NANO Nuclear Sees KRONOS MMR™ Well-Aligned with NRC's Evolving Advanced Reactor Frameworks Under Part 53 and Proposed Part 57

April 28, 2026

New York, N.Y., April 28, 2026 (GLOBE NEWSWIRE) -- NANO Nuclear Energy Inc. (NASDAQ: NNE) ("NANO Nuclear" or "the Company"), a leading advanced nuclear micro modular reactor (MMR) and technology company focused on developing clean energy solutions, today issued a statement regarding recent regulatory developments from the U.S. Nuclear Regulatory Commission ("NRC"), including the finalization of a new rule, known as Part 53, and the issuance of a proposed new rule known as Part 57. These rules are being advanced pursuant to Congressional direction under the Nuclear Energy Innovation and Modernization Act of 2019, known as NEIMA.

These developments represent continued progress toward modernizing the U.S. nuclear regulatory framework to better support the safe and efficient deployment of advanced non-light water reactor technologies, including emerging microreactor technologies such as the **KRONOS MMR ™ Energy System** being developed by NANO Nuclear.

Part 53: Final Rule Effective April 29, 2026

The NRC's Part 53 final rule, which becomes effective on April 29, 2026, establishes a risk-informed, performance-based, and technology-inclusive optional licensing framework. Part 53 is intended to complement existing frameworks under Parts 50 and 52 by offering an alternative pathway that:

- Better aligns with the inherent safety characteristics of advanced reactor designs like the KRONOS MMR ™.
- Supports more flexible and potentially more predictable licensing approaches; and
- Provides optionality for developers like NANO Nuclear pursuing commercial deployment strategies.

NANO Nuclear is currently conducting a detailed evaluation of Part 53 and believes it could provide meaningful benefits for future commercial deployment of advanced reactor technologies, including its KRONOS MMR ™ microreactor platform, particularly as designs mature and standardization increases.

Proposed Part 57: Microreactor-Focused Framework with Accelerated Timelines

The NRC has also issued its proposed Part 57 rule, a draft framework specifically focused on microreactors like the KRONOS MMR ™, representing a subset of advanced reactors characterized by lower radiological consequence profiles and smaller, modular designs.

The proposed rule introduces a regulatory structure which, if adopted, is intended to support streamlined, repeatable, and potentially fleet-scale deployment, incorporating concepts such as:

- Combined or closely aligned construction and operating license processes;
- Recognition of factory fabrication and modular deployment;
- Standardized design approvals supporting multi-site deployment;
- A risk-informed, performance-based approach tailored to microreactors;
- Reduced emergency planning requirements and alternative siting considerations; and
- Manufacturing licenses enabling pre-deployment fabrication
- A provision for developing standardized operational programs

These features reflect a broader shift toward enabling standardized, scalable deployment models for microreactors, consistent with industry trends being supported by NANO Nuclear toward factory-built systems and distributed energy applications.

The NRC's proposed Part 57 rule is expected to be published in the Federal Register in 2026, initiating a public comment period. While timelines remain subject to change, the NRC has indicated its intent to advance this framework on an accelerated basis following stakeholder input, with finalization and implementation to follow thereafter.

Applicability to NANO Nuclear's Development Strategy

NANO Nuclear is currently conducting a detailed evaluation of both Part 53 and Part 57 to assess their potential applicability across different stages of reactor deployment.

At this time, NANO Nuclear expects that the potential efficiencies introduced under these frameworks would be more applicable to subsequent commercial deployments rather than first-of-a-kind projects, including its planned initial KRONOS MMR ™ deployment at the University of Illinois Urbana-Champaign, which will proceed under the existing Part 50 research reactor licensing framework.

Notably, the direction of both Part 53 and Part 57 toward risk-informed requirements, reduced off-site consequence assumptions, and standardized, repeatable deployment models reflect many of the design attributes embedded in advanced microreactor platforms such as the KRONOS MMR ™. As these regulatory pathways continue to evolve, NANO Nuclear believes that designs emphasizing inherent safety characteristics, modularity, and limited radiological impact profiles may be increasingly well aligned with the intent of these frameworks.

NANO Nuclear's Position and Industry Engagement

NANO Nuclear supports the NRC's efforts to evolve its regulatory framework in a manner that maintains its longstanding commitment to safety while enabling innovation in advanced reactor technologies. NANO Nuclear is actively:

- Continuing its evaluation of both Part 53 and the proposed Part 57 frameworks; and
- Engaging with the Nuclear Energy Institute ("NEI") and other industry stakeholders.

NANO Nuclear believes that, over time, these frameworks could play an important role in supporting the efficient, scalable commercialization of advanced microreactor technologies, particularly as the industry transitions toward standardized designs and multi-unit deployment strategies such as those being contemplated by NANO Nuclear.

Management Commentary

James Walker, Chief Executive Officer of NANO Nuclear Energy, commented: "We commend the NRC for advancing both the final Part 53 rule and the proposed Part 57 framework, which represent important steps toward modernizing the regulatory environment for advanced nuclear technologies. These developments reflect a clear shift toward risk-informed, performance-based approaches that recognize the evolving characteristics and benefits of next-generation reactor designs. As the industry moves toward more standardized and scalable deployment models, we believe these frameworks have the potential to support the long-term commercial rollout of microreactor technologies such as our KRONOS MMR ™."

Michael Montecalvo, Senior Director of Reactor Licensing at NANO Nuclear Energy, added: "We are actively reviewing both Part 53 and the proposed Part 57 framework to assess their applicability across different stages of reactor deployment. The proposed Part 57 framework, in particular, reflects a growing recognition of the novel characteristics of microreactor technologies, including their smaller size and lower consequence profiles. We look forward to continuing our engagement with the NRC, NEI, and other stakeholders as the rulemaking process progresses and our own regulatory efforts continue."

About NANO Nuclear Energy Inc.

NANO Nuclear Energy Inc. (NASDAQ: NNE) is a North American advanced technology-driven nuclear energy company seeking to become a commercially focused, diversified, and vertically integrated company across five business lines: (i) cutting edge portable and other microreactor technologies, (ii) nuclear fuel fabrication, (iii) nuclear fuel transportation, (iv) nuclear applications for space and (v) nuclear industry consulting services. NANO Nuclear believes it is the first portable nuclear microreactor company to be listed publicly in the U.S.

Led by world-class nuclear engineering and regulatory teams, NANO Nuclear's reactor products in development include its lead project, the patented **KRONOS MMR ™ Energy System**, a stationary high-temperature gas-cooled reactor that is in construction permit pre-application engagement with the U.S. Nuclear Regulatory Commission (NRC) in collaboration with University of Illinois Urbana-Champaign (U. of I.), **ZEUS ™**, a solid core battery reactor, and the space focused, portable **LOKI MMR ™**, each representing advanced developments in clean energy solutions that are modular, on-demand capable, advanced nuclear microreactors.

Advanced Fuel Transportation Inc. (AFT), a NANO Nuclear subsidiary, is led by former executives from the largest transportation company in the world aiming to build a North American transportation company that will provide commercial quantities of HALEU fuel to small modular reactors, microreactor companies, national laboratories, military, and U.S. Department of Energy programs. Through NANO Nuclear, AFT is the exclusive licensee of a patented high-capacity HALEU fuel transportation basket developed by three major U.S. national nuclear laboratories and funded by the Department of Energy. Assuming development and commercialization, AFT is expected to form part of the only vertically integrated nuclear fuel business of its kind in North America.

HALEU Energy Fuel Inc. (HEF), a NANO Nuclear subsidiary, is focusing on the future development of a domestic source for a High-Assay, Low-Enriched Uranium (HALEU) fuel fabrication pipeline for NANO Nuclear's own microreactors as well as the broader advanced nuclear reactor industry.

NANO Nuclear Space Inc. (NNS), a NANO Nuclear subsidiary, is exploring the potential commercial applications of NANO Nuclear's developing micro nuclear reactor technology in space. NNS is focusing on applications such as the LOKI MMR ™ system and other power systems for extraterrestrial projects and human sustaining environments, and potentially propulsion technology for long haul space missions. NNS' initial focus will be on cis-lunar applications, referring to uses in the space region extending from Earth to the area surrounding the Moon's surface.

For more corporate information please visit: https://NanoNuclearEnergy.com/

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Cautionary Note Regarding Forward Looking Statements

This news release and statements of NANO Nuclear's management in connection with this news release contain or may contain "forward-looking statements" within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1995. In this context, forward-looking statements mean statements related to future events, which may impact our expected future business and financial performance, and often contain words such as "expects", "anticipates", "intends", "explore," "aim," "plans", "believes", "potential", "will", "should", "could", "would" or "may" and other words of similar meaning. Specifically, forward-looking statements will include those related to the anticipated benefits to NANO Nuclear of the new NRC rules described herein as well as NANO Nuclear's development, construction, demonstration, regulatory licensing and commercial plans and strategies and other future plans and intentions**.** These and other forward-looking statements are based on information available to us as of the date of this news release and represent management's current views and assumptions. Forward-looking statements are not guarantees of future performance, events or results and involve significant known and unknown risks, uncertainties and other factors, which may be beyond our control. For NANO Nuclear, particular risks and uncertainties that could cause our actual future results to differ materially from those expressed in our forward-looking statements include but are not limited to the following: (i) risks related to our U.S. Department of Energy ("DOE"), Canadian Nuclear Safety Commission ("CNSC") or related state or non- U.S. nuclear licensing submissions, (ii) risks related to our vertical integration strategy and the development of new or advanced technology and the acquisition of complimentary technology or businesses, including difficulties with design and testing, cost overruns, regulatory delays, integration issues and the development of competitive technology, (iii) our ability to obtain contracts and funding to be able to continue operations, (iv) risks related to uncertainty regarding our ability to technologically develop and commercially deploy a competitive advanced nuclear reactor or other technology in the timelines we anticipate, if ever, (v) risks related to the impact of U.S. and non-U.S. government regulation, policies and licensing requirements, including by the DOE, the U.S. Nuclear Regulatory Commission, including those associated with the recently enacted ADVANCE Act and the May 23, 2025 Executive Orders seeking to streamline nuclear regulation, as well as the CNSC, and (vi) similar risks and uncertainties associated with the operating an early stage business a highly regulated and rapidly evolving industry. Readers are cautioned not to place undue reliance on these forward-looking statements, which apply only as of the date of this news release. These factors may not constitute all factors that could cause actual results to differ from those discussed in any forward-looking statement, and NANO Nuclear therefore encourages investors to review other factors that may affect future results in its filings with the SEC, which are available for review at www.sec.gov and at https://ir.nanonuclearenergy.com/financial-information/sec-filings. Accordingly, forward-looking statements should not be relied upon as a predictor of actual results. We do not undertake to update our forward-looking statements to reflect events or circumstances that may arise after the date of this news release, except as required by law.

Source: NANO Nuclear Energy Inc.