

# Thorium Atomics Commences Pre-Application Regulatory Engagement with the U.S. Nuclear Regulatory Commission

*Following the company's notice of intent letter for pre-application regulatory engagement on the Tesseract TGR under the 10 CFR Part 53 framework, the NRC has assigned a project number and a project manager to facilitate the pre-application activities*

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TORONTO and KNOXVILLE, Tenn., August 7, 2026 — Thorium Atomics Inc. today announced that it has commenced pre-application regulatory engagement with the U.S. Nuclear Regulatory Commission (NRC) for its Tesseract TGR advanced reactor, following the company's submission of a notice of intent letter outlining its planned interactions with NRC staff.

Thorium Atomics submitted the notice of intent letter on June 23, 2026. In response, by letter dated July 24, 2026, the NRC assigned NRC Project No. 99902174 to the Tesseract TGR and designated a project manager in the NRC's Office of Advanced Reactors to coordinate pre-application activities. The project number provides an administrative and tracking reference for future correspondence, meetings, submissions and staff reviews associated with the company's pre-application activities. The notice letter is publicly available in the NRC's Agencywide Documents Access and Management System (ADAMS) under Accession No. ML26189A392. Direct link: <https://www.nrc.gov/docs/ML2618/ML26189A392.pdf>

Thorium Atomics plans to engage with the NRC under 10 CFR Part 53, the agency's risk-informed, performance-based and technology-inclusive licensing framework for commercial nuclear power plants. Part 53 became available for use on April 29, 2026. The company is preparing a Regulatory Engagement Plan describing the Tesseract technology, its proposed licensing strategy and the sequence of planned pre-application submissions.

*“A project number and an assigned project manager give us a defined NRC point of contact and a trackable reference for our future pre-application work. Part 53 is risk-informed and technology-inclusive, making it well suited to a high-temperature gas-cooled reactor. Commencing that engagement while the design is still being developed serves to ensure that regulatory expectations are clearly understood and addressed, thereby informing the design development process and helping to de-risk the future licensing pathway.”*

— DR. JACK VECCHIARELLI, CHIEF SCIENTIFIC AND REGULATORY OFFICER, THORIUM ATOMICS

*“This is a clear external marker of where our program stands. It comes alongside our application to Idaho National Laboratory’s Nuclear Energy Launch Pad program and our proposed pathway for independent, qualified-code reactor-physics verification at a U.S. national laboratory. We are deliberately building the regulatory, engineering and technical-validation records in parallel.”*

– YOUNG HWANG, FOUNDER AND CHIEF EXECUTIVE OFFICER, THORIUM ATOMICS

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## **ABOUT THE TESSERACT TGR**

The Tesseract TGR (thorium-augmented gas-cooled reactor) is a pebble-bed type of high-temperature reactor rather than a conventional water-cooled design. It uses helium as a reactor coolant and coated-particle TRISO fuel, an architecture in which the advanced safety response is enabled by passive physical phenomena rather than by active systems and high-pressure water infrastructure. The design is in development and has not yet been built, licensed or independently validated.

This is a small modular reactor designed for a thermal output of 250 MWth, delivering approximately 100 MWe of firm electricity or industrial process heat at temperatures up to 750 degrees Celsius. Heat at that temperature is difficult to supply with electricity and is currently met almost entirely by combustion.

The Tesseract TGR uses uranium TRISO fuel enriched below 10% U-235 as its initial fissile driver. The reactor incorporates a thorium-bearing fertile blanket designed to capture neutrons that would otherwise leave the core and to convert thorium-232 into fissile uranium-233 during operation.

This uranium-fueled, thorium-augmented architecture is intended to diversify the nuclear fuel supply chain and improve lifetime uranium utilization while keeping the fuel and licensing pathway grounded in established uranium and TRISO-fuel infrastructure. Current analysis estimates that the architecture could reduce mined-uranium requirements by approximately half per unit of energy relative to a comparable Generation II light-water reactor. That estimate is subject to further engineering, design optimization and independent validation using qualified analysis codes.

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## **ABOUT THORIUM ATOMICS**

Thorium Atomics Inc. is an advanced nuclear reactor developer with offices in Toronto, Ontario, and Knoxville, Tennessee. The company is developing the Tesseract TGR, a uranium-fueled, pebble-bed high-temperature gas-cooled reactor designed to provide firm electricity and high-temperature industrial process heat.

Tesseract augments its uranium fuel cycle with a thorium-bearing fertile blanket intended to improve lifetime uranium utilization by breeding uranium-233 during operation. Thorium Atomics is conducting pre-application activities with the U.S. Nuclear Regulatory Commission and maintaining a parallel regulatory pathway with the Canadian Nuclear Safety Commission.

Further information is available at [thoriumatomics.com](http://thoriumatomics.com).

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## **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 regulatory submissions and licensing strategy; the continued design and development of the Tesseract TGR; the company’s proposed engagement with national laboratories and other technical partners; anticipated reactor performance; fuel utilization; construction and deployment strategy; and the timing or outcome of regulatory, engineering and validation activities.

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 risks and uncertainties include the timing and outcome of regulatory reviews; the availability of capital on acceptable terms; completion and results of engineering, testing and independent validation; future legislative and regulatory developments; 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.

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