

**Allen, William**

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**From:** Mark Tursa <Mark.Tursa@pgn.com>  
**Sent:** Friday, May 15, 2020 8:11 PM  
**To:** Allen, William  
**Cc:** Jim VanLooven; Kim Lehman  
**Subject:** [External\_Sender] Trojan hazards analysis - RG 1.91 criteria

Chris,

During our recent call I committed to discussing Regulatory Guide 1.91 with Sargent Lundy as it applies to the Trojan ISFSI hazard analysis prepared by Sargent & Lundy and recently submitted in LCA 72-08. The specific question was whether the hazard probabilities for multiple chemicals should be combined.

Regulatory guide 1.91, Revision 2, pages 5 and 6 discusses a method for evaluating whether the probability of a hazard is acceptably low. The methodology described discusses the evaluation of risk on a per substance basis. Regulatory Guide 1.91, Revision 2 specifically states that if a given substance is shipped by multiple transportation modes, the risk from all modes should be summed. There is no indication that the risk from all chemical hazards should be summed.

Prior guidance in Regulatory Guide 1.91, Revision 1, page 1.91-2 clearly states that the acceptance criterion applies to Equation (2), which calculates the exposure for an individual substance. Revision 1 also states that the risk from multiple transportation modes should be summed for a given chemical, but does not indicate all chemicals should be summed.

Based on the available regulatory guidance, our interpretation of the acceptance criterion is that all hazard sources for an individual chemical (tank, pipeline, barge, train, etc.) combined are  $< 10^{-6}$  events/year.

Please let me know if you have any questions on this information.

Thank you.

Mark