



Westinghouse Electric Company LLC
1000 Westinghouse Drive
Cranberry Township, PA 16066
USA

May 11, 2023

Via Electronic Submission

Rebecca Colvin
Alaska Department of Environmental Conservation
Division of Environmental Health
555 Cordova St. Anchorage, AK 99501

Subject: Westinghouse Electric Company LLC Comments on Proposed Nuclear Facility Siting Regulations

Dear Ms. Colvin:

Westinghouse Electric Company LLC (Westinghouse) greatly appreciates the opportunity to provide comments to the Alaska Department of Environmental Conservation (DEC) regarding the proposed siting regulations on nuclear facilities. Westinghouse is an original pioneer in the commercial nuclear power industry and is a global leader in supplying products and services in the areas of reactor design, fuel, maintenance, instrument and control systems, engineering, and parts. Westinghouse's customers include over half of the world's operating reactors. Regarding microreactor technology, the Westinghouse eVinci™ microreactor¹ will serve as an alternative and reliable energy source for remote communities and mining sites, clean hydrogen production, industrial power, and off-grid applications.

Westinghouse appreciates that the proposed rule was drafted in part to support Governor Dunleavy's Office of Energy Innovation,² which was "formed with the purpose of developing policies . . . to assist all communities in accessing innovative technology and necessary funding to secure low cost reliable energy; and support efforts that enhance Alaska's role in a national clean energy future through . . . the investment in emerging energy technologies."³ Westinghouse fully supports these objectives, and further believes that microreactors will help Alaska achieve

¹ eVinci™ is a trademark or registered trademark of Westinghouse Electric Company LLC, its affiliates and/or its subsidiaries in the United States of America and may be registered in other countries throughout the world. All rights reserved. Unauthorized use is strictly prohibited. For more information, *see* <https://www.westinghousenuclear.com/energy-systems/evinci-microreactor>.

² *See* Siting of Microreactors Regulations, Background, <https://dec.alaska.gov/eh/siting-of-microreactors-regulation-development>.

³ Governor Dunleavy Establishes Office of Energy Innovation (Sep. 30, 2022), <https://gov.alaska.gov/governor-dunleavy-establishes-office-of-energy-innovation/>.

its clean energy and energy independence goals. This is also consistent with the Governor's collaborative approach in the development of innovative technologies.⁴

However, the proposed regulatory framework, which is intended to promote energy innovation, could ultimately hinder deployment of microreactors in Alaska. For example, the proposed regulations would add considerable time and cost to microreactor permit applicants because they would require additional State environmental reviews duplicative of those already conducted as part of the U.S. Nuclear Regulatory Commission's (NRC) licensing process. Also, some provisions in the proposed regulation appear to conflict with the NRC's jurisdiction; accordingly, these may be subject to preemption challenges if the regulations are promulgated.

Westinghouse endorses the Nuclear Energy Institute's (NEI) written comments on the proposed regulations and encourages DEC to consider the thorough and detailed comments in NEI's letter.⁵ In addition to supporting NEI's comments, Westinghouse would also like to offer this letter with comments from its unique perspective as a successful nuclear industry vendor and NRC licensee. By offering these comments, Westinghouse hopes DEC will be able to apply lessons learned from prior licensing experience in future public, private, Tribal, and local community collaboration efforts concerning nuclear facility siting in Alaska. To that end, Westinghouse also offers some comments on key provisions of the proposed regulation, and specific recommendations to DEC.

I. Recent NRC Licensing and Environmental Review Experience in Stakeholder Engagement

Westinghouse understands that DEC wishes to promote local involvement in the siting of nuclear facilities and supports that goal. Our experience shows that community engagement and support is essential to the success of any nuclear project. In this regard, we believe that our perspective as a nuclear technology innovator, vendor, and licensee may be particularly useful for DEC.

For example, Westinghouse owns and operates the Columbia Fuel Fabrication Facility (CFFF) in Hopkins, South Carolina. CFFF is an NRC-licensed nuclear fuel manufacturing facility. The NRC recently completed the license renewal for CFFF for an additional 40-year term. The NRC's licensing process included a National Environmental Policy Act of 1969 (NEPA) environmental review. The NRC codified its NEPA review process in Title 10 of the Code of Federal Regulations (10 CFR) Part 51.

The NRC's NEPA review process includes extensive outreach to and input from numerous Federal, State, and Tribal organizations. Through the process of preparing a draft and final Environmental Impact Statement (EIS) for CFFF license renewal,⁶ the NRC actively consulted

⁴ Alaska Governor Mike Dunleavy, Administrative Order No. 340 (Sep. 30, 2022).

⁵ See NEI Comments on Proposed Nuclear Facility Siting Regulations (May 11, 2023).

⁶ NUREG-2248, Environmental Impact Statement for the License Renewal of the Columbia Fuel Fabrication Facility in Richland County, South Carolina (July 2022), <https://www.nrc.gov/docs/ML2220/ML22201A131.pdf>.

with the organizations listed below. Please note that the following list is not exhaustive but gives a typical sense concerning the number and types of organizations the NRC would formally consult for its NEPA environmental review in a microreactor licensing proceeding (the state and Tribes would be specific to the proposed area).⁷

- Federal
 - Advisory Council on Historic Preservation
 - U.S. Fish and Wildlife Service
 - National Marine Fisheries Service
 - U.S. National Park Service
 - U.S. Environmental Protection Agency
 - U.S. Department of Interior
 - National Oceanic and Atmospheric Administration
- State of South Carolina
 - Department of Health and Environmental Control
 - State Historic Preservation Office
- Federally-recognized Indian Tribes
 - Catawba Indian Nation
 - Pine Hill Indian Tribe
 - Cherokee Nation
 - Eastern Band of Cherokee Indians
 - Muscogee Nation

The NRC also contacted U.S. Congressional representatives, State Legislature representatives, and sent letters via U.S. mail regarding the opportunity to comment on the draft EIS to residents in the local community. There were also multiple opportunities where, as required by regulation, the proposed Federal action (i.e., license renewal for the facility) was publicly announced, which allowed for public interaction and comment.⁸ For example, appendix D of the final EIS includes all public comments the NRC received on the proposed license renewal, and the NRC's published answers.

In the licensing of a nuclear facility, including a microreactor, the NRC is not only responsible for the environmental review under NEPA but also responsible to comply with other Federal statutes. For example, should a microreactor license application be submitted, Section 106 of the National Historic Preservation Act (NHPA) would require the NRC to consult with Alaska's Office of History and Archaeology and various Tribes. Additionally, under Section 7 of the

⁷ See also, e.g., NUREG-2263, Environmental Impact Statement for the Construction Permit for the Kairos Hermes Test Reactor – Draft Report for Comment (Sept. 2022), Appx. B (Agencies, Organizations, and Individuals Contacted), <https://www.nrc.gov/docs/ML2225/ML22259A126.pdf>.

⁸ See, e.g., Key Documents, at <https://www.nrc.gov/info-finder/fc/westinghouse-fuel-fab-fac-sc-lc.html>. Under “Environmental Impact Statement,” the NRC published every document when they asked for public comment on this license application (published in the Federal Register). The NRC also held a public webinar which was transcribed, and utilized different media, such as YouTube videos, to explain to the public the certain issues covered in the EIS.

Endangered Species Act, the NRC is also responsible for consulting with the U.S. Fish and Wildlife Service and National Marine Fisheries Service to ensure that the licensing of nuclear facility, including a microreactor, would not jeopardize the continued existence of any listed species or adversely modify designed critical habitats.

Accordingly, Westinghouse's experience demonstrates that the current NRC process for environmental reviews provides many opportunities for meaningful, effective, and efficient stakeholder engagement. The NRC actively seeks, gathers, and considers public input in its licensing process, including from State and Tribal governments, and local communities. The NRC staff is also working to further improve collaboration with other agencies,⁹ and it recently conducted an Environmental Justice Assessment and provided the Commission with recommendations, one of which included enhancing environmental justice-related outreach activities.¹⁰ The NRC's licensing process therefore provides ample opportunity for all stakeholders to provide input on any proposed nuclear facilities.

Westinghouse, moreover, like other experienced nuclear industry participants, understands the value of proactive voluntary community outreach, and, together with its prospective partners, plans on doing so in advance of any project.

II. Specific Comments on Proposed Alaska Regulation for Nuclear Facility Siting (18 AAC XX)

A. Duplication of NRC Requirements

As the DEC is aware, the NRC regulates "licensing, construction, operation, and safety and security" of microreactors.¹¹ Under the Atomic Energy Act of 1954, as amended (Atomic Energy Act), the NRC's mission is to license and regulate civilian use of radioactive materials to provide reasonable assurance of adequate protection of public health and safety, promote the common defense and security, and protect the environment. Westinghouse is generally concerned that the proposed DEC regulation will duplicate NRC requirements for the facilities listed at 18 AAC XX.010(b), which will add unnecessary time and cost burdens to prospective reactor licensees in Alaska, and thereby hinder the State's overall objectives.

Duplicative items contained in the proposed regulation that are already required for NRC review and approval include certain environmental review requirements. The NRC's NEPA review process implemented by its regulations at 10 CFR Part 51 (and process generally described above in Section I) already provides many avenues for meaningful, effective, and efficient stakeholder engagement.

⁹ See, e.g., NRC Office of Nuclear Material Safety and Safeguards (<https://scp.nrc.gov/>).

¹⁰ See the NRC staff's Environmental Justice Assessment at <https://www.nrc.gov/about-nrc/regulatory/licensing/nepa/environmental-justice/assessment.html#recomms>.

¹¹ DEC's Role, <https://dec.alaska.gov/eh/siting-of-microreactors-regulation-development>.

In the area of reactor siting, Westinghouse agrees with NEI's concern with the proposed regulations' siting requirements concerning radiological health and safety, as the NRC promulgated regulations on reactor siting requirements at 10 CFR Part 100. The NRC's licensing process already addresses appropriate standoff distances, most specifically in 10 CFR Part 100 (Reactor Site Criteria).¹² As pointed out in the NEI's submitted comment letter, 10 CFR 100 provides reactor siting requirements through factors and criteria so "that natural phenomena and potential man-made hazards will be appropriately accounted for in the design of the plant."¹³ Compliance with duplicative safety-related regulatory requirements under an NRC and State reactor siting licensing process would unnecessarily burden microreactor projects, and we agree with NEI that the proposed regulations in this area may be preempted under the Atomic Energy Act.¹⁴

B. Request for Clarification

Section 100 (18 AAC XX.100) specifies the requirements for a preliminary application, including the public notice requirements for a microreactor application.

Westinghouse requests clarification on the level of detail required to satisfy the preapplication requirements in Section 100 and asks if there will be State published guidance accompanying this regulation, if promulgated. For example, subsection (c)(2) of Section 100 requires a discussion on "how the proposed facility will meet applicable state and federal requirements for the protection of health and the environment," but that is rather broad. Further, for the content specified in Article 3, Siting Permit Procedures, that is required to be included in the preliminary application per 18 AAC XX.100 (a)(1)(A), it is unclear what level of detail is required at the preapplication as compared with that required in the application. Westinghouse seeks clarification on this relationship between the two sections, and the level of detail required.

III. Conclusion & Recommendations

Westinghouse supports Alaska's overall objectives in energy security, sustainability, and reliability, and is eager to continue its collaboration with the State and DEC in implementing innovative clean energy technologies. To that end, Westinghouse respectfully offers the following recommendations:

- DEC should consider withdrawing the proposed regulations or revising the proposal to narrowly tailoring the regulations to support objectives which are focused on promoting

¹² See also NRC Regulatory Guide 4.2, Preparation of Environmental Reports for Nuclear Power Stations, <https://www.nrc.gov/docs/ML1807/ML18071A400.pdf>; Regulatory Guide 4.7, General Site Suitability Criteria for Nuclear Power Stations, <https://www.nrc.gov/docs/ML1218/ML12188A053.pdf>. These Regulatory Guides provide detailed guidance for preparing environmental reports and site suitability evaluations to include with applications for licenses under 10 CFR Part 50 and 10 CFR Part 52. NUREG 1555 provides the NRC's Standard Review Plans for Environmental Reviews for Nuclear Plants. See <https://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1555/index.html>.

¹³ 10 CFR 100.1.

¹⁴ For an in-depth analysis of Federal preemption principles, see NEI Comments on Proposed Nuclear Facility Siting Regulations, Section I.B.1 (May 11, 2023).

Ms. Rebecca Colvin

May 11, 2023

Page 6 of 6

local involvement in existing NRC processes for siting nuclear facilities. In the process of reconsidering the regulations, DEC should consider consulting with State legislature officials regarding the intent and requirements of the statutes relating to nuclear facility siting.

- DEC should consider holding public meetings or information sessions with NRC, industry representatives, and other stakeholders, to share information about the NRC's nuclear reactor licensing and environmental review processes, which include siting. Based on information shared in such meetings, DEC may wish to consider alternative approaches to implementing its State-statutory responsibilities.

If you need additional information, please contact me at nader.mamish@westinghouse.com.

Sincerely,

Nader Mamish

Nader Mamish
Vice President, Global Nuclear Regulatory Affairs
Westinghouse Electric Company LLC