



NUCLEAR ENERGY INSTITUTE

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August 18, 2011

(8)

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

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**Subject:** Industry Comments on May 1995 NUREG/CR-6112, "Impact of Reduced Dose Limits on NRC Licensed Activities." Docket ID NRC-2009-0279

**Project Number: 689**

Dear Ms. Bladey:

This letter provides comments of the Nuclear Energy Institute (NEI)<sup>1</sup> on behalf of the nuclear energy industry on NUREG/CR-6112, "Impact of Reduced Dose Limits on NRC Licensed Activities," published in May 1995. NUREG/CR-6112 is being revised to support a scientifically justified technical basis for achieving greater alignment with the 2007 recommendations of the International Commission on Radiological Protection (ICRP) contained in ICRP Publication 103.

These comments were developed by a nuclear energy industry task force comprised of subject matter experts from 8 utilities and 2 fuel cycle companies involved in radiological protection/health physics at their respective facilities. They reflect a substantial body of industry technical expertise and lessons-learned with many years of experience.

NEI concurs with the Nuclear Regulatory Commission that the current NRC regulatory framework continues to provide adequate protection of health and safety for workers, the public, and the environment.

In general, NUREG/CR-6112 describes some, but not all, of the costs for mitigating actions to reduce burdens while continuing to meet existing regulatory requirements should NRC reduce occupational dose limits. These costs include the actions necessary for effective change management and

<sup>1</sup> 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.

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implementation of new regulatory requirements such as worker training, development/revision of implementing procedures, and related computer software.

Power reactor and fuel cycle facility licensees have concluded that the following actions would be required:

- Development of comprehensive change management plans to assure that all aspects of the changes are adequately addressed. This includes development of a comprehensive communications plan that addresses questions and concerns of all nuclear workers (plant/site and supplemental employees). (Estimated cost: \$3.2M)
- Revision of procedures, software and related training materials (Estimated cost: \$46.7M).
- Enhanced monitoring and control of radiation work (Estimated Cost: \$17.8M).
- Enhanced radiological engineering and administrative controls at nuclear power plants (Estimated cost: \$36M).
- Enhanced radiological engineering and administrative controls at fuel cycle facilities (Estimated cost: \$6M).
- Enhanced monitoring and bioassay related to respiratory protection at fuel cycle facilities (Estimated cost: 17.8M).
- Updates to Integrated Safety Analyses (ISA) for fuel cycle facilities (Estimated cost: \$1M).

In addition, Table 7.1 within Section 7 of the 1995 document provides a lengthy list of estimated costs and dose savings for modifications to reduce exposure at nuclear power plants. The analysis, however, falls short because it does not take into account dollar inflation between 1984 and 1995. For example, the 1984 Capital Cost for a PWR Refueling Machine was estimated at \$220K. Taking inflation into consideration, the cost for this equipment in 1995 (when the NUREG was published) was actually 46.7% higher or approximately \$322,695. If purchased and installed in 2011, the cost would be 117.2% higher or approximately \$477,948. Future descriptions of dose reduction techniques and modifications with their associated costs should include more contemporary dollars, including current inflation rates.

Thank you for the opportunity to comment on this document. We would welcome a public meeting with NRC staff to discuss the specific details underlying our comments and look forward to reviewing the revised NUREG/CR-6112. If you have any questions concerning these comments, please contact me at 202-739-8043; [exa@nei.org](mailto:exa@nei.org) or Ralph Andersen at 202-739-8111; [rla@nei.org](mailto:rla@nei.org).

Sincerely,



Ellen P. Anderson