HPQ Silica Polvere Celebrates Key Milestone as Fumed Silica Pilot Reactor Commences Operations

Montreal, Canada, January 16th, 2025 — HPQ Silicon Inc. ("HPQ" or the "Company") (TSX-V: HPQ, OTCQB: HPQFF, FRA: O08), a technology company specializing in green engineering of silica and silicon-based materials would like to update shareholders on **HPQ Silica Polvere Inc.** ("**HSPI**") [1] developments regarding its proprietary Fumed Silica Reactor (FSR) process.

HSPI's technology supplier, PyroGenesis Inc. (TSX: PYR, OTCQX: PYRGF, FRA: 8PY1) ("PyroGenesis"), has informed the Company that all preparatory work required for the FSR pilot plant has been completed. The equipment is now fully ready to process materials and produce fumed silica.

"As with any R&D project, we encountered challenges and delays on our journey to this key milestone. However, we are now proud to demonstrate that our FSR technology is poised to transform fumed silica manufacturing," said Bernard Tourillon, President & CEO of HPQ Silicon and HPQ Silica Polvere. *"While we never doubted that this day would come, we deeply appreciate the patience and support of our investors and partners as we worked through the complexities of the process."*

HSPI Fumed Silica Reactor (FSR) Pilot Plant – Redefining Product Quality

The FSR development program has transitioned from concept to operational reality, marking a key milestone in advanced materials engineering. Moving beyond laboratory-scale production of just a few grams per batch, the pilot plant is now on track to demonstrate its capability to generate multiple kilograms of fumed silica per hour. This leap forward underscores the potential to redefine efficiency and scalability in fumed silica manufacturing.

The immediate focus of the pilot plant is to validate its ability to consistently replicate critical physical properties—such as precise surface area measurements—and essential rheological characteristics, including viscosity and thickening behavior, that were meticulously achieved during lab-scale trials. With these objectives nearing completion, the program is set to advance to semi-continuous operations. This next phase will target the production of at least 200 kilograms of commercial-grade fumed silica, paving the way for rigorous testing and comprehensive market validation.

"Our commitment to innovation drives us to turn visionary ideas into transformative realities, and the Fumed Silica Reactor is a prime example of that ambition," said P. Peter Pascali, President and CEO of PyroGenesis Inc. *"By scaling up this groundbreaking technology, we are not just refining operational processes—we are setting a new industry benchmark. Our goal is to empower HSPI's clients with a consistent supply of superior-quality fumed silica while ensuring the process remains sustainable and commercially efficient."*

Sample Testing – Ensuring Quality and Market Readiness

Rigorous quality assurance is at the core of the Fumed Silica Reactor (FSR) program. Throughout the development process, every batch of fumed silica produced undergoes meticulous internal testing to validate its physical and rheological properties. As outlined in the Letter of Intent (LOI) with Evonik, announced on July 9, 2024, samples will also be sent to Evonik for comprehensive evaluation. Additionally, other potential collaborators, bound by Non-Disclosure Agreements (NDAs), may participate in these assessments to expand the scope of testing and feedback.

By Q2 2025, the program's focus will pivot toward optimizing pilot plant operations to deliver high-purity, food- and pharma-grade fumed silica with a targeted surface area of 300 m^2/g. This effort will not only validate the process but also demonstrate its capability to meet stringent industry standards.

The FSR's flexibility in producing materials with surface areas ranging from 150 to 300 m^2/g further underscores its versatility. The ultimate goal is to achieve full-capacity operations, enabling multiple daily production cycles of consistent, commercial-grade material. With 20 hours of daily operation, the system is projected to yield approximately 161 kilograms per day, translating to an impressive annual output of 50,000 kilograms (50 TPY).

REFERENCE SOURCES

[1] A wholly owned subsidiary of HPQ Silicon Inc. when technology supplier PyroGenesis announced its intention to exercise its option to acquire a 50% stake in HSPI in May 2024.

About HPQ

HPQ Silicon Inc. (TSX-V: HPQ) is a Quebec-based TSX Venture Exchange Tier 1 Industrial Issuer.

HPQ is developing, with the support of world-class technology partners PyroGenesis Inc. and NOVACIUM SAS, new green processes crucial to make the critical materials needed to reach net zero emissions.

HPQ activities are centred around the following four (4) pillars:

1) Becoming a green low-cost (Capex and Opex) manufacturer of Fumed Silica using the **FUMED SILICA REACTOR**, a proprietary technology owned by HPQ Silica Polvere Inc being developed for HSPI by PyroGenesis.
2) Becoming a producer of silicon-based anode materials for battery applications with the assistance of NOVACIUM SAS.
3) HPQ SILICON affiliate NOVACIUM SAS is developing a low carbon, chemical base on demand and high-pressure autonomous hydrogen production system.
4) Becoming a zero CO_2 low-cost (Capex and Opex) producer of High Purity Silicon (2N+ to 4N) using our ***PUREVAP™ "Quartz Reduction Reactors" (QRR),*** a proprietary technology owned by HPQ being developed for HPQ by PyroGenesis.

For more information, please visit HPQ Silicon web site.

About PyroGenesis Inc.

PyroGenesis, 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. PyroGenesis' shares are publicly traded on the TSX in Canada (TSX: PYR), the OTCQX in the US (OTCQX: PYRGF), and the

Frankfurt Stock Exchange in Germany (FRA: 8PY).www.pyrogenesis.com

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This News Release is available on the company's CEO Verified Discussion Forum, a moderated social media platform that enables civilized discussion and Q&A between Management and Shareholders.

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