various positions with NTIC, including Vice President of Strategic Planning, Corporate Secretary and Project Manager. Mr. Lynch is also an officer and director of Inter Alia Holding Company, which is a significant stockholder of NTIC. Prior to joining NTIC, Mr. Lynch held positions in sales management for Fuji Electric Co., Ltd. in Tokyo, Japan, and programming project management for BMW AG in Munich, Germany. Mr. Lynch received an M.B.A. degree from the University of Michigan Ross School of Business. We believe Mr. Lynch's qualifications to sit on the Board of Directors include his depth of knowledge of our company and its day-to-day operations in light of his position as chief executive officer of NTIC, as well as his affiliation with a significant stockholder of NTIC, which the Board of Directors believes generally helps align management's interests with those of our stockholders.

*Ramani Narayan, Ph.D.* has been a director of NTIC since November 2004. He is a Distinguished Professor at Michigan State University in the Department of Chemical Engineering & Materials Science, where he has 105 refereed publications in leading journals to his credit, 18 patents, edited three books and one expert dossier in the area of bio-based polymeric materials. His research encompasses design & engineering of sustainable, biobased products, biodegradable plastics and polymers, biofiber reinforced composites, reactive extrusion polymerization and processing, studies in plastic end-of-life options like biodegradation and composting. He conducts carbon footprint calculations for plastics and products. He

also performs LCA (Life Cycle Assessment) for reporting a product's environmental footprint. He serves as Scientific Chair and board member of the Biodegradable Products Institute (BPI), North America. He serves on the Technical Advisory Board of Tate & Lyle. He served on the Board of Directors of ASTM International, an international standards setting organization and currently chairs the committee on Environmentally Degradable Plastics and Biobased Products (D20.96) and the Plastics Terminology Committee D20.92. He is also the technical expert for the USA on ISO (International Standards Organization) TC 61 on Plastics – specifically for Terminology, and Biodegradable Plastics. He has won numerous awards, including the Named MSU University Distinguished Professor in 2007; the Governors University Award for commercialization excellence; Michigan State University Distinguished Faculty Award, 2006, 2005 Withrow Distinguished Scholar award, Fulbright Distinguished Lectureship Chair in Science & Technology Management & Commercialization (University of Lisbon; Portugal); First recipient of the William N. Findley Award, The James Hammer Memorial Lifetime Achievement Award, and Research and Commercialization Award sponsored by ICI Americas, Inc. & the National Corn Growers Association. We believe Dr. Narayan's qualifications to sit on the Board of Directors include his significant technical expertise in the bioplastics area which has been helpful to NTIC's management in assessing and operating NTIC's Natur-Tec® bioplastics business.

*Richard J. Nigon* has been a director of NTIC since February 2010 and non-executive Chairman of the Board since November 2012. Mr. Nigon is the Senior Vice President of Cedar Point Capital, Inc., a private company that raises capital for early stage companies. From February 2001 until May 2007, Mr. Nigon was a Director of Equity Corporate Finance for Miller Johnson Steichen Kinnard ("MJSK"), a privately held investment firm. In December 2006, MJSK was acquired by Stifel Nicolaus and Mr. Nigon was a Managing Director of Private Placements at Stifel Nicolaus. From February 2000 to February 2001, Mr. Nigon served as the Chief Financial Officer of Dantis, Inc., a web hosting company. Prior to joining Dantis, Mr. Nigon was employed by Ernst & Young, LLP from 1970 to 2000, where he served as a partner from 1981 to 2000. While at Ernst & Young, Mr. Nigon served as the Director of Ernst & Young's Twin Cities Entrepreneurial Services Group and was the coordinating partner on several publicly-traded companies in the consumer retailing and manufacturing sectors. Mr. Nigon also currently serves as President of NorthStar Education Finance, Inc., a non-profit organization formed to foster, aid, encourage and assist the pursuit of higher education. In addition to NTIC, Mr. Nigon also serves on the board of directors of Vascular Solutions, Inc. and a number of privately-held companies and previously served on the board of directors of Virtual Radiologics, Inc. Through his 30 years of service at Ernst & Young, LLP, Mr. Nigon brings to the Board of Directors, and in particular the Audit Committee, extensive public accounting and auditing experience. The Board of Directors believe Mr. Nigon's strong background in financial controls and reporting, financial management, financial analysis and Securities and Exchange Commission reporting requirements is critical to the Board's oversight responsibilities. In addition, Mr. Nigon's strategic planning expertise and other experiences gained through his management and leadership roles at private investment firms that have invested in early stage companies, is helpful to the Board of Directors in assessing and operating NTIC's newer businesses.

*Konstantin von Falkenhausen*, has been a director of NTIC since November 2012. Mr. von Falkenhausen is currently a Partner of B Capital Partners AG, an independent investment advisory boutique focused on infrastructure, public private partnerships and clean energy. From February 2004 to March 2008, Mr. von Falkenhausen served as a Partner of capiton AG, a private equity firm. From March 2003 to February 2004, he served as interim Chief Financial Officer of Neon Products GmbH, a privately held neon lighting company. From May 1999 to February 2003, Mr. von Falkenhausen served as an investment manager of West Private Equity Ltd. and an investment director of its German affiliate West Private Capital GmbH. Prior to May 1999, Mr. von Falkenhausen served in several positions with BankBoston Robertson Stephens International Ltd., an investment banking firm. Mr. von Falkenhausen is a citizen of Germany. He has a Masters degree in economics (lic. oec) from the University of Fribourg (Switzerland) and an MBA from the University of Chicago. We believe Mr. von Falkenhausen's qualifications to sit on



the Board of Directors include his experience with several private investment and equity firms that have invested in early stage companies, which the Board of Directors believes is helpful in assessing and operating NTIC's newer businesses, and his financial expertise, which the Board of Directors believes is helpful in analyzing NTIC's financial performance.

### **Board Recommendation**

The Board of Directors unanimously recommends a vote **FOR** the election of all of the seven nominees named above.

If prior to the Annual Meeting, the Board of Directors should learn that any nominee will be unable to serve for any reason, the proxies that otherwise would have been voted for this nominee will be voted for a substitute nominee as selected by the Board. Alternatively, the proxies, at the Board's discretion, may be voted for that fewer number of nominees as results from the inability of any nominee to serve. The Board of Directors has no reason to believe that any of the nominees will be unable to serve.

## PROPOSAL TWO – ADVISORY VOTE ON EXECUTIVE COMPENSATION

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### Introduction

The Board of Directors is providing stockholders with an advisory vote on executive compensation. This advisory vote, commonly known as a “say-on-pay” vote, is a non-binding vote on the compensation paid to our named executive officers as set forth in the “Executive Compensation” section of this proxy statement beginning on page 30.

Our executive compensation program is generally designed to attract, retain, motivate and reward highly qualified and talented executive officers, including our named executive officers. The underlying core principle of our executive compensation program is to link pay to performance and align the interests of our executives with those of our stockholders by providing compensation opportunities that are tied directly to the achievement of financial and other performance goals and long-term stock price performance. The “Executive Compensation” section of this proxy statement, which begins on page 30, describes our executive compensation program and the executive compensation decisions made by the Compensation Committee and Board of Directors in fiscal 2013 in more detail. Important considerations include:

- A significant portion of the compensation paid or awarded to our named executive officers in fiscal 2013 was “performance-based” or “at-risk” compensation that is tied directly to the achievement of financial and other performance goals or long-term stock price performance.
- Equity-based compensation granted to our named executive officers is subject to three-year vesting and aligns the long-term interests of our executives with the long-term interests of our stockholders.
- Our executive officers receive only modest perquisites and have modest severance and change in control arrangements.
- We do not provide any tax “gross-up” payments.

Accordingly, the Board of Directors recommends that our stockholders vote in favor of the say-on-pay vote as set forth in the following resolution:

**RESOLVED**, that our stockholders approve, on an advisory basis, the compensation paid to our named executive officers, as disclosed in this proxy statement.

Stockholders are not ultimately voting to approve or disapprove the recommendation of the Board of Directors. As this is an advisory vote, the outcome of the vote is not binding on us with respect to future executive compensation decisions, including those relating to our named executive officers, or otherwise. The Compensation Committee and Board of Directors expect to take into account the outcome of this advisory vote when considering future executive compensation decisions.

### Board Recommendation

The Board of Directors unanimously recommends a vote **FOR** approval, on an advisory basis, of the compensation paid to our named executive officers, as disclosed in this proxy statement.

## **PROPOSAL THREE – FREQUENCY OF ADVISORY VOTE ON EXECUTIVE COMPENSATION**

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### **Introduction**

The Board of Directors is asking our stockholders to indicate the frequency with which they believe an advisory vote on executive compensation, or “say-on-pay” vote, such as that provided for in Proposal Two should occur. Stockholders may indicate whether they prefer that we hold a “say-on-pay” vote every year, every two years or every three years, or they may abstain from this vote.

The Board of Directors, on recommendation of the Compensation Committee, has determined that a say-on-pay vote every year is the best approach for our company and our stockholders. The Board of Directors believes that a say-on-pay vote every year is consistent with the views of a significant number of our stockholders and provides stockholders with the most transparency and opportunity to provide direct feedback on our executive compensation philosophy, policies and practices.

Accordingly, the Board of Directors recommends that our stockholders vote to hold a say-on-pay vote every year. Stockholders are not ultimately voting to approve or disapprove the recommendation of the Board of Directors. As this is an advisory vote, it is not binding on us, and the Compensation Committee and Board of Directors may decide that it is in the best interests of NTIC and our stockholders to hold a say-on-pay vote more or less frequently than the preference receiving the highest number of votes of our stockholders. The Compensation Committee and Board of Directors expect to take into account the outcome of this advisory vote when considering the frequency of future say-on-pay votes.

### **Board Recommendation**

The Board of Directors unanimously recommends a frequency of an advisory vote on executive compensation, or say-on-pay vote, every **ONE YEAR**.

**PROPOSAL FOUR — RATIFICATION OF SELECTION OF  
INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

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**Selection of Independent Registered Public Accounting Firm**

The Audit Committee of the Board of Directors has selected Baker Tilly Virchow Krause, LLP to serve as our independent registered public accounting firm for the fiscal year ending August 31, 2014. Although it is not required to do so, the Board of Directors is asking our stockholders to ratify the Audit Committee’s selection of Baker Tilly Virchow Krause, LLP. If our stockholders do not ratify the selection of Baker Tilly Virchow Krause, LLP, another independent registered public accounting firm will be considered by the Audit Committee. Even if the selection is ratified by our stockholders, the Audit Committee in its discretion may change the appointment at any time during the year, if it determines that such a change would be in the best interests of NTIC and our stockholders. Representatives of Baker Tilly Virchow Krause, LLP will be present at the Annual Meeting to respond to appropriate questions. They also will have the opportunity to make a statement if they wish to do so.

**Audit, Audit-Related, Tax and Other Fees**

The following table presents the aggregate fees billed to us by Baker Tilly Virchow Krause, LLP for the fiscal years ended August 31, 2013 and August 31, 2012.

	<b>Aggregate Amount Billed by Baker Tilly Virchow Krause, LLP (\$)</b>	
	<b>Fiscal 2013</b>	<b>Fiscal 2012</b>
Audit Fees <sup>(1)</sup> .....	\$ 237,241	\$ 229,171
Audit-Related Fees.....	—	—
Tax Fees.....	—	—
All Other Fees.....	—	—

(1) These fees consisted of the audit of our annual financial statements by year, review of financial statements included in our quarterly reports on Form 10-Q and other services normally provided in connection with statutory and regulatory filings or engagements.

**Audit Committee Pre-Approval Policies and Procedures**

All services rendered by Baker Tilly Virchow Krause, LLP to NTIC were permissible under applicable laws and regulations and all services provided to NTIC, other than de minimis non-audit services allowed under applicable law, were approved in advance by the Audit Committee. The Audit Committee has not adopted any formal pre-approval policies and procedures.

**Board Recommendation**

The Board of Directors unanimously recommends that stockholders vote **FOR** ratification of the selection of Baker Tilly Virchow Krause, LLP, as our independent registered public accounting firm for the fiscal year ending August 31, 2014.

## STOCK OWNERSHIP

### Beneficial Ownership of Significant Stockholders and Management

The following table sets forth information known to us with respect to the beneficial ownership of our common stock as of November 26, 2013, the record date for the Annual Meeting, for:

- each person known by us to beneficially own more than five percent of the outstanding shares of our common stock;
- each of our directors;
- each of the executive officers named in the Summary Compensation Table included later in this proxy statement under the heading “Executive Compensation” and
- all of our current directors and executive officers as a group.

Shares are deemed to be “beneficially owned” by a person if such person, directly or indirectly, has sole or shared power to vote or to direct the voting of such shares or sole or shared power to dispose or direct the disposition of such shares. Except as otherwise indicated, we believe that each of the beneficial owners of our common stock listed below, based on information provided by these owners, has sole dispositive and voting power with respect to its shares, subject to community property laws where applicable. Shares not outstanding but deemed beneficially owned by virtue of the right of a person or member of a group to acquire them within 60 days are treated as outstanding only when determining the amount and percent owned by such person or group.

Name	Shares Subject to Options Immediately Exercisable or Exercisable Within 60 Days	Total Number of Shares of Common Stock Beneficially Owned	Percent of Total Voting Power
<b>Stockholders Owning 5% or More:</b>			
Inter Alia Holding Company <sup>(1)</sup> .....	0	601,668	13.6%
<b>Directors and Named Executive Officers:</b>			
Pierre Chenu.....	24,000	28,500	*
Barbara D. Colwell.....	0	500	*
Soo-Keong Koh.....	16,000	20,666	*
Sunggyu Lee, Ph.D.....	16,000	16,000	*
G. Patrick Lynch <sup>(2)</sup> .....	21,499	660,219	14.9%
Ramani Narayan, Ph.D.....	16,000	23,500	*
Richard J. Nigon.....	15,833	22,833	*
Konstantin von Falkenhausen.....	3,000	3,000	*
Matthew C. Wolsfeld.....	16,021	73,932	1.7%
Directors and executive officers as a group (nine persons) <sup>(3)</sup> .....	128,353	850,650	18.6%

\* Represents beneficial ownership of less than one percent of our common stock.

(1) According to a Schedule 13D/A filed with the Securities and Exchange Commission on December 2, 2011, Inter Alia Holding Company is an entity of which G. Patrick Lynch, our President and Chief Executive Officer, is a 25% stockholder. G. Patrick Lynch shares equal voting and dispositive power over such shares with three other members of his family. Inter Alia Holding Company’s address is 23205 Mercantile Road, Beachwood, Ohio 44122.

(2) Includes 601,668 shares held by Inter Alia Holding Company. See note (1) above. Mr. Lynch’s address is 4201 Woodland Road, Circle Pines, Minnesota 55014.

(3) The amount beneficially owned by all current directors and executive officers as a group includes 601,668 shares held of record by Inter Alia Holding Company. See notes (1) and (2) above.

### **Section 16(a) Beneficial Ownership Reporting Compliance**

Section 16(a) of the Securities Exchange Act of 1934, as amended, requires our directors, executive officers and all persons who beneficially own more than 10 percent of the outstanding shares of our common stock to file with the Securities and Exchange Commission initial reports of ownership and reports of changes in ownership of our common stock. Executive officers, directors and greater than 10 percent beneficial owners are also required to furnish NTIC with copies of all Section 16(a) forms they file. To our knowledge, based upon a review of the copies of such reports furnished to us and written representations that no other reports were required, during the fiscal year ended August 31, 2013, none of our directors or executive officers or beneficial owners of greater than 10 percent of our common stock failed to file on a timely basis the forms required by Section 16 of the Exchange Act.

## CORPORATE GOVERNANCE

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### Corporate Governance Guidelines

The Board of Directors has adopted Corporate Governance Guidelines. A copy of these Corporate Governance Guidelines can be found on the “Investor Relations—Board of Directors—Corporate Governance” section of our corporate website *www.ntic.com*. Among the topics addressed in our Corporate Governance Guidelines are:

- Board size, composition and qualifications;
- Selection of directors;
- Board leadership;
- Board committees;
- Board and committee meetings;
- Executive sessions of outside directors;
- Meeting attendance by directors and non-directors;
- Appropriate information and access;
- Ability to retain advisors;
- Conflicts of interest and director independence;
- Board interaction with corporate constituencies;
- Change of principal occupation and board memberships;
- Retirement and term limits;
- Retirement and resignation policy;
- Board compensation;
- Stock ownership by directors and executive officers;
- Loans to directors and executive officers;
- CEO evaluation;
- Board and committee evaluation;
- Director continuing education;
- Succession planning; and
- Communications with directors.

### Board Leadership Structure

Under our Corporate Governance Guidelines, the office of Chairman of the Board and Chief Executive Officer may or may not be held by one person. The Board of Directors believes it is best not to have a fixed policy on this issue and that it should be free to make this determination based on what it believes is best under the circumstances. However, the Board of Directors strongly endorses the concept of an independent director being in a position of leadership. Under our Corporate Governance Guidelines, if at any time the Chief Executive Officer and Chairman of the Board positions are held by the same person, the Board of Directors will elect an independent director as a lead independent director.

G. Patrick Lynch currently serves as our President and Chief Executive Officer and Richard J. Nigon serves as our non-executive Chairman of the Board. Because the Chief Executive Officer and Chairman of the Board positions currently are not held by the same person, we do not have a lead independent director. We currently believe this leadership structure is in the best interests of our company and our stockholders and strikes the appropriate balance between the Chief Executive Officer’s responsibility for the strategic direction, day-to-day leadership and performance of our company and the Chairman’s responsibility to provide oversight of our company’s corporate governance and guidance to our Chief Executive Officer and to set the agenda for and preside over Board of Directors meetings.

Immediately prior to all regular Board of Directors meetings, our independent directors meet in executive session with no company management or non-independent directors present during a portion of the meeting. After each such executive session, our Chairman of the Board provides our Chief Executive Officer with any actionable feedback from our independent directors.

### Director Independence

The Board of Directors has affirmatively determined that six of NTIC’s current eight directors are “independent directors” under the Listing Rules of the NASDAQ Stock Market: Pierre Chenu, Barbara D. Colwell, Soo-Keong Koh, Sunggyu Lee, Ph.D., Richard J. Nigon and Konstantin von Falkenhausen.

In making these affirmative determinations that such individuals are “independent directors,” the Board of Directors reviewed and discussed information provided by the directors and by NTIC with regard to each director’s business and personal activities as they may relate to NTIC and NTIC’s management.

### Board Meetings and Attendance

The Board of Directors met four times during the fiscal year ended August 31, 2013. Each of the directors attended at least 75 percent of the aggregate of the total number of meetings of the Board and the total number of meetings held by all Board committees on which the director served.

### Board Committees

The Board of Directors has a standing Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee, each of which has the composition and responsibilities described below. The Board of Directors from time to time may establish other committees to facilitate the management of our company and may change the composition and responsibilities of our existing committees. Each of the Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee operates under a written charter adopted by the Board of Directors, which can be found on the “Investor Relations—Corporate Governance” section of our corporate website [www.ntic.com](http://www.ntic.com).

The following table summarizes the current membership of each of our three Board committees.

Director	Audit	Compensation	Nominating and Corporate Governance
Pierre Chenu	√	—	—
Barbara D. Colwell	√	—	√
Soo-Keong Koh	—	—	Chair
Sunggyu Lee, Ph.D.	—	√	—
G. Patrick Lynch	—	—	—
Ramani Narayan, Ph.D.	—	—	—
Richard J. Nigon	Chair	Chair	√
Konstantin von Falkenhausen	√	√	—



## **Audit Committee**

*Responsibilities.* The Audit Committee provides assistance to the Board of Directors in fulfilling its responsibilities for oversight, for quality and integrity of the accounting, auditing, reporting practices, systems of internal accounting and financial controls, the annual independent audit of our financial statements, and the legal compliance and ethics programs of NTIC as established by management. The Audit Committee's primary responsibilities include:

- Overseeing our financial reporting process, internal control over financial reporting and disclosure controls and procedures on behalf of the Board of Directors;
- Having sole authority to appoint, retain and oversee the work of our independent registered public accounting firm and establish the compensation to be paid to the firm;
- Reviewing and pre-approving all audit services and permissible non-audit services to be provided to NTIC by our independent registered public accounting firm;
- Establishing procedures for the receipt, retention and treatment of complaints regarding accounting, internal accounting controls or auditing matters and for the confidential, anonymous submission by our employees of concerns regarding questionable accounting or auditing matters; and
- Overseeing the establishment and administration (including the grant of any waiver from) a written code of ethics applicable to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions.

The Audit Committee has the authority to engage the services of outside experts and advisors as it deems necessary or appropriate to carry out its duties and responsibilities.

*Composition.* The current members of the Audit Committee are Mr. Chenu, Ms. Colwell, Mr. Nigon and Mr. von Falkenhausen. Mr. Nigon is the chair of the Audit Committee.

Each current member of the Audit Committee qualifies as "independent" for purposes of membership on audit committees pursuant to the Listing Rules of the NASDAQ Stock Market and the rules and regulations of the Securities and Exchange Commission and is "financially literate" as required by the Listing Rules of the NASDAQ Stock Market. In addition, the Board of Directors has determined that Mr. Nigon qualifies as an "audit committee financial expert" as defined by the rules and regulations of the Securities and Exchange Commission and meets the qualifications of "financial sophistication" under the Listing Rules of the NASDAQ Stock Market as a result of his extensive financial background and various financial positions he has held throughout his career. Stockholders should understand that these designations related to our Audit Committee members' experience and understanding with respect to certain accounting and auditing matters do not impose upon any of them any duties, obligations or liabilities that are greater than those generally imposed on a member of the Audit Committee or of the Board of Directors.

*Meetings.* The Audit Committee met four times during fiscal 2013, one time outside the presence of management and one time face to face with Baker Tilly Virchow Krause, LLP, our independent registered public accounting firm.

*Audit Committee Report.* This report is furnished by the Audit Committee of the Board of Directors with respect to NTIC's financial statements for the fiscal year ended August 31, 2013.

One of the purposes of the Audit Committee is to oversee NTIC's accounting and financial reporting processes and the audit of NTIC's annual financial statements. NTIC's management is responsible for the preparation and presentation of complete and accurate financial statements. NTIC's independent registered public accounting firm, Baker Tilly Virchow Krause, LLP, is responsible for performing an independent audit of NTIC's financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States) and for issuing a report on their audit.

In performing its oversight role, the Audit Committee has reviewed and discussed NTIC's audited financial statements for the fiscal year ended August 31, 2013 with NTIC's management. Management represented to the Audit Committee that NTIC's financial statements were prepared in accordance with generally accepted accounting principles. The Audit Committee has discussed with Baker Tilly Virchow Krause, LLP, NTIC's independent registered public accounting firm, the matters required to be discussed by Statement on Auditing Standards No. 61, as amended (AICPA, Professional Standards, Vol. 1, AU section 380), as adopted by the Public Company Accounting Oversight Board in Rule 3200T. The Audit Committee has received the written disclosures and the letter from Baker Tilly Virchow Krause, LLP required by applicable requirements of the Public Company Accounting Oversight Board regarding the Baker Tilly Virchow Krause, LLP's communications with the Audit Committee concerning independence. The Audit Committee has discussed with Baker Tilly Virchow Krause, LLP its independence and concluded that the independent registered public accounting firm is independent from NTIC and NTIC's management.

Based on the review and discussions of the Audit Committee described above, in reliance on the unqualified opinion of Baker Tilly Virchow Krause, LLP regarding NTIC's audited financial statements, and subject to the limitations on the role and responsibilities of the Audit Committee discussed above and in the Audit Committee's charter, the Audit Committee recommended to the Board of Directors that NTIC's audited financial statements for the fiscal year ended August 31, 2013 be included in its Annual Report on Form 10-K for the fiscal year ended August 31, 2013 for filing with the Securities and Exchange Commission.

This report is dated as of November 18, 2013.

Audit Committee

Richard J. Nigon, Chair  
Pierre Chenu  
Konstantin von Falkenhausen

*Other Information.* Additional information regarding the Audit Committee and our independent registered public accounting firm is disclosed under the "Proposal Four—Ratification of Selection of Independent Registered Public Accounting Firm" section of this proxy statement.

## Compensation Committee

*Responsibilities.* The Compensation Committee provides assistance to the Board of Directors in fulfilling its oversight responsibility relating to compensation of our chief executive officer and other executive officers and administers our equity compensation plans. The Compensation Committee’s primary responsibilities include:

- recommending to the Board of Directors for its determination, the annual salaries, incentive compensation, long-term compensation and any and all other compensation applicable to our executive officers;
- establishing, and from time to time reviewing and revising, corporate goals and objectives with respect to compensation for our executive officers and establishing and leading a process for the full Board of Directors to evaluate the performance of our executive officers in light of those goals and objectives;
- administering our equity compensation plans and recommending to the Board of Directors for its determination grants of options or other equity-based awards for executive officers, employees and independent consultants under our equity compensation plans;
- reviewing our policies with respect to employee benefit plans; and
- establishing and from time to time reviewing and revising processes and procedures for the consideration and determination of executive compensation.

The Compensation Committee has the authority to engage the services of outside experts and advisors as it deems necessary or appropriate to carry out its duties and responsibilities, and prior to doing so, assesses the independence of such experts and advisors from management.

*Composition.* The current members of the Compensation Committee are Dr. Lee, Mr. Nigon and Mr. von Falkenhausen. Mr. Nigon is the Chair of the Compensation Committee. The Board of Directors has determined that each of the members of the Compensation Committee is considered an “independent director” under the Listing Rules of the NASDAQ Stock Market, a “non-employee director” within the meaning of Rule 16b-3 under the Securities Exchange Act of 1934, as amended, an “outside director” within the meaning of Section 162(m) under the Internal Revenue Code of 1986, as amended, and otherwise independent under the rules and regulations of the Securities and Exchange Commission.

*Processes and Procedures for Consideration and Determination of Executive Compensation.* As described in more detail above under the heading “—Responsibilities,” the Board of Directors has delegated to the Compensation Committee the responsibility, among other things, to recommend to the Board of Directors any and all compensation payable to our executive officers, including annual salaries, incentive compensation and long-term incentive compensation, and to administer our equity and incentive compensation plans applicable to our executive officers. Decisions regarding executive compensation made by the Compensation Committee are not considered final and are subject to final review and approval by the entire Board of Directors. Under the terms of its formal written charter, the Compensation Committee has the power and authority, to the extent permitted by our Bylaws and applicable law, to delegate all or a portion of its duties and responsibilities to a subcommittee of the Compensation Committee. The Compensation Committee has not generally delegated any of its duties and responsibilities to subcommittees, but rather has taken such actions as a committee, as a whole.

Our President and Chief Executive Officer assists the Compensation Committee in gathering compensation related data regarding our executive officers and making recommendations to the Compensation Committee regarding the form and amount of compensation to be paid to each executive officer. In making final recommendations to the Board of Directors regarding compensation to be paid to our executive officers, the Compensation Committee considers the recommendations of our President and Chief Executive Officer, but also considers other factors, such as its own views as to the form and amount of compensation to be paid, the achievement by the company of pre-established performance objectives the general performance of the company and the individual officers, the performance of the company's stock price and other factors that may be relevant.

Final deliberations and decisions by the Compensation Committee regarding its recommendations to the Board of Directors of the form and amount of compensation to be paid to our executive officers, including our President and Chief Executive Officer, are made by the Compensation Committee, without the presence of the President and Chief Executive Officer or any other executive officer of our company. In making final decisions regarding compensation to be paid to our executive officers, the Board of Directors considers the same factors and gives considerable weight to the recommendations of the Compensation Committee.

*Meetings.* The Compensation Committee met three times during fiscal 2013.

### **Nominating and Corporate Governance Committee**

*Responsibilities.* The primary responsibilities of the Nominating and Corporate Governance Committee include:

- identifying individuals qualified to become members of the Board of Directors;
- recommending director nominees for each annual meeting of our stockholders and director nominees to fill any vacancies that may occur between meetings of stockholders;
- being aware of best practices in corporate governance matters;
- developing and overseeing an annual Board of Directors and Board committee evaluation process; and
- establishing and leading a process for determination of the compensation applicable to the non-employee directors on the Board.

The Nominating and Corporate Governance Committee has the authority to engage the services of outside experts and advisors as it deems necessary or appropriate to carry out its duties and responsibilities.

*Composition.* The current members of the Nominating and Corporate Governance Committee are Mr. Koh, Ms. Colwell and Mr. Nigon. Mr. Koh is the chair of the Nominating and Corporate Governance Committee. The Board of Directors has determined that each of the members of the Nominating and Corporate Governance Committee is considered an "independent director" under the Listing Rules of the NASDAQ Stock Market.

*Processes and Procedures for Consideration and Determination of Director Compensation.* As mentioned above under the heading "—Responsibilities," the Board of Directors has delegated to the Nominating and Corporate Governance Committee the responsibility, among other things, to review and make recommendations to the Board of Directors concerning compensation for non-employee members

of the Board of Directors, including but not limited to retainers, meeting fees, committee chair and member retainers and equity compensation. Decisions regarding director compensation made by the Nominating and Corporate Governance Committee are not considered final and are subject to final review and approval by the entire Board of Directors. Under the terms of its formal written charter, the Nominating and Corporate Governance Committee has the power and authority, to the extent permitted by our Bylaws and applicable law, to delegate all or a portion of its duties and responsibilities to a subcommittee of the Nominating and Corporate Governance Committee. The Nominating and Corporate Governance Committee has not generally delegated any of its duties and responsibilities to subcommittees, but rather has taken such actions as a committee, as a whole.

In making recommendations to the Board of Directors regarding compensation to be paid to our non-employee directors, the Nominating and Corporate Governance Committee considers fees and other compensation paid to directors of comparable public companies, the number of board and committee meetings that our directors are expected to attend, and other factors that may be relevant. In making final decisions regarding non-employee director compensation, the Board of Directors considers the same factors and the recommendation of the Nominating and Corporate Governance Committee.

*Meetings.* The Nominating and Corporate Governance Committee met four times during fiscal 2013.

### **Director Nominations Process**

Pursuant to a Director Nominations Process adopted by the Board of Directors, in selecting nominees for the Board of Directors, the Nominating and Corporate Governance Committee first determines whether the incumbent directors are qualified to serve, and wish to continue to serve, on the Board. The Nominating and Corporate Governance Committee believes that NTIC and its stockholders benefit from the continued service of qualified incumbent directors because those directors have familiarity with and insight into NTIC's affairs that they have accumulated during their tenure with the company. Appropriate continuity of Board membership also contributes to the Board's ability to work as a collective body. Accordingly, it is the practice of the Nominating and Corporate Governance Committee, in general, to re-nominate an incumbent director if the director wishes to continue his or her service with the Board, the director continues to satisfy the criteria for membership on the Board that the Nominating and Corporate Governance Committee generally views as relevant and considers in deciding whether to re-nominate an incumbent director or nominate a new director, the Nominating and Corporate Governance Committee believes the director continues to make important contributions to the Board, and there are no special, countervailing considerations against re-nomination of the director. After completing the Director Nominations Process, it was the recommendation of the Nominating and Corporate Governance Committee based on discussions with Mr. Chenu and succession planning objectives that Mr. Chenu not stand for re-election to the Board of Directors at the 2014 Annual Meeting.

Pursuant to a Director Nominations Process adopted by the Board of Directors, in identifying and evaluating new candidates for election to the Board, the Nominating and Corporate Governance Committee solicits recommendations for nominees from persons whom the Nominating and Corporate Governance Committee believes are likely to be familiar with qualified candidates having the qualifications, skills and characteristics required for Board nominees from time to time. Such persons may include members of the Board of Directors and our senior management and advisors to our company. In addition, from time to time, if appropriate, the Nominating and Corporate Governance Committee may engage a search firm to assist it in identifying and evaluating qualified candidates. Ms. Colwell, who joined the Board of Directors in November 2013, was recommended by NTIC's President and Chief Executive Officer and known by several other NTIC directors as a result of her relationship with a former NTIC director.

The Nominating and Corporate Governance Committee reviews and evaluates each candidate whom it believes merits serious consideration, taking into account available information concerning the candidate, any qualifications or criteria for Board membership established by the Nominating and Corporate Governance Committee, the existing composition of the Board, and other factors that it deems relevant. In conducting its review and evaluation, the Nominating and Corporate Governance Committee solicits the views of our management, other Board members, and other individuals it believes may have insight into a candidate. The Nominating and Corporate Governance Committee may designate one or more of its members and/or other Board members to interview any proposed candidate.

The Nominating and Corporate Governance Committee will consider recommendations for the nomination of directors submitted by our stockholders. For more information, see the information set forth under the heading “Stockholder Proposals and Director Nominations for the 2015 Annual Meeting of Stockholders — Director Nominations for 2015 Annual Meeting.” The Nominating and Corporate Governance Committee will evaluate candidates recommended by stockholders in the same manner as those recommended as stated above.

There are no formal requirements or minimum qualifications that a candidate must meet in order for the Nominating and Corporate Governance Committee to recommend the candidate to the Board. The Nominating and Corporate Governance Committee believes that each nominee should be evaluated based on his or her merits as an individual, taking into account the needs of our company and the Board of Directors. However, in evaluating candidates, there are a number of criteria that the Nominating and Corporate Governance Committee generally views as relevant and is likely to consider. Some of these factors include whether the candidate is an “independent director” under the Listing Rules of the NASDAQ Stock Market and meets any other applicable independence tests under the federal securities laws and rules and regulations of the Securities and Exchange Commission; whether the candidate is “financially literate” or “financially sophisticated” and otherwise meets the requirements for serving as a member of an audit committee under the Listing Rules of the NASDAQ Stock Market; whether the candidate is an “audit committee financial expert” under the federal securities laws and the rules and regulations of the Securities and Exchange Commission; the needs of our company with respect to the particular talents and experience of its directors; the personal and professional integrity and reputation of the candidate; the candidate’s level of education and business experience; the candidate’s broad-based business acumen; the candidate’s level of understanding of our business and its industry; the candidate’s ability and willingness to devote adequate time to work of the Board and its committees; the fit of the candidate’s skills and personality with those of other directors and potential directors in building a board that is effective, collegial and responsive to the needs of our company; whether the candidate possesses strategic thinking and a willingness to share ideas; the candidate’s diversity of experiences, expertise and background; and the candidate’s ability to represent the interests of all stockholders and not a particular interest group.

We do not have a formal stand-alone diversity policy in considering whether to recommend any director nominee, including candidates recommended by stockholders. As discussed above, the Nominating and Corporate Governance Committee will consider the factors described above, including the candidate’s diversity of experiences, expertise and background. The Nominating and Corporate Governance Committee seeks nominees with a broad diversity of experience, expertise and backgrounds. The Nominating and Corporate Governance Committee does not assign specific weights to particular criteria and no particular criterion is necessarily applicable to all prospective nominees. The Board of Directors believes that the backgrounds and qualifications of directors, considered as a group, should provide a significant mix of experience, knowledge and abilities that will allow the Board of Directors to fulfill its responsibilities. While the Nominating and Corporate Governance Committee focuses on obtaining a diversity of experiences, expertise and background on the Board of Directors rather than a diversity of personal characteristics, it recognizes the desirability of racial, ethnic, gender, age and other personal

diversity and considers it an additional benefit when a new director can also increase the personal diversity of the Board of Directors as a whole. The Nominating and Corporate Governance Committee evaluates its effectiveness in achieving diversity in a broad sense on the Board of Directors through its annual review of Board member composition prior to recommending nominees for election each year.

### **Board Oversight of Risk**

The Board of Directors as a whole has responsibility for risk oversight, with more in-depth reviews of certain areas of risk being conducted by the relevant Board committees that report on their deliberations to the full Board of Directors. The oversight responsibility of the Board and its committees is enabled by management reporting processes that are designed to provide information to the Board about the identification, assessment and management of critical risks and management's risk mitigation strategies. The areas of risk that we focus on include operational, financial (accounting, credit, liquidity and tax), legal, compensation, competitive, health, safety, environmental, economic, political and reputational risks.

The standing committees of the Board of Directors oversee risks associated with their respective principal areas of focus. The Audit Committee's role includes a particular focus on the qualitative aspects of financial reporting, on our processes for the management of business and financial risk, our financial reporting obligations and for compliance with significant applicable legal, ethical and regulatory requirements. The Audit Committee, along with management, is also responsible for developing and participating in a process for review of important financial and operating topics that present potential significant risk to our company. The Compensation Committee is responsible for overseeing risks and exposures associated with our executive compensation programs and arrangements and management succession planning. The Nominating and Corporate Governance Committee oversees risks relating to our corporate governance matters, director compensation programs and director succession planning.

We recognize that a fundamental part of risk management is understanding not only the risks a company faces and what steps management is taking to manage those risks, but also understanding what level of risk is appropriate for the company. The involvement of the full Board of Directors each year in establishing our key corporate business strategies and annual fiscal budget is a key part of the Board's assessment of management's appetite for risk and also a determination of what constitutes an appropriate level of risk for our company.

We believe our current Board leadership structure is appropriate and helps ensure proper risk oversight for our company for a number of reasons, including: (1) general risk oversight by the full Board of Directors in connection with its role in reviewing our key business strategies and monitoring on an on-going basis the implementation of our key business strategies; (2) more detailed oversight by our standing Board committees that are currently comprised of and chaired by our independent directors, and (3) the focus of our Chairman of the Board on allocating appropriate Board agenda time for discussion regarding the implementation of our key business strategies and specifically risk management.

### **Code of Ethics**

The Board of Directors has adopted a Code of Ethics, which applies to all of our directors, executive officers, including our Chief Executive Officer and Chief Financial Officer, and other employees, and meets the requirements of the Securities and Exchange Commission and the NASDAQ Stock Market. A copy of our Code of Ethics is available on the "Investor Relations—Corporate Governance" section of our corporate website [www.ntic.com](http://www.ntic.com).

### **Anti-Hedging and Pledging Policy**

The Board of Directors has adopted an insider trading policy, which applies to all of our directors, officers and employees. The insider trading policy prohibits our directors and officers from engaging in hedging transactions, such as short sales, transactions in publicly traded options, such as puts, calls and other derivatives, and pledging our shares in any significant respect.

### **Policy Regarding Director Attendance at Annual Meetings of Stockholders**

It is the policy of the Board of Directors that directors standing for re-election should attend our annual meeting of stockholders, if their schedules permit. A Board of Directors meeting is generally held on the day following each annual meeting of stockholders. All of our then current directors attended the 2013 annual meeting of stockholders.

### **Complaint Procedures**

The Audit Committee has established procedures for the receipt, retention and treatment of complaints received by NTIC regarding accounting, internal accounting controls or auditing matters, and the submission by our employees, on a confidential and anonymous basis, of concerns regarding questionable accounting or auditing matters. Our personnel with such concerns are encouraged to discuss their concerns with our outside legal counsel, who in turn will be responsible for informing the Audit Committee.

### **Process Regarding Stockholder Communications with Board of Directors**

Stockholders may communicate with the Board of Directors of NTIC by sending correspondence, addressed to our Corporate Secretary, Northern Technologies International Corporation, 4201 Woodland Road, Circle Pines, Minnesota 55014, or [mwolsfeld@ntic.com](mailto:mwolsfeld@ntic.com) with an instruction to forward the communication to a particular director. Our Corporate Secretary will receive the correspondence and forward it to any individual director or directors to whom the communication is directed.



## DIRECTOR COMPENSATION

### Summary of Cash and Other Compensation

The following table provides summary information concerning the compensation of each individual who served as a director of our company during the fiscal year ended August 31, 2013, other than G. Patrick Lynch, our President and Chief Executive Officer, who was not compensated separately for serving on the Board of Directors during fiscal 2013. His compensation during fiscal 2013 for serving as an executive officer of our company is set forth under the heading “Executive Compensation” included elsewhere in this proxy statement. Barbara D. Colwell, one of our current directors, did not serve as a director during fiscal 2013 and, therefore, is not named in the table below.

### DIRECTOR COMPENSATION – FISCAL 2013

Name	Fees Earned or Paid in Cash (\$)	Option Awards (\$) <sup>(1)(2)</sup>	All Other Compensation (\$) <sup>(3)</sup>	Total (\$)
Pierre Chenu.....	\$ 28,750	\$ 25,800	\$ 0	\$ 54,550
Soo-Keong Koh.....	19,000	17,200	0	36,200
Sunggyu Lee, Ph.D. ....	18,000	17,200	0	35,200
Ramani Narayan, Ph.D.....	18,000	17,200	110,244	145,444
Richard J. Nigon <sup>(4)</sup> .....	38,250	25,915	0	64,165
Mark J. Stone <sup>(5)</sup> .....	4,500	0	0	4,500
Konstantin von Falkenhausen <sup>(6)</sup>	24,000	17,430	0	41,430

(1) The amounts in this column do not reflect compensation actually received by the directors nor do they reflect the actual value that will be recognized by the directors. Instead, the amounts reflect the grant date fair value for option grants made by us in fiscal 2013, as calculated in accordance with Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) Topic 718.

On September 1, 2012, each then current director, other than Mr. Lynch and Mr. Stone, received a stock option to purchase 4,000 shares of our common stock at an exercise price of \$10.25 per share granted under the Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan, the material terms of which are described in more detail under the heading “Executive Compensation—Stock Incentive Plan.” These options vested in full on September 1, 2013 and will expire on August 31, 2017 or earlier in the case of a director whose service as a director is terminated prior to such date. In addition, on September 1, 2012, Mr. Chenu received an additional stock option to purchase 2,000 shares of our common stock in consideration for his service as Chairman of the Board. The terms of this stock option are identical to the other director stock options granted on that date. See “—Non-Employee Director Compensation Program—Stock Options.” The grant date fair value and incremental fair value associated with these awards and as calculated in accordance with FASB ASC Topic 718 is determined based on our Black-Scholes option pricing model. The grant date value per share for the options granted on September 1, 2012 was \$4.30 and was determined using the following specific assumptions: risk free interest rate: 0.71%; expected life: 5.0 years; expected volatility: 48.1%; and expected dividend yield: 0%.

On November 16, 2012, Mr. von Falkenhausen received a stock option to purchase 3,000 shares of our common stock in consideration for his service as a new director and Mr. Nigon received a stock option to purchase 1,500 shares of our common stock in consideration for his service as Chairman of the Board. Both of these options have an exercise price of \$10.25 per share and were granted under the Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan, the material terms of which are described in more detail under the heading “Executive Compensation—Stock Incentive Plan.” These options vested in full on November 16, 2013 and will expire on November 16, 2022 or earlier in the case of a director whose service as a director is terminated prior to such date. See “—Non-Employee Director Compensation Program—Stock Options.” The grant date fair value and incremental fair value associated with these awards and as calculated in

accordance with FASB ASC Topic 718 is determined based on our Black-Scholes option pricing model. The grant date value per share for the options granted on November 16, 2012 was \$5.81 and was determined using the following specific assumptions: risk free interest rate: 0.71%; expected life: 10.0 years; expected volatility: 47.9%; and expected dividend yield: 0%.

- (2) The table below provides information regarding the aggregate number of options to purchase shares of our common stock outstanding at August 31, 2013 and held by each of the directors listed in the Director Compensation Table. Note that because of the grant date, neither the Director Compensation Table nor the table below reflects option grants on September 1, 2013. See “—Non-Employee Director Compensation Program—Stock Options.”

Name	Aggregate Number Of Securities Underlying Options	Exercisable/ Unexercisable	Exercise Price(s)	Expiration Date(s)
Pierre Chenu .....	24,000	16,000/8,000	\$ 8.57 – 16.45	8/31/2014 – 8/31/2017
Soo-Keong Koh .....	16,000	10,666/5,334	8.57 – 16.45	8/31/2014 – 8/31/2017
Sunggyu Lee, Ph.D. ....	16,000	10,666/5,334	8.57 – 16.45	8/31/2014 – 8/31/2017
Ramani Narayan, Ph.D. ....	16,000	10,666/5,334	8.57 – 16.45	8/31/2014 – 8/31/2017
Richard J. Nigon .....	15,833	8,999/6,834	9.76 – 16.45	2/1/2015 – 11/15/2022
Mark J. Stone .....	0	N/A	N/A	N/A
Konstantin von Falkenhausen..	3,000	0/3,000	10.25	11/15/2022

- (3) We do not provide perquisites or other personal benefits to our directors. The amounts reflected for Dr. Narayan reflects consulting fees and royalties paid during the fiscal year ended August 31, 2013 as described in more detail below under the heading “—Consulting Arrangement.”
- (4) Mr. Nigon became non-executive Chairman of the Board commencing on November 16, 2012.
- (5) Mr. Stone served as a director until January 17, 2013, the date of the 2013 annual meeting of stockholders.
- (6) Mr. von Falkenhausen joined the Board of Directors commencing on November 16, 2012.

### **Non-Employee Director Compensation Program**

*Overview.* Our non-employee directors for purposes of our director compensation program currently consist of Pierre Chenu, Barbara D. Colwell, Soo-Keong Koh, Sunggyu Lee, Ph.D., Ramani Narayan, Ph.D., Richard J. Nigon and Konstantin von Falkenhausen. Mark J. Stone served as a non-employee director of NTIC during a portion of fiscal 2013 until the date of our 2013 annual meeting of stockholders.

We use a combination of cash and long-term equity-based incentive compensation in the form of annual stock option grants to attract and retain qualified candidates to serve on the Board of Directors. In setting non-employee director compensation, we follow the process and procedures described under the heading “Corporate Governance—Nominating and Corporate Governance Committee—Processes and Procedures for the Determination of Director Compensation.”

*Cash Retainers and Meeting Fees.* Each of our non-employee directors receives annual cash retainers and meeting fees. In November 2013, the annual cash retainer for a non-employee director was increased from \$10,000 to \$15,000. The following table sets forth the current annual cash retainers paid to our non-employee directors:

<b>Description</b>	<b>Annual Cash Retainer</b>
Chairman of the Board.....	\$ 15,000
Board Member (not including Chairman of the Board).....	15,000
Audit Committee Chair.....	5,000
Audit Committee Member (not including Chair).....	4,000

Each of our non-employee directors also receives \$1,000 for each Board, Board committee and strategy review meeting attended. No director, however, earns more than \$1,000 per day in Board, Board committee and strategy review meeting fees.

*Stock Options.* Each of our non-employee directors, other than a director who will not stand for re-election at the next annual meeting of stockholders, is automatically granted a non-qualified option to purchase 4,000 shares of our common stock on the first day of each fiscal year in consideration for his service as a director of NTIC and the Chairman of the Board is automatically granted an additional non-qualified option to purchase 2,000 shares of our common stock on the first day of each fiscal year in consideration for his services as Chairman. In addition, each new non-employee director is automatically granted a non-qualified option to purchase a pro rata portion of 4,000 shares of our common stock calculated by dividing the number of months remaining in the fiscal year at the time of election or appointment by 12 on the date the director is first elected or appointed as a director of NTIC. Each automatically granted option becomes exercisable, on a cumulative basis, on the one-year anniversary of the date of its grant. The vesting of director options was changed during fiscal 2011 on a prospective basis from a three-year annual vesting to a one-year cliff vesting to conform the vesting to prevalent market practices and to reflect the fact that directors serve for one-year terms of service. The term of director options was changed in November 2012 on a prospective basis from a five-year term to a ten-year term to conform the term to prevalent market practices and to provide more value to NTIC’s directors in consideration for their services as directors. The exercise price of such options is equal to the fair market value of a share of our common stock on the date of grant.

Under the terms of our stock incentive plan, unless otherwise provided in a separate agreement, if a director’s service with our company terminates for any reason, the unvested portion of the option will immediately terminate and the director’s right to exercise the then vested portion of the option will:

- immediately terminate if the director’s service relationship with our company terminated for “cause”;
- continue for a period of 12 months if the director’s service relationship with our company terminates as a result of the director’s death, disability or retirement; or
- continue for a period of three months if the director’s service relationship with our company terminates for any reason, other than for cause or upon the director’s death, disability or retirement.

In November 2013, the Board of Directors extended the post-termination exercise period for stock options held by Mr. Chenu to two years but no later than the expiration date of his options in light of his long and dedicated service to NTIC.

We refer you to note (1) to the Director Compensation Table for a summary of all option grants to our non-employee directors during the fiscal year ended August 31, 2013 and note (2) to the Director Compensation Table for a summary of all options to purchase shares of our common stock held by our non-employee directors as of August 31, 2013.

*Reimbursement of Expenses.* All of our directors are reimbursed for travel expenses for attending meetings and other miscellaneous out-of-pocket expenses incurred in performing their Board functions.

### **Consulting Arrangement**

We paid consulting fees to Bioplastic Polymers LLC which is owned by Ramani Narayan, Ph.D. in the aggregate amount of \$100,000 and royalty fees in an aggregate amount of \$10,244 during the fiscal year ended August 31, 2013. The consulting services rendered by Bioplastic Polymers LLC related to research and development associated with various new technologies. The royalty fees were paid pursuant to an oral agreement pursuant to which we have agreed to pay Bioplastic Polymers LLC and Dr. Narayan in consideration of the transfer and assignment by Biopolymer Plastics LLC and Dr. Narayan of certain biodegradable polymer technology to us, an aggregate of three percent of the gross margin on any net sales of products incorporating the biodegradable polymer technology transferred to us by Bioplastic Polymers LLC and Dr. Narayan for a period of 10 years, provided that if a patent for or with respect to biodegradable polymer technology is issued before the expiration of such 10 year period, then until the expiration of such patent we will pay to Bioplastic Polymers LLC and Dr. Narayan an aggregate of three percent of the biodegradable polymer technology gross margin attributable to such patent.

### **Indemnification Agreements**

We have entered into agreements with all of our directors under which we are required to indemnify them against expenses, judgments, penalties, fines, settlements and other amounts actually and reasonably incurred, including expenses of a derivative action, in connection with an actual or threatened proceeding if any of them may be made a party because he or she is or was one of our directors. We will be obligated to pay these amounts only if the director acted in good faith and in a manner that he or she reasonably believed to be in or not opposed to our best interests. With respect to any criminal proceeding, we will be obligated to pay these amounts only if the director had no reasonable cause to believe his or her conduct was unlawful. The indemnification agreements also set forth procedures that will apply in the event of a claim for indemnification.

## EXECUTIVE COMPENSATION

### Summary of Cash and Other Compensation

The following table provides summary information concerning all compensation awarded to, earned by or paid to G. Patrick Lynch, our President and Chief Executive Officer who serves as our principal executive officer, and Matthew C. Wolsfeld, our Chief Financial Officer and Corporate Secretary who serves as our principal financial officer. Mr. Lynch and Mr. Wolsfeld are the only two individuals who have been designated by our Board of Directors as “executive officers” of our company. We refer to these individuals in this proxy statement as our “named executive officers” or “executives.”

### SUMMARY COMPENSATION TABLE – FISCAL 2013

Name and Principal Position	Fiscal Year	Salary	Non-Equity Incentive Plan Compensation <sup>(1)</sup>	Option Awards <sup>(2)</sup>	All Other Compensation <sup>(3)</sup>	Total
G. Patrick Lynch..... <i>President and Chief Executive Officer</i>	2013	\$ 278,208	\$ 152,716	\$ 106,977	\$ 11,911	\$ 549,812
	2012	257,600	219,865	0	11,811	489,276
Matthew C. Wolsfeld..... <i>Chief Financial Officer and Corporate Secretary</i>	2013	205,632	112,877	79,070	11,668	409,247
	2012	190,400	162,509	0	11,568	364,477

- (1) Represents discretionary bonuses earned in fiscal year as indicated, but actually paid to named executive officers in the following fiscal year. The bonuses earned for fiscal 2013 and 2012 were paid in cash as determined by the Board of Directors, upon recommendation of the Compensation Committee. The amounts reflected in the column entitled “Non-Equity Incentive Plan Compensation” reflect the cash amount of bonus earned by each of the officers in consideration for their fiscal 2013 and fiscal 2012 performance, respectively, but paid to such officers during fiscal 2014 and fiscal 2013, respectively. We refer you to the information under the heading “—Executive Compensation Program—Annual Incentive Compensation” for a discussion of the factors taken into consideration by the Board of Directors in determining the amount of bonus paid to each named executive officer.
- (2) On November 16, 2012, each of the named executive officers was granted three stock options, one of which was intended as an annual grant and two of which were intended as “catch up” grants. We refer you to the information under the heading “—Executive Compensation Program—Long-Term Incentive Compensation” for a discussion of these option grants and their terms. The amounts reflected in the column entitled “Option Awards” for each officer represent the aggregate grant date fair value for these option awards, as computed in accordance with FASB ASC Topic 718. The grant date fair value is determined based on our Black-Scholes option pricing model. The grant date value per share for the options granted on November 16, 2012 was \$5.81 and was determined using the following specific assumptions: risk free interest rate: 0.71%; expected life: 10.0 years; expected volatility: 47.9%; and expected dividend yield: 0%.
- (3) The amounts shown in the column entitled “All Other Compensation” for fiscal 2013 include the following with respect to each named executive officer:

Name	401(k) Match	Personal Use of Auto
G. Patrick Lynch.....	\$ 8,500	\$ 3,411
Matthew C. Wolsfeld.....	8,500	3,168

## Our Executive Compensation Program

Our executive compensation program for the fiscal year ended August 31, 2013 consisted of:

- Base salary;
- Annual incentive compensation;
- Long-term equity-based incentive compensation, in the form of stock options; and
- All other compensation.

*Base Salary.* We provide a base salary for our named executive officers, which, unlike some of the other elements of our executive compensation program, is not subject to company or individual performance risk. We recognize the need for most executives to receive at least a portion of their total compensation in the form of a guaranteed base salary that is paid in cash regularly throughout the year to support their standard of living.

We initially fix base salaries for our executives at a level that we believe enables us to hire and retain them in a competitive environment and to reward satisfactory individual performance and a satisfactory level of contribution to our overall business objectives. The Compensation Committee reviews base salaries for our named executive officers each year beginning in July and generally recommends to the Board of Directors any increases for the following fiscal year in July or August or as soon as practicable thereafter. Regardless of when the final decision regarding base salaries for a fiscal year is made by the Board of Directors, any increases in base salaries are effective as of September 1 of that year, which depending upon the timing of the final decision could result in a retroactive payment to the executive shortly after the final decision is made.

The Compensation Committee's recommendations to the Board of Directors regarding the base salaries of our named executive officers are based on a number of factors, including: the executive's level of responsibility, prior experience and base salary for the prior year, the skills and experiences required by the position, length of service with our company, past individual performance, cost of living increases and other considerations the Compensation Committee deems relevant. The Compensation Committee also recognizes that in addition to the typical responsibilities and duties held by our executives by virtue of their positions, our executives due to the small number of our employees, often possess additional responsibilities and perform additional duties that would be typically delegated to others in most organizations with additional personnel and resources.

Annualized base salary rates for fiscal 2012 and fiscal 2013 for our named executive officers were as follows:

<b>Name</b>	<b>Fiscal 2012</b>	<b>Fiscal 2013</b>	<b>% Change From Fiscal 2012</b>
G. Patrick Lynch.....	\$ 257,600	\$ 278,208	8.0%
Matthew C. Wolsfeld.....	190,400	205,632	8.0%

Mr. Lynch's base salary for fiscal 2014 is \$300,464, and Mr. Wolsfeld's base salary for fiscal 2014 is \$222,082, representing base salary increases of 8 percent over their respective base salaries for fiscal 2013.

*Annual Incentive Compensation.* In addition to base compensation, we provide our named executive officers the opportunity to earn annual incentive compensation based on the achievement of certain company and individual related performance goals. Our annual bonus program directly aligns the interests of our executive officers and stockholders by providing an incentive for the achievement of key

corporate and individual performance measures that are critical to the success of our company and linking a significant portion of each executive officer's annual compensation to the achievement of such measures.

Under the annual bonus plan for fiscal 2013, the total amount available under the bonus plan for all plan participants, including executives, as in past years, was up to a certain percentage of NTIC's earnings before interest, taxes and other income, as adjusted to take into account amounts to be paid under the bonus plan and certain other adjustments (Adjusted EBITOI). In addition, as in the past, under the plan, the payment of bonuses was to be dependent upon the achievement of a minimum Adjusted EBITOI, which is generally 70 percent of a budgeted target Adjusted EBITOI. For fiscal 2013, actual Adjusted EBITOI was 60 percent of the budgeted target Adjusted EBITOI. The Board of Directors, upon recommendation of the Compensation Committee, nonetheless, decided to pay bonuses for fiscal 2013 under the plan since the principal reason for the shortfall was reduced revenue compared to budget due to the postponed fulfillment of a ZERUST<sup>®</sup> Oil & Gas contract. For each plan participant, 50 percent of the amount of their individual bonus payout was determined based upon their individual allocation percentage of the total amount available under the bonus plan and 50 percent of their individual payout was determined based upon their achievement of certain pre-established but more qualitative individual performance objectives.

A plan participant's individual allocation percentage of the total amount available under the bonus plan was based on the number of plan participants, the individual's annual base salary and the individual's position and level of responsibility within the company. Mr. Lynch's individual allocation percentage for fiscal 2013 was 17.0% percent and Mr. Wolsfeld's individual allocation percentage for fiscal 2013 was 12.5% percent.

Mr. Lynch's individual performance objectives for fiscal 2013 related primarily to the completion of certain ZERUST infrastructure improvements and product trials, integration of the Zerust Brazil subsidiary, and improvement and maintenance of joint venture relationships, investors relations and key personnel. Mr. Wolsfeld's individual performance objectives for fiscal 2013 related primarily to financial oversight of the Natur-Tec and ZERUST<sup>®</sup> Oil & Gas businesses, improvement and maintenance of investor relations, oversight of NTIC's building expansion and integration of the Zerust Brazil subsidiary. In the case of both Mr. Lynch and Mr. Wolsfeld, the Compensation Committee determined each executive achieved their individual performance objectives at a 60% percent achievement level.

Mr. Lynch received a total bonus of \$152,716 for fiscal 2013 and Mr. Wolsfeld received a total bonus of \$112,877 for fiscal 2013. The Compensation Committee determined to pay all bonuses in cash this year as opposed to a mix of cash and NTIC common stock in light of NTIC's cash and cash equivalent balance which is higher than in past years and the recent implementation of a new long-term incentive plan component to NTIC's executive compensation, payable in annual NTIC stock option grants, as described in more detail below.

The structure of the annual bonus plan for fiscal 2014 will be similar to the annual bonus plan for fiscal 2013. As in past years, the payment of bonuses under the plan will be discretionary and may be paid to participants in cash and/or shares of NTIC common stock.

*Long-Term Equity-Based Incentive Compensation.* In November 2012, NTIC adopted and began to implement a long-term equity-based incentive compensation component to its executive compensation program. The long-term equity-based incentive compensation component consists of annual option grants to NTIC's executives and other employees, which options vest on an annual basis over a three-year period. The most recent stock option grants received by our executives prior to the grants in November 2012 were in November 2009. Since annual option grants had not occurred since November 2009, NTIC

granted its executives and certain other employees in November 2012 two “catch-up” options in addition to the annual options. One of these “catch-up” options vests over a two-year period and the other vested over a one-year period.

The Compensation Committee’s primary objectives with respect to long-term equity-based incentive compensation are to align the interests of our executives with the long-term interests of our stockholders, promote stock ownership and create significant incentives for executive retention. Long-term equity-based incentives are intended to comprise a significant portion of each executive’s compensation package, consistent with our executive compensation objective to align the interests of our executives with the interests of our stockholders. For fiscal 2013, equity-based compensation comprised 19% of the total compensation for Mr. Lynch and Mr. Wolsfeld, assuming grant date fair value for equity awards. These percentages were high in fiscal 2013 in light of the two “catch-up” option grants that were made in November 2012 in addition to the annual option grant. All equity-based compensation granted to our executives and other employees is granted under the Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan, which was approved by the Board of Directors and our stockholders.

The Compensation Committee decided upon stock options as opposed to other equity-based incentive awards since the Compensation Committee believes that options effectively incentivize employees to maximize company performance, as the value of awards is directly tied to an appreciation in the value of our common stock. Stock options also provide an effective retention mechanism because of vesting provisions. An important objective of our long-term equity-based incentive program is to strengthen the relationship between the long-term value of our common stock and the potential financial gain for employees. Stock options provide recipients with the opportunity to purchase our common stock at a price fixed on the grant date regardless of future market price. As described above, the vesting of our stock options is time-based – over a three-year period. Our policy is to grant options only with an exercise price equal to or more than the fair market value of our common stock on the grant date. Under the terms of our incentive plan, fair market value is defined as the mean between the reported high and low sale prices of our common stock as of the grant date during the regular daily trading session, as reported on the NASDAQ Global Market. Because stock options become valuable only if the share price increases above the exercise price and the option holder remains employed during the period required for the option to vest, they provide an incentive for an executive to remain employed. In addition, stock options link a portion of an employee’s compensation to the interests of our stockholders by providing an incentive to achieve corporate goals and increase the market price of our common stock over the three-year vesting period.

Although we do not have any stock retention or ownership guidelines, the Board of Directors encourages our executives to have a financial stake in our company in order to align the interests of our stockholders and management. We believe that stock options align the interests of our executives with the interests of our stockholders and long-term value creation and enable our executives to achieve meaningful equity ownership in our company. Through the grant of stock options, we seek to align the long-term interests of our executives with the long-term interests of our stockholders by creating a strong and direct linkage between compensation and long-term stockholder return. When our executives deliver returns to our stockholders, in the form of increases in our stock price or otherwise, stock options permit an increase in their compensation. Under the term of our insider trading policy, our executives are prohibited from engaging in any hedging or significant pledging of their shares of our common stock. We believe stock options also may enable us to attract, retain and motivate our executives by maintaining competitive levels of total compensation.



*All Other Compensation.* It is generally our policy not to extend significant perquisites to our executives that are not available to our employees generally. The only significant perquisite that we provide to our named executive officers is the personal use of a company owned vehicle. Our executives also receive benefits, which are also received by our other employees, including participation in the Northern Technologies International Corporation 401(k) Plan and health, dental and life insurance benefits. Under the 401(k) plan, all eligible participants, including our named executive officers, may voluntarily request that we reduce his or her pre-tax compensation by up to 10 percent (subject to certain special limitations) and contribute such amounts to a trust. We typically contribute an amount equal to 50 percent of the first seven percent of the amount that each participant contributed under this plan. We do not provide pension arrangements or post-retirement health coverage for our executives or employees. We also do not provide any nonqualified defined contribution or other deferred compensation plans.

### Outstanding Equity Awards at Fiscal Year End

The following table provides information regarding stock options for each of our named executive officers that remained outstanding at August 31, 2013. We did not have any equity incentive plan awards or stock awards outstanding at August 31, 2013.

#### OUTSTANDING EQUITY AWARDS AT FISCAL YEAR END—FISCAL 2013

Name	Option Awards			
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable <sup>(1)</sup>	Option Exercise Price (\$)	Option Expiration Date
G. Patrick Lynch.....	0	3,362 <sup>(2)</sup>	\$ 10.25	11/15/2022
	0	6,725 <sup>(3)</sup>	10.25	11/15/2022
	0	8,325 <sup>(4)</sup>	10.25	11/15/2022
	12,000	0	7.65	11/19/2014
Matthew C. Wolsfeld.....	0	2,485 <sup>(2)</sup>	10.25	11/15/2022
	0	4,971 <sup>(3)</sup>	10.25	11/15/2022
	0	6,153 <sup>(4)</sup>	10.25	11/15/2022
	9,000	0	7.65	11/19/2014

- (1) All options described in this table were granted under our stock incentive plan described below under the heading “—Stock Incentive Plan.” Under the plan, upon the occurrence of a change in control, the unvested and unexercisable options will be accelerated and become fully vested and immediately exercisable as of the date of the change in control. For more information, we refer you to the discussion below under the heading “—Stock Incentive Plan.”
- (2) These options vested on November 16, 2013.
- (3) These options vest over a two-year period, with one-half of the underlying shares vesting on each of November 16, 2013 and 2014 so long as the individual remains an employee of NTIC as of such date.
- (4) These options vest over a three-year period, with one-third of the underlying shares vesting on each of November 16, 2013, 2014 and 2015 so long as the individual remains an employee of NTIC as of such date.

### Stock Incentive Plan

We have only one stock incentive plan under which stock options are currently outstanding and future stock incentive awards may be granted – the Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan. Under the terms of the 2007 plan, our named executive officers, in addition to other employees and individuals, are eligible to receive stock-based compensation awards,

such as stock options, stock appreciation rights, restricted stock awards, stock bonuses and performance awards. To date, only incentive and non-statutory stock options and stock bonuses have been granted under the plan. The plan contains both an overall limit on the number of shares of our common stock that may be issued, as well as individual and other grant limits.

Incentive stock options must be granted with a per share exercise price equal to at least the fair market value of a share of our common stock on the date of grant. For purposes of the plan, the fair market value of our common stock is the mean between the reported high and low sale price of our common stock, as reported by the NASDAQ Global Market. We generally set the per share exercise price of all stock options granted under the plan at an amount equal to the fair market value of a share of our common stock on the date of grant.

Except in connection with certain specified changes in our corporate structure or shares, the Board of Directors or Compensation Committee may not, without prior approval of our stockholders, seek to effect any re-pricing of any previously granted, “underwater” option or stock appreciation right by amending or modifying the terms of the underwater option or stock appreciation right to lower the exercise price, cancelling the underwater option or stock appreciation right in exchange for cash, replacement options or stock appreciation rights having a lower exercise price, or other incentive awards, or repurchasing the underwater options or stock appreciation rights and granting new incentive awards under the plan. For purposes of the plan, an option or stock appreciation right is deemed to be “underwater” at any time when the fair market value of our common stock is less than the exercise price.

We generally provide for the vesting of stock options in equal annual installments over a three-year period commencing on the one-year anniversary of the date of grant for employees and in full on the one-year anniversary of the date of grant for directors. We generally provide for option terms of ten years.

Optionees may pay the exercise price of stock options in cash, except that the Compensation Committee may allow payment to be made (in whole or in part) by (1) using a broker-assisted cashless exercise procedure pursuant to which the optionee, upon exercise of an option, irrevocably instructs a broker or dealer to sell a sufficient number of shares of our common stock or loan a sufficient amount of money to pay all or a portion of the exercise price of the option and/or any related withholding tax obligations and remit such sums to us and directs us to deliver stock certificates to be issued upon such exercise directly to such broker or dealer; or (2) using a cashless exercise procedure pursuant to which the optionee surrenders to us shares of our common stock either underlying the option or that are otherwise held by the optionee.

Under the terms of the plan, unless otherwise provided in a separate agreement, if a named executive officer’s employment or service with our company terminates for any reason, the unvested portion of the option will immediately terminate and the executive’s right to exercise the then vested portion of the option will:

- immediately terminate if the executive’s employment or service relationship with our company terminated for “cause”;
- continue for a period of 12 months if the executive’s employment or service relationship with our company terminates as a result of the executive’s death, disability or retirement; or
- continue for a period of three months if the executive’s employment or service relationship with our company terminates for any reason, other than for cause or upon death, disability or retirement.

As set forth in the plan, the term “cause” is as defined in any employment or other agreement or policy applicable to the named executive officer or, if no such agreement or policy exists, means (i) dishonesty,

fraud, misrepresentation, embezzlement or other act of dishonesty with respect to us or any subsidiary, (ii) any unlawful or criminal activity of a serious nature, (iii) any intentional and deliberate breach of a duty or duties that, individually or in the aggregate, are material in relation to the overall duties, or (iv) any material breach of any employment, service, confidentiality or non-compete agreement entered into with us or any subsidiary.

Under the terms of the plan, if a participant is determined by the committee to have taken any action that would constitute “cause” or an “adverse action” during or within one year after the termination of the participant’s employment or other service with our company, all rights of the participant under the plan and any agreements evidencing an award then held by the participant will terminate and be forfeited and the committee may require the participant to surrender and return to us any shares received, and/or to disgorge any profits or any other economic value made or realized by the participant in connection with any awards or any shares issued upon the exercise or vesting of any awards during or within one year after the termination of the participant’s employment or other service. Additionally, as applicable, we may defer the exercise of any option or stock appreciation right for a period of up to six months after receipt of a participant’s written notice of exercise or the issuance of share certificates upon the vesting of any incentive award for a period of up to six months after the date of such vesting in order for the committee to make any determination as to the existence of cause or an adverse action. An “adverse action” includes any of the following actions or conduct that the committee determines to be injurious, detrimental, prejudicial or adverse to our interests: (i) disclosing any confidential information of our company or any subsidiary to any person not authorized to receive it; (ii) engaging, directly or indirectly, in any commercial activity that in the judgment of the committee competes with our business or the business of any of our subsidiaries; or (iii) interfering with our relationships or the relationships of our subsidiaries and our and their respective employees, independent contractors, customers, prospective customers and vendors.

As described in more detail under the heading “—Post-Termination Severance and Change in Control Arrangements” if there is a change in control of our company, then, under the terms of agreements evidencing options granted to our named executive officers and other employees under the plan, all outstanding options will become immediately exercisable in full and will remain exercisable for the remainder of their terms, regardless of whether the executive to whom such options have been granted remains in the employ or service of us or any of our subsidiaries.

### **Post-Termination Severance and Change in Control Arrangements**

During 2011, we entered into an employment agreement with each of G. Patrick Lynch, NTIC’s President and Chief Executive Officer, and Matthew C. Wolsfeld, NTIC’s Chief Financial Officer and Corporate Secretary. Although each of the executive’s employment with our company remains “at will,” the employment agreements provide each of the executives certain severance benefits in the event the executive’s employment is terminated by us without “cause” or by the executive for “good reason” and the executive executes and does not revoke a separation agreement and a release of all claims.

If an executive’s employment is terminated by us without “cause” or by the executive for “good reason,” in addition to any accrued but unpaid salary and benefits through the date of termination, the executive will be entitled to a severance cash payment from us in an amount equal to two times (one and one-half times, in the case of Mr. Wolsfeld) the executive’s average total annual compensation for the two most recently completed fiscal years, plus a pro rata portion of the target bonus that the executive otherwise would have been eligible to receive under our bonus plan for the fiscal year during which the executive’s employment is terminated, with such pro rata portion based on the number of complete months during the fiscal year that the executive was employed with our company. The severance payment will be paid in several installments in the form of salary continuation in accordance with our normal payroll practices

over a 24-month period (18-month period, in the case of Mr. Wolsfeld). If, however, the termination event occurs within 24 months after a change in control of our, the severance payment will be paid in one lump sum. If the executive is eligible for and timely elects continued coverage under our group medical plan, group dental plan and/or group vision plan pursuant to Section 4980B of the Internal Revenue Code of 1986, as amended (“COBRA”), for each of the first 18 months of the COBRA continuation period, we also will reimburse the executive in an amount equal to the difference between the amount the executive pays for such COBRA continuation coverage each month and the amount paid by a full-time active employee each month for the same level of coverage elected by the executive. In addition, all outstanding and unvested options to purchase shares of our common stock and other stock incentive awards granted to the executive under our stock incentive plan will become immediately vested and exercisable.

Under the employment agreements, “cause” is defined as (i) the executive’s material breach of any of the executive’s obligations under the employment agreement, or the executive’s willful and continued failure or refusal to perform his duties, responsibilities and obligations as an executive officer of our company, for reasons other than the executive’s disability, to the satisfaction of the Board of Directors; (ii) the executive’s commission of an act of dishonesty, fraud, embezzlement, misappropriation, or intentional and deliberate injury or material breach of fiduciary duty, or material breach of the duty of loyalty related to or against us or our business, or any unlawful or criminal activity of a serious nature involving any felony, or conviction by a court of competent jurisdiction of, or pleading guilty or nolo contendere to, any felony or any crime involving moral turpitude; or (iii) the existence of any court order or settlement agreement prohibiting the executive’s continued employment with our company. “Good reason” is defined as (i) a material diminution in the executive’s authority, duties or responsibilities; (ii) a material diminution in the executive’s annual base salary; (iii) a material change in the geographic location at which we require the executive to provide services, except for travel reasonably required in the performance of the executive’s responsibilities; or (iv) any action or inaction that constitutes a material breach by us of the employment agreement. “Change in control” has the meaning assigned to such term in our stock incentive plan as in effect from time to time to the extent such change in control is a “change of control event” as defined under Code Section 409A and applicable Internal Revenue Service regulations. Under the terms of our stock incentive plan, a “change in control” means:

- the sale, lease, exchange or other transfer of all or substantially all of our assets to a corporation that is not controlled by us;
- the approval by our stockholders of any plan or proposal for our liquidation or dissolution;
- certain merger or business combination transactions;
- more than 40 percent of our outstanding voting shares are acquired by any person or group of persons who did not own any shares of common stock on the effective date of the plan; and
- certain changes in the composition of our Board of Directors.

If a change in control of our company had occurred on August 31, 2013, the number of options indicated in the table below held by each of our named executive officers would have been automatically accelerated and exercisable. The estimated value of the automatic acceleration of the vesting of unvested stock options held by a named executive officer as of August 31, 2013 is also indicated in the table below and is based on the difference between: (i) the market price of the shares of our common stock underlying the unvested stock options held by such officer as of August 31, 2013 (based on the closing sale price of our common stock on August 31, 2013 — \$14.92), and (ii) the exercise price of the options.

<u>Executive Officer</u>	<u>Number of Unvested Options Subject to Automatic Acceleration</u>	<u>Estimated Value of Automatic Acceleration of Vesting</u>
G. Patrick Lynch .....	18,412	\$ 85,984
Matthew C. Wolsfeld .....	13,609	63,554

If the employment of our named executive officers was terminated as of August 31, 2013, they would have been entitled to the following compensation and benefits, depending upon the applicable triggering event:

Executive Officer	Type of Payment	Triggering Event				
		Voluntary/ For Cause Termination	Involuntary Termination without Cause	Qualifying Change in Control Termination	Death	Disability
G. Patrick Lynch.....	Cash severance <sup>(1)</sup>	\$ 0	\$1,061,105	\$1,061,105	\$ 0	\$ 0
	Benefits continuation <sup>(2)</sup>	0	18,478	18,478	0	0
	Equity acceleration <sup>(3)</sup>	0	85,984	85,984	0	0
	Total:	0	\$1,165,567	\$1,165,567	\$ 0	\$ 0
Matthew C. Wolsfeld ....	Cash severance <sup>(1)</sup>	\$ 0	\$ 616,441	\$ 616,441	\$ 0	\$ 0
	Benefits continuation <sup>(2)</sup>	0	22,064	22,064	0	0
	Equity acceleration <sup>(3)</sup>	0	63,554	63,554	0	0
	Total:	0	\$ 702,059	\$ 702,059	\$ 0	\$ 0

- (1) Includes the value of two times (one and one-half times, in the case of Mr. Wolsfeld) the executive's average total annual compensation for the two most recently completed fiscal years plus a pro rata portion of the target bonus that the executive otherwise would have been eligible to receive under our bonus plan for the fiscal year during which the executive's employment is terminated, which in this case in light of the assumed termination date of August 31, 2013, the last day of the fiscal year, represents the value of the full target bonus for the entire year.
- (2) Includes the value of medical, dental and vision benefit continuation for each executive and their family for 18 months following the executive's termination.
- (3) Includes the value of acceleration of all unvested shares that are subject to options, based on a closing sale price of \$14.92 per share as of August 31, 2013.

### Indemnification Agreements

We have entered into agreements with all of our executive officers under which we are required to indemnify them against expenses, judgments, penalties, fines, settlements and other amounts actually and reasonably incurred, including expenses of a derivative action, in connection with an actual or threatened proceeding if any of them may be made a party because he or she is or was one of our executive officers. We will be obligated to pay these amounts only if the executive officer acted in good faith and in a manner that he or she reasonably believed to be in or not opposed to our best interests. With respect to any criminal proceeding, we will be obligated to pay these amounts only if the executive officer had no reasonable cause to believe his or her conduct was unlawful. The indemnification agreements also set forth procedures that will apply in the event of a claim for indemnification.

### RELATED PERSON RELATIONSHIPS AND TRANSACTIONS

Please see "Director Compensation" and "Executive Compensation" for information regarding a consulting arrangement we have with one of our current directors and the other compensation arrangements with our directors and executive officers during fiscal 2013.

## **STOCKHOLDER PROPOSALS AND DIRECTOR NOMINATIONS FOR 2015 ANNUAL MEETING OF STOCKHOLDERS**

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### **Stockholder Proposals for 2015 Annual Meeting**

Stockholders who, in accordance with Rule 14a-8 under the Exchange Act, wish to present proposals for inclusion in the proxy materials relating to the 2015 Annual Meeting of Stockholders must submit their proposals so that they are received by us at our principal executive offices no later than the close of business on August 11, 2014, unless the date of the meeting is delayed by more than 30 calendar days. The proposals must satisfy the requirements of the proxy rules promulgated by the Securities and Exchange Commission and as the rules of the Securities and Exchange Commission make clear, simply submitting a proposal does not guarantee that it will be included.

Any other stockholder proposals to be presented at the 2015 Annual Meeting of Stockholders (other than a matter brought pursuant to SEC Rule 14a-8) must be given in writing to our Corporate Secretary and must be delivered to or mailed and received at our principal executive offices, not less than 90 days nor more than 120 days prior to the anniversary date of the 2015 Annual Meeting of Stockholders; provided, however, that in the event that the 2015 Annual Meeting of Stockholders is not held within 30 days before or after such anniversary date, notice by the stockholder to be timely must be received not later than the close of business on the 10<sup>th</sup> day following the day on which such notice of the date of the annual meeting was mailed or such public disclosure was made, whichever first occurs. The proposal must contain specific information required by our Bylaws, a copy of which may be obtained by writing to our Corporate Secretary. If a proposal is not timely and properly made in accordance with the procedures set forth in our Bylaws, it will be defective and may not be brought before the meeting. If the proposal is nonetheless brought before the meeting and the Chairman of the meeting does not exercise the power and duty to declare the proposal defective, the persons named in the proxy may use their discretionary voting with respect to the proposal.

### **Director Nominations for 2015 Annual Meeting**

In accordance with procedures set forth in our Bylaws, NTIC stockholders may propose nominees for election to the Board of Directors only after providing timely written notice to our Corporate Secretary. To be timely, a stockholder's notice to the Corporate Secretary must be delivered to or mailed and received at NTIC's principal executive offices not less than 90 days nor more than 120 days prior to the anniversary date of the immediately preceding annual meeting; provided, however, that in the event that the annual meeting with respect to which such notice is to be tendered is not held within 30 days before or after such anniversary date, notice by the stockholder to be timely must be received not later than the close of business on the 10<sup>th</sup> day following the day on which such notice of the date of the meeting was mailed or public disclosure was made, whichever first occurs. The notice must set forth, among other things:

- the nominee's name, age, business address, residence address and record address;
- the nominee's principal occupation or employment;
- the class and number of shares of NTIC capital stock which are beneficially owned by the nominee;
- signed consent to serve as a director of NTIC; and

- any other information concerning the nominee required under the rules of the Securities and Exchange Commission in a proxy statement soliciting proxies for the election of directors.

Submissions must be made by mail, courier or personal delivery. E-mailed submissions will not be considered. The Nominating and Corporate Governance Committee will consider only those stockholder recommendations whose submissions comply with the procedural requirements set forth in NTIC's Bylaws. The Nominating and Corporate Governance Committee will evaluate candidates recommended by stockholders in the same manner as those recommended by others.

#### COPIES OF FISCAL 2013 ANNUAL REPORT

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**We have sent or made electronically available to each of our stockholders a copy of our annual report on Form 10-K (without exhibits) for the fiscal year ended August 31, 2013. The exhibits to our Form 10-K are available by accessing the Securities and Exchange Commission's EDGAR filing database at [www.sec.gov](http://www.sec.gov). We will furnish a copy of any exhibit to our Form 10-K upon receipt from any such person of a written request for such exhibits upon the payment of our reasonable expenses in furnishing the exhibits. This request should be sent to: Northern Technologies International Corporation, 4201 Woodland Road, Circle Pines, Minnesota 55014, Attention: Stockholder Information.**

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Your vote is important. Whether or not you plan to attend the Annual Meeting in person, vote your shares of NTIC common stock by the Internet or telephone, or request a paper proxy card to sign, date and return by mail so that your shares may be voted.

By Order of the Board of Directors



Richard J. Nigon  
*Chairman of the Board*

December 10, 2013  
Circle Pines, Minnesota

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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549**

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**FORM 10-K**

(Mark one)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

**For the fiscal year ended August 31, 2013**

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from \_\_\_\_\_ to \_\_\_\_\_.

**Commission file number 001-11038**

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**NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION**

(Exact name of registrant as specified in its charter)

**Delaware**

**41-0857886**

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification No.)

**4201 Woodland Road**

**P.O. Box 69**

**Circle Pines, Minnesota**

**55014**

(Address of principal executive offices)

(Zip Code)

**(763) 225-6600**

(Registrant's telephone number, including area code)

Securities registered under Section 12(b) of the Act:

Title of each class

Name of each exchange on which registered

**Common Stock, par value \$0.02 per share**

**The NASDAQ Stock Market LLC  
(NASDAQ Global Market)**

Securities registered under Section 12(g) of the Act:

**None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES  NO

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. YES  NO

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES  NO

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). YES  NO

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act). (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

(Do not check if a smaller reporting company)

Indicate by check mark whether registrant is a shell company (as defined in Rule 12b-2 of the Act). YES  NO

The aggregate market value of the registrant's common stock, excluding shares beneficially owned by affiliates, computed by reference to the closing sales price at which the common stock was last sold as of February 28, 2013 (the last business day of the registrant's second fiscal quarter) as reported by the NASDAQ Global Market on that date was \$48.1 million.

As of November 19, 2013, 4,434,838 shares of common stock of the registrant were outstanding.

**DOCUMENTS INCORPORATED BY REFERENCE**

Part III of this Annual Report on Form 10-K incorporates by reference information (to the extent specific sections are referred to herein) from the registrant's Proxy Statement for its 2014 Annual Meeting of Stockholders to be held January 23, 2014.

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**NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION**

**ANNUAL REPORT ON FORM 10-K  
FISCAL YEAR ENDED AUGUST 31, 2013**

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*This annual report on Form 10-K contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, and are subject to the safe harbor created by those sections. For more information, see “Part I. Item 1. Business – Forward-Looking Statements.”*

*As used in this report, references to “NTIC,” the “Company,” “we,” “our” or “us,” unless the context otherwise requires, refer to Northern Technologies International Corporation and its wholly owned subsidiary, Northern Technologies Holding Company, LLC, and its majority owned subsidiaries, Zerust Prevenção de Corrosão S.A. and NTI ASEAN LLC, all of which are consolidated on NTIC’s consolidated financial statements.*

*NTIC’s consolidated financial statements do not include the accounts of any of its joint ventures. Except as otherwise indicated, references in this report to NTIC’s joint ventures do not include NTIC’s majority owned subsidiary in Brazil, Zerust Prevenção de Corrosão S.A., or NTIC’s majority owned subsidiary, NTI ASEAN LLC, which is a holding company that holds investments in eight entities that operate in the Association of Southeast Asian Nations (ASEAN) region, including the following countries: China, Indonesia, Korea, Malaysia, Philippines, Singapore, Taiwan and Thailand.*

*As used in this report, references to “Zerust Brazil” refer to NTIC’s majority owned subsidiary in Brazil, Zerust Prevenção de Corrosão S.A.*

*As used in this report, references to “NTI Asean” refer to NTIC’s majority owned holding company subsidiary, NTI ASEAN LLC.*

*As used in this report, references to “HNTI” refer to NTIC’s joint venture in India, Harita NTI Limited.*

*As used in this report, references to “EXCOR” refer to NTIC’s primary joint venture in Germany, Excor Korrosionsschutz – Technologien und Produkte GmbH.*

*All trademarks, trade names or service marks referred to in this report are the property of their respective owners.*

## PART I

### Item 1. BUSINESS

#### Overview

Northern Technologies International Corporation (NTIC) develops and markets proprietary environmentally beneficial products and services in over 60 countries either directly or via a network of joint ventures, independent distributors and agents. NTIC's primary business is corrosion prevention marketed mainly under the ZERUST<sup>®</sup> brand. NTIC has been selling its proprietary ZERUST<sup>®</sup> rust and corrosion inhibiting products and services to the automotive, electronics, electrical, mechanical, military and retail consumer markets for over 35 years, and during the last several years, has targeted and expanded into the oil and gas industry. NTIC also sells a portfolio of bio-based and biodegradable (compostable) polymer resin compounds and finished products marketed under the Natur-Tec<sup>®</sup> brand. These products are intended to reduce NTIC's customers' carbon footprint and provide environmentally sound disposal options.

In fiscal 2013, 90.9% of NTIC's consolidated net sales were derived from the sales of ZERUST<sup>®</sup> rust and corrosion inhibiting products and services. NTIC's ZERUST<sup>®</sup> rust and corrosion inhibiting products include plastic and paper packaging, liquids, powders, coatings, rust removers, cleaners, diffusers and variations of these products designed specifically for the oil and gas industry. NTIC also offers worldwide on-site technical consulting for rust and corrosion prevention issues. NTIC's technical service consultants work directly with the end users of NTIC's ZERUST<sup>®</sup> rust and corrosion inhibiting products to analyze their specific needs and develop systems to meet their technical requirements. In North America, NTIC sells its ZERUST<sup>®</sup> corrosion prevention solutions through a direct sales force as well as a network of independent distributors and agents. Internationally, NTIC sells its ZERUST<sup>®</sup> corrosion prevention solutions and conducts business through its majority owned Brazilian subsidiary, Zerust Prevenção de Corrosão S.A. (Zerust Brazil), its majority owned holding company subsidiary, NTI ASEAN, LLC (NTI Asean), and joint venture arrangements.

One of NTIC's strategic initiatives is to expand into and penetrate a broader range of market segments for its ZERUST<sup>®</sup> corrosion prevention solutions. To this end, for the past several years, NTIC has focused its sales and marketing efforts on the oil and gas industry since the infrastructure that supports that industry is typically constructed using metals that are highly susceptible to corrosion. NTIC believes that its ZERUST<sup>®</sup> corrosion prevention solutions will minimize maintenance downtime on critical oil and gas industry infrastructure, extend the life of such infrastructure and reduce the risk of environmental pollution due to leaks caused by corrosion. One of NTIC's primary customers in the oil and gas industry is Petroleo Brasileiro S.A. (Petrobras), an oil company located in Brazil. Petrobras has conducted extensive multi-year product field trials of NTIC's ZERUST<sup>®</sup> rust and corrosion inhibiting products against competitive alternatives. NTIC also markets and sells its ZERUST<sup>®</sup> rust and corrosion prevention solutions to other customers in the oil and gas industry across several countries either directly or through Zerust Brazil or NTIC's joint venture partners and other strategic partners. The sale of ZERUST<sup>®</sup> corrosion prevention solutions to customers in the oil and gas industry has typically involved a long sales cycle, often including a one- to multi-year trial period with each customer and a slow integration process thereafter.

NTIC's consolidated net sales for fiscal 2013 included \$2,044,666 million in sales of Natur-Tec<sup>®</sup> bio-plastic resin compounds and finished products. Natur-Tec<sup>®</sup> bio-based and biodegradable plastics are manufactured using NTIC's patented and/or proprietary technologies and are intended to replace conventional petroleum-based plastics. The Natur-Tec<sup>®</sup> bioplastics portfolio includes biopolymer resin compounds which are available in several grades tailored for a variety of applications, such as blown-film

extrusion, extrusion coating and injection molding, and finished products, including shopping and grocery bags, lawn and leaf bags, can liners, cutlery, packaging foam and bio-polymer coated paper products, which are engineered to be fully biodegradable in a composting environment. In North America, NTIC primarily markets its Natur-Tec<sup>®</sup> resin compounds and finished products through a network of national and regional distributors and independent agents. NTIC continues to see significant opportunities for finished bioplastic products and, therefore, continues to strengthen and expand its North American distribution network for finished Natur-Tec<sup>®</sup> bioplastic products. Internationally, NTIC sells its Natur-Tec<sup>®</sup> resin compounds and finished products both directly and through some of its joint venture arrangements.

## Joint Ventures

NTIC participates, either directly or indirectly, in 23 active joint venture arrangements in North America, Europe and Asia. Each of these joint ventures generally manufactures and markets products in the geographic territory to which it is assigned. While most of NTIC's joint ventures exclusively sell rust and corrosion inhibiting products, some of the joint ventures sell NTIC's Natur-Tec<sup>®</sup> resin compounds. NTIC historically has funded its portion of joint venture investments with cash generated from operations.

The following table sets forth a list of NTIC's operating joint ventures as of November 22, 2013, the country in which the joint venture is organized and NTIC's ownership percentage in each joint venture:

Joint Venture Name	Country	NTIC Percent (%) Ownership
TAIYONIC LTD.	Japan	50%
ACOBAL SAS	France	50%
ZERUST-NIC (TAIWAN) CORP.	Taiwan <sup>(1)</sup>	30%
EXCOR KORROSIONSSCHUTZ – TECHNOLOGIEN UND PRODUKTE GMBH	Germany	50%
ZERUST SINGAPORE PTE. LTD	Singapore <sup>(1)</sup>	30%
ZERUST AB	Sweden	50%
MOSTNIC-ZERUST	Russia	50%
KOREA ZERUST CO., LTD.	South Korea <sup>(1)</sup>	30%
ZERUST OY	Finland	50%
ZERUST (U.K.) LTD.	United Kingdom	50%
EXCOR-ZERUST S.R.O.	Czech Republic	50%
EXCOR SP. Z.O.O.	Poland	50%
ZERUST SPECIALTY TECH CO. LTD.	Thailand <sup>(1)</sup>	30%
TIANJIN ZERUST CO.	China <sup>(1)</sup>	30%
HARITA NTI LIMITED	India	50%
CHONG WAH-NTIA SDN. BHD.	Malaysia <sup>(1)</sup>	30%
NTIA ZERUST PHILIPPINES, INC.	Philippines <sup>(1)</sup>	30%
ZERUST A.Ş.	Turkey	50%
ZERUST CONSUMER PRODUCTS, LLC	United States	50%
ZERUST – DNEPR	Ukraine	50%
PT. CHEMINDO – NTIA	Indonesia <sup>(1)</sup>	30%
LENPROMTECHNOLOGIES, LLC	Russia	50%
MUTEC GMBH	Germany <sup>(2)</sup>	44%

(1) Indirect ownership interest through NTI Asean.

(2) Indirect ownership through Northern Instruments Corporation LLC.

NTIC typically owns a 50% or less ownership interest in each of its joint ventures. During the first quarter of fiscal 2013, NTIC and the other 50% owner in NTI Asean, Taiyo Petroleum Gas Co. Ltd.,

contributed their respective shares of capital stock of Korea Zerust Co., Ltd. (Korea Zerust), constituting an aggregate of 50% of the equity and voting rights of Korea Zerust, to NTI Asean. Also, NTIC contributed exclusive license rights and other intellectual property to NTI Asean in exchange for an additional 10% ownership interest in NTI Asean. As a result of the transaction, NTIC holds 60% of the equity and 60% of the voting rights of NTI Asean. NTI Asean holds investments in eight entities that operate in the following eight territories located in the Association of Southeast Asian Nations (ASEAN) region: China, Indonesia, Korea, Malaysia, Philippines, Singapore, Taiwan and Thailand.

NTIC has a 50% ownership interest in Northern Instruments Corporation LLC for NTIC's joint venture investment in Mütéc GmbH in Germany. Taiyo Petroleum Gas Co. Ltd. owns the remaining 50% ownership interest in Northern Instruments Corporation LLC. Northern Instruments Corporation LLC in turn owns 88% of Mütéc GmbH. Mütéc GmbH manufactures proprietary electronic sensing instruments, which it sells through distributors as well as certain joint ventures.

NTIC's receipt of funds from its joint ventures are in the form of dividend distributions from the joint ventures based on their profitability and NTIC's receipt of fees for services that NTIC provides to its joint ventures based primarily on the revenues of the joint ventures. The profits and subsequent dividends from NTIC's joint ventures are shared by the respective joint venture owners in accordance with their respective ownership percentages. Because NTIC typically owns 50% or less of each of its joint venture entities, NTIC does not control the decisions of these entities regarding whether to pay dividends and, if paid, how much the dividend should be in any given year.

Sales by NTIC's joint ventures are not included in the net sales of NTIC. NTIC's joint venture in Germany, Excor Korrosionsschutz – Technologien und Produkte GmbH (EXCOR), and NTIC's joint venture in China are considered significant to NTIC's consolidated assets and income; and therefore, NTIC provides certain additional financial information regarding these entities in the notes to NTIC's consolidated financial statements and elsewhere in this report. For more information regarding NTIC's joint ventures and their effect on NTIC's operating results, see NTIC's consolidated financial statements in "Part II. Item 8. Financial Statements and Supplementary Data" and "Part II. Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" of this report.

## **Products**

NTIC derives revenues directly and/or indirectly through its subsidiaries and joint ventures from the following product lines:

***ZERUST® Corrosion Prevention Solutions.*** In fiscal 2013, 90.9% of NTIC's consolidated net sales were derived from developing, manufacturing and marketing ZERUST® rust and corrosion inhibiting products and services. Corrosion not only damages the appearance of metal products and components but also negatively impacts their mechanical performance. This applies to the rusting of ferrous metals (iron and steel) and the deterioration by oxidation of nonferrous metals (aluminum, copper, brass, etc.). NTIC's ZERUST® corrosion prevention solutions include plastic and paper packaging, powders, liquids, coatings, rust removers, cleaners, diffusers and variations of these products designed specifically for the oil and gas industry, as well as technical corrosion management and consulting services.

***Plastic and Paper Packaging.*** NTIC's ZERUST® packaging products contain proprietary nontoxic chemical formulations that continuously release an invisible, odorless, safe and environmentally friendly corrosion inhibiting vapor that passivates metal surfaces and thereby inhibits rust and corrosion. The corrosion-inhibiting protection is maintained as long as the metal products to be protected remain enclosed within the ZERUST® packaging. Electron scanning shows that once the contents are removed from the ZERUST® package, the ZERUST® protection dissipates from the contents' surfaces within two

hours, leaving a clean, dry and corrosion-free metal component. This mechanism of corrosion protection enables NTIC's customers to easily package metal objects for rust-free shipment or long-term storage. Furthermore, by eliminating costly greasing and degreasing processes and/or significantly reducing the use of certain coatings to inhibit corrosion, NTIC's ZERUST® corrosion prevention solutions provide customers significant savings in labor, material and capital expenditures for equipment to apply, remove and dispose of oils and greases, as well as the attendant environmental problems, as compared to traditional methods of corrosion prevention.

NTIC developed the first means of infusing volatile corrosion inhibiting chemical systems (VCIs) into polyethylene and polypropylene resins. Combining ZERUST® chemical systems with polyethylene and polypropylene resins permitted NTIC to introduce a line of plastic packaging products in the form of low and high density polyethylene bags and shroud film, including stretch, shrink, skin and bubble cushioning film, thereby giving packaging engineers an opportunity to ship and store ferrous, nonferrous and mixed-metal products in a clean, dry and corrosion-free condition, with an attendant overall savings in total packaging cost. In addition to plastic packaging, NTIC has developed additives to imbue kraft paper, corrugated cardboard, solid fiber and chipboard packaging materials with corrosion protection properties. NTIC's ZERUST® plastic and paper packaging products come in various thicknesses, strength enhancements, protection types, shapes and sizes. This product line also includes items such as ZERUST® gun cases, car covers and tool-drawer liners, which are targeted at retail consumers.

*Liquids and Coatings.* NTIC's corrosion prevention solutions include a line of metal surface treatment liquids and coatings, which are oil, water and bio-solvent based, marketed under brand names including Axxatec™, Axxanol™ and Z-Maxx. These liquids and coatings provide powerful corrosion protection in aggressive environments, such as salt air and humidity at high temperatures. Products are formulated for most metal types and protection levels.

*Rust Removers and Cleaners.* NTIC also sells rust removal and cleaning products designed to restore rusty parts to a usable condition by replacing labor-intensive, abrasive cleaners that damage surfaces and commonly fail to remove rust from complex metal surfaces like the teeth of small gears under the Axxaclean™ brand name.

*Diffusers.* NTIC's corrosion prevention solutions include a line of corrosion inhibiting vapor diffusers, such as ZERUST® ActivPak®, ZERUST® ICT® Vapor Capsules, ZERUST® ICT® Plastabs® and ZERUST® ICT® Cor-Tabs®, ZERUST® ICT® Pipe Strip and ZERUST® ICT® Tube Strip. These diffusers are designed to protect metals within enclosures, like switch gearboxes and electronic cabinets, or can be used as added protection to ZERUST® packaging products. Diffusers work by permeating the interior air of an enclosure with an invisible, odorless, non-toxic corrosion inhibiting vapor that protects nearby metal surfaces that are within a "radius of protection" for a period of one or two years depending on the model. This invisible and dry protective layer reevaporizes upon removal of the capsule from the enclosure, leaving all surfaces clean, dry, residue-free and corrosion-free.

*Z-CIS® Technical Services.* As an on-going effort to help NTIC's customers improve and control their processes in terms of corrosion management, NTIC markets and offers unique corrosion management and consulting services to target customers. This ZERUST® corrosion inhibition system (known as Z-CIS®) utilizes NTIC's global experience in successful corrosion management control. Services and consulting are billed according to work done on the customer's behalf to improve the customer's internal and external corrosion control systems. Several major automotive companies and their automotive parts suppliers have used NTIC's Z-CIS® system.

***ZERUST® Corrosion Prevention Solutions Designed Specifically for the Oil and Gas Industry.*** NTIC has developed proprietary corrosion inhibiting solutions specifically for the mitigation of corrosion of the types of capital assets used in the petroleum and chemical process industries and has targeted the sale of these ZERUST® corrosion solutions to potential customers in the oil and gas industry. The infrastructure that supports the oil and gas industry is predominantly constructed using metals that are highly susceptible to corrosion. The industrial environment at these facilities usually contains compounds, including sulfides and chlorides, which cause aggressive corrosion. This problem affects pipelines, petroleum storage tanks, spare parts in long-term storage, processing and other critical equipment. In addition to the economic losses caused by actions like the replacement of parts and structures, maintenance and repairs, and product loss, there are significant costs associated with production decreases caused by equipment down for repair and maintenance. Furthermore, there are also considerable health, safety and environmental risks caused by corrosion that can greatly increase economic losses. NTIC believes that its ZERUST® oil and gas corrosion prevention solutions minimize maintenance downtime on critical oil and gas industry infrastructure, extend the life of such infrastructure and reduce the risk of environmental pollution due to leaks caused by corrosion.

NTIC's rust and corrosion inhibiting products for the oil and gas industry include ZERUST® Flange Savers,® ZERUST® ReCAST-R VCI Dispensers and ZERUST® chemicals, including Sol-V™ C-Series chemicals, in addition to many of the traditional ZERUST® rust and corrosion inhibiting products previously described.

ZERUST® Flange Savers® are specially designed covers that have been impregnated with a proprietary ZERUST® inhibitor formulation to provide corrosion protection for flanges, valves and welded joints. Oil and gas pipeline segments are connected by flanges and welded joints of varying sizes, designs and materials. These connection points often corrode under aggressive industrial environments and harsh operating conditions, thereby causing costly operational and safety problems. ZERUST® Flange Savers® are available in various sizes to accommodate different pipe diameters, pressure ratings and international standards for pipeline valves and flanges.

ZERUST® ReCAST-R VCI Dispensers protect the interior surfaces of aboveground storage tank roofs by delivering proprietary inhibitor formulations into the vapor space between the surface of the product and the tank roof. Certain grades of oil that contain sulphur emit corrosive acid gas vapors that destroy the internal surfaces of aboveground storage tank roofs and their support structures above the stored product. Aggressive pitting and crevice corrosion create holes in the tank tops that cause unsafe operating conditions and environmental problems. Polymer based internal tank coatings decrease surface corrosion but have proven to be ineffective in preventing dangerous pitting and crevice corrosion, especially in the interstitial spaces between the roof and support structures. The ZERUST® ReCAST-R solution is designed to extend the service life of a single tank roof 25 years and beyond by forming a protective vapor barrier which separates the corrosive environment from the metallic surface of the tank roof support structures and is designed to prevent corrosion in highly aggressive environments. Each system is tailored to a customer's requirements, depending upon specific environmental conditions, product stored, tank diameter and type of metal and can be applied on both new and existing tank roofs.

ZERUST® chemicals protect the bottoms of aboveground storage tanks by delivering proprietary inhibitor formulations into the sand/soil bed on which the tank bottom rests. Bottom plate corrosion leads to loss of stored product into the soil causing economic losses as well as environmental issues. Each system is tailored to a customer's requirements, depending upon specific environmental conditions, product stored, tank diameter and type of metal and can be applied on both new and existing tank bottoms.

ZERUST® Sol-V™ C-Series packaging is designed to provide corrosion prevention in voids and enclosures especially when there is either stagnant water, or the potential for water seepages and/or accumulation of water over time. ZERUST® Sol-V™ C-Series packaging allows the VCIs to release while conserving a Sol-V proprietary blend of soluble corrosion inhibitors (SCIs) until water enters the system. In the presence of water, the packaging dissolves and releases the SCIs which give users a way of using the product minimizing risks associated with unpacked powders. Typical applications of ZERUST® Sol-V™ C-Series packaging include offshore platform leg voids, vessels and tanks mothballed in tropical environments, ship blocks being fabricated in areas of high humidity, piping systems and heat exchangers.

During fiscal 2012, two of NTIC's ZERUST® products designed for the oil and gas industry, ZERUST® Flange Savers® and the ZERUST® ReCAST-R system, received *Materials Performance* magazine's Readers' Choice Corrosion Innovation of the Year Awards. *Materials Performance* is published by NACE International, the world's largest organization of professional engineers dedicated to the study, prevention and mitigation of corrosion.

***Natur-Tec® Resin Compounds and Finished Products.*** NTIC manufactures and sells a range of bio-based and biodegradable (compostable) polymer resin compounds and finished products under the Natur-Tec® brand. NTIC's consolidated net sales for fiscal 2013 included \$2,044,666 in sales of Natur-Tec® resin compounds and finished products. In recent years, a combination of market drivers such as volatile petroleum prices, a desire to reduce dependence on foreign oil, increased environmental and sustainability awareness at the corporate and consumer level, improved technical properties and product functionality, as well as recent foreign, state and local governmental regulations banning the use of traditional, petroleum-based plastics or mandating the use of certain biodegradable or compostable products, have led to increased interest in sustainable, renewable resource based and compostable alternatives to traditional plastics. The term "bio-plastics" encompasses a broad category of plastics that are either bio-based, which means derived from renewable resources such as corn or cellulosic/plant material or blends thereof, or are engineered to be fully biodegradable, or both. According to Freedonia Research, the total market for all types of bio-plastic resins worldwide is estimated at \$1 billion and is projected to grow to over \$2.9 billion by 2015.

***Resin Compounds.*** Natur-Tec® resin compounds are produced by blending commercially available base resins, such as Ecoflex® from BASF, Ingeo® PLA from NatureWorks LLC and/or Bionolle® from Showa-Denko, with organic and inorganic fillers, and proprietary polymer modifiers and compatibilizers, using NTIC's proprietary and patented ReX Process. In this process, biodegradable polymers, natural polymers made from renewable resources, and organic and inorganic materials are reactively blended in the presence of proprietary compatibilizers and polymer modifiers to produce bio-based and/or biodegradable polymer resin formulations that exhibit unique and stable morphology. Natur-Tec® resin compounds are engineered for high performance, ease of processing and reduced cost compared to most other bio-plastic materials, and can be processed by converters using conventional manufacturing processes and equipment.

Natur-Tec® resin compounds are available in several grades tailored for a variety of applications, such as blown-film extrusion, extrusion coating and injection molding.

Natur-Tec® flexible film resin compounds are fully compostable and meet requirements of international standards for compostable plastics such as ASTM (American Society for Testing and Materials) D6400 (U.S.), EN 13432 (European standards for products and services by European Committee for Standardization) and ISO (International Organization for Standardization) 17088, and are certified as 100% compostable by organizations including the BPI (Biodegradable Products Institute) in the United States and Vincotte in Europe. Natur-Tec® film resin compounds can be used to produce film for



applications, such as bags, including compost bags, lawn and leaf bags, pet waste bags and carry-out bags, agricultural film and consumer and industrial packaging.

The Natur-Tec<sup>®</sup> compostable extrusion coating resin compounds are biobased and biodegradable and are designed to replace conventional plastic materials for extrusion coating applications. Natur-Tec<sup>®</sup> extrusion coating resin compounds are manufactured using sustainable and renewable resources, per the ASTM D6866 standard, which allows industry and consumers the opportunity to reduce or neutralize their carbon footprint, and are designed to meet the requirements of international standards for compostable plastics, such as ASTM D6400. Natur-Tec<sup>®</sup> extrusion coating resins provide good adhesion to paper, an excellent print surface and good heat seal strength and the coating material is suitable for food contact applications including both hot and cold applications. Natur-Tec<sup>®</sup> extrusion coating resins can be used for coating paper and paperboards for the manufacture of disposable cups, plates and other food service ware items.

The Natur-Tec<sup>®</sup> compostable injection molding resin compounds are biobased and compostable and are designed to replace conventional plastic materials for injection molded plastic applications. Natur-Tec<sup>®</sup> compostable injection molding resin compounds are manufactured using sustainable and renewable resources, per the ASTM D6866 standard and are designed to meet the requirements of international standards for compostable plastics, such as ASTM D6400 and EN 13432. Natur-Tec<sup>®</sup> compostable injection molding resin compounds can be used for injection molded plastic applications, such as cutlery, pens, hangers, containers and packaging. Natur-Tec<sup>®</sup> biobased injection molding resin compounds are made with at least 50% of biobased/renewable resource-based materials per the ASTM D6866 standard and are meant to enhance sustainability by replacing petroleum-based plastics. Natur-Tec<sup>®</sup> also produces biobased injection molding resin compounds that are not designed or intended to biodegrade but rather aid in sustainability by requiring less energy for production and by reducing dependence on petroleum as a raw material. Natur-Tec<sup>®</sup> biobased injection molding resin compounds exhibit the same properties as conventional plastic materials and can be used in applications, such as automotive components, consumer goods, electronics, medical products, furniture and packaging.

*Finished Products.* Natur-Tec<sup>®</sup> finished products include totally biodegradable compost and trash bags, agricultural film and other single-use disposable products, such as compostable cutlery, food and consumer goods packaging that are currently marketed under the Natur-Bag<sup>®</sup> or Natur-Ware<sup>®</sup> brands.

The Natur-Bag<sup>®</sup> product line offers 10 different compostable bag sizes, from three gallons to 96 gallons. The bags are available in various SKU configurations from retail packs that are sold to the consumer either through retail outlets or through online stores, and industrial case packs that are sold to commercial and industrial customers primarily through wholesalers and distributors. The Natur-Bag<sup>®</sup> products are manufactured from the Natur-Tec<sup>®</sup> flexible film resin compounds and thus are fully biodegradable and compostable.

The Natur-Ware<sup>®</sup> product line consists of biobased and compostable cutlery made from the Natur-Tec<sup>®</sup> compostable injection molding resin compounds. Natur-Ware<sup>®</sup> cutlery can be composted along with food scraps in zero-waste programs.

Both Natur-Bag<sup>®</sup> and Natur-Ware<sup>®</sup> products are fully certified compostable, and carry the BPI Compostable logo in the United States and the Vincotte OK Compost in Europe. Furthermore, these products are also independently tested and approved for use in organic waste diversion systems by Cedar Grove, one of the largest compost operators in the United States.

## **Sales, Marketing and Distribution**

**ZERUST® Corrosion Prevention Solutions.** In the United States, NTIC markets its ZERUST® rust and corrosion inhibiting products and services, including its products designed for the oil and gas industry, principally to industrial users in the automotive, electronics, electrical, mechanical, military, retail consumer and oil and gas markets by a direct sales force and through a network of independent distributors, manufacturer's sales representatives and strategic partners. NTIC's technical service consultants work directly with the end users of NTIC's ZERUST® products to analyze their specific corrosion prevention needs and develop systems to meet their technical requirements.

Internationally, NTIC has entered into a series of joint ventures with foreign partners (either directly or through a holding company). NTIC receives fees for providing technical support, marketing assistance and other services to its joint ventures based primarily on the revenues of the joint ventures in accordance with the terms of the joint venture arrangements. Such services include consulting, legal, insurance, technical and marketing services.

With respect to the sales and marketing of ZERUST® rust and corrosion inhibiting products and services to the oil and gas industry, NTIC uses a combination of direct sales personnel, independent sales agents and its joint venture network. However, since many of NTIC's existing joint ventures do not have significant experience and contacts within the oil and gas industry, NTIC has formed one joint venture in Russia and may continue to form other new joint ventures to focus exclusively on the sale and marketing of ZERUST® rust and corrosion inhibiting products and services to the oil and gas industry. In addition, in an attempt to penetrate the oil and gas industry within certain markets more quickly, NTIC has entered into certain sales and marketing agency agreements with specific organizations that have existing long term relationships with key oil and gas industry clients. NTIC also engages in certain direct marketing activities to build its brand within the oil and gas industry, such as traditional advertising and direct mail campaigns and presence and participation at selected key trade shows and technical forums. NTIC continues to believe the sale of its ZERUST® corrosion prevention solutions to customers in the oil and gas industry will involve a long sales cycle, likely including a one- to multi-year trial period with each customer and a slow integration process thereafter.

**Natur-Tec® Resin Compounds and Finished Products.** In the United States, NTIC markets its Natur-Tec® resin compounds and finished products through a network of 27 national and regional distributors and independent manufacturer's sales representatives and three NTIC direct sales employees as of August 31, 2013. Target customers for Natur-Tec® finished products include individual consumers and commercial and institutional organizations such as corporations and government agencies, and educational organizations such as universities and school districts. NTIC is also targeting key national and regional retailers utilizing independent sales agents. Target customers for Natur-Tec® resin compounds include film extruders and injection molders who would purchase Natur-Tec® resin compounds to manufacture and sell their own finished bio-based, biodegradable or compostable end products, such as film, bags and cutlery.

Internationally, NTIC uses its joint ventures and a network of seven international distributors to market its Natur-Tec® resin compounds and finished products.

## **Competition**

**ZERUST® Corrosion Prevention Solutions.** While NTIC is unaware of any third parties with which NTIC competes on a worldwide basis with respect to its corrosion prevention solutions, NTIC does compete with several third parties on a regional basis. NTIC evaluates competing rust and corrosion inhibiting products on an ongoing basis. Some of NTIC's competitors are established companies that

may have financial, marketing and other resources substantially greater than those of NTIC. As a result, they may be able to adapt more quickly to new or emerging technologies and changes in customer requirements, or devote greater resources to the promotion and sale of their products than NTIC. With respect to its rust and corrosion inhibiting products, NTIC competes on the basis of product innovation, quality and reliability, product support, customer service, reputation as well as price. Some of these companies may have achieved significant market acceptance of their competing products and brand recognition. NTIC, however, believes it has an advantage over most of its competitors as a result of NTIC's technical innovation and its value added service. NTIC attempts to provide its customers with the highest level of technical service and applications engineering in addition to ZERUST<sup>®</sup> rust and corrosion inhibiting products. Nonetheless, the commoditization of certain of NTIC's ZERUST<sup>®</sup> rust and corrosion inhibiting products have led and may continue to lead to decreased pricing and lower margins on such products. In addition, because the barriers to entry are low, additional competitors, including plastic extrusion companies, may emerge, which likely would lead to the further commoditization of NTIC's rust and corrosion inhibiting products.

With respect to NTIC's corrosion prevention solutions for use in the oil and gas industry, NTIC's primary barrier to entry is a combination of conservatism, complacency, confidence in old approaches as well as the complexity of the buying organizations. Some of NTIC's competitors with respect to its traditional ZERUST<sup>®</sup> rust and corrosion inhibiting products also compete in the oil and gas industry. NTIC also faces competition from new suppliers who provide alternative approaches to corrosion prevention, some of which have a significant market presence and more years of experience and credibility in the oil and gas industry. Original equipment manufacturer (OEM) suppliers to the oil and gas industry present a new market vertical for NTIC's traditional industrial ZERUST<sup>®</sup> products.

***Natur-Tec<sup>®</sup> Resin Compounds and Finished Products.*** With respect to NTIC's Natur-Tec<sup>®</sup> resin compounds and finished products, NTIC competes with several established companies that have been producing and selling similar products for a significantly longer time period, and have significantly more sales, more extensive and effective distribution networks and better brand recognition than NTIC. Most of these companies also have substantially more financial and other resources than NTIC. NTIC competes on the basis of performance, brand awareness, distribution network, product availability, product offering, shelf life, place of manufacture and price. Because of price competition, NTIC's margins on its Natur-Tec<sup>®</sup> resin compounds and finished products are lower than its margins on its ZERUST<sup>®</sup> corrosion prevention solutions. NTIC also could face supply constraints for the base resins used to manufacture NTIC's Natur-Tec<sup>®</sup> resin compounds and finished products since there are a limited number of suppliers of such base resins and limited capacity for their production.

## **Research and Development**

NTIC's research and development activities are directed at improving existing products, developing new products, reducing costs and improving quality assurance through improved testing of NTIC's products. NTIC's internal research and development activities are conducted at its facilities located in Circle Pines, Minnesota; Beachwood, Ohio; and Dresden, Germany under the direction of internationally known scientists and research institutes under exclusive contract to NTIC with respect to the subject of their respective research efforts. EXCOR has established a wholly owned subsidiary, Excor Korrosionsforschung GmbH, to conduct research into new fields of corrosion inhibiting packaging and the applications engineering of such products in conjunction with NTIC's domestic research and development operations. With respect to NTIC's Natur-Tec<sup>®</sup> resin compounds and finished products, Ramani Narayan, Ph.D., a current director of NTIC and Distinguished Professor in the Department of Chemical Engineering & Materials Science at Michigan State University, provides his expertise and technical support to NTIC.

NTIC spent \$3,815,515 in fiscal 2013 and \$3,875,581 in fiscal 2012 in connection with its research and development activities. NTIC anticipates that it will spend between \$3,800,000 and 4,000,000 in fiscal 2014 on research and development activities. These amounts are net of reimbursements related to certain research and development contracts. Such reimbursements totaled \$274,728 and \$365,940 in fiscal 2013 and fiscal 2012, respectively. Most of NTIC's research and development contracts under which NTIC received reimbursements during fiscal 2013 were in connection with developing corrosion prevention solutions for the oil and gas industry, and to a lesser extent, U.S. government or other grants or awards in connection with developing future potential Natur-Tec<sup>®</sup> products.

During fiscal 2009, Zerust Brazil entered into a multi-year contract with Petrobras to install and service proprietary corrosion protection technologies on the roofs of an initial set of aboveground oil storage tanks at the Petrobras REDUC refinery in Rio de Janeiro, Brazil. Also during fiscal 2009, NTIC signed multiple joint research and development contracts with Petrobras's research and development group at the Leopoldo Américo Miguez de Mello Research & Development Center (CENPES) pursuant to which the parties undertook a 20-month Petrobras funded effort to explore, understand and resolve bottom plate corrosion issues in aboveground storage tanks.

NTIC was awarded three National Science Foundation (NSF) awards -- one in June 2009 as a Phase I Small Business Technology Transfer (STTR) grant for \$150,000 on advanced polylactide materials for biobased and biodegradable products, the second in September 2009 as a Phase I Small Business Innovation Research (SBIR) grant for an additional \$150,000 on "Biobased coatings for corrosion protection" and a third in November 2011 as a Phase II SBIR grant of \$500,000 for the development of advanced polylactide materials for biobased and biodegradable plastic products. The Phase I projects were completed in June 2010 and have helped NTIC develop biobased technologies for new innovative applications in the ZERUST<sup>®</sup> and Natur-Tec<sup>®</sup> business areas. The Phase II project work continued during fiscal 2013 and is still ongoing. The research and technology development was conducted in collaboration with Ramani Narayan, Ph.D., a current director of NTIC, and Michigan State University. NTIC plans to use modified polylactic acid chemistries developed at Michigan State University to expand its product portfolio with enhanced solutions for bioplastics packaging.

During fiscal 2010, NTIC was awarded money from the U.S. Department of Defense for a Phase I Small Business Innovation Research contract worth \$70,000 to develop non-plastic marine biodegradable waste bags for the U.S. Navy. NTIC collaborated with the U.S. Army Natick labs and Michigan State University on this project. In November 2011, NTIC was awarded a Department of Defense Small Business Innovation Research Phase II grant of \$500,000 for the ongoing development and commercialization of biobased and marine biodegradable non-plastic bags for the U.S. Navy. The Phase II grant work continued during fiscal 2013 and is still ongoing.

### **Intellectual Property Rights**

NTIC's success depends and will continue to depend in part upon its ability to maintain patent and trademark protection for its products and processes, to preserve its proprietary information and trade secrets and to operate without infringing the proprietary rights of third parties. NTIC's policy is to attempt to protect its technology by, among other things, filing patent applications and trademark applications and vigorously preserving the trade secrets covering its technology and other intellectual property rights.

In 1979, NTIC developed and patented the first polyolefin (plastic) based industrial corrosion inhibiting packing material in the world. The U.S. patent granted under this patent application became the most important intellectual property right in NTIC's history. This patent expired in 2000. NTIC has since filed for 12 letters of patents in the U.S. covering various corrosion inhibiting technologies, systems and

applications, and now owns several patents in these areas. These patents as well as patent applications have been extended to the countries of strategic relevance to NTIC including, but not limited to, the Patent Cooperation Treaty. In addition, EXCOR owns several patents in the area covering various corrosion inhibiting technologies and also applied for new patents on proprietary new corrosion inhibiting technologies. NTIC is also seeking additional patent protection covering various host materials into which its corrosion inhibiting additives and other protective features can be incorporated, proprietary new process technologies, and chemical formulations outside the area of corrosion protection. NTIC owns several patents outside the area of corrosion protection both in the U.S. and in countries of strategic relevance to NTIC including, but not limited to, the Patent Cooperation Treaty.

In addition to seeking patent protection, NTIC maintains an extensive portfolio of trademarks in countries where NTIC has a presence directly or through its joint ventures. NTIC continuously pursues new trademark applications of strategic interest worldwide. NTIC owns the following U.S. registered trademarks: NTI<sup>®</sup>, NTI & Globe Design, ZERUST<sup>®</sup>, EXCOR<sup>®</sup>, ICT<sup>®</sup>, Z-CIS<sup>®</sup>, COR TAB<sup>®</sup>, PLASTABS<sup>®</sup>, MATCH-TECH<sup>®</sup>, COR/SCI<sup>®</sup>, NIC<sup>®</sup>, NATUR-TEC<sup>®</sup>, NATUR-TEC & Design<sup>®</sup>, NATUR-BAG<sup>®</sup> and NATUR-WARE<sup>®</sup>. NTIC also has a registered trademark on the use of the Color Yellow with respect to corrosion inhibiting packaging. Furthermore, NTI<sup>®</sup>, ZERUST<sup>®</sup>, The ZERUST People<sup>®</sup>, EXCOR<sup>®</sup>, the Color Yellow<sup>®</sup>, NTI ASEAN<sup>®</sup> and COR/SCI<sup>®</sup>, as well as other marks have been registered in the European Union with several new applications pending.

NTIC requires its employees, consultants and advisors having access to its confidential information, including trade secrets, to execute confidentiality agreements upon commencement of their employment or consulting relationships with NTIC. These agreements generally provide that all confidential information NTIC develops or makes known to the individual during the course of the individual's employment or consulting relationship with NTIC must be kept confidential by the individual and not disclosed to any third parties. NTIC also requires all of its employees and consultants who perform research and development for NTIC to execute agreements that generally provide that all inventions developed by these individuals during their employment by or service arrangement with NTIC will fall under NTIC's proprietary intellectual property rights.

## **Manufacturing**

NTIC's ZERUST<sup>®</sup> rust and corrosion inhibiting products are manufactured according to NTIC's specifications primarily by selected independent sub-contractors under trade secrecy agreements and/or license agreements. In addition, during fiscal 2013, NTIC expanded its production capabilities and began to manufacture select ZERUST<sup>®</sup> rust and corrosion inhibiting products, consisting primarily of liquids and powders, in house at its corporate headquarters location in Circle Pines, Minnesota.

Prior to the first quarter of fiscal 2014, NTIC's joint venture in India produced NTIC's Natur-Tec<sup>®</sup> resin compounds at a compounding facility in Chennai, India. During the first quarter of fiscal 2014, NTIC is in the process of transitioning the production of its Natur-Tec<sup>®</sup> resin compounds to a compounding facility outside of India. Depending upon the location of future demand for NTIC's Natur-Tec<sup>®</sup> resin compounds, NTIC may choose to open an additional compounding facility to produce its Natur-Tec<sup>®</sup> resin compounds. NTIC's Natur-Tec<sup>®</sup> resin compounds can be shipped to any manufacturing facility around the world where they then can be converted into finished products, such as a bag or piece of cutlery. NTIC's Natur-Tec<sup>®</sup> finished products are manufactured using NTIC's Natur-Tec<sup>®</sup> resin compounds by selected sub-contractors. Because of an increasing trend for customers to buy American made products and products that have a reduced or neutral carbon footprint, NTIC has developed alternative United States based sub-contracted production capability for its Natur-Tec<sup>®</sup> finished products.

NTIC is ISO 9001 certified with respect to the manufacturing of its products. NTIC believes that the process of ISO 9001 certification serves as an excellent total quality management tool, enabling NTIC to ensure consistency in the performance of its products. In addition, because potential customers may prefer or require manufacturers to have achieved ISO certification, such ISO certifications may provide NTIC with certain competitive advantages.

### **Availability of Raw Materials**

NTIC does not typically carry excess quantities of raw materials because of widespread availability for such materials from various suppliers. However, with respect to its Natur-Tec<sup>®</sup> resin compounds and finished products, there are a limited number of suppliers of the base resins used to manufacture the resin compounds and finished products, and in the past NTIC has experienced some delay in obtaining such base resins. In addition, a few raw materials and purchased parts used in NTIC's rust and corrosion inhibiting products and Natur-Tec<sup>®</sup> finished products are sourced from suppliers who currently serve as NTIC's sole source of supply for these materials and parts. Although NTIC believes it can obtain these raw materials and parts from other sources of supply, an unexpected loss of supply over a short period of time may not allow NTIC time to replace these sources in the ordinary course of business.

### **Backlog**

NTIC had an order backlog of \$641,000 as of August 31, 2013 compared to \$620,000 as of August 31, 2012. These are orders that are held by NTIC pending release instructions from the customers to be used in just-in-time production. Customers generally place orders on an "as needed" basis and expect delivery within a relatively short period of time.

### **Governmental Regulation**

The U.S. Food and Drug Administration (FDA) has indicated to NTIC that it has no objection to the use of ZERUST<sup>®</sup> ICT<sup>®</sup> packaging products in protecting metal food containers and processing equipment. In addition, the manufacture, sale and use of NTIC's Natur-Tec<sup>®</sup> resin compounds and finished products are subject to regulation in the United States by the FDA. The FDA's regulations are concerned with substances used in food packaging materials. Thus, food and beverage containers are in compliance with FDA regulations if the components used in the food and beverage containers are approved by the FDA as indirect food additives for their intended uses and comply with the applicable FDA indirect food additive regulations, or are generally recognized as safe for their intended uses and are of suitable purity for those intended uses. NTIC believes that its resins are in compliance with all FDA requirements and do not require further FDA approval prior to the sale of its products.

### **Employees**

As of August 31, 2013, NTIC had 58 full-time employees located in the United States, consisting of 19 in sales and marketing, 19 in research and development and lab, 10 in administration, nine in production and one responsible for international coordination. As of August 31, 2013, NTIC's majority owned subsidiary in Brazil had 12 full-time employees, and its holding company, NTI Asean, had no full-time employees. There are no unions representing NTIC's employees and NTIC believes that its relations with its employees are good.

## **Available Information**

NTIC is a Delaware corporation that was originally organized as a Minnesota corporation in 1970. NTIC's principal executive office is located at 4201 Woodland Road, Circle Pines, Minnesota 55014, and its telephone number is (763) 225-6600. NTIC's website is located at [www.ntic.com](http://www.ntic.com). References to NTIC's website addressed in this report are provided as a convenience and as an inactive textual reference only. The information on NTIC's website or any other website is not incorporated by reference into, and not considered a part of, this report.

NTIC makes available, free of charge and through its Internet web site, its annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and any amendments to any such reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, as soon as reasonably practicable after NTIC electronically files such material with, or furnishes it to, the Securities and Exchange Commission (SEC). Reports filed with the SEC may be viewed at [www.sec.gov](http://www.sec.gov) or obtained at the SEC Public Reference Room in Washington, D.C. Information regarding the operation of the Public Reference Room may be obtained by calling the SEC at 1-800-SEC-0330.

## **Forward-Looking Statements**

This report contains or incorporates by reference not only historical information, but also forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, and are subject to the safe harbor created by those sections. In addition, NTIC or others on its behalf may make forward-looking statements from time to time in oral presentations, including telephone conferences and/or web casts open to the public, in press releases or reports, on NTIC's Internet web sites or otherwise. All statements other than statements of historical facts included in this report that address activities, events or developments that NTIC expects, believes or anticipates will or may occur in the future are forward-looking statements including, in particular, the statements about NTIC's guidance, plans, objectives, strategies and prospects regarding, among other things, its financial condition, results of operations and business. NTIC has identified some of these forward-looking statements with words like "believe," "may," "could," "would," "might," "forecast," "possible," "potential," "project," "will," "should," "expect," "intend," "plan," "predict," "anticipate," "estimate," "approximate" or "continue," and other words and terms of similar meaning. The use of future dates is also an indication of a forward-looking statement. Forward-looking statements may be contained in the notes to NTIC's consolidated financial statements and elsewhere in this report, including under the heading "Part II. Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations."

NTIC wishes to caution readers not to place undue reliance on any forward-looking statement that speaks only as of the date made and to recognize that forward-looking statements are predictions of future results, which may not occur as anticipated. Actual results could differ materially from those anticipated in the forward-looking statements and from historical results, due to the risks and uncertainties described under the heading "Item 1A. Risk Factors" below, as well as others that NTIC may consider immaterial or does not anticipate at this time. Although NTIC believes that the expectations reflected in its forward-looking statements are reasonable, NTIC does not know whether its expectations will prove correct. NTIC's expectations reflected in its forward-looking statements can be affected by inaccurate assumptions NTIC might make or by known or unknown risks and uncertainties, including those described below under the heading "Item 1A. Risk Factors." The risks and uncertainties described under the heading "Item 1A. Risk Factors" below are not exclusive and further information concerning NTIC and its business, including factors that potentially could materially affect its financial results or condition, may emerge from time to time. NTIC assumes no obligation to update forward-looking statements to reflect actual results or changes in factors or assumptions affecting such forward-looking statements.

NTIC advises stockholders and investors to consult any further disclosures NTIC may make on related subjects in its annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K that NTIC files with or furnishes to the Securities and Exchange Commission.

**Item 1A. RISK FACTORS**

The following are the most significant factors known to NTIC that could materially adversely affect its business, operating results or financial condition.

***Weakness in the global economy, which may be exacerbated by the inability of certain countries to service their sovereign debt obligations, may negatively impact NTIC's business, operating results and financial condition.***

The possibility that certain European Union member states will default on their debt obligations have contributed to significant uncertainty about the stability of global credit and financial markets. The credit and economic conditions within certain European Union countries in particular, including Greece, Ireland, Italy, Portugal and Spain, have contributed to the instability in global credit and financial markets. The possibility that such EU member states will default on their debt obligations, the uncertainty regarding international and the European Union's financial support programs, the possibility that other EU member states may experience similar financial troubles and the austerity measures that have been implemented by certain EU member states could further disrupt global credit and financial markets. While the situation in the EU has improved recently, such improvement may not be prolonged or sustained and the ultimate outcome of these events cannot be predicted. It is possible that such events could continue to have a negative effect on the global economy as a whole, and the business, operating results and financial condition of NTIC and its joint ventures, in particular. For example, if the European sovereign debt crisis continues or worsens, the negative implications to the global economy and NTIC and its joint ventures could be significant. Approximately 60.9% of the \$113.2 million in net sales of NTIC's joint ventures during fiscal 2013 were to customers based in Europe. A deterioration of economic conditions in such countries likely would have an adverse effect on the net sales of NTIC's joint ventures in Europe but also other parts of the world, and, accordingly, NTIC's equity in income from joint ventures, fees for services provided to joint ventures and receipt of dividend distributions from its joint ventures.

During fiscal 2013, total net sales of NTIC's joint ventures were adversely affected in part by the European economic slowdown, which NTIC believes adversely affected the net sales of NTIC's European joint ventures, as well as certain of NTIC's other non-European joint ventures. In addition, if the European sovereign debt crisis continues or worsens, the value of the Euro and other European currencies could deteriorate, which could negatively impact the business, operating results and financial condition of NTIC and its joint ventures in light of the substantial operations of its joint ventures and the revenues its joint ventures derive from customers in the European Union. Any tightening of the credit and financial markets as a result of the European sovereign debt crisis or otherwise could negatively impact the ability of companies to borrow money from their existing lenders, obtain credit from other sources or raise financing to fund their operations. This could negatively impact the ability of NTIC's customers and the customers of NTIC's joint ventures to purchase NTIC's products, suppliers' ability to provide NTIC and its joint ventures with materials and components and the ability of NTIC and its joint ventures, distributors and sales representatives to finance operations, if needed, on commercially reasonable terms, or at all. Any or all of these events could negatively impact NTIC's business, operating results and financial condition.



***Adverse worldwide economic conditions may adversely affect NTIC's business, operating results and financial condition.***

Apart from the European sovereign debt crisis, the U.S. and other global economies have experienced adverse economic conditions either as a result of the European sovereign debt crisis or otherwise that have affected all sectors of the economy, resulting in declines in economic growth and consumer confidence, increases in unemployment rates and uncertainty about economic stability and the possibility of another worldwide economic recession. Although such factors have improved recently, no assurance can be provided that such improvement will continue. Recessionary factors and adverse worldwide economic conditions adversely affected NTIC's business, operating results and financial condition during fiscal 2013 and in the past. During fiscal 2013, total net sales of NTIC's joint ventures and in turn NTIC's income from its joint venture operations were adversely affected in part by the European economic slowdown, which NTIC believes also adversely affected net sales of certain of NTIC's other non-European joint ventures. During fiscal 2009, NTIC's operating results were significantly adversely affected by worldwide economic conditions, particularly adverse conditions affecting the worldwide automobile industry at that time. Since a significant portion of NTIC's ZERUST<sup>®</sup> rust and corrosion inhibiting products and services are sold to customers in the automotive industry, adverse economic conditions affecting the automotive industry again in particular may result in another adverse effect on NTIC's net sales and its other operating results.

Global credit and financial markets also in the recent past have experienced disruptions, including diminished liquidity and credit availability and rapid fluctuations in market valuations. NTIC's business also has been affected by these conditions and is likely to be affected by them in the future, and there is no certainty that recent improvements in economic conditions will continue, or that economic conditions will not deteriorate further. These uncertainties affect businesses such as NTIC's in a number of ways, making it difficult to accurately forecast and plan its future business activities and financial performance. For example, the ability of NTIC's customers to borrow money from their existing lenders or to obtain credit from other sources to purchase NTIC's products has been and may continue to be impaired. In addition, although NTIC maintains allowances for doubtful accounts for estimated losses resulting from the inability of its customers, distributors and joint ventures to make required payments and such losses historically have been within NTIC's expectations and the provisions established, NTIC cannot guarantee that it will continue to experience the same loss rates that it has in the past, especially if continued weaknesses in the worldwide economy persist or worsen. A significant change in the liquidity or financial condition of NTIC's customers, distributors or joint ventures could cause unfavorable trends in NTIC's receivable collections and additional allowances may be required, which could adversely affect NTIC's operating results. In addition, weaknesses in the worldwide economy may adversely impact the ability of suppliers to provide NTIC with materials and components, which could adversely affect NTIC's business and operating results. NTIC is unable to predict the prospects for a global economic recovery, but the longer the duration of such adverse and uncertain economic conditions, the greater the risks NTIC faces in operating its business.

***NTIC's liquidity and financial position rely on the receipt of fees for services provided to its joint ventures and dividend distributions from its joint ventures. No assurance can be provided that NTIC will continue to receive such fees and dividend distributions in amounts NTIC historically has received or anticipates to receive.***

NTIC conducts business, either directly or indirectly through several joint venture arrangements that operate in North America, Europe and Asia. Each of these joint ventures manufactures, markets and sells finished products in the geographic territory that it is assigned. NTIC's receipt of funds as a result of sales by its joint ventures is dependent upon NTIC's receipt of fees for services that NTIC provides to its joint ventures based primarily on the revenues of the joint ventures and NTIC's receipt of dividend

distributions from its joint ventures based on the profitability of its joint ventures. NTIC's liquidity and financial position rely on NTIC's receipt of fees for services that NTIC provides to its joint ventures and dividend distributions from its joint ventures. During fiscal 2013, NTIC recognized \$7,352,980 in fees and \$3,155,737 in dividend distributions from its joint ventures. During fiscal 2012, NTIC recognized \$4,622,912 in fees and \$3,060,545 in dividend distributions from its joint ventures. Because NTIC owns 50% or less of each of its joint venture entities, NTIC does not control the decisions of these entities regarding whether to pay dividends and, if paid, how much they should be in any given year. Thus, NTIC cannot guarantee that any of its joint ventures will pay dividends in any given year. The failure of NTIC's joint ventures to declare dividends or the failure of NTIC to receive fees for services provided to joint ventures in amounts typically expected by NTIC could adversely affect NTIC's liquidity and financial position.

***Since a significant portion of NTIC's earnings results from NTIC's equity income of joint ventures and since NTIC's equity income of joint ventures varies from quarter to quarter, NTIC's earnings are subject to quarterly fluctuations.***

A significant portion of NTIC's earnings results from NTIC's equity income of joint ventures. NTIC's equity in income of joint ventures consists of NTIC's share of equity in income of its joint ventures based on the overall profitability of the joint ventures. Such profitability varies from quarter to quarter. Since NTIC's management typically receives quarterly joint venture financial information after the completion of each fiscal quarter, it is impossible for NTIC's management to cut costs and expenses to make up for any unanticipated shortfall in NTIC's equity income of joint ventures. Accordingly, the variability in NTIC's equity income of joint ventures, in turn, subjects NTIC's earnings to quarterly fluctuations.

***Out of NTIC's joint ventures, NTIC's joint ventures in Germany and China are the most significant in terms of assets and income to NTIC. If sales of NTIC's products and services by these joint ventures were to decline significantly or if NTIC's relationships with these joint ventures were to deteriorate significantly, NTIC's operating results likely would be adversely affected.***

NTIC considers its joint ventures in Germany and China to be individually significant to NTIC's consolidated assets and income; and therefore, provides certain additional information regarding these entities in the notes to NTIC's consolidated financial statements and in certain sections of this report. Of the total equity in income of joint ventures of \$5,237,711 during fiscal 2013, NTIC had equity in income of joint ventures of \$3,507,057 and \$579,376 attributable to NTIC's joint venture in Germany and China, respectively. Of the total fee income for services provided to joint ventures of \$7,352,980 during fiscal 2013, fees of \$1,004,958 and \$2,063,369 were attributable to NTIC's joint venture in Germany and China, respectively. Accordingly, if sales of NTIC's products and services by these joint ventures were to decline significantly or if NTIC's relationships with these joint ventures or joint venture partners were to deteriorate significantly, NTIC's operating results likely would be adversely affected.

***NTIC faces intense competition in almost all of its product lines, including from competitors that have substantially greater resources than NTIC does. No assurance can be provided that NTIC will be able to compete effectively, which would harm its business and operating results.***

NTIC's products are sold in intense competitive markets throughout the world. This intense competition could result in pricing pressures, lower sales, reduced margins and lower market share. The principal competitive factors in NTIC's corrosion prevention solutions markets are pricing, product innovation, quality and reliability, product support, customer service and reputation. Additional competitive factors present in NTIC's bioplastics business are brand awareness, distribution network, product availability, product offering, shelf life and place of manufacture. NTIC often competes with numerous manufacturers, many of which have substantially greater financial, marketing, and other resources than

NTIC. As a result, they may be able to adapt more quickly than NTIC to new or emerging technologies, industry trends, and changes in customer requirements, or to devote greater resources to the promotion and sale of their products than NTIC. In addition, competition could increase if new companies enter the markets in which NTIC competes, especially when the barriers to entry are low, which may be true with respect to NTIC's rust and corrosion prevention business, or if existing competitors expand their product lines or intensify efforts within existing product lines. NTIC's current products, products under development and its ability to develop new and improved products may be insufficient to enable NTIC to compete effectively with its competitors. No assurance can be provided that NTIC will be able to compete effectively, which would harm its business and operating results. In particular, NTIC has experienced more intense competition with respect to many of its traditional ZERUST<sup>®</sup> rust and corrosion inhibiting products and services, which have led to decreased pricing and smaller margins for NTIC. NTIC anticipates that such intense competition likely will continue and that new competitors may emerge, including plastic extrusion companies, which would continue to adversely affect NTIC's operating results.

***NTIC's ZERUST<sup>®</sup> rust and corrosion inhibiting products and services generate a significant portion of NTIC's net sales and the net sales of NTIC's joint ventures. Accordingly, if sales of these products and services were to decline, NTIC's operating results would be adversely affected.***

NTIC's ZERUST<sup>®</sup> rust and corrosion inhibiting products and services generate a significant portion of NTIC's net sales and the net sales of NTIC's joint ventures. During fiscal 2013, 90.9% of NTIC's consolidated net sales were derived from sales of ZERUST<sup>®</sup> rust and corrosion inhibiting products and services. While the net sales of NTIC's joint ventures are not included in NTIC's net sales on NTIC's consolidated financial statements, NTIC's receipt of fees for services that NTIC provides to its joint ventures and NTIC's receipt of dividend distributions from its joint ventures is based primarily on the revenues and profitability of the joint ventures. Accordingly, if sales of these products and services were to decline due to increased competition, the introduction of a new disruptive technology or otherwise, NTIC's operating results would be adversely affected.

***If NTIC is unable to continue to enhance its existing products and develop and market new products that respond to customer needs and achieve market acceptance, NTIC may experience a decrease in demand for its products, and its business could suffer.***

One of NTIC's strategies is to enhance its existing products and develop and market new products that respond to customer needs. NTIC may not be able to compete effectively with its competitors unless NTIC can keep up with existing or new products or alternative technologies in the markets in which it competes. Product development requires significant research and development, financial and other resources. Although in the past NTIC has implemented lean manufacturing and other productivity improvement initiatives to provide investment funding for new products, no assurance can be provided that NTIC will be able to continue to do so in the future. Product improvements and new product introductions also require significant planning, design, development and testing at the technological, product, and manufacturing process levels and NTIC may not be able to timely develop product improvements or new products. NTIC's competitors' new products may beat NTIC's products to market, may be more effective or less expensive than NTIC's products or render NTIC's products obsolete. Any new products that NTIC may develop may not receive market acceptance or otherwise generate any meaningful net sales or profits for NTIC relative to its expectations, based on, among other things, existing and anticipated investments in manufacturing capacity and commitments to fund advertising, marketing, promotional programs, and research and development.

***NTIC has invested and intends to continue to invest additional research and development and marketing efforts and resources into the application of its corrosion prevention solutions into the oil and gas industry and the continued launch of its Natur-Tec<sup>®</sup> resin compounds and finished products. No assurance can be provided, however, that NTIC's investments in these new markets and products will be successful and result in additional revenue to NTIC.***

In an effort to increase net sales, NTIC has expanded the marketing of its corrosion prevention solutions into the oil and gas industry and its Natur-Tec<sup>®</sup> resin compounds and finished products. The majority of NTIC's research and development expense in fiscal 2013 was spent in connection with research and development activities related to these two strategic initiatives. NTIC expects to continue to invest additional research and development and marketing efforts and resources into these strategic initiatives. No assurance can be provided, however, that such strategic initiatives will be successful or that NTIC will be successful in obtaining additional revenue as a result of them. The introduction of new products into new markets takes significant resources and there can be no assurance that NTIC is dedicating a sufficient amount of resources to ensure the success of these strategic initiatives. The sale of NTIC's ZERUST<sup>®</sup> rust and corrosion inhibiting products and services into the oil and gas industry, in particular, have involved a long sales cycle, likely including a one- to multi-year trial period with each customer and a slow integration process thereafter. This long sales cycle may cause NTIC's management, stockholders and investors to lose faith in the business opportunities for NTIC's ZERUST<sup>®</sup> rust and corrosion inhibiting products and services in the oil and gas industry.

***The expansion of NTIC's corrosion prevention solutions into the oil and gas industry and the continued launch of NTIC's Natur-Tec<sup>®</sup> resin compounds and finished products may require additional capital in the future, which may not be available or may be available only on unfavorable terms. In addition, any equity financings may be dilutive to NTIC's stockholders.***

The expansion of NTIC's corrosion prevention solutions into the oil and gas industry and the continued launch of NTIC's Natur-Tec<sup>®</sup> resin compounds and finished products will continue to require significant resources during fiscal 2014 and beyond. To the extent that NTIC's existing capital, including amounts available under its revolving line of credit or other then existing financing arrangements, is insufficient to meet these requirements, NTIC may raise additional capital through financings or additional borrowings. Any equity or debt financing, if available at all, may be on terms that are not favorable to NTIC and any equity financings could result in dilution to NTIC's stockholders.

***NTIC's strategy of expanding its corrosion prevention solutions into the oil and gas industry and continuing its launch of its Natur-Tec<sup>®</sup> bioplastics resin compounds and finished products is risky and may not prove to be successful, which could harm NTIC's operating results and financial condition.***

NTIC's strategy of expanding its corrosion prevention solutions into the oil and gas industry and continuing its launch of its Natur-Tec<sup>®</sup> bioplastics resin compounds and finished products, either directly or indirectly through joint ventures and independent distributors and agents, is risky and subject to all of the risks inherent in the establishment of a new business enterprise, including:

- the absence of a significant operating history;
- the lack of commercialized products;
- the lack of market acceptance of new products;
- expected substantial and continual losses for such businesses for the foreseeable future;
- the lack of manufacturing experience and limited marketing experience;
- an expected reliance on third parties for the manufacture and commercialization of some of the products;

- a competitive environment characterized by numerous, well-established and well-capitalized competitors;
- insufficient capital and other resources; and
- reliance on key personnel.

***NTIC relies on others for its production and any interruptions of these arrangements could disrupt NTIC's ability to fill its customers' orders.***

NTIC utilizes contract manufacturers for a significant portion of its production requirements. The majority of NTIC's manufacturing is conducted in the United States by contract manufacturers that also perform services for numerous other companies. NTIC does not have a guaranteed level of production capacity with any of its contract manufacturers. Qualifying new contract manufacturers is time consuming and might result in unforeseen manufacturing and operations problems. The loss of NTIC's relationships with its contract manufacturers or their inability to conduct their manufacturing and assembly services for NTIC as anticipated in terms of capacity, cost, quality and timeliness could adversely affect NTIC's ability to fill customer orders in accordance with required delivery, quality, and performance requirements, and thus adversely affect NTIC's net sales and other operating results.

***NTIC's dependence on key suppliers puts NTIC at risk of interruptions in the availability of its products, which could reduce its net sales and adversely affect its operating results and harm its reputation.***

NTIC relies on suppliers for certain raw materials and components used in its products. For reasons of quality assurance, cost effectiveness or availability, NTIC procures certain raw materials and components from sole or limited source suppliers. NTIC generally acquires such raw materials and components through purchase orders placed in the ordinary course of business, and as a result, NTIC does not have a significant inventory of these materials and components and does not have any guaranteed or contractual supply arrangements with many of these suppliers for these materials and components. NTIC's dependence on third-party suppliers involves several risks, including limited control over pricing, availability, quality and delivery schedules, as well as manufacturing yields and costs. Suppliers of such raw materials and components may decide, or be required, for reasons beyond NTIC's control to cease supplying such raw materials and components to NTIC or to raise their prices. Shortages of raw materials, quality control problems, production capacity constraints or delays by suppliers could negatively affect NTIC's ability to meet its production obligations and result in increased prices for affected parts. Any such shortage, constraint or delay may result in delays in shipments of products or components, which could adversely affect NTIC's net sales and other operating results, and its reputation. From time to time, materials and components used in NTIC's products are subject to allocation because of shortages of these materials and components. With respect to NTIC's Natur-Tec<sup>®</sup> resin compounds and finished products, there are a limited number of suppliers of the base resins used to manufacture NTIC's Natur-Tec<sup>®</sup> resin compounds and finished products, and in the past, NTIC has experienced some delay in obtaining such base resins. In addition, a number of raw materials and purchased parts used in NTIC's rust and corrosion inhibiting products and Natur-Tec<sup>®</sup> finished products are sourced from suppliers who currently serve as NTIC's sole source of supply for these components. Future shortages of materials and components could cause delayed shipments and customer dissatisfaction and adversely affect net sales.

***Increases in prices for raw materials and components used in NTIC's products could adversely affect NTIC's operating results.***

NTIC uses certain raw materials and components in its products, including in particular plastic resins, which are subject to price increases. Increases in prices for raw materials and components used in NTIC's products could adversely affect NTIC's gross margins and other operating results.

***The commercial success of NTIC's Natur-Tec<sup>®</sup> resin compounds and finished products depends on the widespread market acceptance of products manufactured with bio-based and biodegradable resins.***

Although there is a developed market for petroleum-based plastics, the market for "bio-plastics" which are plastics produced with bio-based resins, which are derived from renewable resources such as corn or cellulosic/plant material or blends thereof, or plastics that are engineered to be fully biodegradable or both, is still developing. The commercial success of NTIC's Natur-Tec<sup>®</sup> resin compounds and finished products depends on the widespread market acceptance of products manufactured with bio-based and biodegradable resins. It is currently difficult to assess or predict with any assurance the potential size, timing and viability of market opportunities for NTIC's Natur-Tec<sup>®</sup> resin compounds and finished products. The traditional plastics market sector is well-established with entrenched competitors with whom NTIC competes. Pricing for traditional plastics has been highly volatile in recent years, which drive, to some extent, the commercial and other support for bioplastics. While NTIC expects to be able to command a premium price for its Natur-Tec<sup>®</sup> resin compounds and finished products, a widening gap in the pricing for bioplastics versus petroleum-based plastics may reduce the size of the addressable market for NTIC's Natur-Tec<sup>®</sup> resin compounds and finished products. In addition, the growth of the market will create some pressure on price for applications today considered commodities, including in particular NTIC's current Natur-Tec<sup>®</sup> finished products.

***NTIC's international business, which is conducted primarily through its joint ventures and majority owned subsidiaries, Zerust Brazil and NTI Asean, requires management attention and financial resources and exposes NTIC to difficulties and risks presented by international economic, political, legal, accounting and business factors.***

NTIC sells products and services directly, through its majority-owned subsidiary, Zerust Brazil, and indirectly through its majority-owned holding company subsidiary, NTI Asean, and via a network of joint ventures, independent distributors, manufacturer's sales representatives and agents in over 60 countries, including countries in North America, South America, Europe, Asia and the Middle East. One of NTIC's strategic objectives is the continued expansion of its international operations. The expansion of NTIC's existing international operations and entry into additional international markets require management attention and financial resources.

The sale and shipping of products and services across international borders subject NTIC to extensive U.S. and foreign governmental trade regulations. Compliance with such regulations is costly and exposes NTIC to penalties for non-compliance. Other laws and regulations that can significantly impact NTIC include various anti-bribery laws, including the U.S. Foreign Corrupt Practices Act, laws restricting business with suspected terrorists and anti-boycott laws. Any failure to comply with applicable legal and regulatory obligations could impact NTIC in a variety of ways that include, but are not limited to, significant criminal, civil and administrative penalties, including imprisonment of individuals, fines and penalties, denial of export privileges, seizure of shipments and restrictions on certain business activities. Also, the failure to comply with applicable legal and regulatory obligations could result in the disruption of NTIC's shipping and sales activities.

Many of the countries in which NTIC sells its products directly or indirectly through Zerust Brazil, NTI Asean, its joint ventures, distributors, representatives and agents are, to some degree, subject to political, economic and/or social instability. NTIC's international operations expose NTIC and its joint venture partners, distributors, representatives and agents to risks inherent in operating in foreign jurisdictions. These risks include:

- difficulties in managing and staffing international operations and the required infrastructure costs including legal, tax, accounting and information technology;
- the imposition of additional U.S. and foreign governmental controls or regulations, new trade restrictions and restrictions on the activities of foreign agents, representatives and distributors, the imposition of costly and lengthy export licensing requirements and changes in duties and tariffs, license obligations and other non-tariff barriers to trade;
- the imposition of U.S. and/or international sanctions against a country, company, person or entity with whom NTIC does business that would restrict or prohibit continued business with the sanctioned country, company, person or entity;
- pricing pressure that NTIC or its joint ventures, distributors, representatives and agents may experience internationally;
- laws and business practices favoring local companies;
- currency exchange rate fluctuations;
- longer payment cycles and difficulties in enforcing agreements and collecting receivables through certain foreign legal systems;
- difficulties in enforcing or defending intellectual property rights;
- multiple, changing and often inconsistent enforcement of laws and regulations; and
- the potential payment of U.S. income taxes on certain earnings of joint ventures upon repatriation.

***Failure to comply with the U.S. Foreign Corrupt Practices Act could subject NTIC to, among other things, penalties and legal expenses that could harm its reputation and have a material adverse effect on its business, financial condition and results of operations.***

NTIC is subject to the U.S. Foreign Corrupt Practices Act, or the FCPA, which generally prohibits covered entities and their intermediaries from engaging in bribery or making other prohibited payments to foreign officials for the purpose of obtaining or retaining business or other benefits. In addition, the FCPA imposes accounting standards and requirements on U.S. publicly traded corporations and their foreign affiliates, which are intended to prevent the diversion of corporate funds to the payment of bribes and other improper payments, and to prevent the establishment of "off books" slush funds from which such improper payments can be made. NTIC also is subject to similar anticorruption legislation implemented in Europe under the Organization for Economic Co-operation and Development's Convention on Combating Bribery of Foreign Public Officials in International Business Transactions. NTIC and its joint ventures, distributors, independent representatives and agents operate in a number of jurisdictions that pose a high risk of potential violations of the FCPA and other anticorruption laws, based on measurements such as Transparency International's Corruption Perception Index, and NTIC utilizes a number of joint ventures, distributors, independent representatives and agents for whose actions NTIC could be held liable under the FCPA. NTIC informs its personnel, joint ventures, distributors, independent representatives and agents of the requirements of the FCPA and other anticorruption laws, including, but not limited to their reporting requirements. NTIC also has developed and will continue to develop and implement systems for formalizing contracting processes, performing due diligence on agents and improving its recordkeeping and auditing practices regarding these regulations. However, there is no guarantee that NTIC's employees, joint ventures, distributors, independent representatives or

other agents have not or will not engage in conduct undetected by NTIC's processes and for which NTIC might be held responsible under the FCPA or other anticorruption laws.

If NTIC's employees, joint ventures, distributors, third-party sales representatives or other agents are found to have engaged in such practices, NTIC could suffer severe penalties, including criminal and civil penalties, disgorgement and other remedial measures, including further changes or enhancements to its procedures, policies and controls, as well as potential personnel changes and disciplinary actions. The Securities and Exchange Commission has increased its enforcement of the FCPA during the past several years. Although NTIC does not believe it is currently a target in any such enforcement action, any investigation of any potential violations of the FCPA or other anticorruption laws by U.S. or foreign authorities also could have an adverse impact on NTIC's business, financial condition and results of operations.

Certain private and foreign companies, including some of NTIC's competitors, are not subject to prohibitions as strict as those under the FCPA or, even if subjected to strict prohibitions, such prohibitions may be laxly enforced in practice. If NTIC's competitors engage in corruption, extortion, bribery, pay-offs, theft or other fraudulent practices, they may receive preferential treatment from personnel of some companies or from government officials, giving NTIC's competitors an advantage in securing business and which would put NTIC at a disadvantage.

***Fluctuations in foreign currency exchange rates could result in declines in NTIC's earnings and changes in NTIC's foreign currency translation adjustments.***

Because the functional currency of NTIC's foreign operations is the applicable local currency, NTIC is exposed to foreign currency exchange rate risk arising from transactions in the normal course of business. NTIC's principal exchange rate exposure is with the Euro, the Japanese yen, Indian Rupee, Chinese yuan, Korean won and the English pound against the U.S. dollar. NTIC's fees for services provided to its joint ventures and dividend distributions from these foreign entities are paid in foreign currencies; and thus, fluctuations in foreign currency exchange rates could result in declines in NTIC's earnings. Any changes in foreign currency exchange rates would be reflected as a foreign currency translation adjustment and would not change NTIC's equity in income of joint ventures reflected in its consolidated statements of operations. NTIC does not hedge against its foreign currency exchange rate risk.

***NTIC's business, properties and products are subject to governmental regulation and taxes, compliance with which may require NTIC to incur expenses or modify its products or operations, and which may expose NTIC to penalties for non-compliance. Governmental regulation also may adversely affect the demand for some of NTIC's products and its operating results.***

NTIC's business, properties and products are subject to a wide variety of international, federal, state and local laws, rules, taxes and regulations relating to the protection of the environment, natural resources, and worker health and safety and the use, management, storage, and disposal of hazardous substances, wastes and other regulated materials. These laws, rules and regulations may affect the way NTIC conducts its operations, and the failure to comply with these regulations could lead to fines and other penalties. Because NTIC owns and operates real property, various environmental laws also may impose liability on NTIC for the costs of cleaning up and responding to hazardous substances that may have been released on NTIC's property, including releases unknown to NTIC. These environmental laws and regulations also could require NTIC to pay for environmental remediation and response costs at third-party locations where NTIC disposed of or recycled hazardous substances. NTIC's future costs of complying with the various environmental requirements, as they now exist or may be altered in the future, could adversely affect NTIC's financial condition and operating results. NTIC is also subject to other international, federal and state laws, rules and regulations, the future non-compliance with which may



harm NTIC's business or may adversely affect the demand for some of its products. Changes in laws and regulations, including changes in accounting standards and taxation changes, including tax rate changes, new tax laws, revised tax law interpretations, also may adversely affect NTIC's operating results.

***Fluctuations in NTIC's effective tax rate could have a significant impact on NTIC's financial position, results of operations or cash flows.***

The mix of pre-tax income or loss among the tax jurisdictions in which NTIC operates that have varying tax rates could impact NTIC's effective tax rate. NTIC is subject to income taxes as well as non-income based taxes, in both the United States and various foreign jurisdictions. Judgment is required in determining the worldwide provision for income taxes, other tax liabilities, interest and penalties. Future events could change management's assessment. NTIC operates within multiple taxing jurisdictions and is subject to tax audits in these jurisdictions. These audits can involve complex issues, which may require an extended period of time to resolve. NTIC also has made assumptions about the realization of deferred tax assets. Changes in these assumptions could result in a valuation allowance for these assets. Final determination of tax audits or tax disputes may be different from what is currently reflected by NTIC's income tax provisions and accruals.

***NTIC intends to grow its business through additional joint ventures, alliances and acquisitions, which could be risky and harm its business.***

One of NTIC's growth strategies is to expand its business by entering into additional joint ventures and alliances and acquiring businesses, technologies and products that complement or augment NTIC's existing products. The benefits of a joint venture, alliance or acquisition may take more time than expected to develop, and NTIC cannot guarantee that any future joint ventures, alliances or acquisitions will in fact produce the intended benefits. In addition, joint ventures, alliances and acquisitions involve a number of risks, including:

- diversion of management's attention;
- difficulties in assimilating the operations and products of a new joint venture or acquired business or in realizing projected efficiencies, cost savings and revenue synergies;
- potential loss of key employees or customers of the new joint venture or acquired business or adverse effects on existing business relationships with suppliers and customers;
- adverse impact on overall profitability if the new joint venture or acquired business does not achieve the financial results projected in NTIC's valuation models;
- reallocation of amounts of capital from other operating initiatives and/or an increase in NTIC's leverage and debt service requirements to pay the joint venture capital contribution or the acquisition purchase price, which could in turn restrict NTIC's ability to access additional capital when needed or to pursue other important elements of NTIC's business strategy;
- inaccurate assessment of undisclosed, contingent or other liabilities or problems and unanticipated costs associated with the new joint venture or acquisition; and
- incorrect estimates made in the accounting for acquisitions, occurrence of non-recurring charges and write-off of significant amounts of goodwill that could adversely affect NTIC's operating results.

NTIC's ability to grow through joint ventures, alliances and acquisitions will depend, in part, on the availability of suitable opportunities at an acceptable cost, NTIC's ability to compete effectively for these opportunities and the availability of capital to complete such transactions.

***NTIC relies on its joint ventures, distributors, manufacturer's sales representatives and other agents to market and sell its products.***

In addition to its direct sales force, NTIC relies on its joint ventures, distributors, manufacturer's sales representatives and other agents to market and sell its products in the United States and internationally. NTIC's joint ventures, distributors, manufacturer's sales representatives and other agents might terminate their relationship with NTIC, or devote insufficient sales efforts to NTIC's products. NTIC does not control its joint ventures, distributors, manufacturer's sales representatives and other agents and they may not be successful in implementing NTIC's marketing plans. NTIC's failure to maintain its existing relationships with these entities, or its failure to recruit and retain additional skilled joint venture partners, distributors, manufacturer's sales representatives and other agents could have an adverse effect on NTIC's operations. It is anticipated that several of NTIC's joint venture partners will retire during the next several years which will require a transition on the part of the joint venture as well as NTIC and could harm NTIC's relationship with the joint venture and NTIC's business.

***NTIC may be subject to product liability claims or other claims arising out of the activities of its joint ventures, which could adversely affect NTIC and its business.***

While NTIC is not aware of any specific potential risk beyond its initial investment in and any undistributed earnings of each of its joint ventures, there can be no assurance that NTIC will not be subject to lawsuits based on product liability claims or other claims arising out of the activities of its joint ventures. To mitigate the ramifications of such an occurrence, NTIC maintains liability insurance specifically applicable to its ownership positions in its joint venture arrangements in excess of any insurance the joint ventures may maintain. No assurance can be provided, however, that such insurance will be available or adequate in the event of a claim.

***The sale of ZERUST<sup>®</sup> rust and corrosion inhibiting products into the oil and gas industry is especially risky in light of the hazards typically associated with such operations and the significant amount of potential liability involved, which could adversely affect NTIC's business if ZERUST<sup>®</sup> rust and corrosion inhibiting products are involved, even if the cause of such events was not related to NTIC's products.***

Because NTIC sells its ZERUST<sup>®</sup> rust and corrosion inhibiting products into the oil and gas industry, NTIC is subject to some of the risks and hazards typically associated with such operations, including hazards such as fire, explosion, blowouts, cratering, unplanned gas releases and spills, each of which could be claimed to be attributed to the failure of NTIC's products to perform as anticipated. If such events occur and NTIC's products are involved, NTIC's business and operating results may suffer even if the cause of such events was not related to NTIC's products.

***NTIC has limited staffing and will continue to be dependent upon key employees.***

NTIC's success is dependent upon the efforts of a small management team and group of employees. NTIC's future success will depend in large part on its ability to retain its key employees and identify, attract and retain other highly qualified managerial, technical, research and development, sales and marketing and customer service personnel when needed. Competition for these individuals may be intense, especially in the markets in which NTIC operates. NTIC may not succeed in identifying, attracting and retaining these personnel. NTIC's current management, other than its President and Chief Executive Officer, does not have any material stock ownership in NTIC. In addition, none of NTIC's employees has any contractual obligation to maintain his or her employment with NTIC. The loss or interruption of services of any of NTIC's key personnel, including in particular its technical personnel, the inability to identify, attract or retain qualified personnel in the future, delays in hiring qualified

personnel, or any employee slowdowns, strikes or similar actions could make it difficult for NTIC to manage its business and meet key objectives, which could harm NTIC's business, financial condition and operating results.

***Given NTIC's limited resources, it may not effectively manage its growth.***

NTIC's strategy to grow its business, including in particular its ZERUST<sup>®</sup> rust and corrosion inhibiting products for the oil and gas industry and its Natur-Tec<sup>®</sup> bio-plastic resin compounds and finished products, requires significant management time and operational and financial resources. There is no assurance that NTIC has the necessary operational and financial resources to manage its growth. This is especially true as it expands facilities and manufactures its products on a larger commercial scale. In addition, rapid growth in NTIC's headcount and operations may place a significant strain on its management, administrative, operational and financial infrastructure. Failure to adequately manage its growth could have a material and adverse effect on NTIC's business, financial condition and operating results. In addition, NTIC may not be successful in its strategy to grow its business.

***During the first quarter of fiscal 2014, NTIC is transitioning the production of its Natur-Tec<sup>®</sup> bio-plastic resin compounds to a third party compounding facility in the United States, which could adversely affect the supply of NTIC's Natur-Tec<sup>®</sup> resin compounds and finished products if the transition does not proceed smoothly.***

During the first quarter of fiscal 2014, NTIC is transitioning the production of its Natur-Tec<sup>®</sup> bio-plastic resin compounds from HNTI's compounding facility in India to a compounding facility in the United States. If this transition does not proceed smoothly, it could adversely affect the supply of NTIC's Natur-Tec<sup>®</sup> resin compounds and finished products and adversely affect NTIC's business and operating results.

***Certain of NTIC's operations are subject to regulation by the U.S. Food and Drug Administration.***

The manufacture, sale and use of NTIC's Natur-Tec<sup>®</sup> bio-plastic resin compounds are subject to regulation by the U.S. FDA. The FDA's regulations are concerned with substances used in food packaging materials, not with specific finished food packaging products. Thus, food and beverage containers are in compliance with FDA regulations if the components used in the food and beverage containers: (i) are approved by the FDA as indirect food additives for their intended uses and comply with the applicable FDA indirect food additive regulations; or (ii) are generally recognized as safe for their intended uses and are of suitable purity for those intended uses. NTIC believes that its Natur-Tec<sup>®</sup> resin compounds are in compliance with all FDA requirements. However, failure to comply with FDA regulations could subject NTIC to administrative, civil or criminal penalties.

***NTIC relies on its management information systems for inventory management, distribution and other functions. If these information systems fail to adequately perform these functions or if NTIC experiences an interruption in their operation, NTIC's business and operating results could be adversely affected.***

The efficient operation of NTIC's business is dependent on its management information systems. NTIC relies on its management information systems to effectively manage accounting and financial functions; manage order entry, order fulfillment and inventory replenishment processes; and to maintain its research and development data. The failure of management information systems to perform as anticipated could disrupt NTIC's business and product development and could result in decreased sales, causing NTIC's business and operating results to suffer. In addition, NTIC's management information systems are vulnerable to damage or interruption from natural or man-made disasters, terrorist attacks and attacks by

computer viruses or hackers, or power loss or computer systems, Internet, telecommunications or data network failure. Any such interruption could adversely affect NTIC's business and operating results.

***NTIC's reliance upon patents, trademark laws, trade secrets and contractual provisions to protect its proprietary rights may not be sufficient to protect its intellectual property from others who may sell similar products.***

NTIC holds patents relating to various aspects of its products and believes that proprietary technical know-how is critical to many of its products. Proprietary rights relating to NTIC's products are protected from unauthorized use by third parties only to the extent that they are covered by valid and enforceable patents or are maintained in confidence as trade secrets. NTIC cannot be certain that it will be issued any patents from any pending or future patent applications owned by or licensed to NTIC or that the claims allowed under any issued patents will be sufficiently broad to protect its technology. In the absence of patent protection, NTIC may be vulnerable to competitors who attempt to copy NTIC's products or gain access to its trade secrets and know-how. NTIC's competitors may initiate litigation to challenge the validity of NTIC's patents, or they may use their resources to design comparable products that do not infringe NTIC's patents. NTIC may incur substantial costs if its competitors initiate litigation to challenge the validity of its patents or if it initiates any proceedings to protect its proprietary rights and if the outcome of any such litigation is unfavorable to NTIC, its business and operating results could be materially adversely affected.

In addition, NTIC relies substantially on trade secrets and proprietary know-how that it seeks to protect, in part, by confidentiality agreements with its employees, and consultants. These agreements may be breached and NTIC may not have adequate remedies for any such breach. Even if these confidentiality agreements are not breached, NTIC's trade secrets may otherwise become known or be independently developed by competitors.

***NTIC may not achieve its annual financial guidance or projected goals and objectives in the time periods that NTIC anticipates or announces publicly, which could have an adverse effect on NTIC's business and could cause its stock price to decline.***

On a quarterly basis, NTIC typically provides projected annual financial information, including its anticipated annual net sales and net earnings. These financial projections are based on management's then current expectations and typically do not contain any margin of error or cushion for any specific uncertainties, or for the uncertainties inherent in all financial forecasting. The failure to achieve such financial projections could have an adverse effect on NTIC's business, disappoint investors and analysts and cause its stock price to decline.

NTIC also sets goals and objectives for, and makes public statements regarding, the timing of certain accomplishments and milestones regarding its business, such as its progress in selling its ZERUST<sup>®</sup> rust and corrosion inhibiting products and services to customers in the oil and gas industry, the progress and timing of its various field trials with prospective customers in the oil and gas industry, its ability to increase sales of its Natur-Tec<sup>®</sup> resin compounds and finished products, and other developments and milestones. The actual timing of these events can vary dramatically due to a number of factors including without limitation the timing of the receipt of purchase orders, delays or failures in current field trials, the amount of time, effort and resources committed to the sales and marketing of NTIC's products and services by NTIC and its current and potential future distributors and agents and the uncertainties inherent in introducing new products and services. As a result, there can be no assurance that NTIC will succeed in achieving its projected goals and objectives in the time periods that NTIC anticipates or announces publicly. The failure to achieve such projected goals and objectives in the time periods that NTIC

anticipates or announces publicly could have an adverse effect on NTIC's business, disappoint investors and analysts and cause its stock price to decline.

***NTIC's quarterly results are typically unpredictable and subject to variation.***

NTIC's quarterly operating results vary from quarter to quarter for a variety of reasons. For example, NTIC's quarterly sales to joint ventures can be affected by individual orders to joint ventures. Because of the typical size of individual orders to joint ventures and overall size of NTIC's net sales to joint ventures, the timing of one or more orders can affect materially NTIC's quarterly sales to joint ventures and the comparisons to prior year quarters. In addition, because of the typical size of individual orders and overall size of NTIC's net sales derived from sales of Natur-Tec<sup>®</sup> products, the timing of one or more orders can affect materially NTIC's quarterly sales of Natur-Tec<sup>®</sup> products and the comparisons to prior year quarters. Furthermore, since ZERUST<sup>®</sup> products for the oil and gas industry typically carry higher margins than other traditional ZERUST<sup>®</sup> products, the amount of sales of ZERUST<sup>®</sup> products for the oil and gas industry typically affects NTIC's overall margins. Such variability in operating results makes the prediction of NTIC's net sales, earnings and other operating results for each quarter difficult and increases the risk of unanticipated variations in quarterly operating results. NTIC's quarterly results have been and in the future may be below the expectations of public market analysts and investors.

***NTIC is exposed to risks relating to its evaluation of its internal control over financial reporting as required by Section 404 of the Sarbanes-Oxley Act.***

Changing laws, regulations and standards relating to corporate governance and public disclosure, including the Dodd-Frank Wall Street Reform and Consumer Protection Act and the Sarbanes-Oxley Act of 2002 and related and other regulations implemented by the SEC and the NASDAQ Stock Market, are challenging for small publicly-held companies, including NTIC. NTIC's efforts to comply with evolving laws, regulations and standards have resulted in, and are likely to continue to result in, increased general and administrative expenses and a diversion of management time and attention from revenue-generating activities to compliance activities. In particular, NTIC's efforts to comply with Section 404 of the Sarbanes-Oxley Act of 2002 and the related regulations regarding NTIC's assessment of its internal control over financial reporting have required and will continue to require the expenditure of significant financial and managerial resources. Although NTIC's management concluded that NTIC's internal control over financial reporting was effective as of August 31, 2013, no assurance can be provided that NTIC's management will reach a similar conclusion as of any later date or that NTIC's independent registered public accounting firm will agree with management's conclusions in the event NTIC becomes an "accelerated filer" under SEC rules and NTIC's independent registered public accounting firm is required to attest to management's report on its internal control over financial reporting.

***NTIC's compliance with accounting principles generally accepted in the United States of America and any changes in such principles might adversely affect NTIC's operating results and financial condition. Any requirement to consolidate NTIC's joint ventures or subject them to compliance with the internal control provisions of the Sarbanes-Oxley Act of 2002 could adversely affect NTIC's operating results and financial condition.***

If there were a change in accounting rules and NTIC were required to fully consolidate its joint ventures or if NTIC's joint ventures otherwise would be required to be consolidated with NTIC or be in compliance with the internal control provisions of the Sarbanes-Oxley Act of 2002, NTIC and the individual joint venture would incur significant additional costs. In addition, other accounting pronouncements issued in the future could have a material cost associated with NTIC's implementation of such new accounting pronouncements.

***If NTIC becomes an “accelerated filer” under SEC rules, NTIC will be subject to additional burdensome SEC disclosure and other rules and regulations, which may cause NTIC to incur additional costs to comply with such rules and regulations and the non-compliance of which may have an adverse effect on NTIC’s operating results.***

If NTIC’s public float increases to \$75 million as of the end of its second fiscal quarter, NTIC would become an “accelerated filer” under SEC rules. If NTIC becomes an “accelerated filer under SEC rules, NTIC would be subject to additional burdensome SEC disclosure and other rules and regulations, such as additional financial statement requirements with respect to NTIC’s joint ventures, the requirement of NTIC’s independent registered public accounting firm to attest to NTIC’s management’s report on the effectiveness of NTIC’s internal control over financial reporting and the requirement of NTIC to comply with certain additional disclosures rules and regulations, including the requirement to include additional executive compensation disclosures in NTIC’s proxy statement in connection with its annual meeting of stockholders. If NTIC does not comply with such additional rules and regulations, the results may have an adverse effect on NTIC’s operating results.

***NTIC’s business is subject to a number of other miscellaneous risks that may adversely affect NTIC’s operating results, financial condition or business.***

NTIC’s business is subject to a number of other miscellaneous risks that may adversely affect NTIC’s operating results, financial condition or business, such as natural or man-made disasters or global pandemics that may result in shortages of raw materials, higher commodity costs, an increase in insurance premiums and other adverse effects on NTIC’s business; the continued threat of terrorist acts and war that may result in heightened security and higher costs for import and export shipments of components or finished goods; and the ability of NTIC’s management to adapt to unplanned events.

#### **Risks Related to NTIC’s Common Stock**

***The trading volume of NTIC’s common stock is typically very low, leaving NTIC’s common stock open to risk of high volatility.***

The number of shares of NTIC’s common stock being traded on a daily basis is often very low and on some trading days, there is no trading volume at all. Any NTIC stockholder wishing to sell his, her or its stock may cause a significant fluctuation in the trading price of NTIC’s common stock. In addition, low trading volume of a stock increases the possibility that, despite rules against such activity, the price of the stock may be manipulated by persons acting in their own self-interest. NTIC may not have adequate market makers and market making activity to prevent manipulation in its common stock.

***The price and trading volume of NTIC’s common stock has been, and may continue to be, volatile.***

The market price and trading volume of NTIC’s common stock price has fluctuated over a wide range during the past year or so. During fiscal 2013, the sale price of NTIC’s common stock ranged from a low of \$9.68 per share to a high of \$15.41 per share, and the daily trading volume ranged from zero shares to 62,800 shares. It is likely that the price and trading volume of NTIC’s common stock will continue to fluctuate in the future. The securities of small capitalization companies, including NTIC, from time to time experience significant price and volume fluctuations, often unrelated to the operating performance of these companies. Securities class action litigation is sometimes brought against a company following periods of volatility in the market price of its securities or for other reasons. NTIC may become the target of similar litigation. Securities litigation, whether with or without merit, could result in substantial costs and divert management’s attention and resources, which could harm NTIC’s business, financial condition, and operating results, as well as the market price of its common stock.

***A large percentage of NTIC's outstanding common stock is held by insiders, and, as a result, the trading market for NTIC's common stock is not as liquid as the stock of other public companies.***

As of November 19, 2013, NTIC had 4,434,838 shares of common stock outstanding, of which 16.3% of these outstanding shares were beneficially owned by directors, executive officers, principal stockholders and their respective affiliates. The stock of companies with a substantial amount of stock held by insiders is usually not as liquid as the stock of other public companies where insider ownership is not as concentrated. Thus, the trading market for shares of NTIC's common stock may not be as liquid as the stock of other public companies.

***If securities or industry analysts do not publish research or reports about NTIC's business, or if they adversely change their recommendations regarding NTIC's common stock, the market price for NTIC's common stock and trading volume could decline.***

The trading market for NTIC's common stock has been influenced by research or reports that industry or securities analysts publish about NTIC or its business. If one or more analysts who cover NTIC downgrade NTIC's common stock, the market price for NTIC's common stock would likely decline. If one or more of these analysts cease coverage of NTIC or fail to regularly publish reports on NTIC, NTIC could lose visibility in the financial markets, which, in turn, could cause the market price or trading volume for NTIC's common stock to decline.

***NTIC does not intend to pay dividends for the foreseeable future.***

Although in the past NTIC has paid dividends on its common stock, NTIC has not done so since fiscal 2005. The payment of any future dividends will be determined by NTIC's Board of Directors in light of conditions then existing, including NTIC's earnings (if any), financial condition, cash requirements, restrictions in financing agreements, business conditions and other factors. NTIC's Board of Directors currently does not anticipate paying a dividend on NTIC's common stock in the near future, but rather intends to retain all of its earnings for the foreseeable future to finance the operation and expansion of its business. As a result, NTIC's stockholders will only receive a return on their investment in NTIC's common stock if the market price of NTIC's common stock increases.

***One of NTIC's principal stockholders beneficially owns a significant percentage of NTIC's outstanding common stock and is affiliated with NTIC's President and Chief Executive Officer and thus may be able to influence matters requiring stockholder approval, including the election of directors, and could discourage or otherwise impede a transaction in which a third party wishes to purchase NTIC's outstanding shares at a premium.***

As of November 19, 2013, Inter Alia Holding Company, or Inter Alia, beneficially owned approximately 13.6% of NTIC's outstanding common stock. Inter Alia is an entity partially owned by G. Patrick Lynch, NTIC's President and Chief Executive Officer and a director, as well as three other members of the Lynch family. Mr. Lynch shares voting and dispositive power of shares of NTIC's common stock held by Inter Alia with the other owners. As a result of his share ownership through Inter Alia and his position as President and Chief Executive Officer and a director of NTIC, Mr. Lynch may be able to influence the affairs and actions of NTIC, including matters requiring stockholder approval, such as the election of directors and approval of significant corporate transactions. The interests of Mr. Lynch and Inter Alia may differ from the interests of NTIC's other stockholders. This concentration of ownership may have the effect of delaying, preventing or deterring a change in control of NTIC, could deprive NTIC's stockholders of an opportunity to receive a premium for their common stock as part of a sale or merger of NTIC and may negatively affect the market price of NTIC's common stock. Transactions that could be affected by this concentration of ownership include proxy contests, tender offers, mergers or other

purchases of common stock that could give stockholders the opportunity to realize a premium over the then-prevailing market price for shares of NTIC's common stock.

***Future equity issuances by NTIC may have dilutive and other effects on NTIC's existing stockholders.***

As of November 19, 2013, there were 4,434,838 shares of NTIC's common stock outstanding, and in addition, security holders held options, which, if vested and exercised, would obligate NTIC to issue up to 207,531 additional shares of common stock. It is expected that such shares, when NTIC issues them upon exercise, will be available for immediate resale in the public market. The market price of NTIC's common stock could fall as a result of sales of these shares of common stock due to the increased number of shares available for sale in the market. Any issuances by NTIC of equity securities may be at or below the prevailing market price of NTIC's common stock and may have a dilutive impact on NTIC's existing stockholders. These issuances or other dilutive issuances also would cause NTIC's net income per share, if any, to decrease in future periods. As a result, the market price of NTIC's common stock could decrease.

**Item 1B. UNRESOLVED STAFF COMMENTS**

This Item 1B is inapplicable to NTIC as a smaller reporting company.

**Item 2. PROPERTIES**

NTIC's principal executive offices, production facilities and domestic research and development operations are located at 4201 Woodland Road, Circle Pines, Minnesota 55014. In purchasing the real estate and 40,000 square feet building in which its corporate headquarters is located, Northern Technologies Holding Company, LLC (NTI LLC) obtained a term loan, which is secured by a first lien on the real estate and building and all of the assets of NTIC and is guaranteed by NTIC.

NTIC leases approximately 17,000 square feet of office, manufacturing, laboratory and warehouse space located at 23205 Mercantile Road, Beachwood, Ohio. The monthly rental payments are \$17,500, which are adjusted annually according to the annual consumer price index, through November 2014.

Additionally, NTIC has contract warehousing agreements in place in California and Indiana to hold and release stock products to customers.

NTIC's management considers NTIC's current properties suitable and adequate for its current and foreseeable needs.

**Item 3. LEGAL PROCEEDINGS**

From time to time, NTIC is subject to various claims and legal actions in the ordinary course of its business. NTIC is not currently involved in any legal proceeding in which NTIC believes that there is a reasonable possibility of a material loss.

**Item 4. MINE SAFETY DISCLOSURES**

Not applicable.



**Item 4A. EXECUTIVE OFFICERS OF THE REGISTRANT**

The two individuals named below have been designated by NTIC's Board of Directors as "executive officers" of NTIC. Their ages and the offices held, as of November 22, 2013, are as follows:

<u>Name</u>	<u>Age</u>	<u>Position with NTIC</u>
G. Patrick Lynch	46	President and Chief Executive Officer
Matthew C. Wolsfeld	39	Chief Financial Officer and Corporate Secretary

G. Patrick Lynch, an employee of NTIC since 1995, has been President since July 2005 and Chief Executive Officer since January 2006 and was appointed a director of NTIC in February 2004. From July 2005 to January 2006, Mr. Lynch served as Chief Operating Officer of NTIC. Mr. Lynch served as President of North American Operations of NTIC from May 2004 to July 2005. Prior to May 2004, Mr. Lynch held various positions with NTIC, including Vice President of Strategic Planning, Corporate Secretary and Project Manager. Mr. Lynch is also an officer and director of Inter Alia Holding Company, a holding company that is a significant stockholder of NTIC. Prior to joining NTIC, Mr. Lynch held positions in sales management for Fuji Electric Co., Ltd. in Tokyo, Japan and programming project management for BMW AG in Munich, Germany. Mr. Lynch received an M.B.A. degree from the University of Michigan Ross School of Business in Ann Arbor, Michigan.

Matthew C. Wolsfeld, an employee of NTIC since February 2001, has been NTIC's Chief Financial Officer since November 2001 and Corporate Secretary since November 2004. Mr. Wolsfeld was Controller of NTIC from May 2001 through November 2001. Prior to joining NTIC, Mr. Wolsfeld held an auditing position with PricewaterhouseCoopers LLP in Minneapolis, Minnesota from 1997 to 2001. Mr. Wolsfeld received a B.A. degree in Accounting from the University of Notre Dame and received his M.B.A. degree at the University of Minnesota, Carlson School of Business. Mr. Wolsfeld is a Certified Public Accountant.

Other corporate officers of NTIC, their ages and the offices held, as of November 22, 2013, are as follows:

<u>Name</u>	<u>Age</u>	<u>Position with NTIC</u>
Prof. Efim Ya. Lyublinski	75	Vice President and Director of New Technologies and Applications Engineering
Vineet R. Dalal	43	Vice President and Director – Global Market Development – Natur-Tec <sup>®</sup>
Gautam Ramdas	40	Vice President and Director – Global Market Development – Oil & Gas

Prof. Efim Ya. Lyublinski has been employed by NTIC since March 2000 in the position of Vice President and Director of New Technologies and Applications Engineering. Prof. Lyublinski is a Member of the Russian Academy of Natural Sciences and NACE International the Corrosion Society. From 1984 to 1999, Prof. Lyublinski was Head of Laboratory of Complex Methods of Corrosion Protection at the Central Research Institute of Structural Materials, St. Petersburg, Russia. Prof. Lyublinski also held a Senior Consulting Position with Osmos Technology, Boston, Massachusetts from 1995 to 1999. Prof. Lyublinski holds several patents, is responsible for several inventions and has authored several books and articles and lectured at more than 100 symposiums, conferences and congresses in the areas of materials science and corrosion.

Vineet R. Dalal, an employee of NTIC since 2004, has served as Vice President and Director – Global Market Development – Natur-Tec<sup>®</sup> since November 2005. Prior to joining NTIC, Mr. Dalal was a Principal in the Worldwide Product Development Practice of PRTM, a management consultancy to technology based companies (now part of PricewaterhouseCoopers Management Consulting). In this position, Mr. Dalal consulted to several Fortune 500 companies, in the areas of product strategy, Product Lifecycle Management (PLM) and technology management. Prior to that, Mr. Dalal held positions in program management and design engineering at National Semiconductor Corporation in Santa Clara, California. Mr. Dalal received an M.B.A. degree from the University of Michigan Ross School of Business in Ann Arbor, Michigan. He also holds an M.S. degree in Electrical and Computer Engineering from Oregon State University, and a B.Eng. degree in Electronics Engineering from Karnatak University, India.

Gautam Ramdas, an employee of NTIC since 2005, has served as Vice President and Director – Global Market Development – Oil & Gas since 2005. Prior to joining NTIC, Mr. Ramdas was a Manager in the Strategic Change group of IBM Business Consulting Services. In this position, Mr. Ramdas led consulting engagements at several Fortune 500 companies, in the areas of service strategy, global supplier relationship management and supply chain streamlining. Mr. Ramdas held positions in the E-Commerce and Supply Chain strategy groups at PricewaterhouseCoopers Management Consulting, again providing consulting services for Fortune 500 clients. Prior to management consulting, Mr. Ramdas worked as a program manager and design engineer with Kinhill Engineers in Australia. He has also been involved in the start-up stage of successful small businesses in the U.S. and in India. Mr. Ramdas received an M.B.A. from the University of Michigan Ross School of Business in Ann Arbor, Michigan. He also holds a bachelor's degree in Mechanical Engineering from the College of Engineering, Guindy (Chennai), India.

## PART II

### Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

#### Market Information

NTIC's common stock is listed for trading on the NASDAQ Global Market under the symbol "NTIC." The following table sets forth the high and low daily sales prices for NTIC's common stock, as reported by the NASDAQ Global Market, for the fiscal quarter indicated:

	<u>High</u>	<u>Low</u>
<b>Fiscal 2013</b>		
Fourth Quarter .....	\$ 15.41	\$ 10.25
Third Quarter .....	13.45	10.56
Second Quarter .....	13.95	9.85
First Quarter .....	11.40	9.68
<b>Fiscal 2012</b>		
Fourth Quarter .....	\$ 12.38	\$ 9.60
Third Quarter .....	16.48	10.51
Second Quarter .....	16.39	11.57
First Quarter .....	16.45	13.25

#### Dividends

Although NTIC's Board of Directors has declared cash dividends to NTIC's stockholders in the past, the payment of any future dividends will be determined by NTIC's Board of Directors in light of conditions then existing, including NTIC's earnings, financial condition, cash requirements, restrictions in financing agreements, business conditions and other factors. The Board of Directors currently does not anticipate paying a dividend on NTIC's common stock in the near future, but rather intends to retain all of its earnings for the foreseeable future to finance the operation and expansion of its business.

#### Number of Record Holders

As of August 31, 2013, there were 209 record holders of NTIC's common stock. This does not include shares held in "street name" or beneficially owned.

#### Recent Sales of Unregistered Equity Securities

NTIC did not issue any shares of its common stock or any other equity securities of NTIC that were not registered under the Securities Act of 1933, as amended, during the fourth quarter of fiscal year ended August 31, 2013.

#### Issuer Purchases of Equity Securities

NTIC did not purchase any shares of its common stock or any other equity securities of NTIC during the fourth quarter of fiscal year ended August 31, 2013.

**Item 6. SELECTED FINANCIAL DATA**

This Item 6 is inapplicable to NTIC as a smaller reporting company and has been omitted pursuant to Item 301(c) of SEC Regulation S-K.

**Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

This Management's Discussion and Analysis provides material historical and prospective disclosures intended to enable investors and other users to assess NTIC's financial condition and results of operations. Statements that are not historical are forward-looking and involve risks and uncertainties discussed under the heading "Part I. Item 1. Business—Forward-Looking Statements" and under the heading "Part I. Item 1A. Risk Factors." The following discussion of the results of the operations and financial condition of NTIC should be read in conjunction with NTIC's consolidated financial statements and the related notes thereto included under "Part II. Item 8. Financial Statements and Supplementary Data."

This Management's Discussion and Analysis is organized in the following major sections:

- **Business Overview.** This section provides a brief overview description of NTIC's business, focusing in particular on developments during the most recent fiscal year.
- **NTIC's Joint Venture Network.** This section provides a brief overview of NTIC's joint venture network, the joint ventures which are considered individually significant to NTIC's consolidated assets and income and how NTIC's joint ventures are accounted for by NTIC.
- **Financial Overview.** This section provides a brief summary of NTIC's financial results and financial condition for fiscal 2013.
- **Sales and Expense Components.** This section provides a brief description of the significant line items in NTIC's consolidated statements of operations.
- **Results of Operations.** This section provides an analysis of the significant line items in NTIC's consolidated statements of operations.
- **Liquidity and Capital Resources.** This section provides an analysis of NTIC's liquidity and cash flows and a discussion of NTIC's outstanding debt and other commitments.
- **Off-Balance Sheet Arrangements.** This section describes NTIC's material off-balance sheet arrangements.
- **Inflation and Seasonality.** This section describes the effects of inflation and seasonality, if any, on NTIC's business and operating results.
- **Market Risk.** This section describes material market risks to which NTIC is subject.
- **Related Party Transactions.** This section describes any material related party transactions to which NTIC is a party.

- **Critical Accounting Policies and Estimates.** This section discusses NTIC's critical accounting policies and estimates which require NTIC to exercise subjective or complex judgments in their application. All of NTIC's significant accounting policies, including its critical accounting estimates, are summarized in Note 1 to NTIC's consolidated financial statements.
- **Recent Accounting Pronouncements.** This section discusses recently issued accounting pronouncements that have had or may affect NTIC's results of operations and financial condition and references Note 2 to NTIC's consolidated financial statements, which summarizes such pronouncements.

## Business Overview

NTIC develops and markets proprietary environmentally beneficial products and services in over 60 countries either directly or via a network of joint ventures, independent distributors and agents. NTIC's primary business is corrosion prevention marketed mainly under the ZERUST<sup>®</sup> brand. NTIC has been selling its proprietary ZERUST<sup>®</sup> rust and corrosion inhibiting products and services to the automotive, electronics, electrical, mechanical, military and retail consumer markets for over 35 years, and more recently, has targeted and expanded into the oil and gas industry. NTIC also sells a portfolio of bio-based and biodegradable (compostable) polymer resin compounds and finished products marketed under the Natur-Tec<sup>®</sup> brand. These products are intended to reduce NTIC's customers' carbon footprint and provide environmentally sound disposal options.

NTIC's ZERUST<sup>®</sup> rust and corrosion inhibiting products include plastic and paper packaging, liquids and coatings, rust removers and cleaners, diffusers and variations of these products designed specifically for the oil and gas industry. NTIC's also offers worldwide on-site technical consulting for rust and corrosion prevention issues. NTIC's technical service consultants work directly with the end users of NTIC's ZERUST<sup>®</sup> rust and corrosion inhibiting products to analyze their specific needs and develop systems to meet their technical requirements. In North America, NTIC sells its ZERUST<sup>®</sup> corrosion prevention solutions through a direct sales force as well as a network of independent distributors and agents. Internationally, NTIC sells its ZERUST<sup>®</sup> corrosion prevention solutions through its majority owned subsidiary in Brazil, Zerust Prevenção de Corrosão S.A. (Zerust Brazil), its majority owned holding company, NTI ASEAN LLC (NTI Asean), and joint venture arrangements in North America, Europe and Asia.

One of NTIC's strategic initiatives is to expand into and penetrate other markets for its ZERUST<sup>®</sup> corrosion prevention solutions. For the past several years, NTIC has focused its sales and marketing efforts on the oil and gas industry since the infrastructure that supports that industry is typically constructed using metals that are highly susceptible to corrosion. NTIC believes that its ZERUST<sup>®</sup> corrosion prevention solutions will minimize maintenance downtime on critical oil and gas industry infrastructure, extend the life of such infrastructure and reduce the risk of environmental pollution due to corrosion leaks.

One of NTIC's primary customers in the oil and gas industry is Petroleo Brasileiro S.A. (Petrobras), an oil company located in Brazil. Petrobras has conducted extensive multi-year product field trials of NTIC's ZERUST<sup>®</sup> rust and corrosion inhibiting products against competitive alternatives. During fiscal 2013, Zerust Brazil signed a Phase 3 contract with Petrobras to supply \$3.7 million in ZERUST<sup>®</sup> products, \$347,000 of which had been delivered through the end of fiscal 2013. NTIC also markets and sells its ZERUST<sup>®</sup> rust and corrosion prevention solutions to other customers in the oil and gas industry across several countries either directly or through Zerust Brazil or NTIC's joint venture partners and other strategic partners. The sale of ZERUST<sup>®</sup> corrosion prevention solutions to customers in the oil and gas

industry has typically involved a long sales cycle, often including a one- to multi-year trial period with each customer and a slow integration process thereafter.

Natur-Tec<sup>®</sup> bio-based and biodegradable plastics are manufactured using NTIC's patented and/or proprietary technologies and are intended to replace conventional petroleum-based plastics. The Natur-Tec<sup>®</sup> biopolymer resin compound portfolio include formulations that have been optimized for a variety of applications including blown-film extrusion, extrusion coating, injection molding, and engineered plastics. These resin compounds are fully biodegradable in a composting environment and are currently being used to produce finished products including shopping and grocery bags, lawn and leaf bags, can liners, pet waste collection bags, cutlery, packaging foam and coated paper products. In North America, NTIC markets its Natur-Tec<sup>®</sup> resin compounds and finished products primarily through a network of regional and national distributors as well as independent agents. NTIC continues to see significant opportunities for finished bioplastic products and, therefore, continues to strengthen and expand its North American distribution network for finished Natur-Tec<sup>®</sup> bioplastic products. Internationally, NTIC sells its Natur-Tec<sup>®</sup> resin compounds and finished products both directly and through some of its joint ventures.

During fiscal 2012, NTIC's joint venture in India, Harita NTI Limited (HNTI) entered into an agreement to supply compostable packaging to a major global apparel brand for branded garments. HNTI also continues to pursue bioplastic product sales opportunities in food and personal care industries. During fiscal 2011, NTIC entered into an agreement with Italy-based Naturfuels s.r.l. to distribute its Natur-Tec<sup>®</sup> bioplastic materials and products in the Italian market. Under the terms of this distribution agreement, NTIC supplies Naturfuels with patented high-strength Natur-Tec<sup>®</sup> film grade resin compounds suited to producing compostable shopping and garbage bags on conventional plastic film production equipment. In 2011, the Italian government passed legislation banning the use of non-biodegradable disposable plastic shopping bags. However, enforcement of this law, has been delayed for a number of reasons, including a recent legal challenge as to the validity of the ban in a European Union member country by the government of the United Kingdom. Consequently, NTIC's sales of Natur-Tec<sup>®</sup> film grade resin compounds to Naturfuels were adversely affected during fiscal 2013. It is NTIC's understanding that these objections have now been addressed, and the ban on non-biodegradable plastic shopping bags is expected to be fully implemented by early 2014. NTIC expects its resin sales to customers in Italy to increase during fiscal 2014 compared to fiscal 2013.

### **NTIC's Joint Venture Network**

NTIC participates in 23 active joint venture arrangements in North America, Europe and Asia. Each of these joint ventures generally manufactures and markets products in the geographic territory to which it is assigned. While most of NTIC's joint ventures exclusively sell rust and corrosion inhibiting products, some of the joint ventures sell NTIC's Natur-Tec<sup>®</sup> resin compounds. NTIC historically has funded its investments in joint ventures with cash generated from operations.

NTIC's receipt of funds from its joint ventures is dependent upon fees for services that NTIC provides to its joint ventures, based primarily on the revenues of the joint ventures, and NTIC's receipt of dividend distributions from the joint ventures. NTIC receives fees for services provided to its joint ventures based primarily on the net sales of the individual joint ventures. The fees for services provided to joint ventures are determined based on either a flat fee or a percentage of sales depending on local laws and tax regulations. With respect to NTIC's primary joint venture in Germany (EXCOR), NTIC recognizes an agreed upon quarterly fee for such services. NTIC recognizes equity income from its joint ventures based on the overall profitability of its joint ventures. Such profitability is subject to variability from quarter to quarter which, in turn, subjects NTIC's earnings to variability from quarter to quarter. The profits of NTIC's joint ventures are shared by the respective joint venture owners in accordance with their respective ownership percentages. NTIC typically owns directly or indirectly 50% or less of each of its

joint venture entities and thus does not control the decisions of these entities regarding whether to pay dividends and, if paid, how much they should be in a given year. The payment of a dividend by an entity is determined by a joint vote of the owners and is not at the sole discretion of NTIC.

NTIC does not consolidate the results of its 23 joint ventures in its financial statements. NTIC's investments in its joint ventures are accounted for using the equity method.

Zerust Brazil's results are consolidated in NTIC's consolidated financial statements. NTIC holds 85% of the equity and 85% of the voting rights of Zerust Brazil.

In addition, beginning in the first quarter of fiscal 2013, NTIC has consolidated the results of NTI Asean, which effective as of September 1, 2012 is a majority owned subsidiary of NTIC. On September 1, 2012, NTIC and the other 50% owner in NTI Asean contributed their respective shares of capital stock of Korea Zerust Co., Ltd. (Korea Zerust), constituting an aggregate of 50% of the equity and voting rights of Korea Zerust, to NTI Asean. In addition, NTIC contributed exclusive license rights and other intellectual property to NTI Asean in exchange for an additional 10% ownership interest in NTI Asean. As a result of the transaction, NTIC holds 60% of the equity and 60% of the voting rights of NTI Asean. NTI Asean holds investments in eight entities that operate in the following eight territories located in the ASEAN region: China, Indonesia, Korea, Malaysia, Philippines, Singapore, Taiwan and Thailand.

With respect to NTIC's joint ventures, NTIC considers EXCOR and China to be individually significant to NTIC's consolidated assets and income; and therefore, provides certain additional information regarding EXCOR and China in the notes to NTIC's consolidated financial statements and in this section of this report.

## **Financial Overview**

NTIC's consolidated net sales decreased 1.2% during fiscal 2013 compared to fiscal 2012. This decrease was primarily a result of a decrease in sales of ZERUST<sup>®</sup> rust and corrosion inhibiting packaging products and services in Brazil.

During fiscal 2013, 90.9% of NTIC's consolidated net sales were derived from sales of ZERUST<sup>®</sup> products and services, which decreased 2.5% to \$20,457,198 during fiscal 2013 compared to \$20,971,275 during fiscal 2012 due primarily to a decrease in sales of ZERUST<sup>®</sup> products and services in Brazil. NTIC has strategically focused its sales efforts for ZERUST<sup>®</sup> products and services on customers with sizeable corrosion problems in industry sectors that offer sizable growth opportunities, including the oil and gas sector. NTIC's consolidated net sales for fiscal 2013 included \$2,394,486 of sales made by Zerust Brazil, and of those sales, \$537,268 in sales were made to the oil and gas industry sector in Brazil. Overall demand for ZERUST<sup>®</sup> products and services depends heavily on the overall health of the markets in which NTIC sells its products, including in particular the automotive market.

During fiscal 2013, 9.1% of NTIC's consolidated net sales were derived from sales of Natur-Tec<sup>®</sup> products compared to 7.9% during fiscal 2012. Net sales of Natur-Tec<sup>®</sup> products increased 12.9% during fiscal 2013 compared to fiscal 2012. This increase was due primarily to increased sales to NTIC's Natur-Tec<sup>®</sup> distributors in the United States. Additionally, NTIC continues to target key regional and national retailers through independent sales agents. Demand for the Natur-Tec<sup>®</sup> products depends primarily on market acceptance and the reach of NTIC's distribution network.

Cost of goods sold as a percentage of net sales increased to 68.8% during fiscal 2013 compared to 63.8% during fiscal 2012 primarily as a result of higher sales during fiscal 2012 of ZERUST<sup>®</sup> products for the oil and gas industry which carry higher margins than other ZERUST<sup>®</sup> products and increased expenses

during fiscal 2013 associated with the production and shipping of ZERUST<sup>®</sup> products to a new customer. The increase in production expenses was temporary and normalized during the fourth quarter of fiscal 2013.

NTIC's equity in income of joint ventures decreased 5.1% to \$5,237,711 in fiscal 2013 compared to \$5,519,795 during fiscal 2012 and NTIC recognized a 59.1% increase in fees for services provided to joint ventures during fiscal 2013 compared to fiscal 2012. The decrease in equity in income of joint ventures and the increase in fees for services provided to joint ventures were primarily a result of NTI Asean, which was consolidated in fiscal 2013, but not in fiscal 2012. Fees for services provided are a function of the net sales of NTIC's joint ventures which were \$113,189,068 during fiscal 2013 compared to \$111,830,961 during fiscal 2012. Total net sales of NTIC's joint ventures were adversely affected in part by the European economic slowdown, which NTIC believes adversely affected the net sales of NTIC's European joint ventures, as well as certain of NTIC's other non-European joint ventures, and the weakening of the Euro and other currencies compared to the U.S. dollar.

NTIC's total operating expenses increased 6.0% during fiscal 2013 compared to fiscal 2012 primarily as a result of an increase in selling expenses and expenses incurred in support of joint ventures, and reflected NTIC's overall efforts to support its new business. NTIC incurred \$3,815,515 in research and development expense during fiscal 2013 as compared to \$3,875,581 during fiscal 2012. NTIC anticipates that it will spend between \$3,800,000 and \$4,000,000 in total during fiscal 2014 on research and development activities related to its new technologies. This estimate is net of anticipated reimbursements related to certain research and development contracts.

Net income attributable to NTIC decreased 2.4% to \$3,366,894, or \$0.75 per diluted common share, for fiscal 2013 compared to \$3,448,196, or \$0.78 per diluted common share, for fiscal 2012. This decrease was primarily the result of a decrease in gross profit, partially offset by an increase in fees for services provided to joint ventures and NTIC's receipt of \$750,000 in life insurance proceeds as a result of the death of a former NTIC officer. NTIC anticipates that its quarterly net income will remain subject to significant volatility primarily due to the sales performance of its joint ventures and sales of its ZERUST<sup>®</sup> products and services into the oil and gas industry. Each of these fluctuates more on a quarterly basis than the traditional ZERUST<sup>®</sup> business in North America.

NTIC's working capital was \$13,270,452 at August 31, 2013, including \$4,314,258 in cash and cash equivalents, compared to \$10,060,081 at August 31, 2012, including \$4,137,547 in cash and cash equivalents.

### **Sales and Expense Components**

The following is a description of the primary components of net sales and expenses:

***Net Sales, Excluding Joint Ventures.*** NTIC derives net sales from the sale of its ZERUST<sup>®</sup> products and services and its Natur-Tec<sup>®</sup> products. NTIC sells its ZERUST<sup>®</sup> products and services and its Natur-Tec<sup>®</sup> products either directly or via a network of joint ventures, independent distributors and agents. Net sales, excluding joint ventures represents net sales by NTIC either directly to end users or to distributors worldwide, but not sales to NTIC's joint ventures and not sales by NTIC's joint ventures. NTIC recognizes revenue from the sale of its products either directly or to distributors when persuasive evidence of an arrangement exists, the product has been delivered, the fee is fixed and determinable and collection of the resulting receivable is reasonably assured, all of which criteria are generally met upon shipment when risk of loss and title passes to the customer or distributor. NTIC records all amounts billed to customers and distributors in a sales transaction related to shipping and handling as sales and records costs related to shipping and handling in cost of goods sold.



**Net Sales, To Joint Ventures.** Net sales, to joint ventures represents net sales by NTIC to NTIC's joint ventures, but not sales by NTIC either directly to end users or to distributors or sales by NTIC's joint ventures. NTIC's revenue recognition policy for sales to its joint ventures is the same as NTIC's policy for sales to unaffiliated customers. NTIC recognizes revenue from the sale of its products to joint ventures when persuasive evidence of an arrangement exists, the product has been delivered, the fee is fixed and determinable and collection of the resulting receivable is reasonably assured, all of which criteria are generally met upon shipment when risk of loss and title passes to the joint venture.

**Cost of Goods Sold.** Most of NTIC's products are manufactured by third parties and its cost of goods sold for those products consists primarily of the price invoiced by its third-party vendors. For the small portion of products that NTIC manufactures, NTIC's cost of goods sold for those products consists primarily of direct labor, allocated manufacturing overhead, raw materials and components. NTIC's margins on its Natur-Tec<sup>®</sup> resin compounds and finished products are generally smaller than its margins on its ZERUST<sup>®</sup> products and services, and NTIC's margins on its ZERUST<sup>®</sup> products and services sold into the oil and gas industry are generally greater than its margins on its traditional ZERUST<sup>®</sup> products and services.

**Equity in Income of Joint Ventures.** NTIC's equity in income of joint ventures consists of NTIC's share of equity in income of its joint ventures based on the overall profitability of the joint ventures. Such profitability is subject to variability from quarter to quarter which, in turn, subjects NTIC's earnings to variability from quarter to quarter. Traditionally, a portion of the equity income recorded in a given fiscal year is paid to the owners of the joint venture entity during the following fiscal year through a dividend. The payment of a dividend by a joint venture entity is determined by a vote of the joint venture owners and is not at the sole discretion of NTIC. NTIC typically owns only 50% or less of its joint venture entities and thus does not control the decisions of these entities regarding whether to pay dividends and, if paid, how much they should be in a given year.

**Fees for Services Provided To Joint Ventures.** NTIC provides certain services to its joint ventures including consulting, legal, travel, insurance, technical and marketing services. NTIC receives fees for these services it provides to its joint ventures based primarily on the net sales by NTIC's joint ventures, the latter of which are not included in NTIC's net sales reflected on NTIC's consolidated statements of operations. The fees for services received by NTIC from its joint ventures are generally determined based on either a flat fee or a percentage of net sales by NTIC's joint ventures depending on local laws and tax regulations. With respect to EXCOR, NTIC receives an agreed upon fixed quarterly fee for such services. With respect to NTIC's joint venture in China, NTI Asean receives a fee for such services, and ultimately NTI Asean pays a dividend to NTIC based on the timing of these payments. NTIC records revenue related to fees for services provided to joint ventures when earned, amounts are determinable and collectability is reasonably assured. Under NTIC's agreements with its joint ventures in which the fees for services is described, fees are earned when the joint venture recognizes the revenue.

NTIC sponsors a worldwide joint venture conference periodically in which all of NTIC's joint ventures are invited to participate. It is anticipated that the next joint venture conference will be held in the summer of 2014. NTIC defers a portion of its fees for services provided to joint ventures in each accounting period leading up to the next conference, reflecting that NTIC has not fully earned the payments received during that period. The amount deferred is based on the historical experience of NTIC, current conditions and the intentions of NTIC's management. The costs associated with these joint venture conferences are offset against the deferral as incurred, generally in the period in which the conference is held and immediately before.

***Selling Expenses.*** Selling expenses consist primarily of sales commissions and support costs for NTIC's direct sale and distribution system, and marketing costs.

***General and Administrative Expenses.*** General and administrative expenses consist primarily of salaries and benefits, and other costs for NTIC's executives, accounting, stock based compensation, finance, legal, information technology and human resources functions.

***Expenses Incurred in Support of Joint Ventures.*** NTIC incurs direct expenses related to its joint ventures and in connection with NTIC's provision of support and services to its joint ventures. Such expenses include items such as employee compensation and benefits, travel, consulting, legal and laboratory supplies and testing expenses.

***Research and Development Expenses.*** Research and development expenses include costs associated with the design, development, market analysis, lab testing and field trials and enhancements of NTIC's products and services. NTIC expenses all costs related to product research and development as incurred. Research and development expenses reflect the net amount after being reduced by reimbursements related to certain research and development contracts. With respect to such research and development contracts, NTIC accrues proceeds received under the contracts and offsets research and development expenses incurred in equal installments over the timelines associated with completion of the contracts' specific objectives and milestones.

***Interest Income.*** Interest income consists of interest earned on investments in investment-grade, interest-bearing securities and money market accounts.

***Interest Expense.*** Interest expense results primarily from interest associated with NTIC's term loan with PNC Bank, National Association (PNC Bank) and any borrowings under NTIC's line of credit with PNC Bank.

***Income Tax Expense.*** Income tax expense includes federal income taxes, income tax of consolidated entities in foreign jurisdictions, state income tax and changes to NTIC's deferred tax valuation allowance. NTIC utilizes the liability method of accounting for income taxes which requires an asset and liability approach to financial accounting and reporting for income taxes. Deferred income tax assets and liabilities are computed annually for differences between the financial statement and tax basis of assets and liabilities that will result in taxable or deductible amounts in the future, based on enacted tax laws and rates applicable to the periods in which the differences are expected to affect taxable income. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized. NTIC records a tax valuation allowance when it is more likely than not that some portion or all of its deferred tax assets will not be realized. NTIC makes this determination based on all available evidence, including historical data and projections of future results. Income tax expense is the tax payable or refundable for the period plus or minus the change during the period in deferred tax assets and liabilities.

## Results of Operations

### *Fiscal Year 2013 Compared to Fiscal Year 2012*

The following table sets forth NTIC's results of operations for fiscal 2013 and fiscal 2012.

	<u>Fiscal 2013</u>	<u>% of Net Sales</u>	<u>Fiscal 2012</u>	<u>% of Net Sales</u>	<u>\$ Change</u>	<u>% Change</u>
Net sales, excluding joint ventures .....	\$ 19,724,205	87.7%	\$ 20,227,719	88.8%	\$ (503,514)	(2.5)%
Net sales, to joint ventures .....	2,777,659	12.3%	2,553,934	11.2%	223,725	8.8%
Cost of goods sold .....	15,473,212	68.8%	14,528,785	63.8%	944,427	6.5%
Equity in income of joint ventures .....	5,237,711	23.3%	5,519,795	24.2%	(282,084)	(5.1)%
Fees for services provided to joint ventures .....	7,352,980	32.7%	4,622,912	20.3%	2,730,068	59.1%
Selling expenses .....	4,845,676	21.5%	4,585,901	20.1%	259,775	5.7%
General and administrative expenses .....	4,605,979	20.5%	4,309,410	18.9%	296,569	6.9%
Expenses incurred in support of joint ventures .....	1,387,197	6.2%	1,054,914	4.6%	332,283	31.5%
Research and development expenses .....	3,815,515	17.0%	3,875,581	17.0%	(60,066)	(1.5)%

*Net Sales.* NTIC's consolidated net sales decreased 1.2% to \$22,501,864 during fiscal 2013 compared to fiscal 2012. NTIC's consolidated net sales to unaffiliated customers excluding NTIC's joint ventures decreased 2.5% to \$19,724,205 during fiscal 2013 compared to fiscal 2012. These decreases were primarily a result of decreases in sales of ZERUST<sup>®</sup> rust and corrosion inhibiting packaging products and services in Brazil. Net sales to joint ventures increased 8.8% to \$2,777,659 in fiscal 2013 compared to fiscal 2012. This increase was due primarily to the increase in sales of the joint ventures.

The following table sets forth NTIC's net sales by product segment for fiscal 2013 and fiscal 2012:

	<u>Fiscal 2013</u>	<u>Fiscal 2012</u>	<u>\$ Change</u>	<u>% Change</u>
ZERUST <sup>®</sup> net sales .....	\$ 20,457,198	\$ 20,971,275	\$ (514,077)	(2.5)%
Natur-Tec <sup>®</sup> net sales .....	2,044,666	1,810,378	234,288	12.9%
Total net sales .....	\$22,501,864	\$22,781,653	\$ (279,789)	(1.2)%

During fiscal 2013, 90.9% of NTIC's consolidated net sales were derived from sales of ZERUST<sup>®</sup> products and services, which decreased 2.5% to \$20,457,198 during fiscal 2013 compared to \$20,971,275 during fiscal 2012, due primarily from decreases in sales of ZERUST<sup>®</sup> products and services in Brazil as noted above. NTIC has strategically focused its sales efforts for ZERUST<sup>®</sup> products and services on customers with sizeable corrosion problems in industry sectors that offer sizable growth opportunities, including the oil and gas sector.

NTIC's consolidated net sales during fiscal 2013 included \$2,394,486 of sales made by Zerust Brazil, and of those sales, \$537,268 in sales were made to the oil and gas industry sector in Brazil compared to \$4,543,982 of sales made by Zerust Brazil during fiscal 2012, including sales of \$2,466,000 to the oil and gas industry sector in Brazil. NTIC anticipates that its sales of ZERUST<sup>®</sup> products and services into the oil and gas industry will remain subject to significant volatility from quarter to quarter as sales are converted and purchase orders are filled.

During fiscal 2013, 9.1% of NTIC's consolidated net sales were derived from sales of Natur-Tec<sup>®</sup> products, which increased 12.9% to \$2,044,666 during fiscal 2013 compared to \$1,810,378 in fiscal 2012. This increase was due primarily to increased sales to NTIC's Natur-Tec<sup>®</sup> distributors in the United States. Additionally, NTIC continues to target key regional and national retailers through independent sales agents. Demand for the Natur-Tec<sup>®</sup> products depends primarily on market acceptance and the reach of

NTIC's distribution network. Because of the typical size of individual orders and overall size of NTIC's net sales derived from sales of Natur-Tec<sup>®</sup> products, the timing of one or more orders can affect materially NTIC's quarterly sales of Natur-Tec<sup>®</sup> products and the comparisons to prior year quarters.

*Cost of Goods Sold.* Cost of goods sold increased 6.5% in fiscal 2013 compared to fiscal 2012 primarily as a result of the increase in net sales of its Natur-Tec<sup>®</sup> resin compounds and finished products and ZERUST<sup>®</sup> products to traditional customers, partially offset by decrease in sales of ZERUST<sup>®</sup> products and services sold into the oil and gas industry, which are generally sold at greater margins than traditional ZERUST<sup>®</sup> products and services. Cost of goods sold as a percentage of net sales increased to 68.8% during fiscal 2013 compared to 63.8% during fiscal 2012 primarily as a result of decreased sales during fiscal 2013 of ZERUST<sup>®</sup> products for the oil and gas industry which carry higher margins than other traditional ZERUST<sup>®</sup> products and increased expenses during fiscal 2013 associated with the production and shipping of ZERUST<sup>®</sup> products to a new customer. The increase in production expenses was temporary and normalized during the fourth quarter of fiscal 2013.

*Equity in Income of Joint Ventures.* NTIC's equity in income of joint ventures decreased 5.1% to \$5,237,711 during fiscal 2013 compared to equity in income of joint ventures of \$5,519,795 during fiscal 2012. Of the total equity in income of joint ventures, NTIC had equity in income of joint ventures of \$3,507,057 attributable to EXCOR during fiscal 2013 compared to \$3,318,213 attributable to EXCOR during fiscal 2012. Of the total equity in income of joint ventures, NTIC had equity in income of joint ventures of \$579,376 attributable to NTIC's joint venture in China during fiscal 2013 compared to \$486,370 attributable to NTIC's joint venture in China during fiscal 2012. NTIC had equity in income of all other joint ventures of \$1,151,278 during fiscal 2013 compared to \$1,715,222 during fiscal 2012.

*Fees for Services Provided to Joint Ventures.* NTIC recognized fee income for services provided to joint ventures of \$7,352,980 during fiscal 2013 compared to \$4,622,912 during fiscal 2012, representing an increase of 59.1%. This increase was primarily a result of the consolidation of NTI Asean's fees for services which are included in fiscal 2013, but not in fiscal 2012. Fee income for services provided to joint ventures are a function of the sales made by NTIC's joint ventures, which were \$113,189,068 during fiscal 2013 compared to \$111,830,961 during fiscal 2012. Total net sales of NTIC's joint ventures were adversely affected in part by the European economic slowdown, which NTIC believes also adversely affected net sales of certain of NTIC's other non-European joint ventures, as well as the weakening of the EURO and other currencies compared to the U.S. dollar. Sales of NTIC's joint ventures are not included in NTIC's product sales and are not combined with NTIC's sales in NTIC's consolidated financial statements or in any description of NTIC's sales.

Of the total fee income for services provided to its joint ventures, fees of \$1,004,958 were attributable to EXCOR during fiscal 2013 compared to \$994,347 attributable to EXCOR during fiscal 2012. Fees of \$2,063,369 were attributable to NTIC's joint venture in China during fiscal 2013 compared to \$0 during fiscal 2012. NTI Asean is consolidated in fiscal 2013, but not in fiscal 2012. NTIC received fee income for services provided to all of its other joint ventures of \$4,284,653 during fiscal 2013 compared to \$3,628,565 during fiscal 2012.

*Selling Expenses.* NTIC's selling expenses increased 5.7% in fiscal 2013 compared to fiscal 2012 due to increases in compensation and employee benefits, lab testing related expenses, commission expenses, travel and related expenses, and consulting expenses and selling expenses incurred at Zerust Brazil. Selling expenses as a percentage of net sales increased to 21.5% in fiscal 2013 compared to 20.1% in fiscal 2012 primarily due to the decrease in net sales and the increase in selling expenses, as previously described.

*General and Administrative Expenses.* NTIC's general and administrative expenses increased by 6.9% in fiscal 2013 compared to fiscal 2012 due to increases in consulting and employee expenses. As a percentage of net sales, general and administrative expenses increased to 20.5% for fiscal 2013 from 18.9% in fiscal 2012 due primarily to the decrease in net sales, partially offset by the increase in general and administrative expenses, as previously described.

*Expenses Incurred in Support of Joint Ventures.* Expenses incurred in support of NTIC's joint ventures were \$1,387,197 during fiscal 2013 compared to \$1,054,914 during fiscal 2012, representing an increase of 31.5%. This increase was due primarily to increased compensation and benefits expenses associated with increased headcount.

*Research and Development Expenses.* NTIC's research and development expenses decreased 1.5% in fiscal 2013 compared to fiscal 2012. This decrease was primarily due to decreases in consulting expenses partially offset by increased reimbursements related to certain research and development contracts.

*Interest Income.* NTIC's interest income decreased to \$34,614 in fiscal 2013 compared to \$54,652 in fiscal 2012 primarily due to changes in cash balances of Zerust Brazil and NTI Asean earning interest.

*Interest Expense.* NTIC's interest expense increased to \$52,215 in fiscal 2013 compared to \$29,388 in fiscal 2012 primarily due to increased average outstanding debt levels of Zerust Brazil during fiscal 2013.

*Income Before Income Tax Expense.* Income before income tax expense increased to \$5,617,501 for fiscal 2013 compared to \$4,616,646 for fiscal 2012.

*Income Tax Expense.* Income tax expense was \$864,000 for fiscal 2013 compared to \$1,041,000 during fiscal 2012 for an effective rate of 15.4% and 22.3% respectively. NTIC's annual effective income tax rate during fiscal 2013 and fiscal 2012 was lower than the statutory rate primarily because NTIC's equity in income of joint ventures is recognized on after-tax earnings of these entities. To the extent undistributed earnings of NTIC's joint ventures are distributed to NTIC, it is not expected to result in any material additional income tax liability after the application of foreign tax credits. NTIC records a tax valuation allowance when it is more likely than not that some portion or all of its deferred tax assets will not be realized to reduce deferred tax assets to the amount expected to be realized. NTIC determined based on all available evidence, including historical data and projections of future results, that it is more likely than not that all of its deferred tax assets, except for its foreign tax credit carryforwards and Minnesota state research and development credit carryforwards, will be fully realized. In addition, NTIC determined based upon all available evidence, including new IRS guidance, historical results, projected future taxable income and foreign tax credit utilization, that it was not more likely than not that the federal research and development credits would be utilized during the carryforward period and as a result, a valuation allowance was recorded against all of NTIC's federal research and development credits. In addition, NTIC continues to believe that its deferred tax asset related to foreign tax credit carryforwards will not be realized due to insufficient federal taxable income within the carryforward period and the fact that for ordering purposes the foreign tax credit carryforwards are not allowed to be used until after any current year foreign tax credits are utilized.

NTIC considers the earnings of certain foreign joint ventures to be indefinitely invested outside the United States on the basis of estimates that future domestic cash generation will be sufficient to meet future domestic cash needs. As a result, U.S. income and foreign withholding taxes have not been recognized on the cumulative undistributed earnings of \$22,281,510 and \$18,185,000 at August 31, 2013 and 2012, respectively. To the extent undistributed earnings of NTIC's joint ventures are distributed in

the future, they are not expected to result in any material additional income tax liability after the application of foreign tax credits

*Other Comprehensive Income - Foreign Currency Translations Adjustment.* The volatility of the foreign currency translations adjustment was due to the strengthening of the U.S. Dollar compared to the Euro and other foreign currencies during fiscal 2013 compared to fiscal 2012.

## **Liquidity and Capital Resources**

*Sources of Cash and Working Capital.* As of August 31, 2013, NTIC's working capital was \$13,270,452, including \$4,314,258 in cash and cash equivalents, compared to working capital of \$10,060,081, including \$4,137,547 in cash and cash equivalents, as of August 31, 2012.

As of August 31, 2013, NTIC had a term loan with a principal amount of \$933,414 from PNC Bank, National Association in connection with the purchase of NTIC's corporate headquarters in September 2006. The term loan matures on January 10, 2016, bears interest at an annual rate based on the daily LIBOR rate plus 2.15% and is payable in consecutive monthly installments equal to \$6,343 (inclusive of principal but exclusive of interest). The term loan is secured by a first lien on NTIC's real property and assets.

As of August 31, 2013, NTIC had a revolving line of credit with PNC Bank of \$3,000,000 with no amounts outstanding as of such date. The line of credit is evidenced by an amended and restated committed line of credit note in the principal amount of up to \$3,000,000. The line of credit has a \$1,200,000 standby letter of credit subfacility, with any standby letters of credit issued thereunder being at the sole discretion of PNC Bank. Any standby letters of credit issued under the subfacility are subject to customary fees and charges payable by NTIC. At the option of NTIC, outstanding advances under the line of credit bear interest at either (a) an annual rate based on LIBOR plus 2.15% for the applicable LIBOR interest period selected by NTIC or (b) at the rate publicly announced by PNC Bank from time to time as its prime rate. Interest is payable in arrears (a) for the portion of advances bearing interest under the prime rate on the last day of each month during the term thereof and (b) for the portion of advances bearing interest under the LIBOR option on the last day of the respective LIBOR interest period selected for such advance. Any unpaid interest is payable on the maturity date. As of August 31, 2013, the interest rate on the line of credit was 2.82%.

The term loan and the line of credit are governed under two separate loan agreements. The loan agreements contain standard covenants, including affirmative financial covenants, such as the maintenance of a minimum fixed charge coverage ratio, and negative covenants, which, among other things, limit the incurrence of additional indebtedness, loans and equity investments, disposition of assets, mergers and consolidations and other matters customarily restricted in such agreements. Under the loan agreements, NTIC is subject to a minimum fixed charge coverage ratio of 1.10:1.00.

On December 11, 2012, PNC Bank extended the maturity date of the line of credit from January 9, 2013 to January 8, 2014 and waived a technical covenant default by NTIC to deliver quarterly compliance certificates. All other terms of the line of credit and the loan agreement and other documents evidencing the line of credit remain the same. NTIC expects to remain in compliance with all loan agreement covenants during fiscal 2014. It is anticipated that the maturity date of the line of credit will be extended again prior to the January 8, 2014 maturity date.

NTIC believes that a combination of its existing cash and cash equivalents, forecasted cash flows from future operations, anticipated distributions of earnings, anticipated fees to NTIC for services provided to its joint ventures, and funds available through existing or anticipated financing arrangements, will be

adequate to fund its existing operations, investments in new or existing joint ventures, capital expenditures, debt repayments and any stock repurchases for at least the next 12 months. During fiscal 2014, NTIC expects to continue to invest in research and development and in marketing efforts and resources into the application of its corrosion prevention technology into the oil and gas industry and its Natur-Tec<sup>®</sup> bio-plastics business. In order to take advantage of such new product and market opportunities to expand its business and increase its revenues, NTIC may decide to finance such opportunities by borrowing under its revolving line of credit or raising additional financing through the issuance of debt or equity securities. There is no assurance that any financing transaction will be available on terms acceptable to NTIC or at all, or that any financing transaction will not be dilutive to NTIC's current stockholders.

NTIC traditionally has used the cash generated from its operations, distributions of earnings and fees for services provided to its joint ventures to fund NTIC's new technology investments and capital contributions to new and existing joint ventures. NTIC's joint ventures traditionally have operated with little or no debt and have been self-financed with minimal initial capital investment and minimal additional capital investment from their respective owners. Therefore, NTIC believes it is not likely that there exists any exposure to debt by NTIC's joint ventures that could materially impact NTIC's or the joint ventures' respective operations and/or liquidity.

Net cash used in operating activities during fiscal 2013 was \$1,245,035, which resulted principally from NTIC's equity in income from joint ventures and increases in receivables and inventories and a decrease in accounts payables, accrued liabilities and income taxes payable, partially offset by NTIC's net income, depreciation and amortization. Net cash used in operating activities during fiscal 2012 was \$388,694 which resulted principally from NTIC's equity in income from joint ventures and increases in receivables, inventories and prepaid expenses and a decrease in accounts payables, accrued liabilities and income taxes payable, partially offset by NTIC's net income, depreciation and amortization.

NTIC's cash flows from operations are impacted by significant changes in certain components of NTIC's working capital, including inventory turnover and changes in receivables. NTIC considers internal and external factors when assessing the use of its available working capital, specifically when determining inventory levels and credit terms of customers. Key internal factors include existing inventory levels, stock reorder points, customer forecasts and customer requested payment terms, and key external factors include the availability of primary raw materials and sub-contractor production lead times. NTIC's typical contractual terms for trade receivables excluding joint ventures are traditionally 30 days and for trade receivables from its joint ventures are 90 days. Before extending unsecured credit to customers, excluding NTIC's joint ventures, NTIC reviews customers' credit histories and will establish an allowance for uncollectible accounts based upon factors surrounding the credit risk of specific customers and other information. Accounts receivable over 30 days are considered past due for most customers. NTIC does not accrue interest on past due accounts receivable. If accounts receivables in excess of the provided allowance are determined uncollectible, they are charged to selling expense in the period that determination is made. Accounts receivable are deemed uncollectible based on NTIC exhausting reasonable efforts to collect. NTIC's typical contractual terms for receivables for services provided to its joint ventures are 90 days. NTIC records receivables for services provided to its joint ventures on an accrual basis, unless circumstances exist that make the collection of the balance uncertain in which case the fee income will be recorded on a cash basis until there is consistency in payments. This determination is handled on a case by case basis.

NTIC experienced an increase in receivables and inventory as of August 31, 2013 compared to August 31, 2012 due primarily to an increase in net sales to joint ventures and in fees for services provided to joint ventures as previously described and a desire to stock more products to shorten lead times and anticipate customer demand.

Outstanding trade receivables excluding joint ventures as of August 31, 2013 increased \$813,034 compared to August 31, 2012. Outstanding trade receivables excluding joint ventures balances as of August 31, 2013 increased 7 days to an average of 56 days from balances outstanding from these customers as of August 31, 2012.

Outstanding trade receivables from joint ventures as of August 31, 2013 increased \$124,891 compared to August 31, 2012 primarily due to an increase in net sales to joint ventures and the timing of payments. There was a decrease of outstanding balances from trade receivables from joint ventures as of August 31, 2013 of 10 days from an average of 130 days from balances outstanding from these customers compared to August 31, 2012. The significant average days outstanding of trade receivables from joint ventures as of August 31, 2013 were primarily due to the receivable balance at NTIC's joint ventures in India, Korea and China.

Outstanding receivables for fees for services provided to joint ventures as of August 31, 2013 increased \$1,129,084 compared to August 31, 2012 primarily due to the increase in fees for services provided to joint ventures and the consolidation of NTI Asean in fiscal 2013, which resulted in an increase of 18 days of fees receivable outstanding as of August 31, 2013 to an average of 124 days compared to August 31, 2012.

Net cash provided by investing activities for fiscal 2013 was \$3,025,187, which was comprised of dividends received from joint ventures and the effect of the NTI Asean consolidation on cash, partially offset by additions to property and equipment and additions to patents. Net cash provided by investing activities during fiscal 2012 was \$1,351,468, which was comprised of dividends received from joint ventures, partially offset by additions to property and equipment and additions to patents.

Net cash used in financing activities for fiscal 2013 was \$1,563,867, which resulted from a dividend received by non-controlling interest and principal payments on the bank loan for NTIC's corporate headquarters building, partially offset by proceeds from option exercises and NTIC's employee stock purchase plan. Net cash provided by financing activities during fiscal 2012 was \$13,822, which resulted from proceeds from NTIC's employee stock purchase plan, and, to a lesser extent, option exercises and, partially offset by principal payments on the bank loan for NTIC's corporate headquarters buildings.

*Capital Expenditures and Commitments.* NTIC has a lease agreement for approximately 17,000 square feet of office, manufacturing, laboratory and warehouse space in Beachwood, Ohio, requiring monthly payments of \$17,500, which are adjusted annually according to the annual consumer price index, through November 2014.

NTIC spent approximately \$1,488,059 on capital expenditures during fiscal 2013 and expects to spend an aggregate of approximately \$400,000 to \$600,000 on capital expenditures during fiscal 2014. Anticipated capital expenditures for fiscal 2014 relate primarily to the expansion of NTIC's laboratory facilities in Circle Pines, Minnesota and the purchase of new equipment.

### **Off-Balance Sheet Arrangements**

NTIC does not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet financial arrangements. As such, NTIC is not materially exposed to any financing, liquidity, market or credit risk that could arise if NTIC had engaged in such arrangements.



## **Inflation and Seasonality**

Inflation in the U.S. and abroad historically has had little effect on NTIC. NTIC's business has not historically been seasonal.

## **Market Risk**

NTIC is exposed to some market risk stemming from changes in foreign currency exchange rates, commodity prices and interest rates.

Because the functional currency of NTIC's foreign operations and investments in its foreign joint ventures is the applicable local currency, NTIC is exposed to foreign currency exchange rate risk arising from transactions in the normal course of business. NTIC's principal exchange rate exposure is with the Euro, the Japanese yen, Indian Rupee, Chinese yuan, Korean won and the English pound against the U.S. dollar. NTIC's fees for services provided to joint ventures and dividend distributions from these foreign entities are paid in foreign currencies and thus fluctuations in foreign currency exchange rates could result in declines in NTIC's reported net income. Since NTIC's investments in its joint ventures are accounted for using the equity method, any changes in foreign currency exchange rates would be reflected as a foreign currency translation adjustment and would not change NTIC's equity in income of joint ventures reflected in its consolidated statements of income. NTIC does not hedge against its foreign currency exchange rate risk.

Some raw materials used in NTIC's products are exposed to commodity price changes. The primary commodity price exposures are with a variety of plastic resins.

At the option of NTIC, outstanding advances under NTIC's \$3,000,000 revolving line of credit with PNC Bank bear interest at either (a) an annual rate based on LIBOR plus 2.15% for the applicable LIBOR interest period selected by NTIC or (b) at the rate publicly announced by PNC Bank from time to time as its prime rate, and thus may subject NTIC to some market risk on interest rates. As of August 31, 2013, NTIC had no borrowings under the line of credit.

## **Related Party Transactions**

Since NTIC's joint ventures are considered related parties, NTIC records sales to its joint ventures as a separate line item on the face of NTIC's consolidated statements of operations and records fees for services provided to its joint ventures and expenses incurred in support of its joint ventures as separate line items on the face of NTIC's consolidated statements of operations. NTIC also records as separate line items trade receivables from joint ventures, receivables for fees for services provided to joint ventures and NTIC's investments in joint ventures on its consolidated balance sheets.

NTIC established its joint venture network approximately 25 years ago as a method to increase its worldwide distribution network for ZERUST<sup>®</sup> rust and corrosion inhibiting products and services. NTIC participates, either directly or indirectly, in 23 active joint venture arrangements in North America, Europe and Asia. Each of these joint ventures generally manufactures and markets finished products in the geographic territory to which it is assigned. NTIC's joint venture partners are knowledgeable in the applicable environmental, labor, tax and other requisite regulations and laws of the respective foreign countries in which they operate, as well as the local customs and business practices. NTIC's revenue recognition policy for sales to its joint ventures is the same as its policy for sales to unaffiliated customers.

The fees for services received by NTIC from its joint ventures are generally determined based on either a flat fee or a percentage of net sales by NTIC's joint ventures depending on local laws and tax regulations. With respect to NTIC's German joint venture, NTIC receives an agreed upon quarterly fee for such services. NTIC records revenue related to fees for services provided to joint ventures when earned, amounts are determinable and collectability is reasonably assured. Under NTIC's agreements with its joint ventures, fee amounts are earned when product is shipped from joint venture facilities. NTIC reviews the financial situation of each joint venture to assist in the likelihood of collections on amounts earned. From time to time, NTIC elects to account for such fees on a cash basis for certain joint ventures when uncertainty exists surrounding the collections of such fees, there are no fees being accounted for in this manner at present. The expenses incurred in support of its joint ventures are direct expenses that NTIC incurs related to its joint ventures and include such items as employee compensation and benefit expenses, travel expense, insurance, consulting expense, legal expense and lab supplies and testing expense.

See Note 14 to NTIC's consolidated financial statements for other related party transaction disclosures.

### **Critical Accounting Policies and Estimates**

The preparation of NTIC's consolidated financial statements requires management to make estimates and judgments that affect the reported amount of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. The Securities and Exchange Commission has defined a company's most critical accounting policies as those that are most important to the portrayal of its financial condition and results of operations, and which require the company to make its most difficult and subjective judgments, often as a result of the need to make estimates of matters that are inherently uncertain. Based on this definition, NTIC has identified the following critical accounting policies. Although NTIC believes that its estimates and assumptions are reasonable, they are based upon information available when they are made. Actual results may differ significantly from these estimates under different assumptions or conditions.

#### ***Principles of Consolidation***

NTIC evaluates its voting and variable interests in entities on a qualitative and quantitative basis. NTIC consolidates entities in which it concludes it has the power to direct the activities that most significantly impact an entity's economic success and has the obligation to absorb losses or the right to receive benefits that could be significant to the entity. All such relationships are evaluated on an ongoing basis. The consolidated financial statements include the accounts of Northern Technologies International Corporation, its wholly owned subsidiary, Northern Technologies Holding Company, LLC, and NTIC's majority owned subsidiary in Brazil, Zerust Prevenção de Corrosão S.A., and NTIC's majority owned holding company, NTI Asean LLC. NTIC's consolidated financial statements do not include the accounts of any of its joint ventures.

#### ***Investments in Joint Ventures and Recoverability of Investments in Joint Ventures***

NTIC's investments in its joint ventures are accounted for using the equity method. NTIC assesses its joint ventures for impairment on an annual basis as of August 31 of each year as part of its fiscal year end analysis. In addition to the annual review for impairment, NTIC reviews the operating results of each joint venture on a quarterly basis in comparison to its historical operating results and its accrual for fees for services provided to joint ventures. If the operating results of a joint venture do not meet NTIC's financial performance expectations, an additional evaluation is performed on the joint venture. In addition to the annual assessments for impairment, non-periodic assessments for impairment may occur if cash remittances are less than accrued balances, a joint venture's management requests capital or other

events occur suggesting an other than temporary decline in value. If an investment were determined to be impaired, then a reserve would be created to reflect the impairment on the financial results of NTIC. NTIC's evaluation of its investments in joint ventures requires NTIC to make assumptions about future cash flows of its joint ventures. These assumptions require significant judgment and actual results may differ from assumed or estimated amounts. NTIC's investments in joint ventures were \$24,702,981 as of August 31, 2013 and \$21,461,492 as of August 31, 2012.

### ***Revenue Recognition***

NTIC recognizes revenue from the sale of its products when persuasive evidence of an arrangement exists, the product has been delivered, the price is fixed and determinable and collection of the resulting receivable is reasonably assured. These criteria are met at the time of shipment when risk of loss and title pass to the customer, distributor or joint venture entity.

With respect to recording revenue related to fees earned for services provided to NTIC's joint ventures, NTIC recognizes revenue related to support of joint ventures when earned, amounts are determinable and collectability is reasonably assured. The support and services NTIC provides its joint ventures include consulting, travel, insurance, technical and marketing services to existing joint ventures, legal fees incurred in the establishment of new joint ventures, registration and promotion and legal defense of worldwide trademarks, and legal fees incurred in connection with the filing of patent applications. NTIC receives fees for these services it provides to its joint ventures based primarily on the net sales by NTIC's joint ventures. The fees for support services received by NTIC from its joint ventures are generally determined based on either a flat fee or a percentage of net sales by NTIC's joint ventures depending on local laws and tax regulations. Under NTIC's agreements with its joint ventures, amounts are earned when product is shipped from joint venture facilities. NTIC reviews the financial situation of each of its joint ventures to assist in the likelihood of collections on amounts earned. NTIC elects to account for these fees on a cash basis for certain joint ventures when uncertainty exists surrounding the collections of such fees.

### ***Accounts and Notes Receivable***

Trade receivables arise from sales of NTIC's products and services to NTIC's joint ventures and to unaffiliated customers. Trade receivables from joint ventures arise from sales NTIC makes to its joint ventures of products and the essential additives required to make ZERUST<sup>®</sup> industrial corrosion inhibiting products functional. Receivables for services to NTIC's joint ventures are contractually based primarily on a percentage of the sales of the joint ventures and are intended to compensate NTIC for services NTIC provides to its joint ventures, including consulting, legal, travel, insurance, technical and marketing services.

Payment terms for NTIC's unaffiliated customers are determined based on credit risk and vary by customer. NTIC typically offers standard payments terms to unaffiliated customers of net 30 days. Payment terms for NTIC's joint ventures also are determined based on credit risk; however, additional consideration also is given to the individual joint venture due to the transportation time associated with ocean delivery of most products and certain other factors. NTIC typically offers payment terms to joint ventures of net 90 days. NTIC does not accrue interest on past due accounts receivable. NTIC reviews the credit histories of its customers, including its joint ventures, before extending unsecured credit. NTIC values accounts and notes receivable, net of an allowance for doubtful accounts. Each quarter, NTIC prepares an analysis of its ability to collect outstanding receivables that provides a basis for an allowance estimate for doubtful accounts. In doing so, NTIC evaluates the age of its receivables, past collection history, current financial conditions of key customers and its joint ventures, and economic conditions. Based on this evaluation, NTIC establishes a reserve for specific accounts and notes receivable that it

believes are uncollectible, as well as an estimate of uncollectible receivables not specifically known. Deterioration in the financial condition of any key customer or joint venture or a significant slowdown in the economy could have a material negative impact on NTIC's ability to collect a portion or all of the accounts and notes receivable. NTIC believes that an analysis of historical trends and its current knowledge of potential collection problems provide NTIC with sufficient information to establish a reasonable estimate for an allowance for doubtful accounts. However, since NTIC cannot predict with certainty future changes in the financial stability of its customers or joint ventures, NTIC's actual future losses from uncollectible accounts may differ from its estimates. In the event NTIC determined that a smaller or larger uncollectible accounts reserve is appropriate, NTIC would record a credit or charge to selling expense in the period that it made such a determination. Accounts receivable have been reduced by an allowance for uncollectible accounts of \$20,000 as of August 31, 2013 and August 31, 2012.

### ***Recoverability of Long-Lived Assets***

NTIC reviews its long-lived assets whenever events or changes in circumstances indicate the carrying amount of the assets may not be recoverable and determines potential impairment by comparing the carrying value of the assets with expected net cash flows expected to be provided by operating activities of the business or related products. If the sum of the expected undiscounted future net cash flows were less than the carrying value, NTIC would determine whether an impairment loss should be recognized. An impairment loss would be measured by comparing the amount by which the carrying value exceeds the fair value of the asset.

### ***Foreign Currency Translation (Accumulated Other Comprehensive Income)***

The functional currency of each international joint venture is the applicable local currency. The translation of the applicable foreign currencies into U.S. dollars is performed for balance sheet accounts using exchange rates in effect at the balance sheet date and for revenue and expense accounts using an average monthly exchange rate. Translation gains or losses are reported as an element of accumulated other comprehensive income.

NTIC (excluding Zerust Brazil, NTI Asean and its joint ventures) conducts all foreign transactions based on the U.S. dollar. Since NTIC's investments in its joint ventures are accounted for using the equity method, any changes in foreign currency exchange rates would be reflected as a foreign currency translation adjustment and would not change the equity in income of joint ventures reflected in NTIC's consolidated statement of operations.

### ***Stock-Based Compensation***

NTIC recognizes compensation cost relating to share-based payment transactions, including grants of employee stock options and transactions under NTIC's employee stock purchase plan in its consolidated financial statements. That cost is measured based on the fair value of the equity or liability instruments issued. NTIC measures the cost of employee services received in exchange for stock options or other stock-based awards based on the grant-date fair value of the award, and recognizes the cost over the period the employee is required to provide services for the award.

### ***Inventory Valuation***

NTIC's inventories consist primarily of production materials and finished goods. NTIC purchases production materials and finished goods based on forecasted demand and records inventory at the lower of cost or market. Cost is determined by the first-in, first-out (FIFO) method. Management regularly assesses inventory valuation based on current and forecasted usage, demand and pricing, customer

inventory-related contractual obligations and other considerations. If actual results differ from management estimates with respect to the actual or projected selling of inventories at amounts less than their carrying amounts, NTIC would adjust its inventory balances accordingly.

### **Recent Accounting Pronouncements**

See Note 2 to NTIC's consolidated financial statements for a discussion of recent accounting pronouncements.

### **Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

This Item 7A is inapplicable to NTIC as a smaller reporting company and has been omitted pursuant to Item 305(e) of SEC Regulation S-K.

**Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

**INDEX TO CONSOLIDATED FINANCIAL STATEMENTS**

The following items are included herein:

<u>Financial Statements:</u>	<u>Page</u>
Report of Independent Registered Public Accounting Firm .....	55
Consolidated Balance Sheets as of August 31, 2013 and 2012.....	56
Consolidated Statements of Operations for the years ended August 31, 2013 and 2012.....	57
Consolidated Statements of Comprehensive Income for the years ended August 31, 2013 and 2012	58
Consolidated Statements of Equity for the years ended August 31, 2013 and 2012.....	59
Consolidated Statements of Cash Flows for the years ended August 31, 2013 and 2012.....	60
Notes to Consolidated Financial Statements.....	61-80

## **REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Stockholders, Audit Committee and Board of Directors  
Northern Technologies International Corporation and Subsidiaries

We have audited the accompanying consolidated balance sheets of Northern Technologies International Corporation and Subsidiaries as of August 31, 2013 and 2012, and the related consolidated statements of operations, comprehensive income, equity and cash flows for the years then ended. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of the Company's internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management as well as evaluating the overall consolidated financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Northern Technologies International Corporation and Subsidiaries as of August 31, 2013 and 2012 and the results of their operations and their cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

/s/ Baker Tilly Virchow Krause, LLP  
Minneapolis, Minnesota  
November 22, 2013

**NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION  
AND SUBSIDIARIES  
CONSOLIDATED BALANCE SHEETS - AUGUST 31, 2013 AND 2012**

	<u>August 31, 2013</u>	<u>August 31, 2012</u>
<b>ASSETS</b>		
CURRENT ASSETS:		
Cash and cash equivalents	\$ 4,314,258	\$ 4,137,547
Receivables:		
Trade excluding joint ventures, less allowance for doubtful accounts of \$20,000 at August 31, 2013 and 2012	3,329,995	2,516,961
Trade joint ventures	859,434	734,543
Fees for services provided to joint ventures	2,446,017	1,316,933
Income taxes	144,939	58,129
Inventories	5,111,549	4,151,197
Prepaid expenses	258,765	548,331
Deferred income taxes	467,548	596,085
Total current assets	<u>16,932,505</u>	<u>14,059,726</u>
PROPERTY AND EQUIPMENT, net	<u>5,323,612</u>	<u>4,288,618</u>
OTHER ASSETS:		
Investments in joint ventures	24,702,981	21,461,492
Deferred income taxes	1,034,212	1,030,610
Patents and trademarks, net	1,060,639	961,181
Other	--	76,000
Total other assets	<u>26,797,832</u>	<u>23,529,283</u>
Total assets	<u>\$ 49,053,949</u>	<u>\$ 41,877,627</u>
<b>LIABILITIES AND EQUITY</b>		
CURRENT LIABILITIES:		
Current portion of note payable (Note 8)	\$ 76,119	\$ 76,120
Accounts payable	1,830,729	1,818,309
Income tax payable	--	--
Accrued liabilities:		
Payroll and related benefits	1,277,942	1,565,866
Deferred joint venture royalties	288,000	288,000
Other	189,263	251,350
Total current liabilities	<u>3,662,053</u>	<u>3,999,645</u>
NOTE PAYABLE, NET OF CURRENT PORTION (Note 8)	857,295	933,413
COMMITMENTS AND CONTINGENCIES (Note 16)		
EQUITY:		
Preferred stock, no par value; authorized 10,000 shares; none issued and outstanding	—	—
Common stock, \$0.02 par value per share; authorized 10,000,000 shares; issued and outstanding 4,432,036 and 4,421,636, respectively	88,641	88,073
Additional paid-in capital	11,701,942	11,130,966
Retained earnings	28,626,928	25,260,034
Accumulated other comprehensive income	316,161	277,583
Stockholders' equity	<u>40,733,672</u>	<u>36,756,656</u>
Non-controlling interests	3,800,929	187,913
Total equity	<u>44,534,601</u>	<u>36,944,569</u>
Total liabilities and equity	<u>\$ 49,053,949</u>	<u>\$ 41,877,627</u>

See notes to consolidated financial statements.



**NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION  
AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**  
**YEARS ENDED AUGUST 31, 2013 AND 2012**

	<u>2013</u>	<u>2012</u>
NET SALES:		
Net sales, excluding joint ventures	\$ 19,724,205	\$ 20,227,719
Net sales, to joint ventures	2,777,659	2,553,934
Total net sales	<u>22,501,864</u>	<u>22,781,653</u>
Cost of goods sold	<u>15,473,212</u>	<u>14,528,785</u>
Gross profit	7,028,652	8,252,868
JOINT VENTURE OPERATIONS:		
Equity in income of joint ventures	5,237,711	5,519,795
Fees for services provided to joint ventures	7,352,980	4,622,912
Total joint venture operations	<u>12,590,691</u>	<u>10,142,707</u>
OPERATING EXPENSES:		
Selling expenses	4,845,676	4,585,901
General and administrative expenses	4,605,979	4,309,410
Expenses incurred in support of joint ventures	1,387,197	1,054,914
Research and development expenses	3,815,515	3,875,581
Total operating expenses	<u>14,654,367</u>	<u>13,825,806</u>
OPERATING INCOME	4,964,976	4,569,769
INTEREST INCOME	34,614	54,652
INTEREST EXPENSE	(52,215)	(29,388)
OTHER INCOME	<u>670,126</u>	<u>21,613</u>
INCOME BEFORE INCOME TAX EXPENSE	5,617,501	4,616,646
INCOME TAX EXPENSE	<u>864,000</u>	<u>1,041,000</u>
NET INCOME	4,753,501	3,575,646
NET INCOME ATTRIBUTABLE TO NON-CONTROLLING INTEREST	<u>1,386,607</u>	<u>127,450</u>
NET INCOME ATTRIBUTABLE TO NTIC	<u>\$ 3,366,894</u>	<u>\$ 3,448,196</u>
NET INCOME ATTRIBUTABLE TO NTIC PER COMMON SHARE:		
Basic	<u>\$ 0.76</u>	<u>\$ 0.79</u>
Diluted	<u>\$ 0.75</u>	<u>\$ 0.78</u>
WEIGHTED AVERAGE COMMON SHARES ASSUMED OUTSTANDING:		
Basic	<u>4,421,636</u>	<u>4,391,424</u>
Diluted	<u>4,475,895</u>	<u>4,451,594</u>

See notes to consolidated financial statements.

**NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION  
AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME  
YEARS ENDED AUGUST 31, 2013 AND 2012**

	<u>2013</u>	<u>2012</u>
NET INCOME	\$ 4,753,501	\$ 3,575,646
OTHER COMPREHENSIVE INCOME (LOSS) – FOREIGN CURRENCY TRANSLATION ADJUSTMENT	<u>56,909</u>	<u>(2,250,689)</u>
COMPREHENSIVE INCOME (LOSS)	4,810,410	1,324,957
COMPREHENSIVE INCOME (LOSS) ATTRIBUTABLE TO NON-CONTROLLING INTERESTS	<u>1,404,938</u>	<u>96,118</u>
COMPREHENSIVE INCOME (LOSS) ATTRIBUTABLE TO NTIC	<u>\$ 3,405,472</u>	<u>\$ 1,228,839</u>

See notes to consolidated financial statements.

**NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION  
AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF EQUITY - AUGUST 31, 2013 AND 2012**

	STOCKHOLDERS' EQUITY						
	Common Stock		Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income	Non- Controlling Interests	Total Equity
	Shares	Amount					
BALANCE AT AUGUST 31, 2011	4,353,058	\$ 87,061	\$10,137,809	\$ 21,811,838	\$ 2,496,940	\$ 91,795	\$ 34,625,443
Stock issued in lieu of accrued payroll	42,707	855	614,977	-	-	-	615,832
Exercise of stock options	3,966	79	34,452	-	-	-	34,531
Stock issued for employee stock purchase plan	3,925	78	55,332	-	-	-	55,410
Stock option expense	-	-	288,396	-	-	-	288,396
Comprehensive Income	-	-	-	3,448,196	(2,219,357)	96,118	1,324,957
BALANCE AT AUGUST 31, 2012	4,403,656	88,073	11,130,966	25,260,034	277,583	187,913	36,944,569
Exercise of stock options	22,171	444	207,910	-	-	-	208,354
Stock issued for employee stock purchase plan	6,209	124	56,615	-	-	-	56,739
Stock option expense	-	-	306,451	-	-	-	306,451
Effect of Asean Consolidation (Note 3)	-	-	-	-	-	3,960,920	3,960,920
Dividend received by non-controlling interest	-	-	-	-	-	(1,752,842)	(1,752,842)
Comprehensive Income	-	-	-	3,366,894	38,578	1,404,938	4,810,410
BALANCE AT AUGUST 31, 2013	4,432,036	\$ 88,641	\$11,701,942	\$ 28,626,928	\$ 316,161	\$ 3,800,929	\$ 44,534,601

See notes to consolidated financial statements.

**NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION  
AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF CASH FLOWS  
YEARS ENDED AUGUST 31, 2013 and 2012**

	2013	2012
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net income	\$ 4,753,501	\$ 3,575,646
Adjustments to reconcile net income to net cash used in operating activities:		
Expensing of fair value of stock options vested	306,451	288,396
Depreciation expense	435,678	351,118
Amortization expense	71,405	128,921
Loss on disposal of assets	84,396	870
Equity in income of joint ventures	(5,237,711)	(5,519,795)
Deferred income taxes	124,935	5,605
Receivables:		
Trade, excluding joint ventures	(894,888)	(156,979)
Trade, joint ventures	(124,891)	415,123
Fees for services provided to joint ventures	213,002	812,978
Income taxes	(98,427)	(61,144)
Inventories	(1,017,188)	(365,800)
Prepaid expenses and other	363,337	(220,837)
Accounts payable	78,623	(123,512)
Income tax payable	8,435	(165,308)
Accrued liabilities	(311,693)	646,024
Net cash used in operating activities	(1,245,035)	(388,694)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Investment in joint ventures	—	(484,545)
Dividends received from joint ventures	3,155,737	3,060,545
Additions to property and equipment	(1,488,059)	(1,037,468)
Effect of NTI Asean consolidation on cash (Note 2)	1,612,768	—
Additions to patents	(255,259)	(187,064)
Net cash provided by investing activities	3,025,187	1,351,468
CASH FLOWS FROM FINANCING ACTIVITIES:		
Repayment of note payable	(76,119)	(76,119)
Dividend received by non-controlling interest	(1,752,842)	—
Proceeds from employee stock purchase plan	56,739	55,410
Proceeds from exercise of stock options	208,354	34,531
Net cash provided by financing activities	(1,563,867)	13,822
EFFECT OF EXCHANGE RATE CHANGES ON CASH:	(39,574)	(105,411)
NET INCREASE IN CASH AND CASH EQUIVALENTS	176,711	871,185
CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR	4,137,547	3,266,362
CASH AND CASH EQUIVALENTS AT END OF YEAR	\$ 4,314,258	\$ 4,137,547

See notes to consolidated financial statements.

# NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS YEARS ENDED AUGUST 31, 2013 AND 2012

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### 1. NATURE OF BUSINESS AND SIGNIFICANT ACCOUNTING POLICIES

*Nature of Business* – Northern Technologies International Corporation and Subsidiaries (the Company) develops and markets proprietary environmentally beneficial products and services in over 60 countries either directly or via a network of joint ventures, independent distributors and agents. The Company's primary business is corrosion prevention marketed mainly under the ZERUST<sup>®</sup> brand. The Company has been selling its proprietary ZERUST<sup>®</sup> rust and corrosion inhibiting products and services to the automotive, electronics, electrical, mechanical, military and retail consumer markets for over 35 years, and more recently, has targeted and expanded into the oil and gas industry. The Company also sells a portfolio of bio-based and biodegradable (compostable) polymer resin compounds and finished products marketed under the Natur-Tec<sup>®</sup> brand. These products are intended to reduce the Company's customers' carbon footprint and provide environmentally sound disposal options.

The Company participates, either directly or indirectly, in 23 active joint venture arrangements in North America, Europe and Asia. Each of these joint ventures generally manufactures and markets products in the geographic territory to which it is assigned. While most of the Company's joint ventures exclusively sell rust and corrosion inhibiting products, some of the joint ventures sell the Company's Natur-Tec<sup>®</sup> resin compounds and finished products. The profits of joint ventures are shared by the respective joint venture owners in accordance with their respective ownership percentages. The Company typically owns 50% or less of its joint venture entities and does not control the decisions of these entities, including dividend declaration or amount in any given year.

The Company has evaluated events occurring after the date of the consolidated financial statements for events requiring recording or disclosure in the financial statements.

*Principles of Consolidation* - The Company evaluates its voting and variable interests in entities on a qualitative and quantitative basis. The Company consolidates entities when it has the power to direct the activities that most significantly impact an entity's economic success and has the obligation to absorb losses or the right to receive benefits that could be significant to the entity. All such relationships are evaluated on an ongoing basis. The consolidated financial statements include the accounts of Northern Technologies International Corporation, its wholly owned subsidiary, Northern Technologies Holding Company, LLC, and its majority owned subsidiary in Brazil, Zerust Prevenção de Corrosão S.A. (Zerust Brazil) and, effective September 1, 2012, majority owned holding company, NTI ASEAN LLC (NTI Asean). All significant intercompany transactions and balances have been eliminated in consolidation. The consolidated financial statements do not include the accounts of any of the Company's joint ventures.

*Noncontrolling interest* – The Company owns 85% of Zerust Brazil. The remaining 15% is accounted for as a noncontrolling interest and reported as part of equity in the consolidated financial statements. Effective September 1, 2012, the Company owns 60% of NTI Asean. The remaining 40% is accounted for as a noncontrolling interest and reported as part of equity in the consolidated financial statements. The Company allocates gains and losses to the noncontrolling interest even when such allocation might result in a deficit balance, reducing the losses attributed to the controlling interest, changes in ownership interests are treated as equity transactions if control is maintained.

*Net Sales* –The Company includes net sales to its joint ventures and net sales to unaffiliated customers as separate line items on its consolidated statements of operations. There are no sales originating from the Company’s joint ventures included in the amount, as the Company’s investments in its joint ventures are accounted for using the equity method.

*Revenue Recognition* – The Company recognizes revenue from the sale of its products when persuasive evidence of an arrangement exists, the product has been delivered, the price is fixed and determinable and collection of the resulting receivable is reasonably assured. These criteria are met when risk of loss and title pass to the customer, distributor or joint venture entity.

*Deferred Joint Venture Revenue* – The Company periodically sponsors a worldwide joint venture conference, in which all of its joint ventures are invited to participate. It defers a portion of its service fees received from its joint ventures in each accounting period leading up to the next conference, reflecting that the Company has not earned portions of the payments received. It is anticipated that the next joint venture conference will be held in the summer of 2014. At both August 31, 2013 and 2012, the Company had deferred \$288,000 of joint venture fees for services related to this future conference, which represents the amount that the Company expects to spend to hold the conference. This amount is based on the historical experience of the Company, current conditions, and the intentions of the Company’s management. The Company does not anticipate deferring any additional service fees until after the next conference.

*Accounts Receivable* – Payment terms for the Company’s unaffiliated customers are determined based on credit risk and vary by customer. The Company typically offers standard payment terms to unaffiliated customers of net 30 days. The Company does not accrue interest on past due accounts receivable. The Company reviews the credit histories of its customers before extending unsecured credit. The Company presents accounts and notes receivable, net of an allowance for doubtful accounts. Each quarter, the Company prepares an analysis of its ability to collect outstanding receivables that provides a basis for an allowance estimate for doubtful accounts. In doing so, the Company evaluates the age of its receivables, past collection history, current financial conditions of key customers and its joint ventures, and economic conditions. Based on this evaluation, the Company establishes a reserve for specific accounts and notes receivable that it believes are uncollectible, as well as an estimate of uncollectible receivables not specifically known. The Company believes that an analysis of historical trends and its current knowledge of potential collection problems provide the Company with sufficient information to establish a reasonable estimate for an allowance for doubtful accounts. In the event the Company determined that a smaller or larger uncollectible accounts reserve is appropriate, the Company would record a credit or charge to selling expense in the period that it made such a determination. Accounts receivable have been reduced by an allowance for uncollectible accounts of \$20,000 at both August 31, 2013 and 2012. Accounts are considered past due based on terms agreed upon between the Company and the customer. Accounts receivable are written-off only after all collection attempts have failed and are based on individual credit evaluation and specific circumstances of the customer.

*Receivables from Joint Ventures* – Trade receivables from joint ventures arise from sales the Company makes to its joint ventures of products. Payment terms for the Company’s joint ventures also are determined based on credit risk; however, additional consideration also is given to the individual joint venture due to the transportation time associated with ocean delivery of most products and certain other factors. Generally, accounts receivable from the Company’s joint ventures unpaid after 90 days are considered past due. The Company does not accrue interest on past due accounts receivable. The Company periodically reviews amounts due from its joint ventures for collectability, and based on past experience and continuous review of the balances due, has determined an allowance for doubtful accounts related to its joint venture receivables is not necessary.

*Fees for Services Provided to Joint Ventures* – The Company provides certain services to its joint ventures including consulting, legal, travel, insurance, technical and marketing services. The Company receives fees for the services it provides to its joint ventures. The fees for services received by the Company from its joint

ventures are generally based on either a flat fee or a percentage of net sales by the Company's joint ventures depending on local laws and tax regulations. The Company recognizes revenues related to fees for services provided to its joint ventures when earned, amounts are determinable and collectability is reasonably assured. Under the Company's agreements with its joint ventures, amounts are earned when product is shipped from joint venture facilities. The Company reviews the financial situation of each of its joint ventures to assist in the likelihood of collections on amounts earned. The Company elects to account for these fees on a cash basis for certain joint ventures if uncertainty exists surrounding the collection of such fees.

*Cash and Cash Equivalents* - The Company includes as cash and cash equivalents highly liquid, short-term investments with maturity of three months or less when purchased, which are readily convertible into known amounts of cash. The Company maintains its cash in high quality financial institutions. The balances, at times, may exceed federally insured limits.

*Inventories* - Inventories are recorded at the lower of cost (first-in, first-out basis) or market.

*Property and Depreciation* - Property and equipment are stated at cost. Depreciation is computed using the straight-line method based on the estimated service lives of the various assets as follows:

Buildings and improvements	5-30 years
Machinery and equipment	3-10 years

*Investments in Joint Ventures* - Investments in the Company's joint ventures are accounted for using the equity method. Under the equity method, investments are initially recorded at cost and are adjusted for dividends, distributed and undistributed earnings and losses, changes in foreign currency exchange rates and additional investments. In the event the Company's share of joint venture's cumulative losses exceed the Company's investment balance, the balance is reported at zero value until proportionate income exceeds the losses. The Company assesses its joint ventures for impairment on an annual basis as of August 31 of each year as part of its fiscal year end analysis. In addition to the annual review for impairment, the Company reviews the operating results of each joint venture on a quarterly basis in comparison to its historical operating results and its accrual of fees for services provided to joint ventures. If the operating results of a joint venture do not meet financial performance expectations, an additional evaluation is performed on the joint venture. If an investment were determined to be impaired, then a reserve is created to reflect the impairment on the financial results of the Company. The Company's evaluation of its investments in joint ventures requires the Company to make assumptions about future cash flows of its joint ventures. These assumptions require significant judgment and actual results may differ from assumed or estimated amounts.

*Recoverability of Long-Lived Assets* - The Company reviews its long-lived assets whenever events or changes in circumstances indicate the carrying amount of the assets may not be recoverable. The Company determines potential impairment by comparing the carrying value of the assets with expected net cash flows expected to be provided by operating activities of the business or related products. If the sum of the expected undiscounted future net cash flows is less than the carrying value, the Company evaluates if an impairment loss should be recognized. An impairment loss is measured by comparing the amount by which the carrying value exceeds the fair value of the asset.

*Income Taxes* - The Company utilizes the liability method of accounting for income taxes which requires an asset and liability approach to financial accounting and reporting for income taxes. Deferred income tax assets and liabilities are determined based on the differences between the financial statement and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date.

The Company records net deferred tax assets to the extent the Company believes these assets will more likely than not be realized. In making such a determination, the Company considers all available positive and negative evidence, including future reversals of existing taxable temporary differences, projected future taxable income, tax-planning strategies, and results of recent operations. In the event the Company determines that it would be able to realize its deferred income tax assets in the future in excess of their net recorded amount, the Company would make an adjustment to the deferred tax asset valuation allowance, which would reduce the provision for income taxes.

The Company records uncertain tax positions on the basis of a two-step process whereby (1) the Company determines whether it is more likely than not that the tax positions will be sustained based on the technical merits of the position and (2) those tax positions that meet the more-likely-than-not recognition threshold. The Company recognizes the largest amount of tax benefit that is greater than 50 percent likely to be realized upon ultimate settlement with the related tax authority.

*Foreign Currency Translation (Accumulated Other Comprehensive Income)* - The functional currency of Zerust Brazil and each unconsolidated international joint venture is the applicable local currency. The translation of the applicable foreign currencies into U.S. dollars is performed for balance sheet accounts using exchange rates in effect at the balance sheet date and for revenue and expense accounts using an average monthly exchange rate. Translation gains or losses are reported as an element of other comprehensive income.

The Company (excluding Zerust Brazil, NTI Asean and its joint ventures) conducts all foreign transactions based on the U.S. dollar. Since investments in joint ventures are accounted for using the equity method, any changes in foreign currency exchange rates are reflected as a foreign currency translation adjustment and does not change the equity in income of joint ventures reflected in the Company's consolidated statements of operations.

*Fair Value of Financial Instruments* – The carrying value of cash, short-term accounts and notes receivable, notes payable, trade accounts payables, and other accrued expenses approximate fair value because of the short maturity of those instruments. The fair value of the Company's long-term debt approximates the carrying values based upon current market rates of interest.

*Shipping and Handling* - The Company records all amounts billed to customers in a sales transaction related to shipping and handling as sales. The Company records costs related to shipping and handling in cost of goods sold.

*Government Grants* - The Company accrues proceeds received under the grants when earned based on the terms of the contracts and offsets research and development expenses incurred in equal installments over the timelines associated with completion of the grant specific objectives and milestones.

*Research and Development* - The Company expenses all costs related to product research and development as incurred. The costs related to product research and development are the net amount after being reduced by reimbursements related to certain research and development contracts of \$274,728 and \$365,940 for fiscal 2013 and fiscal 2012, respectively. The Company accrues proceeds received under such contracts and offsets research and development expenses incurred in equal installments over the timelines associated with completion of the contracts' specific objectives and milestones. At August 31, 2013 and 2012, the Company had \$0 and \$96,861, respectively, of deferred amounts in other accrued liabilities as the Company had not yet performed under the obligations of the contract at that time.

*Stock-Based Compensation* – The Company recognizes compensation cost relating to share-based payment transactions, including grants of employee stock options and transactions under the Company's employee stock purchase plan, in its consolidated financial statements. That cost is measured based on the fair value of the



equity or liability instruments issued. The Company measures the cost of employee services received in exchange for stock options and other stock-based awards based on the grant-date fair value of the award, and recognizes the cost over the period the employee is required to provide services for the award.

*Use of Estimates* - The preparation of the financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

## **2. RECENTLY ISSUED ACCOUNTING PRONOUNCEMENTS**

During February 2013, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2013-02: *Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income*, which requires an entity to report the effect of significant reclassifications out of accumulated other comprehensive income on the respective line items in net income if the amount being reclassified is required under U.S. generally accepted accounting principles (GAAP) to be reclassified in its entirety to net income. For other amounts that are not required under GAAP to be reclassified in their entirety to net income in the same reporting period, an entity is required to cross-reference other disclosures required under GAAP that provide additional detail about those amounts. This would be the case when a portion of the amount reclassified out of accumulated other comprehensive income is reclassified to a balance sheet account (for example, inventory) instead of directly to income or expense in the same reporting period. The Company adopted ASU 2013-02 beginning with the first quarter of fiscal 2013. There was no impact on the Company's financial statements during fiscal 2013.

In March 2013, the FASB issued ASU No. 2013-05, "*Parent's Accounting for the Cumulative Translation Adjustment upon Derecognition of Certain Subsidiaries or Groups of Assets within a Foreign Entity or of an Investment in a Foreign Entity*" ("ASU 2013-05"), which resolves diversity in practice regarding the release of the cumulative translation adjustment into net income when a parent either sells a part or all of its investment in a foreign entity or no longer holds a controlling financial interest in a subsidiary or group of assets within a foreign entity. The amendments in ASU 2013-05 are effective prospectively for fiscal years, and interim periods within those years, beginning after December 15, 2013. Early adoption is permitted. The adoption of ASU 2013-05 will not have a material impact on the Company's financial position or results of operations.

In July 2013, the FASB issued ASU No. 2013-11: *Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists*, which requires unrecognized tax benefits to be presented as a decrease in a net operating loss, similar tax loss or tax credit carryforward if certain criteria are met. The ASU is effective for fiscal years, and interim periods within those years, beginning after December 15, 2013. The adoption of ASU 2013-11 is not expected to have a material impact on the Company's consolidated financial statements during fiscal 2014.

## **3. NTI ASEAN**

NTI ASEAN LLC (NTI Asean) is an entity that holds investments in eight entities operating in the Association of Southeast Asian Nations (ASEAN) region, including the following countries: China, Indonesia, Korea, Malaysia, Philippines, Singapore, Taiwan and Thailand.

Prior to September 1, 2012, the Company owned 50% of the equity and voting rights of NTI Asean and accounted for its investment using the equity method, as its ownership was considered to be less than a majority. On September 1, 2012, the Company obtained an additional 10% ownership interest in NTI Asean in exchange for a license agreement, and thereafter holds 60% of the equity and voting rights of NTI Asean.

The Company accounted for the transaction resulting in the additional ownership as a business combination. Beginning in the first quarter of fiscal 2013, the Company consolidated the results of NTI Asean. Immediately prior to the transaction, the Company re-measured the fair value of NTI Asean and determined that there was no difference between the fair value and the book value of the entity. As a result, there was no accounting impact related to the business combination in the consolidated statements of operations.

The Company determined the fair value of NTI Asean using the capitalized income method, including a capitalization rate of 25%. The allocation of the total transaction amount was as follow:

<b>Net assets acquired (liabilities assumed):</b>	
Cash and cash equivalents	\$ 1,613,000
Accounts receivables	1,342,000
Investments in joint ventures	4,967,000
Value of assets	<u>\$ 7,922,000</u>
<b>Purchase price:</b>	
Fair value of non-controlling interest	\$ 3,961,000
Value of previously held interest	3,961,000
Total consideration	<u>\$ 7,922,000</u>

The following is a summary of certain line items of the Company's consolidated statement of operations for the fiscal year ended August 31, 2012 as reported and on a pro forma basis, assuming the consolidation of NTI Asean on the Company's consolidated financial statements as of the beginning of such period:

	<u>As Reported</u>	<u>NTI Asean</u>	<u>Eliminated in Consolidation</u>	<u>Pro Forma</u>
Net sales .....	\$ 22,781,653	\$ —	\$ —	\$ 22,781,653
Cost of goods sold .....	14,528,785	—	—	14,528,785
Gross profit.....	8,252,868	—	—	8,252,868
Joint venture operations .....	10,142,707	3,395,354	(1,414,248)	12,123,813
Operating expenses .....	13,825,806	185,700	—	14,011,506
Operating income .....	4,569,769	3,209,654	(1,414,248)	6,365,175
Income before income tax expense .....	4,616,646	3,209,654	(1,414,248)	6,412,052
Income tax expense .....	1,041,000	381,466	—	1,422,466
Net income .....	3,575,646	2,828,188	(1,414,248)	4,989,586
Net income attributable to non-controlling interest.....	127,450	(1,131,275)	—	(1,003,825)
Net income attributable to NTIC .....	3,448,196	1,696,913	(1,414,248)	3,730,861
Net income per common diluted share .....	\$ 0.78	\$ 0.38	\$ (0.32)	\$ 0.84

#### 4. INVENTORIES

Inventories consisted of the following:

	<u>August 31, 2013</u>	<u>August 31, 2012</u>
Production materials	\$ 1,096,693	\$ 1,462,615
Finished goods	4,014,856	2,688,582
	<u>\$ 5,111,549</u>	<u>\$ 4,151,197</u>

## 5. PROPERTY AND EQUIPMENT, NET

Property and equipment, net consisted of the following:

	<u>August 31, 2013</u>	<u>August 31, 2012</u>
Land	\$ 310,365	\$ 310,365
Buildings and improvements	4,613,879	3,406,674
Machinery and equipment	<u>3,189,671</u>	<u>2,908,021</u>
	8,113,915	6,625,060
Less accumulated depreciation	<u>(2,790,303)</u>	<u>(2,336,442)</u>
	<u>\$ 5,323,612</u>	<u>\$ 4,288,618</u>

## 6. PATENTS AND TRADEMARKS, NET

Patents and trademarks, net consisted of the following:

	<u>August 31, 2013</u>	<u>August 31, 2012</u>
Patents and trademarks	\$ 2,064,128	\$ 1,945,785
Less accumulated amortization	<u>(1,003,489)</u>	<u>(984,604)</u>
	<u>\$ 1,060,639</u>	<u>\$ 961,181</u>

Patent and trademark costs are amortized over seven years. Costs incurred related to patents and trademarks are capitalized until filed and approved, at which time the amounts capitalized to date are amortized and any further costs, including maintenance costs, are expensed as incurred. Amortization expense is estimated to approximate \$80,000 in each of the next five fiscal years.

## 7. INVESTMENTS IN JOINT VENTURES

The financial statements of the Company's foreign joint ventures are initially prepared using the accounting principles accepted in the respective joint ventures' countries of domicile. Amounts related to foreign joint ventures reported in the below tables and the accompanying financial statements have subsequently been adjusted to conform with accounting principles generally accepted in the United States of America in all material respects. All material profits recorded on sales from the Company to its joint ventures have been eliminated for financial reporting purposes.

Financial information from the audited and unaudited financial statements of the Company's joint venture in Germany, Excor Korrosionsschutz – Technologien und Produkte GmbH (EXCOR), China, NTI Asean and all of the Company's other joint ventures, are summarized as follows:

	<u>August 31, 2013</u>			
	<u>TOTAL</u>	<u>EXCOR</u>	<u>China</u>	<u>All Other</u>
Current assets	\$ 63,052,410	\$ 25,955,136	\$ 11,200,355	\$ 25,896,919
Total assets	68,417,142	28,391,787	11,226,755	28,798,600
Current liabilities	16,107,597	3,572,004	3,080,118	9,455,475
Noncurrent liabilities	2,488,057	—	871,886	1,616,171
Joint ventures' equity	49,821,488	24,819,783	7,274,751	17,726,954
Northern Technologies International Corporation's share of joint ventures' equity	24,702,981	12,409,893	3,637,375	8,655,713
Northern Technologies International Corporation's share of joint ventures' undistributed earnings	\$ 22,281,510	\$ 12,378,988	\$ 3,587,375	\$ 6,315,147

**August 31, 2012**

	<b>TOTAL</b>	<b>EXCOR</b>	<b>NTI ASEAN</b>	<b>All Other</b>
Current assets	\$ 61,973,725	\$ 24,357,139	\$ 15,358,967	\$ 22,257,619
Total assets	68,585,974	26,620,589	15,522,456	26,442,929
Current liabilities	18,686,181	4,749,574	5,763,857	8,172,750
Noncurrent liabilities	4,700,458	—	1,055,965	3,644,493
Joint ventures' equity	45,199,335	21,871,015	8,702,634	14,625,686
Northern Technologies International Corporation's share of joint ventures' equity	21,461,492	10,935,509	3,685,404	6,840,579
Northern Technologies International Corporation's share of joint ventures' undistributed earnings	\$ 19,403,150	\$ 10,904,604	\$ 3,314,445	\$ 5,184,101

**Fiscal Year Ended August 31, 2013**

	<b>TOTAL</b>	<b>EXCOR</b>	<b>China</b>	<b>All Other</b>
Net sales	\$ 113,189,068	\$ 36,476,544	\$ 15,161,289	\$ 61,551,235
Gross profit	52,058,609	19,470,322	7,153,395	25,434,891
Net income	10,650,542	7,009,897	1,157,995	2,482,650
Northern Technologies International Corporation's share of equity in income of joint ventures	\$ 5,237,711	\$ 3,507,057	\$ 579,376	\$ 1,151,278

**Fiscal Year Ended August 31, 2012**

	<b>TOTAL</b>	<b>EXCOR</b>	<b>NTI ASEAN</b>	<b>All Other</b>
Net sales	\$ 111,830,961	\$ 36,027,979	\$ 22,035,035	\$ 53,767,947
Gross profit	50,679,875	18,667,848	9,621,930	22,390,097
Net income	11,987,323	6,656,298	3,585,476	1,745,549
Northern Technologies International Corporation's share of equity in income of joint ventures	\$ 5,519,795	\$ 3,318,213	\$ 1,414,248	\$ 787,333

The Company records expenses that are directly attributable to the joint ventures on its consolidated statements of operations on the line "Expenses incurred in support of joint ventures". The expenses include items such as employee compensation and benefits, travel, consulting, legal and laboratory supplies and testing expenses.

During fiscal 2013, the Company obtained an additional 10% ownership interest in NTI Asean in exchange for a license agreement. See Note 3 for additional information.

During fiscal 2012, both the Company and the other 50% owner in Harita NTI Limited agreed to receive additional equity interest in consideration for outstanding fees for services receivable of \$484,545 due to each party.

The Company did not make any other joint venture investments during fiscal 2013 and fiscal 2012.

## 8. CORPORATE DEBT

As of August 31, 2013, Northern Technologies Holding Company, LLC (NTI LLC) had a term loan with a principal amount of \$933,414 outstanding that NTI LLC obtained from PNC Bank, National Association (PNC Bank) in connection with the purchase of NTIC's corporate headquarters in September 2006. The term loan matures on January 10, 2016, bears interest at an annual rate based on the daily LIBOR rate plus 2.15% and is payable in consecutive monthly installments equal to approximately \$6,343 (inclusive of principal but exclusive of interest). The term loan is secured by a first lien on the real estate and building owned by NTI LLC and all of the assets of the Company and is guaranteed by the Company.

The Company has a revolving line of credit with PNC Bank of \$3,000,000 that expires on January 8, 2014. No amounts were outstanding under the line of credit as of August 31, 2013 and August 31, 2012. At the option of the Company, outstanding advances under the line of credit bear interest at either (a) an annual rate based on

LIBOR plus 2.15% for the applicable LIBOR interest period selected by the Company or (b) at the rate publicly announced by PNC Bank from time to time as its prime rate. Interest is payable in arrears (a) for the portion of advances bearing interest under the prime rate on the last day of each month during the term thereof and (b) for the portion of advances bearing interest under the LIBOR option on the last day of the respective LIBOR interest period selected for such advance. Any unpaid interest is payable on the maturity date. As of August 31, 2013, the interest rate was 2.82% and the weighted average rate was 3.00% for fiscal 2013. As of August 31, 2012, the interest rate was 3.18% and the weighted average rate was 3.17% for fiscal 2012. The revolving line of credit is secured by cash, receivables and inventory.

The term loan and the line of credit are governed under separate loan agreements (collectively, the Loan Agreements). The Loan Agreements contain standard covenants, including affirmative financial covenants, such as the maintenance of a minimum fixed charge coverage ratio, and negative covenants, which, among other things, limit the incurrence of additional indebtedness, loans and equity investments, disposition of assets, mergers and consolidations and other matters customarily restricted in such agreements. Under the Loan Agreements, the Company is subject to a minimum fixed charge coverage ratio of 1.10:1.00. As of August 31, 2013, the Company was in compliance with all debt covenants.

On December 11, 2012, PNC Bank extended the maturity date of the line of credit from January 9, 2013 to January 8, 2014, and waived a technical covenant default by the Company to deliver quarterly compliance certificates. All other terms of the line of credit and the loan agreement and other documents evidencing the line of credit remain the same. It is anticipated that the line of credit will be extended again prior to the January 8, 2014 maturity date.

## 9. STOCKHOLDERS' EQUITY

During fiscal 2013, the Company did not purchase or retire any shares of its common stock. The following stock options to purchase shares of common stock were exercised during fiscal 2013:

<u>Options Exercised</u>	<u>Exercise Price</u>
25,140	\$ 9.95
4,000	12.84
4,000	8.57
1,734	7.65
1,500	9.76
666	7.75

The total intrinsic value of the options exercised during fiscal 2013 was \$45,533.

During fiscal 2012, the Company did not purchase or retire any shares of its common stock. The following stock options to purchase shares of common stock were exercised during fiscal 2012:

<u>Options Exercised</u>	<u>Exercise Price</u>
1,966	\$ 7.65
2,000	9.75

The total intrinsic value of the options exercised during fiscal 2012 was \$13,872.

During fiscal 2012, the Company granted stock for payment of fiscal 2011 bonuses under the 2007 Plan for an aggregate of 42,707 shares of its common stock to various employees at a grant price of \$14.42 per share. The aggregate fair value of the shares of the Company's common stock as of the date of grant of the stock bonuses

was \$615,830, based on the closing sale price of a share of the Company's common stock on the date of grant. The fair value of common stock granted during fiscal 2012 was based on fiscal 2011 performance and was included in accrued liabilities at August 31, 2011.

## 10. NET INCOME PER COMMON SHARE

Basic net income per common share is computed by dividing net income by the weighted average number of common shares outstanding. Diluted net income per share assumes the exercise of stock options using the treasury stock method, if dilutive.

Options to purchase shares of common stock of 22,000 and 48,000 were excluded from the computation of common share equivalents for fiscal 2013 and fiscal 2012, respectively, as the exercise prices of such options were greater than market price of a share of common stock.

The following is a reconciliation of the earnings per share computation for fiscal 2013 and fiscal 2012:

<b>Numerator:</b>	<u>August 31, 2013</u>	<u>August 31, 2012</u>
Net income attributable to NTIC	\$ 3,366,894	\$ 3,448,196
 <b>Denominator:</b>		
Basic – weighted shares outstanding	4,421,636	4,391,424
Weighted shares assumed upon exercise of stock options	<u>54,259</u>	<u>60,170</u>
Diluted – weighted shares outstanding	<u><u>4,475,895</u></u>	<u><u>4,451,594</u></u>
 Basic earnings per share:	 \$0.76	 \$0.79
Diluted earnings per share:	\$0.75	\$0.78

The dilutive impact summarized above relates to the periods when the average market price of Company stock exceeded the exercise price of the potentially dilutive option securities granted. Earnings per common share were based on the weighted average number of common shares outstanding during the periods when computing the basic earnings per share. When dilutive, stock options are included as equivalents using the treasury stock market method when computing the diluted earnings per share.

## 11. STOCK-BASED COMPENSATION

The Company has two stock-based compensation plans under which stock options and other stock-based awards have been granted, the Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan (the 2007 Plan) and the Northern Technologies International Corporation Employee Stock Purchase Plan (the ESPP). The Compensation Committee of the Board of Directors and the Board of Directors administers these plans.

The 2007 Plan provides for the grant of incentive stock options, non-statutory stock options, stock appreciation rights, restricted stock, stock unit awards, performance awards and stock bonuses to eligible recipients to enable the Company and its subsidiaries to attract and retain qualified individuals through opportunities for equity participation in the Company, and to reward those individuals who contribute to the achievement of the Company's economic objectives. Subject to adjustment as provided in the 2007 Plan, up to a maximum of 800,000 shares of the Company's common stock are issuable under the 2007 Plan. Options granted under the 2007 Plan generally have a term of five years and become exercisable over a three- or four-year period

beginning on the one-year anniversary of the date of grant. Options are granted at per share exercise prices equal to the market value of the Company's common stock on the date of grant. As of August 31, 2013, only stock options and stock bonuses had been granted under the 2007 Plan.

The maximum number of shares of common stock of the Company available for issuance under the ESPP is 100,000 shares, subject to adjustment as provided in the ESPP. The ESPP provides for six-month offering periods beginning on September 1 and March 1 of each year. The purchase price of the shares is 90% of the lower of the fair market value of common stock at the beginning or end of the offering period. This discount may not exceed the maximum discount rate permitted for plans of this type under Section 423 of the Internal Revenue Code of 1986, as amended. The ESPP is compensatory for financial reporting purposes.

The fair value of option grants is determined at date of grant, using the Black-Scholes option pricing model with the assumptions listed below. The volatility factor used in the Black-Scholes option pricing model is based on historical stock price fluctuations and the risk free interest rate is based on U.S. treasury rates appropriate for the expected term. Dividend yield and expected volatility are estimated using historical amounts that are anticipated to be consistent with current values. Expected life of the option is based on the life of the option agreements. Based on these valuations, the Company recognized compensation expense of \$306,451 and \$288,396 during fiscal 2013 and 2012, respectively, related to the options that vested during such time period. As of August 31, 2013, the total compensation cost for nonvested options not yet recognized in the Company's consolidated statements of operations was \$305,771. Stock-based compensation expense of \$185,815 is expected to be recognized during fiscal 2014, based on outstanding options as of August 31, 2013. Future option grants will impact the compensation expense recognized.

The Company currently estimates a ten percent forfeiture rate for stock options, but will continue to review this estimate in future periods.

The fair value of each option grant is estimated on the grant date using the Black-Scholes option-pricing model with the following assumptions and results for the grants:

	<u>August 31, 2013</u>	<u>August 31, 2012</u>
Dividend yield	0.00%	0.00%
Expected volatility	48.0%	48.8%
Expected life of option	5-10 years	5 years
Weighted average risk-free interest rate	0.71 %	1.31 %

Stock option activity during the periods indicated is as follows:

	<u>Number of Shares (#)</u>	<u>Weighted Average Exercise Price</u>	<u>Aggregate Intrinsic Value</u>
Outstanding at August 31, 2011	189,839	\$ 9.07	
Options granted	26,000	16.45	
Options exercised	(3,966)	8.71	
Options terminated	(8,000)	9.23	
Outstanding at August 31, 2012	203,873	\$ 10.01	
Options granted	118,294	10.25	
Options exercised	(37,040)	9.96	
Options terminated	(24,500)	13.12	
Outstanding at August 31, 2013	260,627	\$ 9.84	\$ 1,358,325
Exercisable at August 31, 2013	134,998	\$ 9.48	\$ 768,043

The weighted average per share fair value of options granted during fiscal 2013 and fiscal 2012 were \$5.53 and \$7.14, respectively. The weighted average remaining contractual life of the options outstanding as of August 31, 2013 and 2012 was 4.52 years and 2.14 years, respectively.

## 12. GEOGRAPHIC AND SEGMENT INFORMATION

Net sales by geographic location as a percentage of total consolidated net sales were as follows:

	<b>Fiscal Year Ended August 31,</b>	
	<b>2013</b>	<b>2012</b>
Inside the U.S.A. to unaffiliated customers	70.7%	64.0%
Outside the U.S.A. to:		
Joint ventures in which the Company is a shareholder directly and indirectly	13.4%	12.1%
Unaffiliated customers	15.9%	23.9%
	<u>100.0%</u>	<u>100.0%</u>

Net sales by geographic location are based on the location of the customer.

Fees for services provided to joint ventures by geographic location as a percentage of total fees for services provided to joint ventures during fiscal 2013 and fiscal 2012 were as follows:

	<b>Fiscal 2013</b>	<b>% of Total Fees for Services Provided to Joint Ventures in Fiscal</b>	<b>Fiscal 2012</b>	<b>% of Total Fees for Services Provided to Joint Ventures in</b>
		<b>2013</b>		<b>Fiscal 2012</b>
China*	\$ 2,063,369	28.1%	\$ —	0.0%
Germany	1,004,958	13.7%	994,347	21.5%
Japan	723,977	9.8%	1,022,386	22.1%
Thailand	621,807	8.4%	—	0.0%
Poland	525,282	7.1%	456,837	9.9%
France	496,897	6.8%	517,708	11.2%
Sweden	415,547	5.7%	587,069	12.7%
Korea**	393,307	5.3%	—	0.0%
Finland	321,256	4.4%	491,988	10.6%
United Kingdom	236,125	3.2%	309,938	6.7%
India	—	0.0%	(192,758)	(4.1)%
Other	550,455	7.5%	435,398	9.4%
	<u>\$ 7,352,980</u>	<u>100.0%</u>	<u>\$ 4,622,912</u>	<u>100.0%</u>

\*Joint venture owned by NTI Asean.

\*\*Joint venture owned by NTI Asean as of August 31, 2013, but not as of August 31, 2012. NTI Asean results are not included on the consolidated financial statements for the year ended August 31, 2012. (See Note 2)

The following table sets forth the Company's net sales for fiscal 2013 and fiscal 2012 by segment:

	<b>Fiscal 2013</b>	<b>Fiscal 2012</b>	<b>\$ Change</b>	<b>% Change</b>
ZERUST <sup>®</sup> net sales	\$20,457,198	\$20,971,275	\$(514,077)	(2.5)%
Natur-Tec <sup>®</sup> net sales	2,044,666	1,810,378	234,288	12.9%
	<u>\$22,501,864</u>	<u>\$22,781,653</u>	<u>\$(279,789)</u>	<u>(1.2)%</u>



The following table sets forth the Company's cost of goods sold for fiscal 2013 and fiscal 2012 by segment:

	<b>Fiscal 2013</b>	<b>% of Product Sales*</b>	<b>Fiscal 2012</b>	<b>% of Product Sales*</b>
Direct cost of goods sold				
ZERUST®	\$ 11,408,604	55.8%	\$ 10,748,865	51.3%
Natur-Tec®	1,731,398	84.7%	1,585,731	87.6%
Indirect cost of goods sold	2,333,210	—	2,194,190	—
	<b>\$ 15,473,212</b>	<b>68.8%</b>	<b>\$ 14,528,785</b>	<b>63.8%</b>

\* The percent of segment sales is calculated by dividing the direct cost of sales for each individual segment category by the net sales for each segment category.

The Company's management utilizes product net sales and direct and indirect cost of goods sold for each product in reviewing the financial performance of a product type. Further allocation of Company expenses or assets, aside from amounts presented in the tables above, is not utilized in evaluating product performance, nor does such allocation occur for internal financial reporting.

Sales to the Company's joint ventures are included in the foregoing geographic and segment information, however, sales by the Company's joint ventures to other parties are not included. The foregoing geographic and segment information represents only sales and cost of goods sold recognized directly by the Company.

The geographical distribution of key financial statement data is as follows:

	<b>At August 31, 2013</b>	<b>At August 31, 2012</b>
Brazil	\$1,419,543	\$1,610,389
North America	\$47,634,406	\$40,267,238
Total assets	\$49,053,949	\$41,877,627

	<b>At August 31, 2013</b>	<b>At August 31, 2012</b>
Brazil	\$ 2,394,486	\$4,543,982
North America	20,107,378	18,237,671
Total net sales	\$22,501,864	\$22,781,653

	<b>At August 31, 2013</b>	<b>At August 31, 2012</b>
Brazil	\$ (273,246)	\$1,513,891
North America	5,238,222	3,055,878
Total operating income	\$ 4,964,976	\$ 4,569,769

Total assets located in Brazil primarily consist of cash and cash equivalents, customer receivables and inventory. Total assets are periodically reviewed to assure the net realizable value from the estimated future production based on forecasted sales exceeds the carrying value of the assets.

### 13. RETIREMENT PLAN

The Company has a 401(k) employee savings plan. Employees who meet certain age and service requirements may elect to contribute up to 15% of their salaries. The Company typically contributes the lesser of 50% of the

participant's contributions or 3.5% of the employee's salary. The Company recognized expense for the savings plan of \$175,016 and \$166,201 for fiscal 2013 and fiscal 2012, respectively.

#### 14. RELATED PARTY TRANSACTIONS

During fiscal 2013 and fiscal 2012, the Company made consulting payments totaling \$100,000 per year to Bioplastic Polymers LLC, an entity owned by Ramani Narayan, Ph.D., a director of the Company, and paid royalties of \$10,244 and \$7,745, respectively, based on net sales of the Company's bioplastics products.

#### 15. INCOME TAXES

The provision for income taxes for the fiscal years ended August 31, 2013 and 2012 consists of the following:

	<b>Fiscal Year Ended August 31,</b>	
	<b>2013</b>	<b>2012</b>
Current:		
Federal	\$ —	\$ —
State	8,000	25,000
Foreign	731,000	1,015,000
	<u>739,000</u>	<u>1,040,000</u>
Deferred:		
Federal	118,000	44,000
State	7,000	(43,000)
Foreign	—	—
	<u>125,000</u>	<u>1,000</u>
	<u>\$ 864,000</u>	<u>\$ 1,041,000</u>

Reconciliations of the expected federal income tax at the statutory rate with the provisions for income taxes for the fiscal years ended August 31, 2013 and 2012 are as follows:

	<b>Fiscal Year Ended August 31,</b>	
	<b>2013</b>	<b>2012</b>
Tax computed at statutory rates	\$ 1,910,000	\$ 1,570,000
State income tax, net of federal benefit	15,000	(17,000)
Tax effect on equity in (income) loss of international joint ventures	(1,781,000)	(1,616,000)
Tax effect on dividends received from joint ventures	1,732,000	1,363,000
Tax effect of foreign operations	807,000	556,000
Foreign tax credit	(2,524,000)	(1,729,000)
Research and development credit	(364,000)	(330,000)
Valuation allowance	1,635,000	1,177,000
Tax-exempt income	(230,000)	—
Non-controlling interest in partnership income	(425,000)	—
Other	89,000	67,000
	<u>\$ 864,000</u>	<u>\$ 1,041,000</u>

The Company has not provided U.S. income taxes or foreign withholding taxes with respect to its portion of the cumulative undistributed earnings of foreign joint ventures that are essentially permanent in duration. The Company's portion of the cumulative undistributed earnings of foreign joint ventures that are essentially permanent in duration were \$22,281,510 and \$18,185,000 at August 31, 2013 and 2012, respectively. If some

or all of the undistributed earnings of the joint ventures are remitted to the Company in the future, income taxes, if any, after the application of foreign tax credits will be provided at that time. To the extent undistributed earnings of the Company's joint ventures are distributed in the future, it is not expected to result in any material additional income tax liability after the application of foreign tax credits.

The tax effect of the temporary differences and tax carryforwards comprising the net deferred taxes shown on the consolidated balance sheets at August 31, 2013 and 2012 are as follows:

	<b>August 31,</b>	
	<b>2013</b>	<b>2012</b>
Current:		
Accrued bonus	\$ 277,300	\$ 404,100
Allowance for doubtful accounts	7,200	7,200
Inventory costs	24,600	11,900
Prepaid expenses and other	(31,200)	(27,300)
Other accrued expenses	85,500	96,200
Deferred joint venture expenses	104,100	104,000
Total current	\$ 467,500	\$ 596,100
Noncurrent:		
Property and equipment	\$ (165,100)	\$ (159,500)
Goodwill	35,200	43,100
Other intangible assets	914,000	949,200
Nonqualified stock options	248,500	196,100
Foreign tax credit carryforward	4,253,900	3,438,300
Research and development credit	1,823,200	1,485,800
New hire retention credit	10,600	10,700
	7,120,300	5,963,700
Valuation allowance	(6,086,100)	(4,933,100)
Total noncurrent	\$ 1,034,200	\$ 1,030,600

At August 31, 2013, the Company had foreign tax credit carryforwards of approximately \$4,253,900, of which approximately \$285,800 will expire if not utilized by August 31, 2014. In addition, the Company had federal and state tax credit carryforwards of \$1,832,200 at August 31, 2013 which begins to expire in fiscal 2019. These federal and state tax credit carryforwards consist primarily of federal and Minnesota research and development credit carryforwards.

The Company has recorded a valuation allowance of \$4,253,900 with respect to the foreign tax credit carryforwards. In addition, the Company has recorded a valuation allowance of \$1,832,200 with respect to federal and state tax credit carryforwards.

The Company records a tax valuation allowance to reduce deferred tax assets to the amount expected to be realized when it is more likely than not that some portion or all of its deferred tax assets will not be realized. The Company determined based on all available evidence, including historical data and projections of future results, that it is more likely than not that all of its deferred tax assets, except for its foreign tax credit carryforward and Minnesota research and development credit carryforwards, will be fully realized. The Company determined that its deferred tax asset related to foreign tax credit carryforwards will not be realized due to insufficient federal taxable income within the carryforward period and the fact that for ordering purposes

the foreign tax credit carryforwards are not allowed to be used until after any current year foreign tax credits are utilized. In addition, based on historical data and future projections, the Company determined that it is more likely than not that its deferred tax asset related to federal and Minnesota research and development credit carryforwards will not be realized due to insufficient federal and Minnesota taxable income within the carryforward period after considering the foreign tax credit usage.

The following is a tabular reconciliation of the total amounts of unrecognized tax benefits:

	<b>Fiscal Year Ended August 31,</b>	
	<b>2013</b>	<b>2012</b>
Gross unrecognized tax benefits – beginning balance	\$ 131,000	\$ 131,000
Gross increases - prior period tax positions	19,000	—
Gross increases – current period tax positions	20,000	—
Gross unrecognized tax benefits – ending balance	<u>\$ 170,000</u>	<u>\$ 131,000</u>

The entire amount of unrecognized tax benefits would affect the effective tax rate. It is not expected that the amount of unrecognized tax benefits will change significantly in the next 12 months.

The Company recognizes interest and penalties related to unrecognized tax benefits as a component of the Company's income tax provision. Accrued interest and penalties are included within the related tax liability line in the consolidated balance sheet. The liability for the payment of interest and penalties was \$0 at both August 31, 2013 and August 31, 2012.

The Company is subject to taxation in the United States and various states and foreign jurisdictions. With few exceptions, as of August 31, 2013, the Company is no longer subject to federal, state, local, or foreign examinations by tax authorities for years prior to August 31, 2010.

## **16. COMMITMENTS AND CONTINGENCIES**

On August 22, 2013, the Compensation Committee of the Board of Directors of the Company approved the material terms of an annual bonus plan that encompasses the Company's executive officers, members of management and key employees for the fiscal year ending August 31, 2014. For fiscal 2014 as in past years, the total amount available under the bonus plan for all plan participants, including executive officers, is up to a certain percentage of the Company's earnings before interest, taxes and other income, as adjusted to take into account amounts to be paid under the bonus plan and certain other adjustments (Adjusted EBITOI) and is \$0 if Adjusted EBITOI is below 70% of a pre-established target Adjusted EBITOI for fiscal 2013. Each plan participant's percentage of the overall bonus pool is based upon the number of plan participants, the individual's annual base salary and the individual's position and level of responsibility within the company. In the case of each of the Company's executive officer participants, 75% of the amount of their individual bonus payout will be determined based upon the Company's actual EBITOI for fiscal 2013 compared to the pre-established target EBITOI for fiscal 2014 and 25% of the payout will be determined based upon such executive officer's achievement of certain pre-established individual performance objectives. The payment of bonuses under the plan are discretionary and may be paid to executive officer participants in both cash and shares of NTIC common stock, the exact amount and percentages of which will be determined by the Company's Board of Directors, upon recommendation of the Compensation Committee, after the completion of the Company's consolidated financial statements for fiscal 2014.

On August 31, 2012, the Compensation Committee approved the material terms of an annual bonus plan that encompasses the Company's executive officers, members of management and key employees for the fiscal year

ending August 31, 2013. Under the terms of the plan, the total amount available under the bonus plan for all plan participants, including executive officers, is up to a certain percentage of the Company's Adjusted EBITOI and \$0 if Adjusted EBITOI is below 70% of a pre-established target Adjusted EBITOI for fiscal 2013. Each plan participant's percentage of the overall bonus pool is based upon the number of plan participants, the individual's annual base salary and the individual's position and level of responsibility within the company. In the case of each of the Company's executive officer participants, 75% of the amount of their individual bonus payout is determined based upon the Company's actual EBITOI for fiscal 2013 compared to the pre-established target EBITOI for fiscal 2013 and 25% of the payout is determined based upon such executive officer's achievement of certain pre-established individual performance objectives. On November 19, 2013, the Board of Directors, upon recommendation of the Compensation Committee, approved the payment of annual bonuses for fiscal 2013. For fiscal 2013, actual Adjusted EBITOI was 60% of the budgeted target Adjusted EBITOI. The Company's Board of Directors, upon recommendation of the Compensation Committee, nonetheless, decided to pay bonuses for fiscal 2013 under the plan since the principal reason for the shortfall was reduced revenue compared to budget due to the postponed fulfillment of a ZERUST® Oil & Gas contract.

There was \$959,000 accrued for bonuses under the fiscal 2013 bonus plan as of August 31, 2013. \$1,248,526 was accrued for bonuses under the prior fiscal year bonus plan as of August 31, 2012.

The Company leases property located at 23205 Mercantile Road, Beachwood, Ohio. Remaining rentals payable under such leases are as follows: fiscal 2014 - \$59,500 and thereafter - \$0.

Two joint ventures accounted for 49.0% of the Company's trade joint venture receivables at August 31, 2013 and three joint ventures accounted for 55.3% of the Company's trade joint venture receivables at August 31, 2012.

From time to time, the Company is subject to various claims and legal actions in the ordinary course of its business. The Company is not currently involved in any legal proceeding in which the Company believes, based on information currently available, that there is a reasonable possibility of a material loss.

## 17. STATEMENTS OF CASH FLOWS

Supplemental disclosures of cash flow information for the fiscal years ended August 31, 2013 and 2012 consist of:

	Fiscal Year Ended	
	August 31,	
	2013	2012
Cash paid during the year for income tax	\$ —	\$ —
Cash paid during the year for interest	52,215	29,388
Common stock issued in lieu of accrued payroll (0 and 42,707 shares, respectively)	—	615,830
Decrease/(increase) in the Company's investment in joint ventures and accumulated other comprehensive income due to changes in exchange rates	(38,578)	2,219,357

## 18. FAIR VALUE MEASUREMENTS

The Company follows the authoritative guidance on fair value measurements and disclosures with respect to assets and liabilities that are measured at fair value on both a recurring and non-recurring basis. Under this guidance, fair value is defined as the exit price, or the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants as of the measurement date. The authoritative guidance also establishes a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable inputs

be used when available. Observable inputs are inputs market participants would use in valuing the asset or liability, developed based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company's assumptions about the factors market participants would use in valuing the asset or liability developed based upon the best information available in the circumstances. The categorization of financial assets and financial liabilities within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement. The hierarchy is broken down into three levels defined as follows:

- Level 1 - Inputs are quoted prices in active markets for identical assets or liabilities.
- Level 2 - Inputs include quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, and inputs (other than quoted prices) that are observable for the asset or liability, either directly or indirectly.
- Level 3 - Inputs are unobservable for the asset or liability.

See the section below titled Valuation Techniques for further discussion of how the Company determines fair value for investments.

### **Assets and Liabilities That Are Measured at Fair Value on a Recurring Basis**

Assets and liabilities that are measured at fair value on a recurring basis primarily relate to marketable equity securities. These items are marked-to-market at each reporting period.

The following tables provide information by level for assets and liabilities that are measured at fair value on a recurring basis:

	Fair value as of August 31, 2013	Fair Value Measurements Using Inputs Considered as		
		Level 1	Level 2	Level 3
Cash equivalents	\$ 1,020,000	\$1,020,000	\$ —	\$ —

  

	Fair value as of August 31, 2012	Fair Value Measurements Using Inputs Considered as		
		Level 1	Level 2	Level 3
Cash equivalents	\$ 1,518,000	\$1,518,000	\$ —	\$ —

### *Valuation Techniques*

Financial assets that are classified as Level 1 securities include Cash equivalents. These are valued using quoted market prices in an active market.

The Company reviews the fair value hierarchy classification on a quarterly basis. Changes in the ability to observe valuation inputs may result in a reclassification of levels for certain securities within the fair value hierarchy. The Company's policy is to recognize transfers into and out of levels within the fair value hierarchy at the end of the fiscal quarter in which the actual event or change in circumstances that caused the transfer occurs. There were no transfers between Level 1, Level 2, or Level 3 during the fiscal years ended August 31, 2013 or August 31, 2012. When a determination is made to classify an asset or liability within Level 3, the determination is based upon the significance of the unobservable inputs to the overall fair value measurement.

## Assets and Liabilities That Are Measured at Fair Value on a Nonrecurring Basis

The following tables provide information by level for assets and liabilities that are measured at fair value on a Nonrecurring basis:

	Fair value as of August 31, 2013	Fair Value Measurements Using Inputs Considered as		
		Level 1	Level 2	Level 3
Fair market value of NTI Asean	\$ 7,922,000	\$ —	\$ —	\$7,922,000

The Company determined the fair value of NTI Asean using the capitalized income method, including a capitalization rate of 25%.

## 19. QUARTERLY INFORMATION (UNAUDITED)

	Fiscal Quarter Ended			
	November 30	February 28	May 31	August 31
Fiscal year 2013:				
Net sales	\$ 5,291,747	\$ 5,246,350	\$ 5,877,033	\$ 6,086,734
Gross profit	1,600,775	1,612,437	1,822,669	1,992,771
Income before income tax expense	892,536	985,155	1,445,769	2,294,041
Income tax expense	134,000	240,000	158,000	332,000
Net income	758,536	745,155	1,287,769	1,962,041
Net income attributable to noncontrolling interest	368,914	310,745	360,657	346,291
Net income attributable to NTIC	389,622	434,410	927,112	1,615,750
Net income per share:				
Basic	\$ 0.09	\$ 0.10	\$ 0.21	\$ 0.37
Diluted	\$ 0.09	\$ 0.10	\$ 0.21	\$ 0.36
Weighted average common shares assumed outstanding:				
Basic	4,406,205	4,418,821	4,421,379	4,431,948
Diluted	4,440,436	4,485,076	4,468,861	4,501,017

	Fiscal Quarter Ended			
	November 30	February 29	May 31	August 31
Fiscal year 2012:				
Net sales	\$ 4,832,114	\$ 4,974,328	\$ 7,804,904	\$ 5,170,307
Gross profit	1,622,638	1,494,246	3,661,390	1,474,594
Income before income tax expense	1,041,421	703,991	2,454,623	416,611
Income tax expense (benefit)	106,000	100,000	814,000	(32,000)
Net income	935,421	603,991	1,640,623	448,611
Net income per share:				
Basic	\$ 0.22	\$ 0.14	\$ 0.33	\$ 0.10
Diluted	\$ 0.22	\$ 0.14	\$ 0.33	\$ 0.10

	<b>Fiscal Quarter Ended</b>			
	<b>November 30</b>	<b>February 29</b>	<b>May 31</b>	<b>August 31</b>
Weighted average common shares assumed outstanding:				
Basic	4,355,666	4,398,356	4,399,290	4,403,656
Diluted	4,433,724	4,466,435	4,461,044	4,436,444



**Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE**

None

**Item 9A. CONTROLS AND PROCEDURES**

**Evaluation of Disclosure Controls and Procedures**

NTIC maintains disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended) that are designed to provide reasonable assurance that information required to be disclosed by NTIC in the reports it files or submits under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized and reported, within the time periods specified in the Securities and Exchange Commission's rules and forms and that such information is accumulated and communicated to NTIC's management, including NTIC's principal executive officer and principal financial officer, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. NTIC's management evaluated, with the participation of its Chief Executive Officer and its Chief Financial Officer, the effectiveness of the design and operation of NTIC's disclosure controls and procedures as of the end of the period covered in this report. Based on that evaluation, NTIC's Chief Executive Officer and Chief Financial Officer concluded that NTIC's disclosure controls and procedures were effective as of the end of such period to provide reasonable assurance that information required to be disclosed in the reports that NTIC files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to NTIC's management, including NTIC's Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

**Management's Report on Internal Control over Financial Reporting**

NTIC's management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f). Under the supervision and with the participation of NTIC's Chief Executive Officer and Chief Financial Officer, NTIC's management conducted an evaluation of the effectiveness of NTIC's internal control over financial reporting based on the framework in *Internal Control—Integrated Framework (1992)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on that evaluation, NTIC's management concluded that NTIC's internal control over financial reporting was effective as of August 31, 2013.

This report does not include an attestation report of NTIC's independent registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by NTIC's independent registered public accounting firm pursuant to rules of the Securities and Exchange Commission that permit NTIC to provide only management's report in this report.

**Changes in Internal Control over Financial Reporting**

There was no change in NTIC's internal control over financial reporting that occurred during the quarter ended August 31, 2013 that has materially affected, or is reasonably likely to materially affect NTIC's internal control over financial reporting.

**Item 9B. OTHER INFORMATION**

On November 19, 2013, the Board of Directors, upon recommendation of the Compensation Committee, approved the payment of annual bonuses for fiscal 2013. Mr. Lynch received a total cash bonus of \$152,716 and Mr. Wolsfeld received a total cash bonus of \$112,877 for fiscal 2013.

Under the annual bonus plan for fiscal 2013, the total amount available under the bonus plan for all participants, including executives, as in past years, was up to a certain percentage of NTIC's earnings before interest, taxes and other income, as adjusted to take into account amounts to be paid under the bonus plan and certain other adjustments (Adjusted EBITOI). In addition, as in the past, under the plan, the payment of bonuses was to be dependent upon the achievement of a minimum Adjusted EBITOI, which is generally 70 percent of a budgeted target Adjusted EBITOI. For fiscal 2013, actual Adjusted EBITOI was 60 percent of the budgeted target Adjusted EBITOI. The Board of Directors, upon recommendation of the Compensation Committee, nonetheless, decided to pay bonuses for fiscal 2013 under the plan since the principal reason for the shortfall was reduced revenue compared to budget due to the postponed fulfillment of a ZERUST<sup>®</sup> Oil & Gas contract. For each plan participant, 50 percent of the amount of their individual bonus payout was determined based upon their individual allocation percentage of the total amount available under the bonus plan and 50 percent of their individual payout was determined based upon their achievement of certain pre-established but more qualitative individual performance objectives.

A plan participant's individual allocation percentage of the total amount available under the bonus plan was based on the number of plan participants, the individual's annual base salary and the individual's position and level of responsibility within the company. The individual allocation percentage for fiscal 2013 for G. Patrick Lynch, NTIC's President and Chief Executive Officer, and Matthew Wolsfeld, NTIC's Chief Financial Officer, was 17.0% percent and 12.5% percent, respectively.

Mr. Lynch's individual performance objectives for fiscal 2013 related primarily to the completion of certain ZERUST infrastructure improvements and product trials, integration of the Zerust Brazil subsidiary, and improvement and maintenance of joint venture relationships, investors relations and key personnel. Mr. Wolsfeld's individual performance objectives for fiscal 2013 related primarily to financial oversight of the Natur-Tec and ZERUST<sup>®</sup> Oil & Gas businesses, improvement and maintenance of investor relations, oversight of NTIC's building expansion and integration of the Zerust Brazil subsidiary. In the case of both Mr. Lynch and Mr. Wolsfeld, the Compensation Committee determined each executive achieved their individual performance objectives at a 60% percent achievement level.

## PART III

### Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

#### Directors

The information in the “Proposal One – Election of Directors” section of NTIC’s definitive proxy statement to be filed with the Securities and Exchange Commission with respect to NTIC’s next annual meeting of stockholders, which involves the election of directors, is incorporated in this annual report on Form 10-K by reference.

#### Executive Officers

Information concerning NTIC’s executive officers and officers is included in this annual report on Form 10-K under Item 4A of Part I under the heading “Executive Officers of the Registrant.”

#### Section 16(a) Beneficial Ownership Reporting Compliance

The information in the “Other Matters—Section 16(a) Beneficial Ownership Reporting Compliance” section of NTIC’s definitive proxy statement to be filed with the Securities and Exchange Commission with respect to NTIC’s next annual meeting of stockholders, which involves the election of directors, is incorporated in this annual report on Form 10-K by reference.

#### Code of Ethics

NTIC has adopted a code of ethics that applies to its principal executive officer, principal financial officer, principal accounting officer or controller or persons performing similar functions, as well as other employees and NTIC’s directors and meets the requirements of the SEC and the NASDAQ Global Market. A copy of NTIC’s Code of Ethics is filed as an exhibit to this report. NTIC intends to satisfy the disclosure requirements of Item 5.05 of Form 8-K regarding amendments to or waivers from any provision of its code of ethics by posting such information on its corporate website at [www.ntic.com](http://www.ntic.com).

#### Changes to Nomination Procedures

During the fourth quarter of fiscal year ended August 31, 2013, NTIC made no material changes to the procedures by which stockholders may recommend nominees to NTIC’s Board of Directors, as described in NTIC’s most recent proxy statement.

#### Audit Committee Matters

The information in the “Corporate Governance—Audit Committee” section of NTIC’s definitive proxy statement to be filed with the Securities and Exchange Commission with respect to NTIC’s next annual meeting of stockholders, which involves the election of directors, is incorporated in this annual report on Form 10-K by reference.

### Item 11. EXECUTIVE COMPENSATION

The information in the “Director Compensation” and “Executive Compensation” sections of NTIC’s definitive proxy statement to be filed with the Securities and Exchange Commission with respect to NTIC’s next annual meeting of stockholders, which involves the election of directors, is incorporated in this annual report on Form 10-K by reference.

**Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS**

**Stock Ownership**

The information in the “Security Ownership of Principal Stockholders and Management” section of NTIC’s definitive proxy statement to be filed with the Securities and Exchange Commission with respect to NTIC’s next annual meeting of stockholders, which involves the election of directors, is incorporated in this annual report on Form 10-K by reference.

**Securities Authorized for Issuance under Equity Compensation Plans**

The following table summarizes outstanding options under NTIC’s equity compensation plans as of August 31, 2013. NTIC’s equity compensation plans as of August 31, 2013 were the Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan and the Northern Technologies International Corporation Employee Stock Purchase Plan. Except for automatic annual grants of options to purchase 4,000 shares of NTIC common stock to NTIC’s directors in consideration for their services as directors of NTIC, an automatic annual grant of an option to purchase 2,000 shares of NTIC common stock to NTIC’s Chairman of the Board in consideration for his services as Chairman on the first day of each fiscal year and automatic initial grants of options to purchase a pro rata portion of 4,000 shares of NTIC common stock to NTIC’s new directors in consideration for their services as directors of NTIC, options granted in the future under the Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan are within the discretion of the Board of Directors and the Compensation Committee of the Board of Directors and therefore cannot be ascertained at this time.

Plan Category	(a) Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights	(b) Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights	(c) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders	260,627 <sup>(1)(2)</sup>	\$9.84	431,095 <sup>(3)</sup>
Equity compensation plans not approved by security holders	—	—	—
<b>Total</b>	260,627 <sup>(1)(2)</sup>	\$9.84	431,095 <sup>(3)</sup>

- (1) Amount includes shares of NTIC common stock issuable upon the exercise of stock options outstanding as of August 31, 2013 under the Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan.
- (2) Excludes employee stock purchase rights accruing under the Northern Technologies International Corporation Employee Stock Purchase Plan. Under such plan, each eligible employee may purchase up to 2,000 shares of NTIC common stock at semi-annual intervals on February 28<sup>th</sup> or 29<sup>th</sup> (as the case may be) and August 31st each year at a purchase price per share equal to 90% of the lower of (i) the closing sales price per share of NTIC common stock on the first day of the offering period or (ii) the closing sales price per share of NTIC common stock on the last day of the offering period.
- (3) Amount includes 365,345 shares remaining available at August 31, 2013 for future issuance under Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan and 65,750 shares available at August 31, 2013 for future issuance under the Northern Technologies International Corporation Employee Stock Purchase Plan.

**Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE**

The information in the “Related Party Relationships and Transactions” and “Corporate Governance—Director Independence” sections of NTIC’s definitive proxy statement to be filed with the Securities and Exchange Commission with respect to NTIC’s next annual meeting of stockholders, which involves the election of directors, is incorporated in this annual report on Form 10-K by reference.

**Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES**

The information in the “Proposal Four—Ratification of Selection of Independent Registered Public Accounting Firm—Audit, Audit-Related, Tax and Other Fees” and “Proposal Four—Ratification of Selection of Independent Registered Public Accounting Firm—Audit Committee Pre-Approval Policies and Procedures” sections of NTIC’s definitive proxy statement to be filed with the Securities and Exchange Commission with respect to NTIC’s next annual meeting of stockholders, which involves the election of directors, is incorporated in this annual report on Form 10-K by reference.

## PART IV

### Item 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

NTIC's consolidated financial statements are included in Item 8 of Part III of this report.

The exhibits to this report are listed in the Exhibit Index to this report. A copy of any exhibits listed or referred to herein will be furnished at a reasonable cost to any person who is a stockholder upon receipt from any such person of a written request for any such exhibit. Such request should be sent to: Mr. Matthew Wolsfeld, Corporate Secretary, Northern Technologies International Corporation, 4201 Woodland Road, P.O. Box 69, Circle Pines, Minnesota 55014 Attn: Stockholder Information.

The following is a list of each management contract or compensatory plan or arrangement required to be filed as an exhibit to this annual report on Form 10-K:

- A. Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan (incorporated by reference to Exhibit 10.1 to NTIC's Current Report on Form 8-K as filed with the Securities and Exchange Commission on January 24, 2011).
- B. Form of Incentive Stock Option Agreement for Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan (incorporated by reference to Exhibit 10.2 to NTIC's Current Report on Form 8-K as filed with the Securities and Exchange Commission on January 24, 2011).
- C. Form of Non-Qualified Stock Option Agreement for Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan (incorporated by reference to Exhibit 10.3 to NTIC's Current Report on Form 8-K as filed with the Securities and Exchange Commission on January 24, 2011).
- D. Form of Restricted Stock Agreement for Northern Technologies International Corporation Amended and Restated 2007 Stock Incentive Plan (incorporated by reference to Exhibit 10.4 to NTIC's Current Report on Form 8-K as filed with the Securities and Exchange Commission on January 24, 2011).
- E. Northern Technologies International Corporation Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.11 to NTIC's Annual Report on Form 10-KSB for the fiscal year ended August 31, 2006).
- F. Material Terms of Northern Technologies International Corporation Annual Bonus Plan (incorporated by reference to Item 5.02 to NTIC's Current Report on Form 8-K as filed with the Securities and Exchange Commission on September 27, 2011).
- G. Form of Indemnification Agreement between Northern Technologies International Corporation and its Directors and Officers (incorporated by reference to Exhibit 10.1 to NTIC's Current Report on Form 8-K as filed with the Securities and Exchange Commission on November 24, 2009).
- H. Agreement dated as of May 25, 2009 between Northern Technologies International Corporation and Sunggyu Lee, Ph.D. (incorporated by reference to Exhibit 10.2 to NTIC's Quarterly Report on Form 10-Q for the fiscal quarter ended February 28, 2009).
- I. Description of Non-Employee Director Compensation Arrangements (filed herewith).

- J. Executive Employment Agreement dated as of November 18, 2011 between Northern Technologies International Corporation and G. Patrick Lynch (incorporated by reference to Exhibit 10.13 to NTIC's Annual Report on Form 10-K for the fiscal year ended August 31, 2011).
- K. Confidential Information, Inventions Assignment, Noncompetition and Non-Solicitation Agreement dated as of November 18, 2011 between Northern Technologies International Corporation and G. Patrick Lynch (incorporated by reference to Exhibit 10.14 to NTIC's Annual Report on Form 10-K for the fiscal year ended August 31, 2011).
- L. Executive Employment Agreement dated as of November 18, 2011 between Northern Technologies International Corporation and Matthew C. Wolsfeld (incorporated by reference to Exhibit 10.15 to NTIC's Annual Report on Form 10-K for the fiscal year ended August 31, 2011).
- M. Confidential Information, Inventions Assignment, Noncompetition and Non-Solicitation Agreement dated as of November 18, 2011 between Northern Technologies International Corporation and Matthew C. Wolsfeld (incorporated by reference to Exhibit 10.16 to NTIC's Annual Report on Form 10-K for the fiscal year ended August 31, 2011).

## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

### NORTHERN TECHNOLOGIES INTERNATIONAL CORPORATION

November 22, 2013

By: /s/ G. Patrick Lynch  
G. Patrick Lynch  
President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant on the dates and in the capacities indicated.

<u>Name</u>	<u>Title</u>	<u>Date</u>
<u>/s/ G. Patrick Lynch</u> G. Patrick Lynch	President and Chief Executive Officer and Director (principal executive officer)	November 22, 2013
<u>/s/ Matthew C. Wolsfeld, CPA</u> Matthew C. Wolsfeld, CPA	Chief Financial Officer and Corporate Secretary (principal financial and accounting officer)	November 22, 2013
<u>/s/ Richard J. Nigon</u> Richard J. Nigon	Chairman of the Board	November 19, 2013
<u>/s/ Barbara D. Colwell</u> Barbara D. Colwell	Director	November 19, 2013
<u>/s/ Soo Keong Koh</u> Soo Keong Koh	Director	November 19, 2013
<u>/s/ Sunggyu Lee, Ph.D.</u> Sunggyu Lee, Ph.D.	Director	November 19, 2013
<u>/s/ Ramani Narayan, Ph.D.</u> Ramani Narayan, Ph.D.	Director	November 19, 2013
<u>/s/ Pierre Chenu</u> Pierre Chenu	Director	November 19, 2013
<u>/s/ Konstantin von Falkenhausen</u> Konstantin von Falkenhausen	Director	November 19, 2013



## Board of Directors

Mr. Richard J. Nigon  
Chairman of the Board  
Senior Vice President of Cedar Point Capital, Inc.

Mr. G. Patrick Lynch  
President & CEO, NTIC

Mr. Pierre Chenu  
Director of NTIC

Dr. Ramani Narayan  
Distinguished Professor in the Department of  
Engineering & Materials Science, Michigan State  
University

Dr. Sunggyu Lee  
Professor of Chemical & Molecular Engineering,  
Russ College of Engineering & Technology at Ohio  
University

Mr. Soo-Keong Koh  
Managing Director, EcoSave Pte Ltd.

Mr. Konstantin von Falkenhausen  
Partner, B Capital Partners AG

Mrs. Barbara D. Colwell  
Corporate Director of NTIC, Publishers Clearing House,  
and Mutual Trust Financial Group

## Executive Officers

Mr. G. Patrick Lynch  
President & CEO

Mr. Matthew C. Wolsfeld  
Chief Financial Officer, Treasurer and  
Corporate Secretary

## Independent Registered Public Accounting Firm

Baker Tilly Virchow Krause, LLP  
Minneapolis, Minnesota

## Transfer Agent and Registrar

For a response to questions regarding misplaced stock  
certificates, changes of address or the consolidation  
of accounts, please contact NTIC's transfer agent:



Broadridge Corporate Issuer Solutions, Inc.  
1717 Arch Street, Suite 1300  
Philadelphia, PA 19103  
1-877-830-4936  
shareholder@broadridge.com

## Investor Relations

Northern Technologies International Corporation  
welcomes inquiries from its stockholders and other  
interested investors. For further information on  
NTIC'S activities or additional copies of this report,  
please contact:

Investor Relations  
Northern Technologies International Corporation  
4201 Woodland Road, P.O. Box 69  
Circle Pines, Minnesota 55014  
(763) 225-6600  
www.ntic.com

## Stock Listing

NTIC's common stock is traded on the  
NASDAQ Global Market under the symbol NTIC.

## Annual Meeting

The annual meeting of stockholders will be held at  
4:00 p.m. on Thursday, January 23, 2014 at NTIC's  
corporate headquarters:

Northern Technologies International Corp.  
4201 Woodland Road  
Circle Pines, MN 55014 USA

