

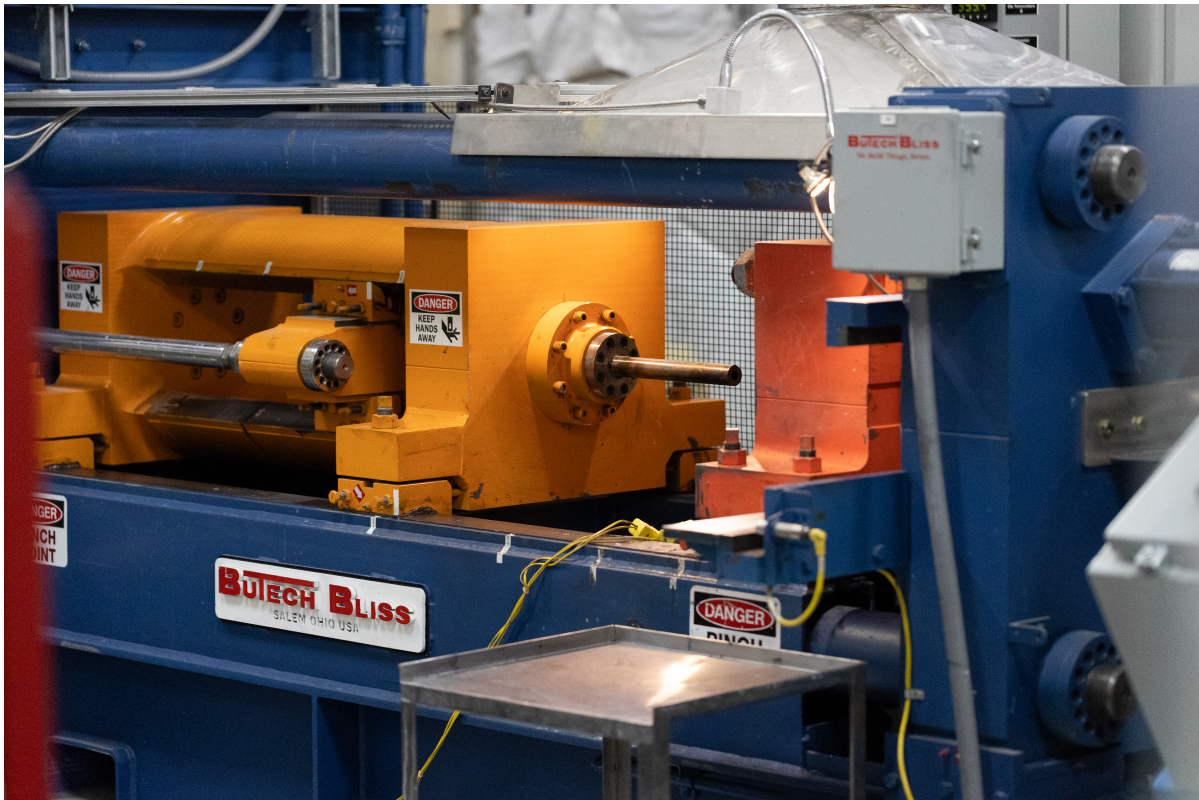
March 18, 2024



Lightbridge Achieves Critical Fabrication Development Milestone by Demonstrating the Extrusion Process for Uranium-Zirconium Samples

RESTON, Va., March 18, 2024 (GLOBE NEWSWIRE) -- Lightbridge Corporation ("Lightbridge") (Nasdaq: LTBR), an advanced nuclear fuel technology company, today announced it had achieved a critical milestone in developing its cutting-edge fuel technology designed to offer improved economics and higher levels of safety than conventional nuclear fuel. Idaho National Laboratory (INL) has extruded coupon samples of Lightbridge Fuel™ material consisting of an alloy of depleted uranium and zirconium. The extrusion process involves pressing a metallic alloy billet through a die.

A video demonstration of the extrusion process can be found at: <https://www.ltbridge.com/news-media/media-gallery/video/video/7194/lightbridge-demonstration-of-the-extrusion-process-for>



Picture 1: Extrusion Press at INL (Source: INL)



Picture 2: Extrusion in Progress (Source: INL)



Picture 3: Uranium-Zirconium Rod Post-Extrusion (Source: INL)

INL and Lightbridge will work together to analyze the extruded rod to confirm the extrusion process parameters prior to producing future fuel samples using high-assay, low-enriched uranium (HALEU), which Lightbridge will ultimately use to manufacture its fuel.

Lightbridge's work is part of its Strategic Partnership Project and Cooperative Research and Development agreements with Battelle Energy Alliance LLC, the U.S. Department of Energy's (DOE) operating contractor for INL, which aims to generate irradiation performance data for Lightbridge's delta-phase uranium-zirconium alloy relating to various thermophysical properties. The data will support fuel performance modeling and regulatory licensing efforts for the commercial deployment of Lightbridge Fuel.

"We are pleased to collaborate with Lightbridge in achieving this important milestone in their efforts to qualify Lightbridge fuel," said Jess Gehin, INL associate laboratory director for Nuclear Science and Technology. "This achievement demonstrates the unique role that national laboratories, particularly INL, play in nuclear innovation and keeping the U.S. as the global leader in nuclear energy."

"Reaching this milestone is an important step in our ongoing work with INL," said Dr. Scott Holcombe, Vice President of Engineering at Lightbridge Corporation. "Casting and extruding this demonstration billet of Lightbridge Fuel alloy showcases the unique research talent and facilities within the lab's Materials and Fuels Complex."

To see more photos from INL, please visit www.ltbridge.com.

About Lightbridge Corporation

Lightbridge Corporation (NASDAQ: LTBR) is focused on developing advanced nuclear fuel technology essential for delivering abundant, zero-emission, clean energy and providing energy security to the world. The Company is developing Lightbridge Fuel™, a proprietary next-generation nuclear fuel technology for existing light water reactors and pressurized heavy water reactors, significantly enhancing reactor safety, economics, and proliferation resistance. The Company is also developing Lightbridge Fuel for new small modular reactors (SMRs) to bring the same benefits plus load-following with renewables on a zero-carbon electric grid.

Lightbridge has entered into two long-term framework agreements with Battelle Energy Alliance LLC, the United States Department of Energy's operating contractor for Idaho National Laboratory, the United States' lead nuclear energy research and development laboratory. DOE's Gateway for Accelerated Innovation in Nuclear program has twice awarded Lightbridge to support the development of Lightbridge Fuel over the past several years. Lightbridge is participating in two university-led studies through the DOE Nuclear Energy University Program at Massachusetts Institute of Technology and Texas A&M University. An extensive worldwide patent portfolio backs Lightbridge's innovative fuel technology. Lightbridge is included in the Russell Microcap® Index. For more information, please visit www.ltbridge.com.

To receive Lightbridge Corporation updates via e-mail, subscribe at <https://www.ltbridge.com/investors/news-events/email-alerts>

Lightbridge is on X (formerly Twitter). Sign up to follow @LightbridgeCorp at <http://twitter.com/lightbridgecorp>.

Lightbridge is on Threads @lightbridgecorp.

For an introductory video on Lightbridge, please visit www.ltbridge.com or click here to watch the video.

Forward Looking Statements

With the exception of historical matters, the matters discussed herein are forward-looking statements. These statements are based on current expectations on the date of this news release and involve a number of risks and uncertainties that may cause actual results to differ significantly from such estimates. The risks include, but are not limited to: Lightbridge's ability to commercialize its nuclear fuel technology; the degree of market adoption of Lightbridge's product and service offerings; Lightbridge's ability to fund general corporate overhead and outside research and development costs; market competition; our ability to attract and retain qualified employees; dependence on strategic partners; demand for fuel for nuclear reactors; Lightbridge's ability to manage its business effectively in a rapidly evolving market; the availability of nuclear test reactors and the risks associated with unexpected changes in Lightbridge's fuel development timeline; the increased costs associated with metallization of Lightbridge's nuclear fuel; public perception of nuclear energy generally; changes in the political environment; risks associated with war in Europe; changes in the laws, rules and regulations governing Lightbridge's business; development and utilization of, and challenges to, Lightbridge's intellectual property; risks associated with potential shareholder activism; potential and contingent liabilities; as well as other factors described in Lightbridge's filings with the Securities and Exchange Commission (the "SEC"). Lightbridge does not assume any obligation to update or revise any such forward-looking statements, whether as the result of new developments or otherwise, except as required by law. Readers are cautioned not to put undue reliance on forward-looking statements.

A further description of risks and uncertainties can be found in Lightbridge's Annual Report on Form 10-K for the fiscal year ended December 31, 2023, and in its other filings with the SEC, including in the sections thereof captioned "Risk Factors" and "Forward-Looking Statements", all of which are available at <http://www.sec.gov/> and www.ltbridge.com.

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Photos accompanying this announcement are available at:

<https://www.globenewswire.com/NewsRoom/AttachmentNg/13b4afb1-f8e6-4598-bc01-d80599758ff6>

<https://www.globenewswire.com/NewsRoom/AttachmentNg/2f778745-e298-4ffa-94d3-a4c71497e5c7>

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Source: Lightbridge Corporation

Picture 1



Extrusion Press at INL (Source: INL)

Picture 2



Extrusion in Progress (Source: INL)

Picture 3



Uranium-Zirconium Rod Post-Extrusion (Source: INL)