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**Subject:** FAQ 003 - Hazard Screening  
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**Attachments:** [Inq 003 Hazard Screening rev 3 for NRC.docx](#)

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Chris, Ed;

We discussed an earlier version of the attached FAQ at our last meeting. You had some comments on the examples it provided. The attached version revises the examples. I would like to discuss this at our next meeting.

Thanks!

*Jim Riley*

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## Flooding Guidance Inquiry Form

**A. TOPIC:** Hazard Screening

Inq. No.: 003

Source document: NUREG/CR 7046

Section: \_\_\_\_\_

**B. DESCRIPTION:**

This paper is intended to clarify how specific flooding mechanisms can be screened during the process of scoping flooding reevaluations due to the flooding mechanism not being plausible or applicable to the site.

**D. RESOLUTION:** (Include additional pages if necessary. Total pages: 1)

Mechanisms that are not plausible or applicable at the site may be screened out. However, an engineering justification that includes a quantitative engineering basis (information based on facts and data, but not necessarily an analysis) must be included for any flooding mechanism that is screened. The engineering justification should address the causal phenomena or mechanisms that could lead to flooding which are determined to be either absent or are insignificant. Flood-causing mechanisms that could be considered for screening include hydrometeorological, geoseismic, or structural failure phenomena that are incapable of propagating to produce flooding at or near the site. The geographical area that is relevant includes the vicinity of the site or site region taking into consideration the nature of the flood-causing mechanism. The justification should also document that the flood causing mechanism to be excluded is not evident in any of the historical data for the site or area that can propagate to the site.

Examples of flooding mechanisms that could be screened through an engineering justification include the following:

1. Ice induced flooding events in regions where meteorological data does not support the physical initiating mechanism of temperatures that support sufficient ice formation or accumulation.
2. Tsumani's where there is no credible seismic source, no credible surface or subsurface unstable geological slide source, or the water depth does not support credible wave development based on data from the US National Geophysical Data Center and the US Geological Survey.
3. Hurricanes for plants inland protected by natural barriers such as mountain ranges or distances greater than 200 miles bordering the Pacific Ocean, Atlantic Ocean, or Gulf of Mexico.
4. Flooding from landslides on flat stable topography within the geographical watershed area.
5. River flooding where the site is located on a bluff significantly above the river flood plain and safety related plant systems, structures or components are not affected by flooding.
6. Channel diversions (flooding caused by the river diverting towards the site) for sites that draw cooling water from an impounded river (reservoir).

In applying these examples, actual situations would need to be validated based on location specific data including a review to rule out any historical anomalies that might exist.

The HHA process as described in NUREG CR/7046 may also be used to eliminate the same potential flooding mechanisms.

Revision: 3 Date: 7/30/12

**E. NRC Review:**

Not Necessary \_\_\_\_\_ Interpretation ☒ \_\_\_\_\_ Agency Position \_\_\_\_\_

Explanation: \_\_\_\_\_

**F. Industry Approval:**

Documentation Method: July 12 meeting summary Date: \_\_\_\_\_

## **Flooding Guidance Inquiry Form**