

As of: 2/12/16 8:57 AM Received: February 11, 2016 Status: Pending_Post Tracking No. 1k0-8nwq-k2s0 Comments Due: February 11, 2016 Submission Type: Web
--

PUBLIC SUBMISSION

Docket: NRC-2014-0240
Mitigation Strategies for Beyond Design Basis Events

Comment On: NRC-2014-0240-0003
Mitigation of Beyond-Design-Basis Events

Document: NRC-2014-0240-DRAFT-0020
Comment on FR Doc # 2015-28589

Submitter Information

Name: Bob Lutz
Address:
boblutz1630@gmail.com
Hendersonville, NC, 28791
Email: boblutz1630@gmail.com

General Comment

See attached file(s)

Attachments

NRC-2014-0240 Comment Letter

Robert J. Lutz, Jr.
Lutz Safety Consultant
256 Millbrae Loop
Hendersonville, North Carolina 28791
February 11, 2016

Secretary, U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
ATTN: Rulemakings and Adjudications Staff.

Docket ID NRC-2014-0240

This letter represents my input, as an internationally recognized expert on accident management, to the proposed rulemaking regarding Mitigation of Beyond-Design-Basis Events, identified as NRC-2014-0240.

Based on the discussion in the attachment, I conclude that the proposed rulemaking provides an adequate response to the lessons learned from the Fukushima accident in 2011. While the U.S. post-Fukushima response is different in some respects from international response, it is nonetheless a significant safety enhancement for the U.S. nuclear fleet that is consistent with existing U.S. regulatory policies and procedures.

I would recommend that the development of the final rule also include companion inspection guidance (which has been made available for stakeholder input) for the provisions of the new rule as well as the regulatory oversight of Severe Accident Management. While the NRC has published the draft regulatory guidance for stakeholder comment, this does not necessarily represent the methodology for conducting periodic inspections of the licensee compliance with the rule and the voluntary commitment. In addition to examination of licensee documents and records versus the elements of the rule, I believe that a performance based approach is appropriate that would include, for example, review of the manner in which enhancements are incorporated into accident management procedures and guidance based on lessons learned (e.g., further insights from Decommissioning and dismantling of the Fukushima reactors, insights from trial usage of the during drills and exercises, etc.).

Let me also congratulate the NRC Commissioners for clearly defining the scope of the proposed rulemaking staff within the authority and responsibility of the agency; the NRC staff for diligently considering stakeholder input and developing a set of meaningful regulatory requirements; and the nuclear industry for their leadership in proposing guidance and methods for mitigation of beyond design basis events. In particular, the industry leadership in developing implementation guidance for the new regulatory requirements (e.g., NEI 12-06, NEI 13-06, NEI 14-01, etc.), as well as the voluntary licensee commitments to the NRC to implement and maintain the enhanced Severe Accident Management Guidance (SAMG), represents a mutually agreeable path forward that has made the NRC's task a bit easier.

I thank you for the opportunity to provide input in this matter.

Respectfully,

Electronically signed

Bob Lutz

Discussion regarding NRC Proposed Rulemaking NRC-2104-0240

This rulemaking codifies the new regulatory requirements under the EA-12-049, 050 and 051 “Orders” that were based on “ensuring adequate protection” of the health and safety of the general public. The EA-12-049 and 051 Orders added new requirements for prevention of severe accidents (i.e., core melt accidents). The EA-12-050 Order (as later modified by EA-13-109) was the only new requirement dealing with the mitigation of the potential consequences of core damage accidents and only applied to Mark I and Mark II BWR containment types.

In my opinion the overall scope of the rulemaking, which in large part codifies the new regulatory requirements under the EA-12-049, 050 (as modified by EA-13-109) and 051 “Orders” that were based on “ensuring adequate protection” of the health and safety of the general public, is entirely consistent with long-standing U.S. regulatory policies and procedures including the “Backfit” Rule (10 CFR 50.109) and the Safety Goal Policy. As such, the proposed rule provides a significant enhancement to nuclear safety that is based on the lessons learned from the March 2011 Fukushima accident and that are cost effective. In this respect, the U.S. is not completely consistent with the post-Fukushima international approach to accident management wherein regulatory requirements have been established by many European and Asian regulatory bodies for severe accident mitigation equipment (filter containment vents and hydrogen control equipment for both PWRs and BWRs), severe accident instrumentation and severe accident procedures; these European and Asian regulatory bodies are not subject to policies and procedures similar to the U.S. Backfit Rule or Safety Goal Policy. However, the proposed rulemaking represents a cost effective approach to addressing the lessons learned from the Fukushima accident.

The U.S. post-Fukushima response has addressed many of the recommendations in the ASME’s “Forging a New Nuclear Safety Construct” dated June 2012. But the overarching recommendation has not been fully addressed in the U.S. response.

“Protection of public health and safety from radiological releases has been and continues to be the primary focus of nuclear safety. The present body of knowledge, including lessons from severe reactor accidents, establishes the importance of maintaining that focus, yet brings out a relevant fact: The major consequences of severe accidents at nuclear plants have been socio-political and economic disruptions inflicting enormous cost to society.”

The accepted methodology (e.g., NUREG/BR-0184) for determining costs for the “Backfit Rule” does not include some costs that have been identified for the Fukushima accident including the many aspects of temporary and permanent relocation of the population around a nuclear facility. It is noted that the NRC staff is in the process of updating the methodology as discussed in SECY-14-0002. However in reviewing the Regulatory Analyses that documented the NRC staff’s cost effectiveness conclusions for this rulemaking, it is evident to me that even considering these societal costs would not have changed the NRC conclusions relative to this rulemaking.