



TRIGA International to fabricate TRIGA-like fuel for U.S. Department of Energy MARVEL microreactor

December 5, 2023 - TRIGA International, a joint-venture between Framatome and General Atomics, was awarded a contract to fabricate fuel for the U.S. Department of Energy (DOE) MARVEL microreactor. The TRIGA fuel fabrication contract was awarded through Battelle Energy Alliance LLC (BEA), which operates the Idaho National Lab (INL).

Framatome's dedicated TRIGA manufacturing facility at CERCA Romans was selected to fabricate this fuel in line with the schedule of the [MARVEL project](#). This award follows the restart of TRIGA program after nearly 10 years, and the first successful fabrication and delivery of TRIGA metallic fuel to Penn State University in September.

"We thank the DOE and BEA for their confidence in our expertise with the contract award. We are very excited about the MARVEL project," declared François Gauché, vice president of CERCA at Framatome and president of TRIGA International. "Our U.S. customer can count on our dedication to the success of this project."

In response to the U.S. Office of Nuclear Energy's goal to maintain world-class research and development capabilities, [Framatome relaunched its dedicated TRIGA manufacturing facility at CERCA Romans](#), France. After a seven-year \$80 million modernization project, operations resumed at the end of 2022 for the first time since 2012.

TRIGA is a nuclear reactor model designed by General Atomics that is used for research and hands-on training activities. TRIGA type fuel designs are now being explored for new applications beyond university training. The unique properties of TRIGA fuel can be seamlessly transitioned to non-TRIGA plants such as small modular, micro or advanced reactors.

The MARVEL design is a sodium-potassium-cooled microreactor that will generate 85 kilowatts of thermal energy. Under the US DOE Micro Reactor Program, it will be built inside the Transient Reactor Test Facility at Idaho National Laboratory with future plans to connect it to a microgrid. The reactor will be used to help industry partners demonstrate microreactor applications, evaluate systems for remote monitoring, and potentially demonstrate control technologies for new reactors.

Framatome and General Atomics created the TRIGA International SAS joint venture in 1995 to market TRIGA fuel elements manufactured at CERCA Romans. More than 66 TRIGA units have been built around the world and approximately 38 reactors are still in operation.

Framatome CERCA is the world's unique manufacturer and supplier of uranium-zirconium hydride fuel for use in TRIGA type research reactors.

About Framatome

Framatome is an international leader in nuclear energy recognized for its innovative, digital and value added solutions for the global nuclear fleet. With worldwide expertise and a proven track record for reliability and performance, the company designs, services and installs components, fuel, and instrumentation and control systems for nuclear power plants. Its more than 18,000 employees work every day to help Framatome's customers supply ever cleaner, safer and more economical low-carbon energy.

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