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General Comment

I am writing to provide comment and voice my support for the proposed Emergency Preparedness changes for Small Modular Reactors and Other New Technologies being put forth by the Nuclear Regulatory Commission. As mentioned during the onset of the proposed submittal it is noted that "Current EP requirements and guidance, initially developed for large LWRs and non-power reactors, do not consider advances in designs and safety research and their applications to existing or future operation on SMRs and ONTs." The advances in safety technology to include advances in human performance recognition, structural design, and radiological understanding lead credence to allowing a new approach towards Emergency Preparedness regulations.

When discussing new alternative performance-based EP framework, including requirements

for demonstrating effective response in drills and exercises for emergency and accident conditions within future and current modular reactors as well as other new technologies. Due to the wide range of potential LWRs and ONT potential designs coming about through research and development it is only reasonable that the EP requirements be based around performance as opposed to static regulations such as the requirements which are in place for Large Light Water Reactors. Due to Large LWR's static design and decades of use it makes sense to maintain those requirements. As Modular LWR and ONT technology continues to become additionally refined these performance-based EP's could become more specific if a specific modular design became the gold standard and all further designs utilized the same basic principles due to say efficiency or safety.
Additionally, by going with a performance-based framework, the regulatory flexibility allotted to the individual research group during the design phase will allow for a more robust industry springing up around the designing and eventual availability of Modular LWRs. Which I feel would only result in a renaissance of nuclear power at a more mainstream level which has not been seen since the 1950's. This performance-based framework will also allow for dedicated resources to be applied in those sections which would be a grade-based criterion. Graded approaches to EP do have a longstanding history within the NRC and as such this would not be to fare from the status que.

Hazard analysis of any NRC-licensed or non-licensed facility contiguous or nearby to an LMR or ONT, that considers any hazard that would adversely impact the implementation of emergency plans should be conducted prior to allowing the facility to proceed with their proposed emergency plan. Outside hazards such as flood plains, proximity to coastline, fault lines, and seasonal weather patterns to name just a few. All of which could create conditions which would result in massive impacts to an emergency plan. An example being the Fukushima Nuclear Power Plant which was devastated when a tsunami was able to disable the power supply and cooling of three reactors. Granted this is an extreme example, however due to the concentration of cities and manufacturing near coastline, it would be relevant to consider such hazards from any nearby NRC-licensed or non-licensed facilities.

Within the proposal document it is stated that, "The NRC is proposing a consequence-oriented approach to establish EP requirements for SMRs and ONTs. In this context, consequence-oriented means the principle of basing decisions of the extent of EP required upon the level and severity of the consequences of a credible radiological accident." This logical step would aid in the creation of site-specific Emergency Plans as opposed to ones which must meet a much larger, and stringent set of requirements which could be "overkill" for the site at hand. Digging a little deeper into this same direction of thought would be the decades worth of research which have gone into developing the current guidelines with the risk of such an event occurring. However, as is mentioned in the proposal that when chemical toxins are released into the environment due to chemical spills etc... that the ability to trace the source and contain the spread has become extremely advanced.
Additionally, the consequence-oriented approach would be benefited by these radiological

studies of the surrounding area should an escape occur. This would allow for allocation of resources to any high consequence identified areas within the EP. This approach lets the facility allocate where the resources would be needed as opposed to a blanket once size fits all regulation as is currently within the NRC regulations.

In all I support the direction the NRC wants to go with their proposal and feel it gives ample oversite while still allowing for individual facilities the robustness to create Emergency Preparedness for their individual needs. If the SMRs and ONTs sites, ensure they are abiding by the provisions listed then I see no reason as to why these should not be granted.