

February 6, 2002

ORGANIZATION: Nuclear Energy Institute (NEI)

SUBJECT: SUMMARY OF MEETING WITH THE NUCLEAR ENERGY INSTITUTE TO DISCUSS INSPECTIONS, TESTS, ANALYSES, AND ACCEPTANCE CRITERIA (ITAAC) AND EARLY SITE PERMIT (ESP) ISSUES

On January 10, 2002, representatives of the Nuclear Energy Institute (NEI) met with the Nuclear Regulatory Commission (NRC) to discuss issues related to inspections, tests, analyses, and acceptance criteria (ITAAC) and early site permits (ESPs). Enclosure 1 is a listing of the meeting attendees; Enclosure 2 is a copy of the handouts from the meeting. Highlights of the ITAAC and ESP portion of the meeting are provided below.

### **Inspections, Tests, Analyses, and Acceptance Criteria**

In a November 20, 2001, letter, NEI provided a draft white paper titled, "ITAAC Implementation and Transition to Full Power Operations Under Part 52." During the first portion of the meeting the staff provided its high-level observations of the paper. These observations are contained in Enclosure 2. The staff stated that in general it had identified several issues which needed further discussion with NEI. The staff stated that based on its initial review it believed it needed to perform a more thorough review of the paper and provide NEI with detailed written comments. Once these detailed written comments were developed, a course of action for resolution of the comments could be determined. The staff committed to providing NEI with detailed written comments by May of 2002. Highlights of the high-level observations follow.

Regarding Comment Number 1 contained in Enclosure 2, NEI stated that it was not their intention to limit the scope of the construction inspection program. The staff stated that it considers ITAAC to be a subset of the construction inspection program and that it does not perceive ITAAC and the construction inspection program to require duplicate effort. Regarding Comments 11 and 12, the staff stated that these issues would most likely require Commission involvement for resolution. In the first case, the staff is in the process of writing a policy paper on the need for ITAAC in a combined license (COL) application for operational programs such as security, training, and emergency planning (so-called programmatic ITAAC).

Regarding Comment 12, NEI noted in its white paper that it did not agree with the generic COL contained in SECY-00-0092, "Combined License Review Process." Specifically, NEI does not agree with Conditions D.2 and D.3 of the generic license that would require the Director of NRR to authorize low power and full power operation. NEI's position is that after the Commission makes its Section 52.103(g) finding authorizing fuel load and operation, no further authorization by the NRC is required to proceed to full power and commercial operation. The staff stated that the generic COL was modeled after the operating licenses provided to the last generation of plants to receive these licenses. The staff stated that the Commission had already approved the form and content of the generic license through its SRM on SECY-00-0092 dated September 5, 2000. NEI stated that it wanted to pursue the issue and that it understood this area may need Commission involvement.

Regarding Comments 4, 5, and 6, the staff and NEI discussed the ITAAC process notifications. The staff stated that the Federal Register notifications referenced in Title 10 of the *Code of Federal Regulations* (10 CFR) Section 52.99 were not intended to be interim findings by the NRC, rather they were meant to publish the claims of the applicant that certain ITAAC had been completed and that it was making progress on its application. NEI stated that it believed the notifications were part of the sign-as-you-go process and referred to the 10 CFR 52.99 notification as a staff finding.

### **Discussion on Early Site Permits**

The staff then continued its discussion on issues concerning ESP application development. The list of questions that were used as agenda items during the meeting are contained in Enclosure 2. The associated number corresponds to the number assigned as shown on the enclosed list. At the start of the discussions, the staff indicated that the purpose of this meeting was to identify key issues concerning developing an ESP application, and requested the NEI ESP Task Force (hereinafter referred to as NEI) to provide insight on how they were thinking of proceeding on these issues.

### **ESP-1 & ESP-2**

These issues concern how to develop an ESP application if the reactor type had not yet been selected. The staff stated that ESPs were expected to be used by a company that did not know what specific plant design was going to be built. However, the staff expects that certain features of the plant will be known, such as whether it will be a BWR, PWR, or gas-cooled reactor of a certain power level. This would allow the applicant to estimate the footprint of the plant, the postulated releases, and cooling needs. The staff is looking for more than a general description, and the applicant is going to have to make some type of projections.

NEI indicated that they wanted to use their plant parameter envelope (PPE) approach for a gas-cooled reactor, using bounding values where appropriate. The staff indicated that this approach may not necessarily be acceptable for the environmental review (where the evaluation is related to the reasonable range of foreseeable impacts). Use of the PPE approach may cause the applicant to not comply with the National Environmental Policy Act of 1969 (NEPA) (for example, an extreme value may preclude consideration of one site that may be 'obviously superior' than another site, or could require taking more land out of public use than would actually be necessary when considering nominal values). Where parameters are of a finite value (such as the number of units), the applicant should use a bounding value. In a situation where an issue later departs from the evaluation, the issue would be reopened, addressed, and subject to litigation.

NEI further asked how the staff would address a request for an exemption to an ESP. The staff responded that the applicant is expected to have a good understanding of its intended use of the site and the performance characteristics of the design(s) under consideration to make use of the ESP process. The staff also responded that, if the plans have not matured to the point where a meaningful evaluation can be made, then it may be premature to submit an application.

### ESP-3

NEI requested that the staff and industry meet to discuss implementation of the new requirements for seismic hazard characterization of sites stemming from the regulation in 10 CFR 100.23 and the associated criteria in Appendix S of 10 CFR Part 50 and Appendix A of 10 CFR Part 100, and in the guidance of Regulatory Guide 1.165. The industry proposed to meet with the staff to discuss the site-specific values of ground motion to be used in the analysis, and the type of analysis that needs to be performed. The staff indicated that it would address questions that the industry may have as a result of undertaking a site-specific seismic hazard analysis. It further indicated that pre-application inspections would begin after the NRC staff receives a formal notification of intent to submit an ESP.

### ESP-4 and ESP-7

NEI asked the staff to address the status of the two petitions for rulemaking concerning alternative sites and use of existing operating plant data in an ESP. The staff stated that the working group is reviewing the petitions and has not made a recommendation yet. Therefore, the Petition Review Board has not yet met.

### ESP-5

NEI asked the staff to discuss its plans for updating Table S-3 and S-4 of 10 CFR Part 51. The staff replied that it has begun working on updating the tables, with its initial emphasis focused on addressing light water reactor issues (for example, higher burnup and higher enrichment fuels).

### ESP-6

NEI stated that they interpret a recent Supreme Court case on environmental justice to indicate that:

1. only recipients of Federal funding are required to have environmental justice reviews; and
2. because the nuclear industry does not receive Federal funding, the NRC does not have the authority to perform an environmental review on matters concerning nuclear plants.

NEI is developing a white paper on the subject for future submittal to the staff.

### ESP-8

NEI asked if the findings in Appendix B to 10 CFR Part 51 concerning currently operating plants applying for license renewal could be applied to an ESP review. The staff stated that the generic environmental impact statement (GEIS) for license renewal only applies to the units considered and only for the purposes of renewing a license. When it was developing NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants," which was used to document the basis for Appendix B to 10 CFR Part 51, the staff knew the locations of the plants and how the environment had already been disturbed by the

construction and operation of these plants. The staff made its findings based on known plant designs and set parameters, and were able to consider the performance of the plants evaluated. There is a different basis and regulatory structure under which a license renewal of a currently operating plant is reviewed than that which will be applied to an ESP application.

#### ESP-9

NEI asked what level of detail would be expected in the redress plan of an ESP application. The staff suggested that NEI review the redress plan submitted for the Clinch River Breeder Reactor, and look at NUREG-1555, "Environmental Standard Review Plan," for guidance.

#### ESP-10

NEI raised a number of concerns dealing with the organizational structure of the applicant for an ESP. The focus of its concern was that the initial permit owner may not necessarily be the owner of the site. The staff stated that its principle concern was that the eventual licensee must be able to control the site. The staff further stated that there is a process in place for license transfers.

#### ESP-11

NEI asked why there is a range of "not less than 10 years nor greater than 20" for an ESP. The staff stated that during the rulemaking of 10 CFR Part 52, there was a request to specify a minimum and maximum duration. The staff indicated that the basis for granting an ESP might be subject to changing conditions over time (for example, zoning). Additional consideration by the staff that may result in limiting the duration of the ESP includes the level of information provided in the application, how well information is known, and the potential for parameters to change over time. The staff expects the applicant to specify the duration for an ESP that it is seeking.

#### ESP-12

NEI stated that they believe that 10 CFR Part 52 does not require that an ESP be prepared under the full quality assurance requirements of Appendix B of 10 CFR Part 50. The staff stated that in order for the NRC to rely on the data acquired and calculations performed to support an ESP application, an appropriate quality assurance program needed to be applied to these activities. There must be a high degree of assurance that the information has been obtained and analyzed correctly. The staff requested NEI to identify the differences between Inspection Manual Chapter 2511 and 2512 and what the industry proposed to apply. There may be some circumstances where it is not necessary to apply Appendix B quality control procedures. NEI indicated that there were some administrative concerns as well, such as any concerns with regulated companies (subsidiaries) providing data to unregulated companies for analysis.

Severe Accident Mitigation Alternatives (SAMAs)

NEI then raised an additional question concerning how to perform a SAMA review if the design was not yet determined. Again, the staff indicated that the applicant is going to have to make some type of projection concerning the design of the plant, but agreed to continue to discuss this issue with them.

Summary

At the close of the meeting, the staff and NEI agreed to meet regularly during the next several months because some organizations are in the process of scoping the work associated with an ESP application. NEI and the staff agreed that early interaction is mutually beneficial to resolve problems promptly.

*/RA/*

Joseph M. Sebrosky, Senior Project Manager  
New Reactor Licensing Project Office  
Office of Nuclear Reactor Regulation

Project No. 689

Enclosures: As stated (2)

cc w/encls: See next page

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ACCESSION NUMBER:

Enclosure 2: ML020150067

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Document Name: C:\Program Files\Adobe\Acrobat 4.0\PDF Output\1-10-02 itaac summary.wpd

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**Meeting Attendees**  
**Meeting with NEI on ITAAC**  
**September 7, 2001**

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Marsha Gamberoni	NRC/NRR/NRLPO
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Jay Lee	NRC/NRR/SPSB
Goutam Bagchi	NRC/NRR/DE
Kamal Manoly	NRC/NRR/DE
Edwin F. Fox	NRC/NRR/DIPM
Robert Weisman	NRC/OGC
David Cummings	NRC/OGC
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Ron Simard	NEI
Robert Bishop	NEI
J. Alan Beard	GE Nuclear
Kevin Borton	Exelon Generation
R. M. Krich	Exelon Nuclear
Marilyn Kray	Exelon
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Joe Sweeny	Exelon
Thomas Mundy	Exelon
Charles Brinkman	Westinghouse
Ben George	Southern Nuclear
John Giddens	Southern Nuclear
Cal Reid	Bechtel
Steve Routh	Bechtel
Gary D. Miller	Dominion
Joe Hegnfr	Dominion
Kenneth Hughey	Entergy
George Zinke	Entergy
Ray Reith	INEEL/DOE
Bob McCollum	McCollum, Turner
Steve Frantz	Morgan, Lewis
Jenny Weil	McGraw Hill

**Enclosure 2**  
**NEI Handouts**  
**for**  
**September 7, 2001 Meeting**

The NRC maintains an Agencywide Documents Access and Management System (ADAMS), which provides text and image files of NRC's public documents. The handouts mentioned above may be accessed through the ADAMS system under Accession No. ML020150067. If you do not have access to ADAMS or if there are problems in accessing the handouts located in ADAMS, contact the NRC Public Document Room (PDR) Reference staff at 1-800-397-4209, 301-415-4737 or by e-mail to [pdr@nrc.gov](mailto:pdr@nrc.gov).

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