



NUCLEAR ENERGY INSTITUTE

Janet R. Schlueter
DIRECTOR
FUEL & MATERIALS SAFETY
NUCLEAR GENERATION DIVISION

November 19, 2010

Mr. Michael D. Tschiltz
Acting Director
Division of Fuel Cycle Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Industry Comments on Staff Draft Comparison Paper on Integrated Safety Analysis and Probabilistic Risk Assessment at Fuel Facilities in Response to the May 12, 2010 Staff Requirements Memorandum for the April 29, 2010 Commission Briefing on the Fuel Cycle Oversight Process

Project Number: 689

Dear Mr. Tschiltz:

On behalf of the fuel cycle industry, the Nuclear Energy Institute (NEI)¹ submits the general comments below and the more specific comments (Attachment 1) on the U.S. Nuclear Regulatory Commission (NRC) staff's draft comparison paper entitled, "NRC Staff Considerations on a Comparison of Integrated Safety Analysis to Probabilistic Risk Assessment" (ISA, PRA, respectively). These written comments are consistent with and document the verbal comments provided by industry during the very productive NRC public meeting held on November 5, 2010, at the NRC Region II offices.

Industry recommends that the NRC staff present two distinct comparisons in the draft paper:

The first comparison should focus on the purpose, objectives and capabilities of both ISA and PRA methodologies in support of establishing the safety basis and demonstrating compliance with the regulations governing power reactors and fuel cycle facilities. This comparison should conclude with definitive statements as to how each method is currently used to establish an appropriate safety basis for licensed facilities and demonstrate compliance with applicable requirements. Specifically, the ISA methodology, as implemented by fuel cycle facilities today, can and has been demonstrated to provide the required safety basis and compliance with applicable requirements.

¹NEI is the organization responsible for establishing unified nuclear industry policy on matters affecting the nuclear energy industry. 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, nuclear material licensees, and other organizations and individuals involved in the nuclear energy industry.

Mr. Michael D. Tschiltz

November 19, 2010

Page 2

The second comparison should focus on how the ISA and PRA methodologies could support an enhanced Fuel Cycle Oversight Process (FCOP). The comparison should recognize that the specific elements of a revised oversight process have not yet been determined. Thus, it is conceivable that an enhanced oversight process could be appropriately informed by an ISA; however, deliberative discussions with industry would be needed to inform such a decision. Such an evaluation should also include consideration of a thorough cost benefit analysis comparing the two methodologies because of the low accident source term characteristics of fuel cycle facilities and the significant complexity of PRA techniques.

Equally important to the methodology discussion, is the issue of the potential significant resource impact to fuel cycle facilities were NRC to require licensees to implement a PRA methodology at fuel facilities to replace the existing NRC-approved site-specific ISAs. Such resource expenditures, in the absence of a clearly identified safety issue, would inappropriately divert limited resources dedicated to the safe operation of these facilities and may require additional resources at some facilities.

Finally, industry also recommends that NRC staff rely on the analysis and positions presented in the paper "Integrated Safety Analysis: Why It Is Appropriate for Fuel Recycling Facilities" (Attachment 2) which was transmitted to Ms. Catherine Haney, Director NMSS on September 10, 2010, by Rodney McCullum, NEI Director of Fuel Cycle Projects, Nuclear Generation Division. While the paper was written in support of a discussion regarding fuel recycling facilities, the issues, discussions, comparisons and conclusions presented are applicable to all fuel cycle facilities. For convenience, we have attached the paper and consider it to represent a well thought out and detailed comparison of the two methods, their basis, and a comparison of their strengths and weaknesses in an objective manner.

We thank you and your staff for considering industry's comments as you prepare a revised draft comparison paper for submittal by December 15 to the NRC's Advisory Committee on Reactor Safety (ACRS). We look forward to reviewing the next version to be made public at that time. It is our understanding that the staff is scheduled to brief the ACRS subcommittee on January 11, 2011 and the full ACRS on February 10, 2011. If you would like to discuss the matter further, please do not hesitate to contact me at 202-739-8098; jrs@nei.org.

Sincerely,



Janet R. Schlueter

Attachments

c: Mr. Michael Weber, DEDMRS/EDO, NRC
Ms. Catherine Haney, NMSS, NRC
Ms. Marissa Bailey, NMSS/FCSS, NRC
Ms. Annette Vietti-Cook, SECY, NRC

Dr. Said Abdel-Khalik, ACRS