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May 12, 2021

Chris Regan – Acting Director
Division of Fuel Management
Office of Nuclear Material Safety and Safeguards

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Docket No.:
72-1008, Certificate of Compliance (CoC) No. 1008
72-1014, Certificate of Compliance (CoC) No. 1014
72-1032, Certificate of Compliance (CoC) No. 1032
72-1040, Certificate of Compliance (CoC) No. 1040

Subject: Extreme Environmental Phenomena During Short Term Operations Within 10CFR72
Jurisdiction

Dear Mr. Regan:

The purpose of this letter is to request clarification on the consideration of extreme environmental phenomena during “short term operations” (STO) within Part 72 jurisdiction.

The guidance documents for Dry Storage operation, namely NUREG-1536 and now NUREG-2215, state with respect to consideration of tornado missile impact that:

“... an earthquake or tornado may occur at any time and in combination with any “normal” condition.”

And

“The NRC staff considers that tornados and tornado missiles may occur without warning.”

While the NUREGs are understood to be guidance documents, the wording in these sections appears to preclude any administrative approach to address tornado missile impacts. However, the application of administrative actions to restrict operations during risk of tornados has apparently been considered acceptable by NRC in the context of the inspections of the loading procedures for



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some of our clients. This situation results in regulatory uncertainty that we believe should be addressed generically, not on a case-by case basis.

Holtec's FSARs contain the safety analyses that show that the mechanical integrity of the SNF and continued confinement effectiveness of the MPCs during their residence in the transfer cask or the storage overpack in the principal physical states of short or long duration configurations is assured, and site-specific projectiles are also considered if need be. However, that does not extend to "transient states" during STOs, when the cask may be undergoing a transition from one configuration to another during transport operations, such as during upending or down ending activities, change out of the rigging, or installation of the closure lid outside the truck bay. These transient states are of very short duration and often involve multiple indeterminate configurations of ancillaries, and as such, have not been explicitly modeled, and are not included in the FSAR. Based on this short duration, it should therefore be acceptable to utilize the current and forecasted local meteorological information to inform planning of short term operations to avoid tornado missile impact and hence maximize operational and crew safety, without the need to explicitly analyze the transitional evolutions for safety confirmation.

As stated above, we request written clarification on this subject, through docketed correspondence. As there are licensees currently loading or in preparation to load dry storage systems, we request a timely response so they can continue with the necessary regulatory clarity. Please inform us of when we should expect such a response.

If you have any questions, please contact me at (856) 296-9219 or s.anton@holtec.com.

Sincerely,

Stefan Anton, Dr.-Ing.
Vice President of Engineering
Holtec International

cc:(via email)

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