

## NUCLEAR FUEL FROM NUCLEAR WASTE: FORMATION OF NEWMOX SAS, FRANCE

Amsterdam, 4 April 2024 --- AMG Critical Materials N.V. ("AMG", EURONEXT AMSTERDAM: "AMG") is pleased to announce the formation of NewMOX SAS, Grenoble, France, to service the nuclear fuel market. NewMOX is a subsidiary of ALD Vacuum Technologies GmbH, Hanau, Germany ("ALD"), AMG's engineering subsidiary focused on vacuum furnace technology, which includes sintering furnace systems enabling the production of commercial nuclear fuel from plutonium and depleted uranium (termed "MOX"). ALD's MOX technology has been applied in Germany, the United States, France, Belgium, the United Kingdom and recently ALD has been delivering such furnace systems to China. ALD – where D stands for Degussa – inherited the MOX technology from Degussa AG, ALD's former owner (later renamed Evonik AG).

Presently, the total global storage of civil-use plutonium resulting from the reprocessing of used fuel from commercial nuclear power operations stands at 380 tons, and this figure continues to grow with ongoing nuclear power generation. Furthermore, if turned into electricity, this plutonium could power 36 one-gigawatt nuclear power plants for 20 years. Recycling this plutonium would result in "CO<sub>2</sub> free" power and a saving of over 2 billion tons of CO<sub>2</sub> if measured against a coal dominated grid. It should also be noted that the circularity associated with the conversion of plutonium into MOX reduces uranium mining and therefore further increases the attractiveness of nuclear power in CO<sub>2</sub> terms.

The storage of plutonium is extremely costly due to the risks associated with plutonium. The conversion of plutonium into MOX fuel not only eliminates these risks but can be a commercially attractive alternative to storage. As an indicator, the conversion of 380 tons of plutonium into MOX translates at present fuel prices into a commercial value of \$15 to \$20 billion.

"We are excited that our furnace technology engineering excellence has created a new project which resulted in the formation of NewMOX SAS. We have appointed Serge Bertrand, head of ALD France, Grenoble, where ALD has centered its nuclear technology activities, to be CEO of NewMOX. Dr. Johannes Fachinger, head of nuclear ALD Hanau, will be Chief Technology Officer. Both gentlemen have extensive industry expertise, and most recently were in charge of implementing the MOX furnace technology in a Chinese factory," said Michael Hohmann, ALD's CEO.

"The NewMOX business model is simple," said Dr. Heinz Schimmelbusch, AMG's CEO. "There is a lot of plutonium stored and the operators of these storage facilities are seeking ways to reduce storage costs; there is the proven ALD MOX sinter furnace technology; and there is a large MOX market which will grow with the development of the emerging

SMR (Small Modular Reactor) wave. It is the objective of NewMOX to form partnerships for the construction and operation of a commercial plutonium recycling facility producing MOX fuel starting with conceptual engineering and feasibility studies. This will take time, but this is a very valuable destination. And it qualifies under AMG's "Double Materiality" standard which combines financial and environmental benefits."

The declaration by the Dubai 23 conference **COP 28** on Climate Change that the tripling of the world's nuclear energy is essential for defeating Climate Change has opened a new and prospective page for the nuclear industry. This statement has been strengthened during the **European Nuclear Summit** in March 2024 in Brussels, where leaders of European countries and energy experts called for a "nuclear energy revival."

For more information on AMG's engineering subsidiary, visit their website at <u>ald-vt.com</u>.

## **About AMG**

AMG's mission is to provide critical materials and related process technologies to advance a less carbon-intensive world. To this end, AMG is focused on the production and development of energy storage materials such as lithium, vanadium, and tantalum. In addition, AMG's products include highly engineered systems to reduce CO<sub>2</sub> in aerospace engines, as well as critical materials addressing CO<sub>2</sub> reduction in a variety of other end use markets.

AMG's Lithium segment spans the lithium value chain, reducing the CO<sub>2</sub> footprint of both suppliers and customers. AMG's Vanadium segment is the world's market leader in recycling vanadium from oil refining residues, spanning the Company's vanadium, titanium, and chrome businesses. AMG's Technologies segment is the established world market leader in advanced metallurgy and provides equipment engineering to the aerospace engine sector globally. It serves as the engineering home for the Company's fast-growing LIVA batteries, and spans AMG's mineral processing operations in graphite, antimony, and silicon metal.

With approximately 3,600 employees, AMG operates globally with production facilities in Germany, the United Kingdom, France, the United States, China, Mexico, Brazil, India, Sri Lanka, and Mozambique, and has sales and customer service offices in Japan (<a href="https://www.amg-nv.com">www.amg-nv.com</a>).

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