

Metallium Enters into Binding Collaboration with Ucore Rare Metals to Integrate Metallium's Flash Joule Heating Technology

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With Ucore's RapidSX™ Rare Earths Elements Separation Technology

Intent is to Develop a Fully Compatible Feedstock-to-Oxide Refining Pathway to Unlock U.S. REE and Critical Metal Supply Chain Independence

Metallium Ltd. (ASX: MTM; OTCQX: MTMCF) (<https://www.metalliuminc.com>) announced today it has entered into a binding Technology Collaboration Agreement with [Ucore Rare Metals Inc.](#) (TSXV: UCU; OTCQX: UURAF), a leading North American Rare Earth Element separation company.

The binding agreement will integrate Metallium's Flash Joule Heating (FJH) upgrade platform with Ucore's RapidSX™ REE separation technology to create a fully compatible feedstock-to-oxide refining pathway. Ucore's technology is chloride-compatible, making it a natural fit with Metallium's FJH-upgraded feedstocks and is being scaled at Ucore's SMC in Louisiana with direct funding support from the U.S. government through an \$18.4 million grant from the U.S. Department of War (formerly the U.S. Department of Defense).

Under the agreement, each party commits to processing feedstocks supplied by the other at its existing facilities in Houston and Louisiana. Metallium's FJH technology provides the upstream upgrade step, converting diverse feedstocks into high-purity chlorides in a single rapid process, significantly reducing the complexity of conventional REE metallurgy. Ucore's RapidSX delivers downstream separation into individual rare earth oxides. Together they create a potential end-to-end refining pathway, located in the US, for REEs. Commercial terms will be determined following testwork, which is expected to commence immediately. More information on the agreement can be found here:

<https://cdn-api.markitdigital.com/apiman-gateway/ASX/asx-research/1.0/file/2924-02993773-6A1283998&v=c2533a54e>

Michael Walshe, managing director and CEO of Metallium said, "Ucore is constructing the most advanced REE separation facility in North America and this Agreement positions Metallium at the front end of that supply chain. Our FJH platform can unlock feedstocks that are currently stranded or heavily discounted, particularly those rich in heavy REEs. FJH also removes much of the traditional separation burden upfront, simplifying the flowsheet before RapidSX takes over. By combining technologies, we are jointly building the foundations of a sovereign, U.S. based refining pathway."

He noted that Metallium continues to progress its Meteoric and Rice University collaborations and the company's Texas demonstration plant remains firmly on track for processing e-waste next year.

Pat Ryan, chairman and CEO of Ucore, said: "We are excited to explore the integration of Metallium's metal recovery platform with our RapidSX. This collaboration directly supports the U.S. Government's strategic objective of developing Western-aligned separation capabilities that are scalable, flexible and feedstock-agnostic. Our goal is to deliver consistent, high-purity rare earth outputs suitable for critical defense and commercial applications. The combination of Metallium's chloride-based upgrading and our RapidSX platform, which has been backed by U.S. government grants, positions both companies at the center of a resilient U.S. supply chain."

Under the binding agreement, Metallium and Ucore will collaborate on integrating Metallium's FJH-based chloride upgrading technology with Ucore's RapidSX separation platform across a wide range of feedstocks. The collaboration will explore opportunities to bypass conventional acid-leach circuits by converting REE-bearing feedstocks into enriched mixed rare earth chlorides or EMRECs, selectively remove deleterious elements and apply FJH as a pre-treatment for high-Fe/Al feedstocks to enable their acceptance in downstream systems.

Metallium and Ucore will also investigate the recovery of highly strategic heavy REE terbium (Tb) and other

high-value elements from lighting waste and phosphor powders.

Due to China's predominance of the rare earths industry -- China controls approximately 85% of global rare earth refining capacity, approximately 70% of mine production and approximately 36% of reserves -- the U.S. government has recognized the need to move expeditiously to secure domestic supply chains. The multi-million strategic partnership announced by the government earlier this year with MP Materials to accelerate U.S. rare earth magnet independence has been a defining moment in the reshoring of REE magnet production and sends a strong signal of continued opportunities for U.S. federal backing for vertically integrated rare earth supply chains.

Metallium Ltd. is pioneering a low-carbon, high-efficiency approach to recovering critical and precious metals from mineral concentrates and high-grade waste streams. The company's patented Flash Joule Heating (FJH) technology enables the extraction of high-value materials, including gallium, germanium, antimony, rare earth elements, and gold, from feedstocks such as refinery scrap, e-waste, and monazite.

The company has secured its first commercial site in Texas via its wholly owned subsidiary Flash Metals USA, Inc. This facility is on track to commence operations early in 2026.

Ucore Rare Metals, Inc. is a Canadian advanced technology company focused on establishing a secure and independent North American rare earth element (REE) supply chain. Ucore is developing its Strategic Metals Complex (SMC) in Alexandria, Louisiana, with support from the U.S. Department of War (formerly the U.S. Department of Defense), which awarded the company an \$18.4 million contract to construct its first commercial-scale RapidSX separation module.

Rapid SX is a next-generation rare earth separation technology that delivers faster, more efficient and environmentally responsible separation compared with conventional solvent extraction methods. Ucore's mission is to provide scalable, flexible and feedstock-agnostic separation capacity in North America, enabling the production of high-purity rare earth oxides critical to electric vehicles, renewable energy and defense applications. Further information is available at <https://www.ucore.com>.

SOURCE MTM Critical Metals Ltd.

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