



NUCLEAR ENERGY INSTITUTE

Biff Bradley
DIRECTOR
RISK ASSESSMENT
NUCLEAR GENERATION DIVISION

12/29/2012

77 FR 81998

3

April 18, 2012

Ms. Cindy K. Bladey
Chief, Rules, Announcements and Directives Branch
Office of Administration
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

RECEIVED

APR 19 PM 3:57

RULES AND DIRECTIVES

Subject: Industry Comments on Draft NUREG-CF-7114, "Methodology for Low Power/Shutdown Fire PRA" (*Federal Register* dated December 29, 2011; 76 FR 81998; Docket ID NRC-2011-0295)

Project Number: 689

Dear Ms. Bladey:

The Nuclear Energy Institute (NEI)¹, on behalf of the nuclear energy industry, appreciates the opportunity to comment on the subject *Federal Register* notice issued for public comment, a draft NUREG titled "Methodology for Low Power/Shutdown Fire PRA," and further appreciates the NRC's efforts to work with the industry to advance the state of the art of PRA modeling techniques to expand the use of risk-informed regulation. However, based on review by industry technical experts in the areas of Fire PRA modeling and Low Power/Shutdown (LPSD) PRA modeling, the draft NUREG, as currently written, does not present a comprehensive, technically sound approach to modeling the risk from internal fires during low power/shutdown (LPSD) operations, and LPSD Fire PRAs do not have a clear regulatory application at this time. NEI therefore recommends that this NUREG not be issued.

The industry is particularly concerned about this draft NUREG given recent experiences with NUREG/CR-6850, EPRI 1011989, "Fire PRA Methodology for Nuclear Power Facilities." The document, issued in 2005, detailed methods for modeling risk from internal fires, many of which were still under development and undergoing refinement when the final NUREG was published.

¹ NEI is the organization responsible for establishing unified nuclear industry policy on matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI's members include all utilities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect/engineering firms, fuel fabrication facilities, materials licensees, and other organizations and individuals involved in the nuclear energy industry.

30 NRC Review Complete

FRIDS = ADA-03

Template = ADA-013

Call = F. Young (Feg)

Ms. Cindy K. Bladey
April 18, 2012
Page 2

Once these methods were published, regulatory expectations for the development and use of Fire PRAs increased substantially, despite industry concerns that the methods discussed in the NUREG were not capable of producing realistic results. This led to inefficient uses of NRC and industry resources, as licensees expended resources to continuously incorporate new and more realistic fire PRA methods that were not available when NUREG/CR-6850 was published, and the NRC was left to understand constantly evolving methods while simultaneously reviewing licensing applications using the results of Fire PRAs that incorporated them. Nearly seven years later, these methods are still being refined and difficulties associated with using them in regulatory applications continue. To repeat this process by prematurely publishing this NUREG on LPSD Fire PRA would further complicate the technical and regulatory issues being dealt with in At-Power Fire PRAs.

While the regulatory lessons learned from the experience of NUREG/CR-6850 raise several major concerns regarding the issuance of this draft NUREG, the technical deficiencies associated with the document itself are also extensive. Many key components of LPSD Fire PRA development, such as HRA quantification, are not addressed and are instead treated as out of scope of the document's purpose. If the methods in this document are used with such limitations, the results will be unrealistic and useless for regulatory applications. The Electric Power Research Institute has submitted detailed comments regarding these technical limitations and their implications, and NEI urges the NRC to strongly consider these issues in deciding whether or not to issue this draft NUREG.

Finally, it is unclear what the regulatory application for LPSD Fire PRA is at this time, and it is therefore not urgent to issue this NUREG. As outages vary substantially, no plant will be able to define a typical outage and calculate an average core damage frequency, which makes use of an LPSD Fire PRA for regulatory applications extremely difficult. Given the lack of a near-term regulatory need for such a methodology, it would be prudent for the NRC to withdraw this document and continue refining the methods before re-issuing the document for public comment in the future.

Should you have any questions about these comments, please contact me or Victoria Anderson (202-247-1669; vka@nei.org).

Sincerely,

A handwritten signature in black ink that reads "Biff" followed by a stylized, looping flourish.

Biff Bradley

c: Mr. Richard P. Correia, RES/DRA, NRC
Mr. Felix E. Gonzalez, RES/DRA/FRB, NRC