

PyroGenesis Signs \$6MM Contract with Advanced Materials Firm to Supply SPARC™ Land-Based Waste Destruction System

SPARC™ chosen for Carbon-free Destruction of Ozone-depleting Refrigerant Substances

MONTREAL, Jan. 10, 2023 -- PyroGenesis Canada Inc. (<http://pyrogenesis.com>) (TSX: PYR) (NASDAQ: PYR) (FRA: 8PY), a TSX30® and a Deloitte Technology Fast 50™ high-tech company (hereinafter referred to as the "Company" or "PyroGenesis"), that designs, develops, manufactures and commercializes advanced plasma processes and sustainable solutions which are geared to reduce greenhouse gases (GHG), is pleased to announce today that, further to the [press release dated September 13, 2022](#), the Company has received the final signed contract to provide the Company's SPARC™ refrigerant waste destruction system to an advanced materials company (the "Client"). The system is the first of two systems that the Client has indicated they may require. This first system is contracted at approximately \$6MM, not including ongoing after-sales support of an indeterminate amount. This contract includes a first payment of approx. \$2.2MM. The first payment has been received.

PyroGenesis' patented SPARC™ system is based on the technology platform originally developed by the Company for both the U.S. Navy and U.S. Air Force. It uses inexpensive steam as the plasma-forming gas to generate a hydrolysis reaction which destroys refrigerants, leading directly to significantly reduced operating costs when compared to processing more expensive gases, with cleaner operations and with no incineration. Powered by electricity, the SPARC™ system substantially reduces an operator's carbon footprint while concurrently eliminating ozone-depleting substances. The SPARC™ system is extremely versatile as it can also destroy other chemicals such as CFCs, HCFCs, HFCs, Halons, and PFCs.

PyroGenesis has been contracted to design and build the SPARC™ refrigerant waste destruction system. PyroGenesis will also supervise and support contractors in the system installation within a new facility being built by the Client. The project has an approximate production-to-delivery timeline of 18 months.

"PyroGenesis continues to be recognized for its fossil-free waste destruction systems, in jurisdictions where tightened hazardous waste disposal regulations combined with cost-offsetting carbon credits are resulting in a need for a safer destruction of various hydrocarbons, including refrigerant chlorofluorocarbons," said Mr. P. Peter Pascali, CEO and Chair of PyroGenesis. "This contract is for a land-based SPARC™ system which comes on the heels of the recent announcement of the first deployment for the USS Gerald R. Ford aircraft carrier – the world's most technologically advanced ship – which set sail with PyroGenesis' ship-board PAWDS waste destruction system installed.^{1,2} The PAWDS system is, interestingly, the technology platform used for SPARC™."

About PyroGenesis Canada Inc.

PyroGenesis Canada Inc., a high-tech company, is a leader in the design, development, manufacture and commercialization of advanced plasma processes and sustainable solutions which reduce greenhouse gases (GHG) and are economically attractive alternatives to conventional "dirty" processes. PyroGenesis has created proprietary, patented and advanced plasma technologies that are being vetted and adopted by multiple multibillion dollar industry leaders in four massive markets: iron ore pelletization, aluminum, waste management, and additive manufacturing. With a team of experienced engineers, scientists and technicians working out of its Montreal office, and its 3,800 m² and 2,940 m² manufacturing facilities, PyroGenesis maintains its competitive advantage by remaining at the forefront of technology development and commercialization. The operations are ISO 9001:2015 and AS9100D certified, having been ISO certified since 1997. For more information, please visit: www.pyrogenesis.com.

This press release contains certain forward-looking statements, including, without limitation, statements containing the words "may", "plan", "will", "estimate", "continue", "anticipate", "intend", "expect", "in the process" and other similar expressions which constitute "forward-looking information" within the meaning of applicable securities laws. Forward-looking statements reflect the Corporation's current expectation and assumptions and are subject to a number of risks and uncertainties that could cause actual results to differ materially from those anticipated. These forward-looking statements involve risks and uncertainties including, but not limited to, our expectations regarding the acceptance of our products by the market, our strategy to develop new products and enhance the capabilities of existing products, our strategy with respect to research and development, the impact of competitive products and pricing, new product development, and uncertainties related to the regulatory approval process. Such statements reflect the current views of the Corporation with respect to future events and are subject to certain risks and uncertainties and other risks detailed from time-to-time in the Corporation's ongoing filings with the securities regulatory authorities, which filings can be found at www.sedar.com, or at www.sec.gov. Actual results, events, and performance may differ materially. Readers are cautioned not to place undue reliance on these forward-looking statements. The Corporation undertakes no obligation to publicly update or revise any forward-looking statements either as a result of new information, future events or otherwise, except as required by applicable securities laws. Neither the Toronto Stock Exchange, its Regulation Services Provider (as that term is defined in the policies of the Toronto Stock Exchange) nor the NASDAQ Stock Market, LLC accepts responsibility for the adequacy or accuracy of this press release.

For further information please contact:
Rodayna Kafal, Vice President, IR/Comms. and Strategic BD

Phone: (514) 937-0002, E-mail: ir@pyrogenesis.com

RELATED LINK: <http://www.pyrogenesis.com/>

¹ US Navy's latest and most advanced aircraft carrier deploys for first time, by Ellie Kaufman and Oren Liebermann, CNN. October 4, 2022 <https://www.cnn.com/2022/10/04/politics/uss-gerald-ford-deploys>

² USS Gerald R. Ford's (CVN 78) Lesser-Known, Trash Disposal Technology, Plasma Arc Waste Destruction System, by Lt. Cmdr. Chris Buchanan, March 11, 2021. <https://scnewsltr.dodlive.mil/Latest-Issue/Article-Display/Article/2612544/uss-gerald-r-fords-cvn-78-lesser-known-trash-disposal-technology-plasma-arc-was/>