

## CURIO Awarded GAIN Voucher to Advance NuCycle® Waste Management

CURIO partners with PNNL through GAIN Voucher to advance NuCycle® technology, reducing nuclear waste by up to 96% and closing the fuel cycle.

WASHINGTON, DC, UNITED STATES, December 20, 2024 / EINPresswire.com/ --CURIO has been awarded a GAIN Voucher for Q4/FY-'25 by the Gateway for Accelerated Innovation in Nuclear (GAIN) Office to collaborate with Pacific Northwest National Laboratory (PNNL) on characterizing the waste streams of its groundbreaking NuCycle<sup>®</sup> technology. This project marks a major step forward in CURIO's mission to develop safe, efficient, and sustainable nuclear fuel recycling solutions.



The NuCycle<sup>®</sup> process is CURIO's flagship innovation, designed to recycle spent nuclear fuel (SNF) from light-water reactors (LWRs). By leveraging advanced chemistries, NuCycle<sup>®</sup> aims to reduce waste volume by up to 96%, enhance economic viability, and provide a pathway to closing the legacy LWR fuel cycle in the United States. The GAIN-supported project will focus on:

- 1. Analyzing NuCycle<sup>®</sup> waste streams to determine their composition and classifications.
- 2. Recommending suitable waste forms for safe sequestration.

3. Developing waste management approaches for a pilot demonstration of NuCycle<sup>®</sup> scheduled for 2027.

Jacques Mosseri, a Mechanical Engineer at CURIO with expertise in materials science, will serve as Principal Investigator (PI) for the project. "I am thrilled to collaborate with PNNL on addressing critical challenges in nuclear waste management and recycling," said Mosseri. The project will also leverage the expertise of Dr. John Vienna, a leading authority on nuclear waste management, and Mr. Jarrod Crum, an expert in waste form development. Together, CURIO and PNNL aim to create optimized waste processing strategies that improve performance and reduce costs for nuclear recycling facilities.

## "

We are honored to work with PNNL and grateful to the GAIN Office for this opportunity to advance the NuCycle® process, which addresses one of the industry's most pressing challenges" "This award highlights CURIO's dedication to driving innovation in nuclear technology to shape a sustainable energy future," said Ed McGinnis, CEO of CURIO. "We are honored to work with PNNL and grateful to the GAIN Office for this opportunity to advance the NuCycle<sup>®</sup> process, which addresses one of the industry's most pressing challenges. This partnership underscores CURIO's commitment to unleashing the full potential of nuclear energy while safeguarding the environment."

Edward McGinnis

NuCycle® technology offers transformative benefits,

including drastic reduction in nuclear waste volumes, enhanced disposal efficiency, production of advanced reactor fuel and valuable isotopes for medical and industrial use, and improved material control and proliferation resistance to bolster safety. By tackling waste management challenges, CURIO aims to reduce operational costs and support the development of scalable, environmentally responsible nuclear recycling solutions.

## About GAIN

The Gateway for Accelerated Innovation in Nuclear (GAIN) connects the nuclear energy community with the technical, regulatory, and financial resources needed to accelerate innovation. Through its voucher program, GAIN fosters collaborations between private companies and the U.S. Department of Energy's national laboratories to advance nuclear energy solutions.

## About CURIO

CURIO is a forward-thinking company revolutionizing the nuclear energy landscape through its innovative NuCycle<sup>®</sup> technology. Dedicated to sustainability, CURIO aims to close the nuclear fuel cycle, reduce environmental impact, and contribute to a clean energy future.

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