



Air Products Licenses Technology for the Recovery of High-Value, Unreacted Olefins at Polypropylene and Polyethylene Facilities

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LEHIGH VALLEY, Pa., March 26, 2013 /PRNewswire via COMTEX/ --Air Products (NYSE: APD) has licensed its proprietary adsorption-based [monomer recovery technology](#) to Cryo Technologies, a worldwide supplier of custom engineered process equipment based in Allentown, Pa. Air Products' process for unreacted olefin recovery combines partial condensation with pressure swing adsorption to deliver two product streams: a recovered hydrocarbon product for recycle and subsequent polymer production, and a nitrogen stream for reuse in facility operations, such as polymer degassing and pneumatic transportation.

The Air Products technology, developed with Department of Energy (DOE) support under the Industrial Technologies program, enables nearly 100% recovery of hydrocarbons and nitrogen from the feed, creating a high-purity nitrogen product. An additional benefit, compared with competitive systems, is low maintenance cost since the adsorbent material used in the pressure swing adsorption process has a useful life compared to other system components. Suitable for new, world-scale plants or as a retrofit process to existing facilities, the technology provides a short payback period on invested capital and enables polyolefin manufacturers to avoid flaring that results in emissions of NOx, VOCs, CO, and CO₂.

"The selection of Cryo Technologies and execution of a license agreement with them are the result of an extensive search and qualification process," said Jeffrey Knopf, manager, Licensing and Technology Transfer at Air Products. "We are confident that Cryo Technologies has the knowledge and capabilities to offer unique process equipment that meets site specific customer needs and will complement Air Products' efforts to provide solutions that help drive customers' profitable growth and sustainability."

The technology license agreement enables Cryo Technologies to design and offer Air Products' unreacted olefin recovery technology, which has been proven through the development, testing, and successful operation of three full-scale facilities that Air Products designed and supplied to polypropylene and polyethylene manufacturers in the U.S.

"Cryo Technologies is pleased to have the opportunity to offer the benefits of Air Products' unreacted olefin recovery technology to the petrochemical industry," said Richard Hessinger, president of Cryo Technologies. "Our experience and comprehensive capabilities in custom-engineered and packaged process systems, combined with Air Products' proprietary adsorption-based technology, will enable polyethylene and polypropylene production facilities to improve their economics and minimize emissions in their monomer recovery processes."

About Cryo Technologies

Located in Allentown, Pa., Cryo Technologies is a global process equipment supplier that offers cryogenic process systems for separation, purification, liquefaction, and distribution of industrial gases. Product offerings include cryogenic gas purification, refrigeration and liquefaction systems, high-value gas recycle systems, non-cryogenic packaged process systems for oil removal, oxygen/hydrogen removal and dehydration, and first-of-a-kind products such as deuterium systems. Expertise includes application of these technologies and products to valuable gases such as helium, hydrogen, argon, neon, nitrogen, natural gas, etc. Cryo Technologies offers turnkey project capabilities and field service for start-up and commissioning of their equipment and systems. For more information, visit www.cryotechnologies.com.

About Air Products

Air Products (NYSE: APD) provides atmospheric, process and specialty gases; performance materials; equipment; and technology. For over 70 years, the company has enabled customers to become more productive, energy efficient and sustainable. More than 20,000 employees in over 50 countries supply innovative solutions to the energy, environment and emerging markets. These include semiconductor materials, refinery hydrogen, coal gasification, natural gas liquefaction, and advanced coatings and adhesives. In fiscal 2012, Air Products had sales approaching \$10 billion. For more information, visit www.airproducts.com.

NOTE: This release may contain forward-looking statements within the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are based on management's reasonable expectations and assumptions as of the date of this release regarding important risk factors. Actual performance and financial results may differ materially from projections and estimates expressed in the forward-looking statements because of many factors not anticipated by management, including risk factors described in the Company's Form 10K for its fiscal year ended September 30, 2012.

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