From: Pete Scavullo
To: erda.sm.DraftBlueprint
Cc: [redacted]
Subject: Comments on Draft Blueprint for Consideration of Advanced Nuclear Technologies
Date: Monday, October 7, 2024 9:28:32 AM

Below are comments for your consideration.

1. Key question 2 in section 4.2.1 is how the State can adopt and improve best practices in nuclear safety. The Naval Nuclear Propulsion Program has an outstanding nuclear safety record. While classified information cannot be shared, NYSERDA should consider engaging the Naval Nuclear Laboratory (NNL) on:
    a. principles used to include nuclear safety in reactor design
    b. experiences in developing reactor technology

A contact at NNL can be provided by the undersigned if NYSERDA is interested in pursuing this suggestion. (Knolls Atomic Power Laboratory is a part of the Naval Nuclear Laboratory that is located in Niskayuna, NY.)

2. Include more information on how the NRC permitting process will work in conjunction with the NY State Environmental Quality Review Act (SEQRA).

3. This statement located in section 3, "In the absence of water, sustaining the nuclear chain reaction requires either (1) adding an alternative moderator, such as graphite; or (2) increasing the concentration of uranium in the reactor core, in what is called a “fast” reactor," is misleading. Adding more uranium doesn't necessarily make it a fast reactor.

4. This statement located in section 4.2, "For example, the negative reactivity coefficient for HTGRs and fast reactors, when designed correctly, prevents a runaway reaction, and automatically stops the fission process when the reactor becomes too hot or loses coolant," implies that only these types of reactors have a negative temperature coefficient.

5. Table 1 lists advanced reactor technology types and example technology companies. There are many more reactor technologies under development per Wikipedia. We don't recommend that all should be listed, just that the list in Table 1 be explained as a partial list and the basis of that partial list be provided.

6. We recommend that example actions be added to answer the key questions in section 4, Issues. This doesn't mean that we necessarily know the right action to take, but it just provides an example action to address that question. This may prompt further reviewers to provide other suggested actions that may be more beneficial. For example, the question in section 4.2.1 on how the State can participate in or monitor

NRC safety licensing processes for each design that may be built in NY, it can be stated that personnel could be assigned to follow the proposed plant licensing process.

These comments were provided by Pete Scavullo and John Tasse, retirees of the Naval Nuclear Laboratory. Questions on these comments can be sent to the undersigned.

Pete Scavullo
[redacted]