

Response to SDAA Audit Question

Question Number: A-3.4.1-7

Receipt Date: 12/18/2023

Question:

The NuScale internal flooding analysis assumes flood sources are limited to 40 and 30 minutes in the Reactor Building (RXB) and Control Room Building (CRB), respectively. No basis or justification are provided for these time limits. Discuss (e.g., limited water volumes or credited actions to isolate line breaks) these time limit assumptions.

Response:

It is assumed that a flood source will be detected and isolated within 40 minutes after leak initiation for the Reactor Building (RXB) and 30 minutes for the Control Room Building (CRB). This is based on plant personnel operative walk-downs, the use of plant monitoring equipment, and the use of closed-circuit video monitoring systems for keeping visuals on many sections of the plant. This is a reasonable value for a normally occupied structure.

No changes to the SDAA are necessary.