

PUBLIC SUBMISSION

As of: 12/23/19 12:14 PM
Received: December 19, 2019
Status: Pending_Post
Tracking No. 1k3-9dyl-u2nb
Comments Due: December 19, 2019
Submission Type: Web

Docket: NRC-2019-0180

Alternative Method for Calculating Embrittlement for Steel Reactor Vessels

Comment On: NRC-2019-0180-0003

Alternative Method for Calculating Embrittlement for Steel Reactor Vessels; Request for Comment on Petition for Rulemaking

Document: NRC-2019-0180-DRAFT-0006

Comment on FR Doc # 2019-24936

Submitter Information

Name: Marianne Birkby

General Comment

I endorse the views of others commenting that this is a backwards step with regards public safety. We are a civil society nuclear safety group in Cumbria called Radiation Free Lakeland who like many others including countries such as Austria are of the opinion borne out by scientific evidence that there is no such thing as a safe nuclear reactor.

To relax the rules is reckless with the health of the public and the environment.

We fully endorse the view of 'Mining Awareness' that "NuScale reactor pressure vessels are apparently more at risk than regular nuclear reactors for sudden catastrophic pressure vessel failure, and thus catastrophic nuclear disaster.

"According to a study commissioned by the US DOE, NuScale, and similar designs, have thinner nuclear reactor pressure vessel shells, but "significant radiation damage occurs through a greater fraction of wall thickness". Thus, they suffer from more embrittlement and therefore would be more subject to sudden through wall cracking and pressure vessel failure.

"And, yet, Thomas A. Bergman, on behalf of NuScale Power, LLC "requests that the NRC amend 10 CFR part 50 to alleviate a requirement for calculating the embrittlement for advanced reactor designs and add the embrittlement trend curve formula for calculating the mean value of the transition temperature shift described in American Society for Testing and Materials (ASTM) E900-15..." <https://www.regulations.gov/document?D=NRC-2019-0180-0003> The earlier examples are of differing designs from NuScale. A mean value is the arithmetic average and doesn't take into consideration scatter. If you add Bill Gates' wealth with your own, and divide by two, it probably doesn't reflect your wealth. That's an arithmetic average. In many cases we want the median average - half above and half below. However, when it comes to nuclear disaster, we want the value which is the most safe and conservative. The safest, of course, is no more nuclear reactors. They are unnecessary and the risks are too high."

The risks are already too high without any relaxing of the regulatory regime.