

FAQ 025: 2D Versus 1D Flood Modeling

A. TOPIC: Use of Location-Specific Results to assess an Integrated Assessment Trigger

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B. DESCRIPTION:

Flood hazard reevaluations frequently include the use of 2-dimensional (2D) modeling to compute and report flood parameters (e.g. stillwater elevation, wave and runoff heights, velocities, hydrodynamic loads, etc.) that typically vary throughout the plant. In situations where the 2D results are bounded by the current design basis hazard (including associated affects) at all safety-related SSCs, but not necessarily at non-safety related SSCs, is an Integrated Assessment required? That is, can the Integrated Assessment trigger be assessed based on location-specific results, particularly when 2D models are used to compute and report flood parameters?

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

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Location-specific results (particularly from a 2D model) can be used to assess the Integrated Assessment trigger under the following conditions:

- The 2D results are bounded by the current design basis hazard (including associated affects) at all safety-related SSCs, but not necessarily at non-safety related SSCs.
- Non-safety related SSCs, where reevaluated results are non-bounding, do not permanently or temporarily store safety-related equipment; and
- Actions required to provide flood protection and/or mitigation are not affected or do not occur in areas where results are not bounding.

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E. NRC Review:

Not Necessary Necessary X

Explanation:

F. Industry Approval:

Documentation Method: Date:

G. NRC Acceptance:

Interpretation Agency Position

Documentation Method: Date: