THORIUM ATOMICS™

PRESS RELEASE

Thorium Atomics Submits Regulatory Engagement Plan for the Tesseract TGR to the U.S. Nuclear Regulatory Commission

The submitted plan sets out the company's proposed pre-application engagement activities with NRC staff in support of a future construction permit application under 10 CFR Part 53.

TORONTO and OAK RIDGE, Tenn., November 16, 2026. Thorium Atomics Inc. today announced that it has submitted Revision 0 of its Pre-Application Regulatory Engagement Plan for the Tesseract TGR to the U.S. Nuclear Regulatory Commission (NRC). The Tesseract TGR is a high-temperature gas-cooled pebble-bed reactor that is being developed to supply industrial heat and electricity, along with the potential for medical isotopes. It is fuelled with LEU+ (uranium enriched below 10 percent) and augmented with thorium. The design targets a thermal output of 250 MWth and an electrical output of 100 MWe.

The company submitted the plan on October 27, 2026, under NRC Project No. 99902174. The NRC has acknowledged receipt of the plan, which is publicly available in the NRC's Agencywide Documents Access and Management System (ADAMS) under Accession No. ML26308A231. Direct link: https://www.nrc.gov/docs/ML2630/ML26308A231.pdf

The plan's purpose is to facilitate effective communications and guide pre-application interactions between Thorium Atomics and NRC staff in support of a future construction permit application under 10 CFR Part 53, the NRC's risk-informed, technology-inclusive framework for commercial nuclear plants. It gives an overview of the company, the conceptual design of the Tesseract TGR and its licensing approach. It is a living document that the company will update as the design develops, as business initiatives evolve and as NRC staff provide feedback.

The plan lists more than two dozen technical submissions for future NRC staff review. Topics include:

- reactor physics analyses;
- fuel qualification for the uranium and thorium tristructural isotropic (TRISO) fuels;
- supporting design information for the reactor cooling, control, and containment systems;
- principal design criteria;
- probabilistic and deterministic safety analysis methods;
- licensing basis events and accident source term;
- emergency planning zone sizing;
- safeguards; and
- graphite qualification.

As a first step, Thorium Atomics plans to hold a technology familiarization meeting with NRC staff to introduce the Tesseract TGR design concept and discuss the regulatory engagement plan. The plan targets that meeting for December 2026 or January 2027.

"Early and continued regulatory engagement is a valuable and important effort towards confirming that the Tesseract TGR design has no fundamental barriers to licensing. Our submitted plan outlines how we propose to work collaboratively with NRC staff through the pre-application engagement process, including the topics we will bring forward, the order in which we expect to present them, and how we will brief and discuss each submittal with the staff. Structured engagement now lets us identify any regulatory issues in a timely manner, while the design can still be adjusted," said Dr. Jack Vecchiarelli, Chief Scientific and Regulatory Officer of Thorium Atomics.

"Industrial plants that buy steam from a reactor will plan around it for decades, so they need a licensing path they can follow from the start. Putting our engagement plan with the NRC early, and on the public record, is part of earning that confidence," said Young Hwang, Co-Founder and CEO of Thorium Atomics.

About the Tesseract TGR

The Tesseract TGR is a pebble-bed high-temperature gas-cooled reactor under development to supply industrial heat and electricity, with the potential for medical isotopes. Helium leaves the reactor at 750 °C and generates steam at up to about 565 °C for industrial processes; electricity is available for hosts that want both. Each reactor unit targets a thermal output of 250 MWth. The reactor is fuelled with LEU+ uranium in TRISO coated-particle fuel enriched below 10 percent U-235. Its fuel cycle is thorium-augmented: thorium-bearing fuel converts thorium-232 into fissile uranium-233 during operation, and most of that uranium-233 is burned in place, with no reprocessing. Significantly reducing the mined uranium required per unit of electrical energy generated, compared with a large light-water reactor, is a design target, still to be validated. Thorium Atomics does not plan to separate U-233; any future isotope work would be a separate activity requiring its own authorizations. The design is in development and has not yet been built, licensed or independently verified.

About Thorium Atomics

Thorium Atomics Inc. is an advanced nuclear reactor developer headquartered in Toronto, Ontario, with U.S. operations in Oak Ridge, Tennessee. The company is developing the Tesseract TGR and Mjolnir, its reactor design platform. Thorium Atomics is conducting pre-application activities with the U.S. Nuclear Regulatory Commission under NRC Project No. 99902174. Further information is available at thoriumatomics.com.

A correction to the company's August 7, 2026 release is posted at thoriumatomics.com/news/nrc-pre-application-engagement#correction.

Forward-Looking Statements

This release contains forward-looking information within the meaning of applicable securities laws. Forward-looking information includes statements that are not statements of historical fact and may be identified by words such as "expects," "anticipates," "plans," "estimates," "believes," "intends," "may," "could," "would," "might" or "will," and similar expressions.

Forward-looking information in this release includes statements concerning:

- the company's planned pre-application engagement with the NRC, including the planned technology familiarization meeting and its timing, and the content, sequence and timing of planned technical submissions;
- updates to the Regulatory Engagement Plan;
- a future construction permit application;
- the design and development of the Tesseract TGR, its target performance and fuel cycle, and any future medical isotope opportunity;
- the timing or outcome of engineering, verification and regulatory work.

Forward-looking information is based on assumptions that management considers reasonable in light of the information presently available. It is subject to known and unknown risks, uncertainties and other factors that may cause actual events, results or performance to differ materially from those expressed or implied. These include the results of further engineering, testing and independent verification; the timing and outcome of regulatory reviews; the availability of capital on acceptable terms; future legislative and regulatory developments; the availability of nuclear fuel, qualified suppliers and specialized personnel; intellectual-property risks; competition; general economic and market conditions; and other risks affecting the advanced nuclear industry.

Forward-looking statements are made as of the date of this release. Thorium Atomics and its directors, officers and employees undertake no obligation to update forward-looking information as a result of new information, future events or otherwise, except as required by applicable law. There can be no assurance that forward-looking statements will prove accurate, and readers should not place undue reliance on them.

This release does not constitute an offer to sell or the solicitation of an offer to purchase any securities and does not form part of any securities offering. No securities commission or other regulatory authority in Canada, the United States or any other jurisdiction has passed upon the information contained in this release.

Media Contact

Michael Cho
Thorium Atomics Inc.
media@thoriumatomics.com

###