December 20, 2007

MEMORANDUM TO: Timothy J. Kobetz, Chief
Technical Specification Branch
Division of Inspection and Regional Support
Office of Nuclear Reactor Regulation

FROM: Timothy Kolb, Reactor Systems Engineer **/RA/**
Technical Specifications Branch
Division of Inspection Regional Support
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF RIS 2007-21, "ADHERENCE TO LICENSED POWER LIMITS," WORKING GROUP MEETING WITH NEI, ET AL. TO DISCUSS INDUSTRY AND NRC CONCERNS

On November 15, 2007, a Category 2 public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) staff and the Nuclear Energy Institute (NEI), at the NEI NPOC offices in Rockville, MD to discuss industry and NRC concerns with guidance provided in Regulatory Issue Summary 2007-21, "Adherence to License Power Limits." A list of attendees is enclosed (Enclosure 1). The meeting followed the proposed agenda provided in a November 1, 2007, Public Meeting Notice (Agencywide Documents Access and Management System (ADAMS) Accession No. ML073040115).

The NRC staff opened the discussion by making available, copies of the NRC RIS 2007-21, "Adherence to Licensed Power Limits," (ADAMS No. ML071440035) and a letter from NEI to James E. Dyer (NRC), dated September 24, 2007, in response to RIS 2007-21 (ADAMS No. ML072710456). NEI distributed copies of their "Licensed Power Limit" slideshow presentation dated November 15, 2007 (ML073240021). A summary discussion of the agenda items follows below.

I. Administrative Issues

Informed attendees that any decisions made at the meeting were not final decisions and that policies would not be made at this time.

II. NRC Brief on Regulatory History

NRC briefed the NEI on how RIS 2007-21 came about and the history of possible violations that prompted the NRC to issue this generic communication. NRC clarified that the memorandum dated August 22, 1980, by E.L. Jordan (NRC) (Enclosure 2), the Assistant Director for Technical Programs in the NRC's Office of Inspection and Enforcement, was intended solely as inspection guidance, and that plants should not incorporate this guidance into their procedures.

NRC discussed the basis for the maximum power thermal limits in the licensing condition and submitted the governing regulation for this requirement from 10 CFR 50.34, Contents of applications; technical information, *which states, "…intended use of the reactor including the proposed maximum power level …"*

NRC also reviewed the variations in wording used in license section titled “Maximum Power Level.” RIS 2007-21 gives examples of these differences, and both licensees and inspectors acknowledge a need for more guidance. The NRC provided the following additional information:

- Approximately 50% of the plants have the words “steady state” in their license condition, some say “average steady state” or “full steady state”.
- Approximately 95% of the plants have the wording that states “not to exceed” or “not in excess” of their maximum power level.
- In all cases sampled the Max Thermal Power License Condition Limit was consistent with the Tech Spec definition for Rated Thermal Power.

Both NRC and NEI agreed that the point of this meeting would not be to determine a final solution. NEI requested that by the end of the meeting that both parties clearly identify and agree upon the specific actions each organization will take and possible resolutions or proposals on how to fix these issues.

III. NEI Brief on Issues with RIS 2007-21

NEI stated that a distinction between intentionally exceeding the power limit and using the guidance in the Jordan memo should be made. The NRC stated that the purpose of the memo was to provide guidance when the NRC would take enforcement action. However, some licensee’s have incorporated the guidance contained in the Jordan Memo into their operating procedures. NRC stated that three plants recently received violations for intentionally exceeding the power limit.

NEI then stepped through their power point presentation “Licensed Power Limit.”

NEI made a distinction between process fluctuations in power and planned evolutions (e.g. a dilution action) and requested that guidance must account for this difference. NRC asked to differentiate the changes in steady-state power, to which a licensee representative commented that the examples given in NEI slide 4 is only a partial list of what operators in the control room encounter.

NRC commented on NEI slide 6, titled “Recommendations,” saying that reissuing RIS 2007-21 needed to be added to the list of options but did not determine that this was the solution that needed to be pursued. NEI stated that these recommendations should also answer the question relating to how quickly should an operator react to small perturbations in reactor power with an understanding that some minor power fluctuations will occur and maybe safer handled without operator action. NEI discussed its remaining recommendations as outlined in NEI slide 6, including the possibility of a CLIIP’ed LAR for each licensee to address the plant-specific issues of power operations and how maximum thermal power is measured.

NEI concluded their presentation, asking if IP 61706 is still applicable guidance during this interim period in which plants are uncertain about how they should operate. The NRC stated that the RIS was issued because operators were intentionally operating above the licensed thermal power limit, IP 61706 guidance is not repelled, and the RIS does not require plants to de-rate.

IV. NRC Brief on Inspector Insights Using RIS 2007-21

The NRC and licensees discussed several examples of how normal conditions/evolutions change reactor power and how it relates to intentional changes as follows:

- Tide water coming in will affect reactor power.
- Normal dilution evolution which momentarily exceeds max thermal power.
- Swapping various pumps on the secondary plant knowing that thermal power will exceed the max thermal power license condition momentarily.

A licensee representative commented that it would be desirable to avoid having operators "chase the peaks" when steady state power peaks momentarily exceed 100% power.

The NRC expressed concern that some licensees incorporated the Jordan memo information, in pieces, into operating procedures including "exceeding 100% power." The NRC stated it was not the intent of the Jordan memo to allow licensees to exceed their max thermal power licensed limit. NEI and the licensees agreed that this should not be in the licensee plant operating procedures. The NRC stated that performing evolutions where the licensee intentionally exceeds their max thermal power licensed limit is a performance deficiency.

There were additional discussions on examples of evolutions which could be seen as intentionally exceeding max thermal power but it was agreed that NEI would consider providing examples of this to the NRC.

The NRC briefly discussed the contents of a memorandum by Jose A. Calvo (NRC) dated November 9, 1990, (Enclosure 3).

V. Recommended Actions Going Forward

NRC and NEI concluded that for this meeting we should pursue: (1) what "steady state" means, (2) what guidance, and when, will it be developed to address the issue, and (3) how will this guidance be used by both inspectors and operators.

In addition, NEI will propose definitions for:

- "Steady State Operations"
- "Prompt"
- "Normal Fluctuations"
- If >100% power, is it a performance deficiency

VI. Closing Comments

Any further guidance issued by NRC will be made publicly available.

No new meeting scheduled.

VII. Public Participation Invited

The public was invited to comment.

One request from the public was to make available all the letter/memos discussed. Copies were given to any interested party present and these are included in this document as Enclosures 1-3.

VIII. Meeting Ajourned

3:00pm November 15, 2007

Enclosure 1: Attendance Sheet
Enclosure 2: 1980 E.L. Jordan Memo
Enclosure 3: 1990 Jose Calvo Memo

V. Recommendations Going Forward

NEI will propose definitions for:

- "Steady State Operations"
- "Prompt"
- "Normal Fluctuations"
- If >100% power, is it a performance deficiency

NEI requested if there is something that can be done in the interim to bring greater conformity on how to interpret the RIS for those plant that have already de-rated. NRC responded that Regional management in the Division of Reactor Projects will be the lead this request. NRC requested that examples of what "prompt" action are be included in NEI's proposed definitions. An industry representative also requested that examples of what "steady state" be included in these definitions.

VI. Closing Comments

Any further guidance issued by NRC will be made publicly available.

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Enclosure 1

ATTENDANCE SHEET
RIS 2007-21 WORKING GROUP MEETING

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