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# Snake River Alliance

IDAHO'S NUCLEAR WATCHDOG & CLEAN ENERGY ADVOCATE

June 27, 2017

Secretary  
US Nuclear Regulatory Commission  
Washington, DC 20555-001  
Attn: Rulemakings and Adjudications Staff  
By email: [Rulemaking.Comments@nrc.gov](mailto:Rulemaking.Comments@nrc.gov)

Docket ID NRC-2015-0225

Ladies and Gentlemen:

The Snake River Alliance serves as Idaho's grassroots nuclear watchdog and clean energy advocate. We are a membership organization and were founded in 1979. Most of our nuclear work has focused on the Department of Energy complex and the Idaho National Laboratory. We are expanding our attention to include commercial nuclear power because of its potential to slow other, more effective responses to climate change and because of regional concern about the potential effects of the proposal to build a first-of-a-kind, perhaps one-of-a-kind small modular reactor array in eastern Idaho.

I submit these comments on behalf of our members.

Splitting atoms is an inherently risky way to produce electricity. The United States has historically depended on the strategy of "defense in depth" to protect people from this risk around commercial nuclear power plants. This means there are multiple independent and redundant defenses to try to prevent accidents or lessen their harm.

One key mitigation strategy has been the establishment of plume and ingestion exposure emergency planning zones (EPZ) around reactors. According to the NRC, these "facilitate a 'preplanned' strategy for protective actions during an emergency."

Shrinking the EPZ is absolutely counter to the "defense in depth" strategy — particularly when applied to new and untested reactor designs. Though interested parties in industry have been working with the NRC for years, no small modular reactor design has been approved. To loosen the rules for public safety nearly simultaneously with approval of a design and licensing of a facility is precipitous at best. No. It is not precipitous. It is risky.

It's unclear what all might end up covered in the NRC's category "other new technologies," and that uncertainty is a problem in itself. Some of the possible examples of ONTs seem based more on what they

are not (light water) and were abandoned decades ago. At any rate, they are varied, not “technology neutral.”

Again, it is risky to reduce the defense in depth strategy under those circumstances. Furthermore, shrinking the EPZ accepts the nuclear industry’s broad claims that new reactors will be safer. Those claims are accurate only in so far as reactors that don’t exist yet are safer than ones that do.

A lot of the argument in favor of shrinking EPZs cites the supposedly smaller source terms of SMRs. The NRC seems to be considering the effects of an accident in a single small reactor even though SMR developers plan to concentrate a number of small reactors near one another. NuScale, for instance, plans to build 12 of its 50-MW reactors in a single buried chamber. A 600-MW nuclear reactor is not small, and the potential effects of an accident are not either.

Furthermore, NuScale’s buried chamber also contains spent fuel when it is first removed from the reactor modules. Small reactor modules produce more spent fuel than traditional reactors per unit of electricity, so a dozen SMRs operating on various schedules might mean a good deal of very hot spent fuel in the pool at any given time. NuScale asserts that, in the case of an accident, spent fuel in its pool can remain underwater “indefinitely.” The time span covered by “indefinitely” is stunningly elastic and should not be the basis for lessening public health protection.

Much of the defense-in-depth framework, like nearly everything else in the nuclear arena, is publicly funded. The April 2017 Regulatory Basis draft document focuses closely on the money saved by shrinking the EPZ for small modular reactors and other new technologies. If nuclear corporations are so certain of the safety of the new facilities, they should be willing to consider reductions in the protections offered by the Price Anderson Act as well.

Nuclear power is fading. This is not the time for the Nuclear Regulatory Commission to pursue rulemaking that begins the dismantlement of our defense in depth.

Sincerely,



Beatrice Brailsford  
Nuclear program director