Alaska Community Action on Toxics

Please find the comments of Alaska Community Action on Toxics attached as a pdf file and enter them into the public record.

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Anchorage, Alaska 99518
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May 11, 2023

Rebecca Colvin ADEC Division of Environmental Health
By email to rebecca.colvin@alaska.gov

Dear Ms. Colvin:

Alaska Community Action on Toxics (ACAT) is a statewide non-profit environmental health and justice research and advocacy organization based in Anchorage whose mission is to ensure clean air, water, and toxic-free food for everyone. We provide these comments for the record concerning the Alaska Department of Environmental Conservation's Proposed Regulations for the Siting of Microreactors and to create a new chapter 18 AAC XX of the Alaska Administrative Code, dealing with nuclear facility siting and microreactor location requirements. As stated in our comments during the scoping process, ACAT remains strongly opposed to the siting of so-called "micronuclear" reactors in Alaska. Nuclear energy is a false solution for our energy needs and the climate crisis. It is dirty, dangerous, and expensive. Nuclear power is destructive and risky throughout its cycle, from the mining of uranium to the enrichment process, to the operation of reactors and to the untenable problems of disposal of radioactive waste. We urge ADEC to prohibit micronuclear reactors in Alaska. Micronuclear energy poses too great a risk to environmental and public health. These reactors are in the experimental stage, are economically infeasible, and cannot meet safety standards.

The proposed regulations must take into account that micronuclear reactors are unsafe, insecure, and unsustainable for several reasons that have serious implications for siting decisions.[1] These reactors are highly susceptible to sabotage and military attacks, especially because there is no plan for monitoring and oversight of safety nor consistent presence of operators and security officers. On-site security personnel and operators must be required. The type of fuel used in micronuclear reactors could be used for the development of nuclear weapons, making it a threat for sabotage and target for terrorists. Micronuclear reactors are also susceptible to elevated risk of accidents because they have no physical containment structures.

Our comments during the scoping phase were not adequately addressed in the proposed regulations. The proposed regulations do not address state obligations to Tribes and tribal consultation and rights to decision-making. ADEC must obtain free, prior, and informed consent from affected Tribes. This means that affected Tribes must be informed of potential plans as early

[1] Edwin Lyman, Ph.D. Union of Concerned Scientists, presentation for the Alaska Collaborative on Health and Environment. April 26, 2023. https://www.akaction.org/media/webinars/

as possible, provided with detailed information about plans and their potential impacts, and be given the opportunity for meaningful input. Free, prior, and informed consent also means that Tribes should have the power to reject projects that are not in their best interest. Siting decisions must include an inclusive and robust public process, including public notice, public hearings, and other meaningful opportunities for input.

18 AAC XX.300. Location requirements for a micronuclear facility.

The various separation distances are arbitrary to the point of being ludicrous. These distances are by no means protective of people, water sources, critical habitat areas, fish, and wildlife. And although we oppose the siting of nuclear facilities in Alaska, if ADEC issues regulations, the distances must be justified and protective. Given the dramatic effects of climate change in Alaska, "100-year floodplains," coastal areas vulnerable to storm surge, areas of erosion, areas of ice floes, and avalanches are no longer predictable and can shift dramatically in relatively short time periods. For example, "100-year floods" are now occurring more than once within a decade in some river systems. Coastal areas vulnerable to storm surge are increasing with melting sea ice, coastal erosion, and magnitude of storms. The setbacks from these areas should be increased significantly to account for the uncertainties of climate warming effects. Also, the regulations must include measures to prevent siting of nuclear facilities in areas of melting permafrost or areas where permafrost melting is likely to have an adverse effect on facilities and infrastructure. In addition, areas of high risk of wildfires should also be avoided. The distances to property boundaries, rights of way, and residences are also inadequate and should be expanded significantly—again, these distances should be justified and not just arbitrary. Although the proposed regulations indicate that these facilities cannot be located within a drinking water protection area, there should be additional and significant buffers to ensure protection of water sources, including public water supplies and residential wells. Micronuclear facilities pose a significant threat to public health. The intent of these regulations to place these facilities near residences and communities is irresponsible and may lead to higher off-site consequences. The siting of nuclear facilities must also include public evacuation planning and safe evacuation routes in the event of an accident or deliberate sabotage. Uncertainty factors and precautionary approaches must be applied. The 300-foot distance from critical habitat and protected areas is also inadequate and must be expanded significantly. The regulations must take into account that wildlife species are vulnerable to radiation exposure and cannot recognize the hazards of a nuclear facility. They migrate or have wide-ranging movements, so additional measures must be taken to ensure their safety. The regulations must also address location requirements for other nuclear facilities such as nuclear fuel production facilities, reprocessing, and waste disposal facilities. These also pose significant dangers.

18 AAC XX.100. Pre-application requirements:

The public notification should be fully inclusive, transparent, and include Tribes, municipalities, and the general public. Tribes as sovereign Nations should be accorded the rights of free, prior informed consent. Notification should include the entire service area of a proposed facility, including routes of transportation for radioactive materials and waste to and from the facility. Notices should be published prominently in local and regional newspapers, radio, social media,

The public notice should identify the route and means of transportation of radioactive materials to and from the facility.

18 AAC XX.200. Application requirements:
The applicant must be required to include plans to ensure the safety, oversight, and surveillance of the facility, including staffing of operational and security personnel, emergency response and evacuation plans. The regulations should require the applicant to demonstrate that they have a plan for the safe decommissioning, removal, and permanent disposal of the facility and wastes it may generate, and the means to pay for such decommissioning, removal, and permanent disposal.
The applicant must include a safe plan for handling of, and long-term storage of, nuclear waste in perpetuity. This is virtually impossible given that there is no safe solution for the storage and disposal of nuclear waste. The lack of safe solutions for storage and disposal of nuclear waste should prevent the siting of micronuclear reactors.

18 AAC XX.220. Public notice procedures:
Tribal consultation and free, prior, and informed consent in decision-making is necessary and an obligation of the state.

The department should allow at least 120 days for public comment to allow sufficient time for review and deliberation. Public hearings should be required. Notification should include local newspapers, radio, and social media, and must include communities along the routes where radioactive materials will be transported.

In closing, consideration of the siting of micronuclear reactors should include the entire life cycle and harm to environmental and public health, and social costs of uranium mining, milling, processing, transportation, and disposal. There is no safe solution for the storage and disposal of spent nuclear fuel. Microreactors make no sense from a safety, economic, security, environmental, or climate perspective.

Thank you for the opportunity to provide comments and your careful consideration.

Sincerely,

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