Haverkamp, Trisha

From: McKinley, Raymond
Sent: Monday, November 17, 2014 2:50 PM
To: mary.lampert@comcast.net
Subject: Response - FW: Questions regarding Seismic Restraints and the Vertical Cask Transporter
Attachments: Lampert Pilgrim QA 10-15-2014email.pdf

Mary,

Please see the attached PDF which addresses your questions below.

Sincerely,

Ray McKinley
Chief, Division of Reactor Projects Branch 5
U.S. NRC Region I

From: Mary Lampert [mailto:mary.lampert@comcast.net]
Sent: Wednesday, October 15, 2014 11:46 AM
To: McKinley, Raymond
Cc: Kevin Nord; michal freedhoff; Dave Lochbaum; weavenel@gmail.com; Becky Chin; James lampert; marischka dopp; Nancy Nowak; Pat Gagnon
Subject: Questions regarding Seismic Restraints and the Vertical Cask Transporter

October 15, 2014

Hello Ray:

Hope you had an enjoyable Columbus Day week-end; here are a couple of questions regarding seismic restraints and the Vertical Cask Transporter.

Reactor Building Crane

If seismic restraints were not already in place, does Pilgrim's upgrade include adding seismic restraints to maintain the crane on the girder and runway rails? If not, please explain the justification for not including the seismic restraints. Specifically, absent the restraints in a maximal seismic event that can be anticipated today and into the future, how will the crane stay on the girder and runway rails? Include in the answer, the maximum earthquake assumed and the basis for choosing that level of severity.

Vertical Cask Transporter (VCT)

- Please provide MLs for analysis of Pilgrim's VCT and associated documents
- Does Pilgrim's VCT use foam filled rubber tires instead of the old track-style systems?
- If Pilgrim does not use rubber tires please explain the justification by Entergy and NRC to allow the use of a VCT with track tires. We understand that rubber tires have advantages in seismic situations (rubber tires

have elasticity and a lower center of gravity). Again, please include in the answer, the maximum earthquake assumed and the basis for choosing that level of severity.

- If Pilgrim does not use foam filled rubber tires please explain the justification by Entergy and NRC to allow the use of a VCT without foam fill. We understand that foam fill prevents flat-spotting, loss of pressure, blow-outs and prevents damage to travel surface.

We really appreciate your help in providing information so that we can better understand what is going on and if it is in the best interest of our communities. We also hope that our questions may stimulate that "extra look" by NRC so that all "T's" are crossed and "I's" dotted by your inspectors.

Cheers,

Mary

Mary Lampert, on behalf of
Pilgrim Watch/ Town of Duxbury Nuclear Advisory Committee
148 Washington Street
Duxbury MA 02332
Tel 781.934.0389/Email: mary.lampert@comcast.net

1. **Reactor Building Crane**

   If seismic restraints were not already in place, does Pilgrim's upgrade include adding seismic restraints to maintain the crane on the girder and runway rails? If not, please explain the justification for not including the seismic restraints. Specifically, absent the restraints in a maximal seismic event that can be anticipated today and into the future, how will the crane stay on the girder and runway rails? Include in the answer, the maximum earthquake assumed and the basis for choosing that level of severity.

   The Reactor Building crane is a Class II component upgraded to meet the guidance of NUREG-0554 for single-failure-proof cranes and the guidance of NUREG-0612 Appendix C for the modification of existing cranes. The upgraded crane includes a new trolley with a single-failure-proof 100 ton main hoist, designed and qualified in accordance with the appropriated requirements of ASME NOG-1-2004. The trolley also includes a 10 ton non single-failure- proof auxiliary hoist which conforms to the requirements of the Crane Manufactures Association of America Specification # 70. The Reactor Building crane has been evaluated for earthquake loading to meet NUREG-0554 seismic design requirements, and the Reactor Building structure has been evaluated to ensure its integrity for the associated crane reactions.

   The reactor building crane meets the NUREG-0554 and ASME NOG-1 requirements and is qualified to the Operating Basis Earthquake (OBE) and Safe Shutdown Earthquake (SSE). This equates to a horizontal ground acceleration of 0.08g (OBE) and 0.15g (SSE). The crane is designed to meet the sites current licensed design basis seismic event.

2. **Vertical Cask Transporter (VCT)**

   - **Please provide MLs for analysis of Pilgrim's VCT and associated documents**
   - **Does Pilgrim's VCT use foam filled rubber tires instead of old track-style systems?**
   - **If Pilgrim does not use rubber tires please explain the justification by Entergy and NRC to allow the use of a VCT with track tires. We understand that rubber tires have advantages in seismic situations (rubber tires have elasticity and a lower center of gravity). Again, please include in the answer, the maximum earthquake assumed and the basis for choosing that level of severity.**
   - **If Pilgrim does not use <u>foam filled</u> rubber tires please explain the justification by Entergy and NRC to allow the use of a VCT without foam fill. We understand that foam fill prevents flat-spotting, loss of pressure, blow-outs and prevents damage to travel surface.**

   Entergy is constructing and operating an Independent Spent Fuel Storage Installation (ISFSI) under a general license. They will be using the HOLTEC HI-STORM 100 system as licensed and described in Amendment 7 of the Certificate of Compliance (ADAMS Accession Number: ML093620049) and HOLTEC's Final Safety Analysis Report (revision 9) (ADAMS Accession Number: ML101400161). Information concerning the vertical cask transporter (VCT) are discussed in the documents referenced above and can be found in ADAMS, the NRC's electronic filing system. The VCT being used by Entergy at Pilgrim has foam filled rubber tires.