



## **Northern Technologies International Corporation Awarded \$500,000 in Department of Defense Grant for Development of Biobased and Marine Biodegradable Non-Plastics Bags**

MINNEAPOLIS, Nov. 17, 2011 (GLOBE NEWSWIRE) -- Northern Technologies International Corporation (Nasdaq:NTIC) announced today that it has been awarded a Department of Defense Small Business Innovation Research (DoD-SBIR) Phase II grant of \$500,000 for the development of biobased and marine biodegradable non-plastic bags. The research and technology development will be conducted in collaboration with Michigan State University (MSU), Lansing, Michigan.

The U.S. Navy currently uses a combination of plastic and paper bags for the collection of solid waste onboard. In strict compliance with the Annex V requirements of the international MARPOL treaty, any plastic waste generated onboard cannot be disposed of at sea, and must be collected, stored on board and brought back to land for proper disposal. These requirements pose a tremendous challenge for solid waste management on ships, and burden the Naval fleet with increased labor, storage, and offload requirements. As a result, the U.S. Navy and the Department of Defense (DoD) is sponsoring a SBIR project to develop a viable solution to this problem.

In Phase I of this DoD-SBIR sponsored project, NTIC in collaboration with MSU developed a novel technology using a modified plant oil based product as a coating material on selected paper substrates. Bags made from such coated paper are high-strength, water resistant, and readily treatable with other organic wastes in the onboard waste processing equipment and are marine biodegradable as defined by the ASTM D7081 standard. Having successfully demonstrated proof-of-concept in Phase I, the purpose of Phase II will now be to further refine the product through pilot trials, and develop the kinetic and engineering process parameters including process economics for large-scale manufacture of the novel biobased coatings product.

Prof. Ramani Narayan, University Distinguished Professor at MSU, will collaborate with NTIC on this project. Prof. Narayan stated, "Development of a high strength, water-proof, marine biodegradable, and non-plastic waste disposal bag will assist the Naval fleet in reducing their at-sea plastic usage and significantly decrease the volume of plastic waste that must be processed and stored on-board."

Vineet Dalal, Vice President and Director of Global Market Development for NTIC's Natur-Tec Business, said, "NTIC is pleased to be recognized by the DoD-SBIR with this Phase II award. Looking beyond the immediate application for non-plastic biodegradable bags for the U.S. Navy, we are really excited about the broader potential for this novel biobased coatings technology in high-volume markets for coated paper such as disposable foodservice ware, food packaging, and other specialty paper products. This project serves as a good example of deep industry-academia research collaboration generating innovative, environmentally-sustainable, cost-effective solutions to real-world problems."

This grant is in addition to the National Science Foundation Small Business Technology Transfer (NSF-STTR) Phase II grant of \$500,000 for the development of Advanced Polylactide (PLA) materials for biobased and biodegradable plastic products.

### **About Northern Technologies International Corporation**

*Northern Technologies International Corporation develops and markets proprietary environmentally beneficial products and technical services either directly or via a network of joint ventures and independent distributors in over 55 countries. NTIC's Natur-Tec branded products are engineered using a proprietary and patented blend of biodegradable polymers and natural materials to create biobased (renewable resource based) and biodegradable plastics. These products do not contain any conventional plastics such as polyethylene, polypropylene or polystyrene. The broad Natur-Tec bioplastics portfolio spans flexible film, foam, rigid injection molded materials and engineered plastics. By using Natur-Tec products as an alternative to conventional plastics, industry and consumers are able to better manage their carbon usage and move towards a zero carbon or carbon neutral footprint. For more information on Natur-Tec, visit [www.natur-tec.com](http://www.natur-tec.com) or contact Matt Wolsfeld at (763) 225-6600 or [mwolsfeld@ntic.com](mailto:mwolsfeld@ntic.com)*

The Northern Technologies International Corporation logo is available at <http://www.globenewswire.com/newsroom/prs/?pkgid=5481>

### **Forward-Looking Statements**

*Statements contained in this press release that are not historical information are forward-looking statements as defined within*

*the Private Securities Litigation Reform Act of 1995. Such statements include NTIC's expectations regarding its future financial performance and other statements that can be identified by words such as "will," "potential," "expect," "intend," "continue," "anticipate," "estimate," "would," "should" or words of similar meaning and any other statements that are not historical facts. Such forward-looking statements are based upon the current beliefs and expectations of NTIC's management and are inherently subject to risks and uncertainties that could cause actual results to differ materially from those projected or implied. Such potential risks and uncertainties include, but are not limited to, in no particular order: NTIC's investments in research and development efforts; acceptance of existing and new products; NTIC's dependence on the success of its joint ventures and fees and dividend distributions that NTIC receives from them; NTIC's relationships with its joint ventures and its ability to maintain those relationships; risks associated with NTIC's international operations; exposure to fluctuations in foreign currency exchange rates; the health of the U.S. and worldwide economies, including in particular the U.S. automotive industry; the level of growth in NTIC's markets; increased competition; the costs and effects of complying with changes in tax, fiscal, government and other regulatory policies, including rules relating to environmental, health and safety matters; and NTIC's reliance on its intellectual property rights and the absence of infringement of the intellectual property rights of others. More detailed information on these and additional factors which could affect NTIC's operating and financial results is described in the company's filings with the Securities and Exchange Commission, including its most recent annual report on Form 10-K and subsequent quarterly reports on Form 10-Q. NTIC urges all interested parties to read these reports to gain a better understanding of the many business and other risks that the company faces. Additionally, NTIC undertakes no obligation to publicly release the results of any revisions to these forward-looking statements, which may be made to reflect events or circumstances occurring after the date hereof or to reflect the occurrence of unanticipated events.*

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