From: Lake, Ramona - DMA
To: RulemakingComments Resource
Subject: [External_Sender] STC-17-040 Wisconsin Comments
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Attachments: STC-17-040 Wisconsin Comments.docx

Please find attached, comments from Wisconsin for NRC-2015-0225. We understand that the comment period has closed but due to extenuating circumstances were unable to meet that dead line. We do feel, however, that this is important and are sending comments in the hopes that they may still be viewed.

v/r

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STC-17-040 Wisconsin Comments

Summary

STC-17-040 outlines the choice between two options of emergency preparedness (EP) regulation for emerging small modular reactors (SMR) and other nuclear technologies (ONT). The first option utilizes exemptions and issued guidance to complement current requirements and assess each technology on a case by case basis. The second option is to create new EP regulatory framework altogether that is scalable. The NRC seems to strongly support the second option.

Under the new framework, for plume exposure pathway EPZs, the required distance will be entirely determined by projected TEDE (total effective dose equivalent) at one of four distances: the site boundary, 2 miles out, 5 miles out, and 10 miles out. Wherever the projected TEDE is >1 rem, go to the next outward distance. SHINE is most likely planning for <1 rem at the site boundary which, under the new framework, means the plume exposure pathway EPZ doesn't extend past that boundary.
Page 4-3 has a single paragraph about ingestion exposure pathway EPZs, which mentions that ingestion exposure pathway EPZs may/should be based on the plume EPZs. Additionally, the paragraph mentions that if the plume exposure pathway EPZ is within the site boundary then an ingestion exposure pathway EPZ may not be necessary at all. The justification for the reduction in regulatory requirements for ingestion exposure pathway EPZs was that the United States has experience with large-scale food quarantines via disease contamination outbreaks and that experience could be used to perform an expedient reaction to a radioactive contamination event.

The document also has an extensive section on cost benefits for implementing the new framework.

Wisconsin Comments

1. Wisconsin agrees with the process of using dose-based assessment to establish plume exposure pathway EPZs derived from the smaller source terms of Small Modular Reactors (SMRs) and Other Nuclear Technologies (ONTs). Wisconsin also agrees that no plume exposure Emergency Preparedness (EP) response is warranted at distances beyond the 1 rem offsite dose threshold consistent with EPA Protective Action Guidelines.

2. Wisconsin also agrees conceptually with the scaling of ingestion exposure pathway EPZs based on smaller SMR/ONT source terms. However, Wisconsin recommends a more thorough analysis of the unique scaling considerations of ingestion exposure pathway EPZs. The basis for scaling ingestion exposure pathway EPZs is unclear. STC-17-040 does not provide an analogous metric to the dose based assessment for plume exposure pathway EPZs to determine appropriate ingestion exposure pathway EPZs.

3. On page 5-5 under 5.1.3, it is stated that Offsite Governmental Organizations (OGOs) may need to establish a Radiological Emergency Preparedness program if the plume exposure pathway

EPZ is outside the site boundary but within 10 miles. Wisconsin maintains that any potential for offsite plume release outside the site boundary will require a REP program. Additionally, even for a plume exposure pathway EPZ within the site boundary, the ingestion exposure pathway EPZ should still extend beyond the site boundary and necessitate an OGO response.

4. Wisconsin would like clarity for the following statement: “A REP program for a 2-mile plume exposure pathway EPZ would most likely be different from the cost to establish a REP program for the current 10-mile plume exposure pathway EPZ.” There are a number of relatively static costs for a REP program regardless of EPZ size such as the activation of an Emergency Operations Center, law enforcement response, hospital response, field team response etc. The true scalability of these costs is unknown at this time.