

September 7, 2016

Kimberly Manzione  
Licensing Manager  
Holtec Center  
One Holtec Drive  
Marlton, NJ 08053

Subject: RESPONSE TO HOLTEC REQUEST FOR CLARIFICATION ON REGULATORY INFORMATION SUMMARY 2015-13, HOLTEC LETTER 5014813 DATED JULY 22, 2016

Dear Ms. Manzione:

In a letter dated July 22, 2016, Holtec International requested a technical clarification regarding Regulatory Information Summary (RIS) 2015-13. When the draft RIS was issued for public comment in April 2015, it stated the following:

The maximum from the mean plus one standard deviation value of the response (maximum rocking angle, maximum sliding displacement, maximum vertical load and shear load) from each discrete simulation should be defined as the "computed" response for the stack-up configuration, where a discrete simulation consists of five earthquake time history analyses using one friction value.

In your letter dated June 4, 2015, Holtec submitted a comment to the U.S. Nuclear Regulatory Commission (NRC) stating the following:

The mean plus one standard deviation value of the maximum responses should be considered as the computed response only for the maximum rocking and the maximum sliding displacement. For force and moment results, the computed response should be taken as the mean value of the maximum responses. This would be consistent with the guidance in Section 3.3.2 of 4-98 which states: "If five or more accelerograms are used, the mean of the calculated responses may be used in making demand-to-capacity checks." Using the mean plus one standard deviation value for forces would be unnecessarily conservative since design codes, such as ASME Section III, Subsection NF, have built-in safety factors associated with their allowable limits.

The NRC staff response to this comment stated that "The RIS has been changed to eliminate forces from the computed response discussion." However, in the final RIS document there remained one statement regarding the mating device joint that reads as follows:

The joint moment and shear should be taken as the mean plus one standard deviation value of the maximum moments and shear forces recorded for each discrete simulation.

This was indeed an oversight. Regarding the mating device joint, the correct statement is:

The joint moment and shear should be taken as the mean value of the maximum moments and shear forces recorded for each discrete simulation.

Thank you for bringing this to our attention. Please refer to this response should questions on this issue arise in the future. This correct statement will be incorporated in a future revision to the RIS. If you have any further questions please contact Mr. Gordon Bjorkman on my staff at 301-415-7401.

Sincerely,

**/RA Anthony Hsia Acting for/**

Mark Lombard, Director  
Division of Spent Fuel Management  
Office of Nuclear Material Safety  
and Safeguards

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|--------|-------------|------------|-------------|-----------|--------------------------|
| Office | DSFM        | DSFM/CSTB  | NMSS/SFLB   | NMSS/DSFM | NMSS/DSFM                |
| Name   | G. Bjorkman | J. Piotter | J. McKirgan | A. Hsia   | A.Hsia for<br>M. Lombard |
| Date   | 8-30-16     | 8/29/2016  | 8/29/16     | 9/7/16    | 9/7/16                   |