



PyroGenesis Announces Creation of "PyroGenesis Additive": Division Dedicated to Additive Manufacturing and First Step to Spin-off; Provides General Update on Additive Manufacturing

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MONTREAL, QUEBEC--(Marketwired - June 14, 2017) - PyroGenesis Canada Inc. (<http://pyrogenesis.com>) (TSX VENTURE:PYR) (OTCQB:PYRNF), a high-tech company (the "Company" or "PyroGenesis") that designs, develops, manufactures and commercializes plasma waste-to-energy systems and plasma torch products, is pleased to announce today that it has created a new division under the name of "*PyroGenesis Additive*", dedicated solely to PyroGenesis' additive manufacturing business line. This is the first step to the Company's previously announced strategic spin-off.

PyroGenesis is the inventor of Plasma Atomization, using this process to produce very small, uniform, fully dense and spherical metal powders that flow like water, and which are highly sought after in the additive manufacturing ("AM") Industry.

The Company first began producing powders using Plasma Atomization for the biomedical industry between 2001-2004. In 2015, PyroGenesis invested approximately \$2MM in improving both the production rate and particle size distribution, which led not only to a patent pending, but also to PyroGenesis' decision to re-enter the market and produce powders for the AM Industry.

The following highlights and developments have been made to date:

- On October 26, 2015, PyroGenesis announced that it was re-entering the market to produce metal powders, specifically for AM (3D printing);
- On April 7, 2016, PyroGenesis announced its intention to spin-off its additive manufacturing capabilities into an independent public entity;
- On April 27, 2016, PyroGenesis announced that its 3D metal particle size distribution greatly exceeded expectations;
- On October 25, 2016, PyroGenesis announced that it had filed a patent for an improved metal powder production process and that the Company was on schedule for a 2017-Q1 assembly and first production run;
- On January 23 and March 14, 2017, PyroGenesis provided updates and reaffirms that it is on schedule for 2017-Q1 assembly and first production run despite delays with suppliers;
- On March 30, 2017, PyroGenesis announced that it had completed the assembly of its first powder production system, with its first powder run exceeding expectations. The Company also noted that the ramp-up, which was already underway, was expected to take place linearly over approximately four (4) months;
- On April 25, 2017, PyroGenesis announced receipt of its first powder order from a multinational conglomerate, with the down payment already received, and market interest exceeding expectations; and
- On June 7, 2017, PyroGenesis announced receipt of its second powder order.

The current production system is the first of many PyroGenesis expects to make to address an increasing need for metal powders in the AM Industry.¹

Mr. P. Peter Pascali, President and CEO of PyroGenesis, provides an update on the developments within PyroGenesis' AM business line in the following Q&A format:

Q. Very very busy year so far for PyroGenesis and now we see the creation of PyroGenesis Additive.

A. Most definitely. Over the top. Exceeds our wildest expectations on every front.

Q. So are we finally going to see some movement with respect to the spin-off announced in April 2016?

A. Most certainly. The creation of PyroGenesis Additive is definitely the first step in spinning off our AM capabilities, which we announced over a year ago, into a standalone entity. We are dedicated to a spin-off for a number of reasons, all of which speak to increasing shareholder value. A spin-off, should be less complicated to analyze and we feel it would appeal to a larger investor audience who, although interested in investing in the AM Industry, have little or no interest in either understanding, or investing in, our other business lines (i.e. waste destruction, DROSRITE™, PUREVA P™, amongst others), and a spin-off could help avoid this. Concurrently, we feel a spin-off would provide for a clearer, and better defined, entity, which third parties could consider for joint ventures, strategic alliances, or even an acquisition of PyroGenesis Additive.

Q. Why the delay in the spin-off?

A. Simply put: the world of AM has changed significantly since we first announced our intention to spin-off our additive manufacturing capabilities; and, may I add, all for the better for PyroGenesis' shareholders.

Over a year ago, we announced our intention to start producing speciality powders for the AM Industry which garnered such interest that it became apparent that PyroGenesis' shareholders might be best served by spinning off this business line.

As such, we announced our intention to spin off our AM capabilities, but while completing our analysis of the various options available, and just when we were about to make a decision, General Electric ("GE") announced its acquisition of Arcam, in November 2016, for approximately US\$700MM. Now this is noteworthy because Arcam's subsidiary, AP&C, which was acquired by Arcam for Can\$35MM in 2014(2), produced powders using PyroGenesis' old proprietary technology under an agreement which precluded PyroGenesis from competing against AP&C until 2012. Of particular

note, through Arcam, AP&C became the dominant supplier of speciality powders to the AM Industry. GE's acquisition of Arcam, and by extension of AP&C, has effectively disrupted the supply chain of speciality powders in the AM Industry which has caused end users of such powders to re-examine their access to them, all while PyroGenesis is re-entering the market as a supplier of such powders.

It would not have been prudent for us to carry on with a spin-off merely because we announced such intentions a few months earlier, without fully analyzing the ramifications of the changing landscape.

Q. Where does the spin-off stand and what should investors expect?

A. We believe that the delays in the spin-off have essentially created more value for investors when PyroGenesis Additive is eventually spun off. We will have a working system, with dedicated employees contributing solely to the spin-off, thereby reducing risk and creating more value for PyroGenesis' shareholders. Additionally, since GE's acquisition of Arcam, there has been significant interest in PyroGenesis' powder production capabilities and as such, we believe there is a high probability that we will have visibility on, if not signed, contracts for long term powder supply by the time we spin-off PyroGenesis Additive. At this point, we believe the interests of our shareholders are best served if the spin-off were concurrent with the signing of long term contracts.

Q. When could we expect the spin-off to occur?

A. Given the interest in our powders during the ramp-up phase, we are, barring any developments to the contrary, still committed to a spin-off in 2017.

Q. Speak to us about the ramp-up phase. How is it going? Where do you stand? Have there been any significant issues or developments to report?

A. We could not be happier.

We assembled and commissioned the system, and had our first powder run, as promised, by the end of 2017-Q1 despite significant delays from suppliers. Next, our goal was to ramp-up to full capacity over the ensuing four (4) months (i.e. April-July). Our stated goal was to become a leading supplier of high purity powders with an initial focus on producing commercially pure Titanium and Ti-6Al-4V powders, with additional powders/products being developed on a case by case basis. We did not expect any powder sales until ramp-up was complete however, to our surprise, on April 25, we announced having received a sample order from a multinational conglomerate. To top that off, last week we announced receipt of a second sample order, which together we believe speaks to both the confidence in our capabilities and the demand for our product in the marketplace.

These orders, although excellent news, have nonetheless put some pressure on a number of aspects relating to ramp-up; in particular, the orders we received were not only for titanium powders which we are used to producing, but as announced, also for Inconel which we had never processed before.

To make a long story short, ramp-up was put on hold in order to fulfill the order for Inconel, but the following was done successfully. In fact, the powder production rate was far greater than that for Titanium and the Inconel powder was of exceptional quality; proving, amongst other things, the flexibility of our Plasma Atomization System and how quickly we can "pivot".

All that to say, given these orders, the ramp-up phase has been extended by approximately, 4-6 weeks.

Separately, but in parallel, PyroGenesis' existing quality control system (ISO 9001:2008 certified) is being expanded to include the additional protocols required by the AM Industry.

Q. Could you please provide an update on the next significant milestone in powder production?

A. Most certainly. We are currently producing flowable powder batch after batch. What is even more noteworthy is the fact that, although our original ramp-up envisioned producing Ti64, we have also successfully produced Inconel powders and are currently in discussions to consider producing additional materials as well.

The next milestone is to move to a 2 shift/day, which we are currently hiring and training for. Given the natural lag that occurs during the summer, we are not expecting this to be completed before the end of August.

Q. Could you give us an indication in terms of production rate and quality of the powders at this stage of the ramp-up phase?

A. Again, we are very happy with the results so far. First and foremost, our production rate is significantly better than what we used to have. The powders already meet or exceed the ASTM specifications and we expect that by the end of the ramp-up phase our Ti64 powders will be of a significantly higher quality.

Additionally, we have adjusted the process to be Tungsten free, something it seems that various industries are interested in, and we are very happy with the results so far. We expect that by year-end, we will be able to guarantee a Tungsten free product.

Q. Any concerns?

A. Yes and no. We have definitely underestimated the interest in our production and it has become apparent that we need to expand our capacity faster than originally planned. We currently have plans to order the long lead items for 3 more systems in anticipation of having to address this need.

Separately, this early interest has caused us to think of adding in-house analytical capabilities and automated sieving processes earlier than planned. All this bodes well for the underlying business as both speak to quicker turnaround time and more reliable post production processing.

Q. In your April 25th press release you noted that you had "...signed a number of agreements with significant and potential players in the AM Industry, wherein the Company is in discussions regarding the possibility of concluding certain business relationships or transactions related to AM, most notably geared to the production of powders...". Could you elaborate on this?

A. Yes, but in all fairness we did point out that although noteworthy, we cautioned concluding that anything of significance would happen quickly, or even at all. Discussions take time and we are still in the early phases, and that still rings true.

However, we note that we have had discussions with top level metal printer manufacturers, distributors, and end-users; some at our facilities and others at theirs. It is indeed encouraging to see that our product is having the resonance that we thought it would have in the marketplace. The minimum takeaway should be the interest we are garnering from very discerning entities in such a short time frame.

Q. So, in conclusion, you are confident?

A. Absolutely. The decision to re-enter into powder production was the right one. The changes and consolidation in the marketplace over the past year have only underscored this decision. We are the inventors of Plasma Atomization, a process that arguably has helped bring AM to where it is today, and so we can say with confidence, that we are back. We are back to producing, but more so, improving the process that has become the gold standard in the AM Industry.

Q. Your goal?

A. As previously announced, our goal is not only to become a significant producer of metal powders to the AM Industry, but to bring the technology to a new level and enable 3D printing to reach new heights by effectively making our old technology, the gold standard, obsolete. We are making great strides on both fronts, and we have only been up and running for less than 3 months.

About PyroGenesis Canada Inc.

PyroGenesis Canada Inc. is the world leader in the design, development, manufacture and commercialization of advanced plasma processes. PyroGenesis provides engineering and manufacturing expertise, cutting-edge contract research, as well as turnkey process equipment packages to the defense, metallurgical, mining, additive manufacturing (3D printing), oil & gas, and environmental industries. With a team of experienced engineers, scientists and technicians working out of our Montreal office and our 3,800 m² manufacturing facility, PyroGenesis maintains its competitive advantage by remaining at the forefront of technology development and commercialization. Its core competencies allow PyroGenesis to lead the way in providing innovative plasma torches, plasma waste processes, high-temperature metallurgical processes, and engineering services to the global marketplace. Its operations are ISO 9001:2008 certified, and have been ISO certified since 1997. PyroGenesis is a publicly-traded Canadian company on the TSX Venture Exchange (Ticker Symbol: PYR) and on the OTCQB Marketplace (Ticker Symbol: PYRNF). For more information, please visit www.pyrogenesis.com.

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SOURCE PyroGenesis Canada Inc.

¹ *Wohlers Report 2016 (ISBN 978-0-9913332-2-6)*

²<http://advancedpowders.com/news/arcam-to-make-strategic-acquisition-of-metal-powder-manufacturer-to-secure-supply-of-strategic-raw-materials>

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