Ryan Pickering

Dear Alaska Department of Environmental Conservation,

I am writing to express my support for the siting of nuclear fission microreactors in the state of Alaska. I believe that these small-scale nuclear power plants can provide significant benefits for the environment, economy, and energy security of The Last Frontier.

First and foremost, microreactors can help to reduce greenhouse gas emissions and combat climate change. Unlike fossil fuels, nuclear power is a carbon-free source of energy that does not contribute to global warming. By increasing the use of nuclear power in Alaska, we can help to reduce our state's carbon footprint and do our part to slow the pace of climate change.

These microreactors employ a technology known as "heat pipe reactors", which create clean heat through a controlled nuclear fission reaction without the need for an external water source. This technology is also being explored for creating energy in space. This clean heat is used to activate a Brayton cycle engine, which then generates reliable, clean electricity around the clock. The excess clean heat can be used to heat homes, buildings and small industrial needs.

In this way, microreactors can provide a reliable and stable source of energy for critical communities across the state. Unlike renewable sources of energy such as wind and solar, nuclear power is not dependent on weather conditions and can provide consistent electricity generation. This can help to improve energy security in Alaska, especially in remote and off-grid communities.

Refueling for microcreators is required every 5-10 years depending upon the technology, making this the most secure energy source on the planet. These reactors may be "stacked" together to increase energy output, and their refueling may be staggered to ensure carbon free energy is available at all times. Used nuclear fuel can safely be stored on site, or taken away for a variety of known solutions including long term storage, recycling, vitrification or reprocessing.

Furthermore, the construction and operation of microreactors could have a positive economic impact on Alaska. These small-scale nuclear power plants are relatively low-cost to build and maintain, and they can provide jobs and economic development opportunities for our state. Additionally, the revenues generated from the sale of electricity generated by these reactors can also help to fund state programs and services.

Lastly, I would like to emphasize that the safety and security of Alaskans will be of paramount importance throughout the process of siting these microreactors. I believe that the technology and design of these reactors have advanced to a point where they can be safely and securely operated, and I am confident that the Alaska Department of Environmental Conservation will conduct thorough evaluations to ensure that any proposed site is safe for the surrounding community.

Overall, I strongly support the siting of nuclear microreactors in Alaska as a way to combat climate change, improve energy security, and boost the state's economy. I urge the Alaska Department of Environmental Conservation to give serious consideration to this opportunity.

Thank you for your time and consideration.

Sincerely,

Ryan Pickering