

From: [Scott Atwater](#)
To: [RulemakingComments Resource](#)
Subject: [External_Sender] Document ID NRC-2015-0067-0001
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Attachments: [Federal Register Input for UMAX Amendment 1.docx](#)

I am e-mailing my comments in Microsoft Word so that the information is captured correctly. My input to Regulations.Gov carried symbols that were unclear.

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INPUT TO FEDERAL REGISTER

AMENDMENT 1 TO DOCKET NO. 72-1040, HOLTEC HI-STORM UMAX CANISTER STORAGE SYSTEM.

(Submitted 07/21/15)

Input:

The Holtec UMAX system is described as an underground system throughout the 72-1040 Certificate of Compliance, Final Safety Analysis Report, and NRC Safety Evaluation Report. However the term “underground” does not appear to be defined anywhere. Although underground is commonly defined as the regions below the surface of the earth, this is not clearly stated in the license. Without this definition, the UMAX system could be installed partially underground and the above ground portion could be backfilled with soil. This does not meet the intent of underground and it has serious earthquake implications.

Therefore I am requesting this federal register be pulled until:

- The CoC and Amendment 1 specifically limit the UMAX to a total underground (below surface of earth) configuration, or
- The UMAX system has been seismically analyzed (including liquefaction near ground water) for a partially underground / partially above ground configuration, with an earthen berm around the upper half.

Applicable Regulatory Requirements Impacted:

Features or characteristics for the site and system must be in accordance with Appendix B to this certificate.

CoC 1040, Amendment 0, Condition 6

The resultant zero period acceleration at the **top-of-grade** and at the elevation of the Support Foundation Pad (SFP) at the host site (computed by the Newmark’s rule as the sum of $A+0.4*B+0.4*C$, where A, B, C denote the free field ZPA’s in the three orthogonal directions in decreasing magnitude, i.e., $A \geq B \geq C$) shall be less than or equal to 1.3 and 1.214, respectively.

CoC 1040, Amendment 0, Appendix B, Design Criteria Section 3.4.3

The HI-STORM UMAX VVM, shown in the licensing drawing in Section 1.5, provides for storage of the MPC in a vertical configuration inside a subterranean cylindrical cavity entirely below the **top-of-grade** (TOG) of the ISFSI. The licensing drawing in Section 1.5 shows the **top-of-grade** to be just below the ISFSI pad.

FSAR on the HI-STORM UMAX Canister Storage System, Section 1.2.2

The licensee shall review the FSAR referenced in the CoC and the related NRC Safety Evaluation Report to determine whether or not the reactor site parameters are enveloped by the cask design basis considered in these reports. The results of this review must be documented in the evaluation made in 10 CFR 72.212(b)(2).

10 CFR 72.212(b)(6) (2014)

The licensee shall perform written evaluations, before use, which establish that cask storage pads and areas have been designed to adequately support the static and dynamic loads of the stored casks, considering potential amplification of earthquakes through soil-structure interaction, and soil liquefaction potential or other soil instability due to vibratory ground motion.

10 CFR 72.212(b)(5) (2014)

The licensee shall review the FSAR referenced in the CoC and the related NRC Safety Evaluation Report to determine whether or not the earthquake intensity is enveloped by the cask design basis considered in these reports. The results of this review must be documented in the evaluation made in 10 CFR 72.212(b)(2).

10 CFR 72.212(b)(6) (2014)