Haverkamp, Trisha

From: McKinley, Raymond
Sent: Monday, January 26, 2015 12:07 PM
To: Mary Lampert
Subject: RE: Pilgrim's cask- weight?
Attachments: Lampert Pilgrim QA 1-9-2015.pdf

Mary,

Please see the attached PDF for the answers to your questions.

Ray McKinley

Chief, Division of Reactor Projects Branch 5

U.S. NRC Region I

From: Mary Lampert [mailto:mary.lampert@comcast.net]
Sent: Friday, January 09, 2015 10:00 AM
To: McKinley, Raymond
Cc: Pine DuBois
Subject: Pilgrim's cask- weight?

Hello Ray and Happy New Year!

There is a dispute up here regarding the actual weight of Pilgrim's dry cask.

I think the widely varied numbers may refer to different steps in the process. Hope you can resolve it.

Is my understanding correct that Pilgrim is using Holtec HI-Storm 100 S Version B MPC-68 dry cask storage system? The system is comprised of three components: MPC-68, HI-TRAC 100D, and HI-STORM 100 S Version B MPC-68.

- MPC-68 is a leak-tight metal canister that has a storage capacity of 68 BWR spent fuel assemblies.
- HI-TRAC 100D transfer cask is a metal transfer cask that provides a means to lift and handle the canister as well as provide radiological shielding of the spent fuel assemblies
- HI-STORM 100 S Version B storage overpack is steel-encased concrete storage cask that provides physical protection and radiological shielding for the metal canister when in storage. It is vented for natural convection cooling to dissipate the spent fuel decay heat.

1. How much does the cask itself weigh when placed into the pool to get loaded?
2. How much does the fully loaded cask (68 assemblies) weigh while inside the pool?
3. How much does the cask weigh when it is taken out of the pool, dewatered and then lowered to the building floor to get ready for transport?
4. How much does it weigh when placed on the outdoor pad-total weight that includes assemblies, canister, outer pack?

Thank you!

At Pilgrim Nuclear Power Station, Entergy is using the HOLTEC HI-STORM 100S Version B for the on-site dry storage of spent nuclear fuel. The system consists of three main components: MPC-68, HI-TRAC 100D, and the HI-STORM 100S Version B. Entergy has constructed and began operations of an Independent Spent Fuel Storage Installation (ISFSI) under a general license. Details about the system and its operations can be found in Amendment 7 of the HOLTEC HI-STORM 100S Version B Certificate of Compliance (ADAMS Accession Number: ML093620049) and HOLTEC's Final Safety Analysis Report (revision 9) (ADAMS Accession Number: ML101400161).

In your January 9, 2015 email you asked several questions concerning the weight of components at various stages of the dry cask loading process. In the table below, two sets of values are provided. The first is the calculated weight using values in the FSAR. The second is an actual weight as recorded during Pilgrim's initial loading campaign and verified during on-site inspections conducted by the NRC.

Cask Configuration	FSAR[1] Value (lbs)	Actual Recorded Value (lbs)[2]
1. How much does the cask[3] itself weigh when placed into the pool to get loaded?	121,306	NA[4]
2. How much does the fully loaded cask (68 assemblies) weigh while inside the pool?	209,558	184,500
3. How much does the cask weigh when it is taken out of the pool, dewatered and then lowered to the building floor to get ready for transport?	193,679	174,235
4. How much does it weigh when placed on the outdoor pad-total weight that includes assemblies, canister, outer pack?	392,281	NA[4]

[1]Actual component weights are dependent upon as-built dimensions. FSAR values are located in Table 8.1.3 & 8.1.4 and are estimates.
[2]Adjusted for Yoke weight (i.e., removed from actual measured value on crane).
[3]Cask = MPC + Transfer Cask (HI-TRAC).
[4]No recorded value for cask in this configuration.