UNITED STATES
NUCLEAR REGULATORY COMMISSION
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January 7, 2000

MEMORANDUM TO: Cynthia A. Carpenter, Chief
Generic Issues, Environmental, Financial
and Rulemaking Branch
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

FROM: Eileen M. McKenna, Senior Reactor Engineer Eileen M McKenna
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Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF JANUARY 6, 2000, MEETING WITH THE NUCLEAR ENERGY INSTITUTE (NEI) ON REVISION TO NEI 96-07 ON IMPLEMENTATION OF 10 CFR 50.59

On January 6, 2000, a public meeting was held at the NRC offices in Rockville MD, between members of the Nuclear Energy Institute (NEI), including members of their task force of §50.59 guidance, and Nuclear Regulatory Commission (NRC) staff. Attachment 1 lists attendees at the meeting.

On December 20, 1999, NEI submitted NEI 96-07, Revision 1C, for NRC review and comment. The purpose of this meeting was for the staff to ask questions about the NEI-proposed guidance in order to reach decisions as to acceptability for endorsement of certain of the proposals. An agenda of the major topics discussed is provided as Attachment 2. The staff noted that the purpose of this meeting was to discuss issues, but that staff conclusions would follow at a later date after management review.

NEI proposed guidance for screening of changes with respect to whether they affect a design function, which includes a definition of "design function." They explained that the guidance was intended to distinguish changes that might somehow affect the safety analyses, and thus which should receive an evaluation, from changes that could never rise to affecting the analyses (and thus which would always meet the evaluation criteria as being acceptable under 50.59). The staff asked NEI to discuss how they interpret the words in the "design function" definition. The staff noted, in particular, that "supports or impacts a function credited in the safety analysis" could be read very broadly, and what was the intent. NEI said the intent was to be broad as demonstrated by the further text about it including functions of non-safety-related SSC, that if not performed, would initiate a transient or accident. Thus, the functions include not only those explicitly called out as mitigative features in the safety analyses, but also those that establish the initial conditions, event frequencies. etc. NEI also noted and discussed the examples in section 4.2.1.

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The staff further noted the potential for confusion with the "design bases" definition included in section 3.5 NEI acknowledged this point, and is considering a revision to section 3.5 to remove this confusion.

The second topic discussed was the revised proposal concerning the relationship of maintenance rule requirements (specifically section 50.65(a)(4)) to certain activities that are viewed as "changes" to plant configurations. NEI stated that their concept was to treat "compensatory actions (temporary changes)" with different processes, depending upon their purposes and duration. Thus, compensatory measures for response to degraded or nonconforming conditions would be considered using the guidance in Generic Letter 91-18 (revision 1). Compensatory measures instituted for maintenance activities (such as for risk-mitigation), would be subject to the assessment required by §50.65(a)(4). Other temporary changes would continue to be subject to section 50.59 review in the same manner as permanent changes. The difference between maintenance and changes would be whether the facility is being "restored" following the activity. The staff noted concerns about whether the activities that would be considered under §50.65 was too broad; when did the extent (or duration) of the "change" become an activity subject to §50.59, rather than the §50.65 assessment. NEI further indicated that they were proposing changes to the maintenance rule guidance document as well to provide the linkage with this guidance. The staff plans to review both documents together before reaching any conclusions on this proposal.

The staff next asked about the proposed guidance on "equivalent replacements." NEI stated that this activity is more a maintenance function than it is a "change". The staff noted that the considerations given for making the determination in some instances suggested an activity that was more than a "replacement." NEI agreed that the way the questions were worded was potentially confusing as to whether a "yes" or "no" answer meant that the replacement was equivalent, and they plan to make a clarification.

The guidance on accident frequency increases was revised from a threshold of 1E-7 to 1E-6[1]. The staff asked the reason for the change. NEI said that upon review, they thought the original value was too conservative and would not be useful. The staff noted that initiating frequencies for most FSAR accidents are not in these ranges at all (being more likely), and therefore, that the 10% change standard would be applicable.

The staff also requested clarification about a statement in section 4.3.1 saying that "external event frequencies are not expected to change," as applying to natural phenomena, and not other external hazards (transportation, etc.). The staff also asked how the proposed numerical guidelines for accident frequencies or malfunction likelihoods would apply to a change that affected more than one accident frequency or components in more than one system. NEI will consider these questions for possible clarification.

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[1]The 12/20/99 document contained a typographic error, listing the value as 10E-6. The actual value being proposed is 1E-6.

There was discussion about several aspects relating to the guidance on methods (criterion viii). First, the staff asked about the discussion on input parameters in section 3.8. Task force members said that the examples in section 4.2.1.3 illustrated this point, and suggested that a cross-reference might be useful. The staff also suggested a strengthening of the tie between section 4.3.8.2 and the definition in section 3.4 with respect to determinations of whether a methodology has been approved by NRC for the intended application. The guidance in section 4.2.1.3 (on screening of methods) discusses methods identified in references. The staff asked about references within those references, and how they are included (or not included). It was agreed that if the "daughter" reference was used for a specific analysis in the FSAR, it was included. NEI is considering a clarifying change to NEI 96-07.

Also related to methods, the staff asked for clarification about "changes within the constraints and limitations identified..." used in section 4.2.1.3 - noting that if the topical documents did not specify such constraints, this would be difficult to accomplish as a screening. The task force felt that this was within the skill of the analysts, particularly when the GL 83-11 process was followed. The staff also asked about the meaning of "use of an updated ...NRC-approved methodology". The task force noted that this referred to later versions of a method that had received NRC approval, that might be issued as a result of different platforms or error corrections, as for example, RETRAN 02 Mod. 5 was the NRC approved method, and mod. 5.1 and 5.2 have been issued as upgrades.

For design basis limits, the staff noted that this version contained a concept of "subordinate" parameters, which are not themselves treated as design basis limits, but are examined with respect to their effect on the design basis limit. Some examples were fuel burnup and RCS usage factors. The staff had concerns about this approach -- if there was a parameter in the FSAR with a numerical limit so closely associated with integrity of a fission product barrier, shouldn't it be so treated? Further, for the particular instance of fuel burnup, the staff was concerned in light of ongoing discussions on extended burnup fuels. The staff also questioned the value given for departure from nucleate boiling (DNB), as being "95/95 DNB," and whether the intention was that the specific value(s) for a plant (based upon their fuel and design) would be used, or whether the limit was that this confidence level be met (using the applicable correlations). Their proposal was the latter.

With respect to the proposal to handle changes to fire protection plans using the license condition language, and not with a section 50.59 evaluation, the staff plans to review the comments being offered by NEI in the next few days on draft RG DG-1094 (on fire protection) along with the proposed changes to NEI 96-07 before making a decision on this proposal. For license renewal, the staff noted the revision made by NEI; the staff also stated that it is premature to prepare meaningful examples of changes to FSAR information specific to license renewal issues.

In summary, the staff stated that the meeting had been very helpful for purposes of understanding what NEI was proposing and why, and that the staff would consider the information provided by NEI, and provide its views at a later date. NEI was planning to make certain revisions to their document in response to the discussion at the meeting. The staff noted that the present schedule would call for the revised version to be submitted around January 18, but that it was going to be difficult for this to be met in view of the need for discussions and coordination internal to NRC before feedback could be given on certain issues such that the NEI document could reflect consideration of this feedback.

Attachments: As stated

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NRC/NEI MEETING ON DRAFT REVISION TO NEI 96-07
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January 6, 2000

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Scott Bauer	APS
Nancy Chapman	SERCH/Bechtel
Joe Hegner	Virginia Power
James Boatwright	TXU Electric
John McGaw	Southern California Edison
Ted Schiffley	Com Ed
John Lee, Jr.	Virginia Power
Med El-Zeftawy	NRC/ACRS staff
James Kilpatrick	BGE
John McHale	BGE
Al Passwater	AmerenUE
Pete LeBlond	LeBlond &Associates
Bob Newkirk	Detroit Edison
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Leslie Collins	ABB CENP
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Vick Nazareth	SCE
Kim Green	NUS Information Services
Jenny Weil	McGraw-Hill

Attachment 1

AGENDA FOR MEETING ON JANUARY 6, 2000
on NEI 96-07 Rev. 1C dated December 20, 1999

I. Introduction and Purpose

II. Discussion of topics concerning the proposed guidance

A. Screening - design functions and safety analyses (examples) pp. 21,28,31

B. Maintenance - discussion about temporary changes (does 50.65 apply?) pp.13,24

C. Equivalent replacements - pp.24-25

D. Numerical guidelines for increases in frequency or likelihood (10E-6 and factor of 2) (basis and how to be applied, instances where more than one accident or component is affected by a change) pp. 38, 40, 43

E. Methods - inputs and elements (p.17, section 4.3.8), and section 4.3.8.2 pp.60-63

In addition, several other areas of possible clarification may be raised as time permits (e.g., Subordinate design basis parameters p. 52,Fire Protection, p.21)

III. Conclusion and future plans

Attachment 2