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September 23, 2010

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

Subject: Industry Comments on Draft Guide-3030, "Nuclear Criticality Standards for Fuels and Material Facilities", 75FR45166, NRC Docket 2010-0265.

Project Number: 689

Dear Ms. Bladey:

On behalf of the nuclear industry, the Nuclear Energy Institute (NEI)¹ submits the attached comments on the subject draft regulatory guide for your consideration. We trust the staff will find the comments useful as it finalizes the guide, and we look forward to reviewing the final version.

If you any questions or comments on this matter, please feel free to contact me at 202.739.8098 or jrs@nei.org.

Sincerely,

Janet R. Schlueter

Enclosure

c: Ms. Tamara D. Powell, NMSS/FCSS/SPTSD/, NRC

¹ NEI is the organization responsible for establishing unified industry policy on matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI's members include all entities 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.

SONSI Review Complete
Template = ADM-013

E-RIDS = ADM-03
Add = T. Powell (HSP)
M. Case (HSC)

**Industry Comments on Draft Guide-3030,
"Nuclear Criticality Safety Standards for Fuels and Material Facilities"**

1. Introduction, 2nd paragraph, last sentence – This sentence states, "Similarly...certificate holders are required by 10 CFR 76.87 (c) to include in their technical safety requirements, procedures and/or equipment that address criticality prevention." The statement implies that the procedures or equipment are to be *specifically* listed in the technical specification requirements (TSRs). 10 CFR 76.87(c) states appropriate references to established procedures and/or equipment to address criticality prevention that must be included in the TSRs. The current NRC-approved TSRs for the gaseous diffusion plants address criticality safety; however, not all procedures or equipment are specifically listed. Please clarify the NRC's intent on this matter.

2. Section C, "Regulatory Position," Section 2, "Standards Endorsed with Exception" -- The "exception" to 8.1 is not an exception to any aspect of the standard, but rather a stated expectation on how the standard is implemented. It appears more appropriate that the implementation guidance be included elsewhere, e.g., in NUREG-1520 or in an Interim Staff Guide until NUREG-1520 can be updated.

Also, the bases for the exceptions to 8.24 do not appear technically valid. For example, a licensee would not typically reject an entire set of critical mass experiments due to a single outlier. If the experiment is statistically an outlier, then it should be excluded and its reasons for being an outlier well understood through a detailed investigation. However, the purpose of validating the computer code and verifying that any "bias" is accounted for is to ensure the code accurately predicts k effective. Identifying a potential discrepancy in the experiment itself by noticing a statistical outlier does not necessarily impact the ability of the code to accurately predict k effective.

3. The requirement to discount a positive bias does not appear to be technically unfounded. If careful bench marking demonstrates that the code over predicts k effective, then including the bias should be acceptable. One should not assume that a conservative bias (over predicting k effective) is the result of some error in calculating benchmark cases when a non-conservative bias (under predicting k effective) is not. We either have confidence in the benchmarking process and the statistical treatment of bias and uncertainty or we do not.

4. For the staff's information, ANS/ANSI 8.6 is directly related to the subject of the Draft Guide. It is currently being balloted for re-affirmation and will likely be reaffirmed prior to DG-3030 being issued in final. Therefore, to the degree possible, NRC should ensure that the final guide reflects or, at a minimum, is not inconsistent with the final ANS/ANSI 8.6 standard.