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

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of October 2023

Commission File Number: 001-39989

PYROGENESIS CANADA INC.

(Translation of registrant's name into English)

1744, William St. Suite 200 Montreal, QC, H3J1R4 Canada

(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F. Form 20-F [] Form 40-F [X]

On October 27, 2023, the Registrant issued a press release, a copy of which is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

EXHIBIT INDEX

Exhibit Number Description

99.1 Press Release dated October 27, 2023

SIGNATURES

Pursuant to the requirements 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.

PYROGENESIS CANADA INC.
(Registrant)

Date: October 27, 2023 /s/ P. Peter Pascali P. Peter Pascali Chief Executive Officer

PyroGenesis Announces Intention to Voluntarily Delist from Nasdaq

MONTREAL, Oct. 27, 2023 (GLOBE NEWSWIRE) -- PyroGenesis Canada Inc. (http://pyrogenesis.com) (NASDAQ: PYR) (TSX: PYR) (FRA: 8PY), a high-tech Company (the "Company" or "PyroGenesis") that designs, develops, manufactures and commercializes advanced plasma processes and sustainable solutions which are geared to reduce greenhouse gases (GHG) and address environmental pollutants, today announced that, further to its press release dated August 10, 2023 (Section Outlook), it has notified the Nasdaq Stock Market LLC ("Nasdaq") of its intention to voluntarily delist its common shares ("Shares") from Nasdaq. Shares will continue to trade on the Toronto Stock Exchange ("TSX"). The Company has also taken steps to have its Shares quoted on the OTCQX Best Market.

As previously announced in its press release dated May 23, 2023, the Company had received a written notification from Nasdaq Stock Market LLC indicating that the Nasdaq approves the Company's request for a 180-day extension, from an original notice received on November 22, 2022, to meet the minimum closing bid price of US\$1.00 per share listing requirement under Nasdaq Listing Rule 5550(a)(2).

Although the Company has until November 20, 2023, to regain compliance with the bid price rule, after careful consideration, the Company has evaluated the benefits and costs of continuing its listing on Nasdaq and has concluded that it is appropriate to voluntarily delist from Nasdaq. The Company estimates that it incurs over \$2 million in annual costs in connection with maintaining a dual listing and expects a substantial increase in expenses in the future due to growing compliance and regulatory requirements. Given that the Shares are concurrently traded on the TSX, the Company believes the relatively high insurance, listing, reporting, accounting, legal and compliance costs that are associated with a continued U.S. stock exchange listing, as well as the administrative implications and requirements associated with maintaining a dual listing, are not justified at this time.

"Notwithstanding the various options available to the Company to maintain a Nasdaq listing including (i) the outside chance of achieving compliance with the Nasdaq minimum bid price within the current extension or within a potential extension through a successful appeal or (ii) a reverse stock split, the Company has decided that a voluntarily delisting was in the best interest of our shareholders," said Mr. P Peter Pascali, CEO and President of PyroGenesis. "The Nasdaq notification served to focus our attention on the current risk/reward associated with a Nasdaq listing at this time. It is worth noting that the estimated cost, exceeding \$2 million which would require approximately \$4-6 million in revenues, was not lost on the Board. The fact that these costs are expected to increase in future years, coupled with the general market downturn, weighed heavily in this decision."

The Company has initiated the Nasdaq delisting process and is expected to file a Form 25 with the SEC for the removal of its Shares from Nasdaq's listing, on or about November 6, 2023. This Form is anticipated to become effective 10 days following its filling, resulting to the delisting of the Company's Shares from Nasdaq on or about November 16, 2023.

About PyroGenesis Canada Inc

PyroGenesis Canada Inc., a high-tech company, is a proud 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.

Cautionary and Forward-Looking Statements

This press release contains "forward-looking information" and "forward-looking statements" (collectively, "forward-looking statements") within the meaning of applicable securities laws. In some cases, but not necessarily in all cases, forward-looking statements can be identified by the use of forward-looking terminology such as "plans", "targets", "expects" or "does not expect", "is expected", "an opportunity exists", "is positioned", "estimates", "intends", "assumes", "anticipates" or "does not anticipate" or "believes", or variations of such words and phrases or state that certain actions, events or results "may", "could", "would", "might", "will" or "will be taken", "occur" or "be achieved". In addition, any statements that refer to expectations, projections or other characterizations of future events or circumstances contain forward-looking statements. Forward-looking statements are not historical facts, nor guarantees or assurances of future performance but instead represent management's current beliefs, expectations, estimates and projections regarding future events and operating performance.

Forward-looking statements are necessarily based on a number of opinions, assumptions and estimates that, while considered reasonable by the Company as of the date of this release, are subject to inherent uncertainties, risks and changes in circumstances that may differ materially from those contemplated by the forward-looking statements. Important factors that could cause actual results to differ, possibly materially, from those indicated by the forward-looking statements include, but are not limited to, the risk factors identified under "Risk Factors" in the Company's latest annual information form, and in other periodic filings that the Company has made and may make in the future with the securities commissions or similar regulatory authorities, all of which are available under the Company's profile on SEDAR+ at www.sedarplus.com, or at www.sec.gov. These factors are not intended to represent a complete list of the factors that could affect the Company. However, such risk factors should be considered carefully. There can be no assurance that such estimates and assumptions will prove to be correct. You

should not place undue reliance on forward-looking statements, which speak only as of the date of this release. The Company undertakes no obligation to publicly update or revise any forward-looking statement, 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

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