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**11/20/2003**

The attached document(s), which was/were handed out in this meeting, is/are to be placed in the public domain as soon as possible. The minutes of the meeting will be issued in the near future. Following are administrative details regarding this meeting:

**Proj 689**

**Nuclear Energy Institute (NEI)**

\_\_\_\_\_

**11/7/03**

## Meeting with NEI to discuss 10 CFR Part 52 combined

## license issues

**Joseph M. Sebrosky**

## Senior Project Manager

## NRR

## DRIP

**RNRP**

**Docket File/Central File**  
**PUBLIC**

DFOI

Agenda  
November 20, 2003 Meeting  
with NEI

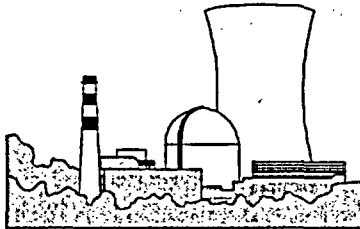
1:00 p.m.	Introductory Comments	NRC/NEI
1:10 p.m.	Discussion of industry's plans to develop COL application guidance	NEI
3:00 p.m.	Discussion of status of various combined license issues: <ul style="list-style-type: none"><li>- Status of NRC's resolution of comments associated with programmatic inspections, tests, analyses, and acceptance criteria (ITAAC)</li><li>- Status of NRC's resolution of comments associated with the Draft 10 CFR Part 52 Construction Inspection Program Framework Document</li><li>- NRC feedback on NEI's 10 CFR 52.103 hearing process comments</li><li>- NRC's development of draft proposed emergency planning ITAAC</li></ul>	NRC
3:40 p.m.	Identification and plans for addressing other 10 CFR Part 52 combined license (COL) issues	NRC/NEI
4:00 p.m.	Public Comment	
4:15 p.m.	Summary	
4:30 p.m.	Adjourn	

**NOTE: Specific topics and associated discussion times may change without notice**

**Contact:**

**Joseph M. Sebrosky, NRR**  
**301-415-1132, [jms3@nrc.gov](mailto:jms3@nrc.gov)**

## NRC Combined License Issues - Status



Meeting with the Nuclear Energy Institute  
November 20, 2003

Joe Sebrosky, New, Research and Test Reactors, NRR  
Mary Ann Ashley, Team Leader, Inspection Program Branch, NRR

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## NRC Combined License Issues Status

- Programmatic Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC)
- Comment Resolution for "Draft 10 CFR Part 52 Construction Inspection Program Framework Document"
- Feedback on NEI's 10 CFR Part 52 hearing process comments
- Development of Draft Emergency Planning ITAAC

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## Programmatic ITAAC

- Staff is currently addressing comments
  - Category 3 facilitated and transcribed public workshop held on August 25, 2003
  - 3 comment letters dated September 15, 2003, received from industry in response to the Federal Register Notice
- Comments will be addressed and proposal developed for the Commission
- Due date for Commission paper no later than March 1, 2004
- Further stakeholder interactions are not currently scheduled

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## Construction Inspection Program

- CIP team issued "Draft 10 CFR Part 52 Construction Inspection Framework Document" on May 30, 2003
- Staff is currently addressing comments
  - Category 3 facilitated and transcribed public meeting held on August 27, 2003
  - Comment letter from NEI dated October 30, 2003 in response to Federal Register Notice
- Plan to issue final version of framework document in Spring of 2004
- Developing inspection manual chapters in parallel with finalizing framework document
- Do not intend to issue inspection manual chapters for comment

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## CIP Framework Document

- Five major Inspection Manual Chapters (IMCs)
  - IMC-2500 overall for Part 52 licensing process
  - IMC-2501 for Early Site Permits
    - IMC issued October 2002 revised May 29, 2003
    - Inspection procedures issued May 29, 2003
  - IMC-2502 Combined License
    - Support issuance of a combined license
  - IMC-2503 ITAAC
    - Support all inspection activity (including modular construction) related to final ITAAC verification
  - IMC-2504 Preparation for Operation
    - Support inspections after fuel load and prior to ROP
    - inspections to support non-ITAAC activities
      - operational programs that do not have ITAAC

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## 10 CFR 52.103 Hearing Process Comments and Emergency Planning ITAAC

- 10 CFR 52.103 Hearing Process Comments
  - Identified as combined license (COL) issue 5 in NEI's handouts of May 22, 2003, meeting
  - NRC provided partial response in a June 4, 2002, letter
  - NRC complete response provided November 20, 2003
- Emergency Planning (EP) ITAAC
  - Identified as COL item 10
  - Staff developing draft EP ITAAC to be issued by end of 2003 calendar year
  - Plan to schedule meetings with interested stakeholders to solicit comments

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

November 20, 2003

Dr. Ronald L. Simard  
Nuclear Energy Institute  
1776 I Street, NW, Suite 400  
Washington, DC 20006-3708

SUBJECT: RESOLUTION OF COMBINED LICENSE TOPIC 5 (COL-5), THE 10 CFR 52.103  
HEARING PROCESS

Dear Dr. Simard:

This letter confirms our understandings and expectations regarding the 10 CFR 52.103 hearing process. This topic is identified as COL-5 on the list of Nuclear Energy Institute's (NEI's) generic combined license (COL) issues provided to the staff by NEI during a public meeting on May 22, 2003 (Meeting Summary - ADAMS Accession No. ML031970065). NEI provided its positions associated with the 10 CFR 52.103 hearing and inspections, tests, analyses and acceptance criteria (ITAAC) in a letter dated November 20, 2001, titled, "Draft White Paper: ITAAC Implementation and Transition to Full Power Operations Under Part 52" (ADAMS Accession No. ML020070338). The staff provided a response to NEI's white paper in a letter dated June 4, 2002 (ADAMS Accession No. ML021550137). In its letter, the staff provided only a partial response to the hearing issues identified in the NEI paper. The enclosure to this letter provides the response to the remaining hearing issues. Please contact Joseph Sebrosky, COL Project Manager, at 301-415-1132 if you have any questions on this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "J. E. Lyons", is written over the typed name.

James E. Lyons, Program Director  
New, Research and Test Reactors Program  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

Project No. 689

cc: See next page

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Comments Related to the 10 CFR 52.103 Hearing Process From  
November 20, 2001, Nuclear Energy Institute Letter

On November 20, 2001, the Nuclear Energy Institute (NEI) submitted to the NRC staff a "Draft White Paper: ITAAC Implementation and Transition to Full Power Operations Under Part 52" (NEI paper), which included, among other things, NEI's views on several issues related to hearings requested pursuant to 10 CFR § 52.103. The staff responded to the NEI paper by a letter dated June 4, 2002. While the staff fully responded to most of the issues NEI raised in its white paper, the staff made only a partial response to the hearings issues. The staff's comments related to the remaining hearings issues are set forth below. Since most of the rationale for NEI's positions is set forth in its "Main Points," in Section 6.1 of the NEI paper the staff comments follow the organization of those "Main Points."

By way of background, Section 185b. of the Atomic Energy Act of 1954 (Act), as amended, provides, in part, that "[t]he [NRC] shall identify within [a] combined license [(COL)] the inspections, tests, and analyses . . . that the licensee shall perform, and the acceptance criteria that, if met, are necessary and sufficient to provide reasonable assurance that the facility has been constructed and will be operated in conformity with the license, the provisions of the Act, and the Commission's rules and regulations." The Commission implements this portion of Section 185b. in 10 CFR § 52.97(b)(1), which quotes the statutory language *verbatim*.

The Act also requires the Commission to make certain findings before operation. As set forth in Section 185b., "[f]ollowing issuance of the [COL], the Commission shall ensure that the prescribed inspections, tests, and analyses are performed, and, prior to operation of the facility, shall find that the prescribed acceptance criteria are met." The NRC implements this provision through 10 CFR § 52.99, under which the NRC staff issues notices of the successful completion of individual or multiple ITAAC, and 10 CFR § 52.103, under which the Commission may authorize facility operation, as set forth below. Section 52.103 also implements Section 189a.(1)(B), which, as also discussed below, provides opportunities for hearings with respect to completion of ITAAC. Except for cross-references and the statement that Section 189a.(1)(A) does not apply to commencement of operation under a COL, §§ 52.103(a)-(e) incorporate *verbatim* Sections 189a.(1)(B)(i)-(v), respectively.

Under 10 CFR § 52.99, upon completion of various stages of construction, the staff will verify that the associated ITAAC have, in fact, been met. As the staff verifies that ITAAC are satisfied, it periodically publishes notice of such determinations in the *Federal Register*, as required by § 52.99. When construction nears completion, the procedures of § 52.103 are invoked, as follows.

At least 180 days before scheduled fuel load, as required by § 52.103(a), the Commission will publish in the *Federal Register* a notice of intended operation of a nuclear power plant being constructed under a COL, and will provide an opportunity to request a hearing. Pursuant to § 52.103(b), such a request for a hearing must show, *prima facie*, that: (1) one or more of the acceptance criteria in the COL have not been, or will not be met; and (2) the specific operational consequences of nonperformance that would be contrary to providing reasonable assurance of adequate protection of the public health and safety. NEI's positions on how this process should be implemented and the staff's response to those positions follows.

## NEI Position 1

"The licensee precipitates the Section 52.103 process and the notice of intended operation required by Section 52.103(a) by sending a letter to the NRC identifying the intent to load fuel on a specified date. The Licensee's letter is also expected to identify those ITAAC that have yet to be completed and a schedule for their completion." NEI Paper at 23.

## Staff Response

While neither Section 185b. of the Act nor 10 CFR § 52.103(a) requires a COL holder to inform the NRC of its schedule for initially loading fuel into the reactor, it would seem that the COL holder is in the best position to know when the ITAAC would be complete and the first opportunity to load fuel would occur.<sup>1</sup> Thus, the regulations do not proscribe such a process, and it appears reasonable for the COL holder to notify the NRC in writing of its desire to load fuel by a specified date. The COL holder should submit its letter to the NRC early enough so that the staff has time to prepare the notice and arrange for its publication to meet the requirement that the Commission publish the notice of intended operation at least 180 days prior to scheduled fuel load.

In addition, the staff believes the information described above should be submitted under oath or affirmation. Although 10 CFR § 50.30(b) applies only to applications for, and amendments to licenses, and does not in literal terms apply to the type of letter proposed here, because of the importance of the information, the staff believes that it should be submitted under oath or affirmation.

NEI also suggests that licensees identify incomplete ITAAC and a schedule for their completion. As described in the analysis of NEI Position 3, below, the staff believes that § 52.103(a) allows for issuance of the notice of intended operation before all ITAAC have been completed. While Part 52 does not require licensees to identify ITAAC that are not complete when the licensee informs the Commission of the schedule for initial fuel loading, the staff agrees that such identification would enable the Commission to publish meaningful notice at least 180 days before scheduled fuel load, in accordance with 10 CFR 52.103(a).

## NEI Position 2

"The NRC will publish in the *Federal Register* the notice of intended operation required by Section 52.103(a). This notice will provide opportunity to request a hearing on matters of ITAAC noncompliance." NEI Paper at 23.

## Staff Response

NEI accurately summarizes the provision of the regulation. As indicated above, the § 52.103(a) notice would be issued at least 180 days before scheduled initial fuel loading.

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<sup>1</sup> The Statements of Consideration for the final rule, 54 *Fed. Reg.* 15372 (Apr. 18, 1989), do not describe how the NRC is to obtain this schedule. While the original proposed rule would have required a holder of a COL to apply for authorization of operation (53 *Fed. Reg.* 32060, 32077), the final rule did not retain such a requirement.

NEI comments that "the NRC staff would be expected to inform the Commission regarding the status of ITAAC completion and to publish the required Section 52.103(a) notice—despite the existence of open QAP [Quality Assurance Program] deficiencies or other incomplete activities—provided that the deficiencies and incomplete activities do not impact the determination that the ITAAC have been or will be satisfied before fuel load." NEI Paper at 25. The staff, of course, will not issue the § 52.103(a) notice unless the Commission delegates authority to the staff to do so. If identified deficiencies do not affect ITAAC determinations, there would be no need to delay issuance of the notice, but the nature of any deficiencies and their significance is a fact-specific matter.

### NEI Position 3

"A number of ITAAC are expected to be uncompleted at the time of the Section 52.103 notice. It is expected that the notice will identify those ITAAC for which § 52.99 notices of completion have and have not been issued. To request a hearing on ITAAC completed after issuance of the Section 52.103(a) notice, Section 2.714 provides standard NRC administrative procedures for submittal and consideration of late-filed petitions." NEI Paper at 23.

### Staff Response

Section 52.103(a) provides for a notice of opportunity to request a hearing with respect to certain issues. This notice must be issued at least 180 days before scheduled fuel load, as indicated above, but is independent of any notice issued pursuant to Section 52.99. The notices issued under Section 52.99 are intended only to inform the public of the staff's conclusions regarding the ITAAC that are the subject of such notices. Notices issued pursuant to Section 52.99 do not convey an opportunity to request a hearing.

Section 52.103(a) incorporates language from Section 189a.(1)(B)(i) of the Act stating that the notice of intended operation shall provide that any person whose interest may be affected by operation of the plant may request a hearing on "whether the facility as constructed complies, or on completion will comply, with the acceptance criteria of the license." This language explicitly allows the Commission to issue the notice of intended operation before completion of the facility, and, consequently, with incomplete ITAAC. Therefore, NEI's proposed scenario in which the Commission issues the notice under § 52.103(a) with outstanding incomplete ITAAC is permitted by the Act and the Commission's regulations.

With respect to identification of incomplete ITAAC in the notice of intended operation, Section 52.103(a) does *not* require such identification. The notice will likely identify sources of information (e.g., NRC's Public Document Room (PDR), ADAMS, and the NRC website) that provide the status of the application, and information regarding whether ITAAC have been completed or not should be available from these sources. If ITAAC are incomplete when the Commission issues the notice, the staff will likely prepare its own list of ITAAC it believes incomplete, place the list in the public domain, and reference that list, as well as any list prepared by the licensee, in the notice. In view of the above, including this information in the notice of intended operation appears to be unnecessary.

As for NEI's position on applicability of the late-filing standards in 10 CFR § 2.714, the staff interprets that position to mean that such standards would apply upon the expiration of the 60 day period specified in § 52.103(a) for requesting a hearing. For example, a person could

request a hearing with respect to an ITAAC completed 10 days after issuance of the notice of intended operation under § 52.103(a), and do so well within the 60 day period for requesting a hearing specified in the notice. A person filing a request for a hearing in this manner would not be required to meet the late-filing criteria of § 2.714.

At the same time, a hearing request under § 52.103(a) filed within the allotted 60 days must, to the extent possible, raise issues with respect to ITAAC whether they are complete or not. Specifically, if a person believes that an ITAAC that is not yet complete (i.e., an ITAAC for which the staff has not issued a notice of successful completion under 10 CFR § 52.99) will not be successfully completed, and desires a hearing on that matter, that person must request a hearing during the period specified in the notice. (The petitioner would also need to satisfy the other requirements for requesting a hearing in Section 52.103(b)). In this regard, NEI states that "[a] person should be allowed to file a request for hearing with respect to [ITAAC completed after issuance of the § 52.103(a) notice] within 60 days of the 52.99 notice on the ITAAC." NEI Paper at 26.

The staff believes that NEI's proposed procedure is not contemplated by the current regulations, as indicated above, and is unnecessary because the late-filed contention provisions in Section 2.714 adequately address NEI's concern. If the § 52.99 notice of completion provides information that was not previously available to the public, and that information is an essential portion of a petitioner's basis for requesting a hearing, the petitioner may well rely on such circumstances to show good cause for late-filing, in accordance with § 2.714. The staff believes that the concern addressed by NEI's statement that § 52.99 notices of ITAAC completion issued after the § 52.103(a) notice of intended operation should provide an opportunity to request a hearing for the ITAAC covered in the § 52.99 notice is adequately treated under the regulations. Therefore, such § 52.99 notices need not include an opportunity to request a hearing.

NEI also states that the Commission may consider, in deciding whether to grant a request for a hearing, "whether the contention is exempt from adjudication under the Administrative Procedures Act." NEI Paper at 27; *see* Administrative Procedure Act (APA), 5 U.S.C. § 554(a)(3). The NRC staff agrees.

#### NEI Position 4

"Requests for hearing are due in 60 days, at which time the Commission will deny or grant the request. The Commission is obligated to make every effort to resolve issues raised by the hearing requests prior to the scheduled date of fuel load." NEI Paper at 23.

#### Staff Response

The regulation in 10 CFR § 52.103(c) requires that the Commission expeditiously either deny or grant a request for hearing after receiving one. In addition, 10 CFR § 52.103(e) indicates that the Commission shall, to the maximum extent possible, render a decision on the issues raised by hearing requests within 180 days of publication of the notice issued pursuant to § 52.103(a), or the anticipated date for initial fuel load, whichever is later. The staff does not interpret NEI's position as meaning that the Commission do more.

## NEI Position 5

"If there are no requests for hearing, none granted, or if all issues raised are resolved before fuel load, the NRC would, upon completion and NRC staff verification of all ITAAC, make the required Section 52.103(g) finding authorizing plant operation, including scheduled fuel load, power ascension testing and full power operations." NEI Paper at 23.

## Staff Response

Although the staff agrees with the general thrust of NEI's position, the staff disagrees with some of the particulars stated by NEI. Specifically, as indicated in comments number 30 and 32 in the Staff's Response of June 4, 2002, the COL will likely contain license conditions to control power ascension testing and the commencement of full power operations. The staff also provided a position relative to the process associated with the § 52.103(g) finding in the "Draft 10 CFR Part 52 Construction Inspection Program Framework Document," May 2003 (ADAMS Accession Number ML031400849). Section III.D.4.f of this framework document, "Commission § 52.103(g) ITAAC Finding," states the following:

Before a facility may operate the Commission is required by 10 CFR 52.103(g) to find that the acceptance criteria in the COL were met. Once the licensee has informed the staff that all the ITAAC have been completed, the staff will perform an independent review to ensure that it has received an ITAAC determination letter for each ITAAC and that the staff agrees that all the ITAAC have been met. This independent review could be done by the same team that will perform the operational readiness assessment that is discussed in section III.E.2.b of this report. The [Regional Administrator] will rely on an independent review and the recommendation from the senior NRC site manager to make a recommendation to the Director of Nuclear Reactor Regulation (NRR) stating that all the ITAAC have been met. The Director of NRR will make a recommendation to the Commission that the Commission find that all acceptance criteria in the COL have been met. If the Commission determines that all of the acceptance criteria in the ITAAC for the COL have been met, it will make the finding required under 10 CFR 52.103(g).

In addition, as noted in comment number 28 of the June 4, 2002, staff response, the Commission is free to revisit the staff's § 52.99 determinations. Should the Commission obtain new information casting doubt on the earlier staff conclusions, or determine that there is an unresolved issue needing inspection or evaluation, it could revisit the staff's conclusions.

## NEI Position 6

"The Section 52.103(g) finding will be based collectively upon the individual determinations made under Section 52.99. The NRC will not need to perform any new or additional inspections or reviews to make its Section 52.103(g) finding (except as may be necessary to respond to a contention in a Section 52.103 hearing)." NEI Paper at 23.

### Staff Response

As noted in the staff response to NEI Position 5, the staff does intend to perform a review to ensure that an ITAAC determination letter for each ITAAC has been received and that the staff agrees that all the ITAAC have been met. There is also the possibility that new and significant information could be received by the staff prior to the § 52.103(g) finding that brings the validity of the § 52.99 conclusions into question. Section III.D.4.e, "Invalidation of Previously Accepted NRC ITAAC Interim Conclusions," of the construction inspection program framework document discusses this possibility and the staff's process for handling such information. The staff also notes that the Commission may reach conclusions different from those of the staff.

### NEI Position 7

"If issues are raised that cannot be resolved before fuel load, Section 52.103(c) provides that the Commission shall allow operation for an interim period provided, based on consideration of the outstanding issues, that there would be reasonable assurance of adequate protection of public health and safety." NEI Paper at 23.

### Staff Response

Section 52.103(g) requires the Commission to find that all the ITAAC are met before operation of the facility. Section 52.103(c) provides that, if a request for a hearing on the facility's compliance with the ITAAC is granted, the Commission shall determine whether, during a period of interim operation, there will be reasonable assurance of adequate protection of the public health and safety. Section 52.103(c) provides further that if the Commission determines that there is such reasonable assurance, it shall allow operation during an interim period (until the Commission makes a final determination on the issues raised in the hearing) under the COL.

NEI's statement generally parallels the above provisions, through which the Commission may allow interim operation if it does not make the finding required under § 52.103(g) before fuel load, but does not reflect the provisions of § 52.103(d). Section 52.103(d) states that the Commission has discretion to determine the procedures to be used to resolve issues of compliance with the ITAAC in contention in a hearing using appropriate procedures.

### NEI Position 8

"[I]n the event there are unresolved hearing issues, the Commission must—in addition to the Section 52.103(g) finding—also make a finding under Section 52.103(c) allowing operation for an interim period." NEI Paper at 24.

### Staff Response

The staff disagrees with NEI's position. The Commission cannot make the § 52.103(g) finding if there are unresolved hearing issues. Under such circumstances, the Commission may allow interim operation under § 52.103(c), as discussed above in the staff response to NEI position 7.

#### NEI Position 9

"As discussed in Section 8, 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. For example, no separate authorization is required to exceed 5% power." NEI Paper at 24.

#### Staff Response

See staff response of NEI Position 5, above.

As a final note, NEI includes a diagram of the process. NEI Paper at 28. This diagram is correct to the extent it reflects the above discussion. The diagram, however, is inaccurate in several particulars, but the staff has not attempted to identify all such inaccuracies.



# NRC PUBLIC MEETING FEEDBACK

Category

2

Meeting

Date: 11/20/2003

Meeting

Title: Meeting with NEI to Discuss 10 CFR Part 52 Combined License Issues

In order to better serve the public, we need to hear from the meeting participants. Please take a few minutes to fill out this feedback form and return it to NRC.

1. How did you hear about this meeting?

☐ NRC Web Page

☐ NRC Mailing List

☐ Newspaper

☐ Radio/TV

☐ Other \_\_\_\_\_

2. Were you able to find supporting information prior to the meeting?

Yes

No  
(Please explain below)

Somewhat

☐
☐
☐

3. Did the meeting achieve its stated purpose?

☐
☐
☐

4. Has this meeting helped you with your understanding of the topic?

☐
☐
☐

5. Were the meeting starting time, duration, and location reasonably convenient?

☐
☐
☐

6. Were you given sufficient opportunity to ask questions or express your views?

☐
☐
☐

7. Are you satisfied overall with the NRC staff who participated in the meeting?

☐
☐
☐

COMMENTS OR SUGGESTIONS:

Thank you for answering these questions.

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Continue Comments on the reverse. ↩

OPTIONAL

Name \_\_\_\_\_

Organization \_\_\_\_\_

Telephone No. \_\_\_\_\_

E-Mail \_\_\_\_\_

☐ Check here if you would like a member of NRC staff to contact you.

OMB NO. 3150-0197

Expires: 06/30/2004

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COMMENTS OR SUGGESTIONS: (Continued)


UNITED STATES  
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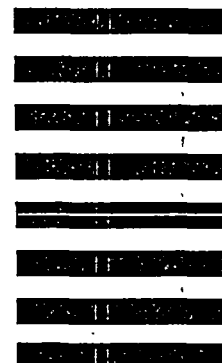
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# **Plans for Developing COL Process and Application Guidance NEI 04-01**

NRC Public Meeting  
November 20, 2003



# Discussion Topics

- Industry objectives and timetable
- COL application guidance
- COL application v. FSAR v. plant-specific DCD
- Detailed COL application outlines
- COL Items

# Industry Objectives

- Clarify COL and ITAAC processes to support reliable cost & schedule estimates
- Optimize processes to reduce time-to-market for new nuclear plants
- Establish standard COL application format and content to provide head start to first COL applicant(s)

# Key COL Process Issues

- Scope of required COL ITAAC -- Will there be ITAAC on programs?
- ITAAC verification and the post-construction hearing process
- COL application review and hearing timeline(s)
- ITAAC on emergency planning
- Form and content of a COL, including NRC findings, license conditions, etc.

# COL Application (COLA) Guidance

- Highlight COL applicant scope of work and necessary inputs
- Provide vehicle to identify and resolve generic COLA issues with NRC
- Support estimates of cost, schedule and resources to prepare a COLA

# Industry Timetable

## ■ By December 2004

- Rev. 0 COL application guideline (NEI 04-01)
  - ◆ Detailed application outline and guidance on key process issues
  - ◆ Support initial cost, schedule and resource estimates for COLA
- Updated Part 52 in place
- ITAAC issues resolved
  - ◆ Scope and implementation
- One or more draft SERs and EISs on pilot ESP applications
- Resolution of additional priority issues

**Key inputs to new plant business decisions**



# Industry Timetable

## ■ By December 2005

- Significant COL issues resolved w/NRC
- Significant standard COLA content prepared
- In progress with either:
  - ◆ Pilot COL pre-application interactions
  - ◆ Rev. 1 COL application guideline (NEI 04-01)

Inputs necessary to finalize a COL application



# NEI 04-01 COL Process and Application Guidance

## ■ Contents

- Basic guidance on COL process, etc.
- Format and content guidance for meeting COL application requirements
- Special topics, e.g., operational programs

## ■ Development plans and schedule

## ■ Plans for NRC review/endorsement



# NEI 04-01 -- Basic Guidance

- Introduction and background
- Definitions and terminology
- Overview of Part 52/COL/ITAAC processes
  - DC and ESP options for COL
  - ITAAC scope and verification process
  - Transition to operation
- Pre-COL phase review
  - Construction QAP, Construction FFD, Part 21
  - Construction inspection schedules and coordination
  - NRC inspection activities, e.g., EDV & early CIP

# NEI 04-01 -- Guidance for Meeting COLA Requirements

- All COL applicants
- Applicants who reference a DC
- Applicants who reference an ESP



**COL Application Requirements**

NEI Draft 11/20/03

		Additional or Alternative Requirements	
		W/reference to a design certification	W/reference to an ESP
<b>1. All COL Applicants</b>			
1.1. General and Antitrust Information	52.207 [50.33 & 50.33a]		
1.2. Personnel Training and Qualification Program	52.209 [50.120]		
1.3. Environmental Report	52.211(a)(2) [Part 51]		52.211(a)(1)(ii) (Supplemental ER)
1.4. FSAR	52.211(b)&(b)(1) [50.34(b)]	52.211(b)(4)	
1.5. Plant-specific tech specs	52.211(b) [50.34(b)(6)(i)]	DCR IV.A.2.c	
1.6. Proposed resolution of USIs/GSIs	52.211(b)(1)	DCR IV.A.2.f	
1.7. Plant-specific PRA	52.211(b)(2) [SRM-93-087]	52.211(b)(5)	
1.8. Plant-specific ITAAC	52.211(c)	52.211(c)(1)	
1.9. Off-site Emergency Plans	52.211(d)(2) [50.33(g)]		52.211(d)(1)
1.10. Physical Security and Safeguards Plans	50.34(c,d,e)		
1.11. TMI Items	50.34(f)		
1.12. Conformance with SRP	50.34(g)		
<b>2. Applicants who reference a design certification</b>			
2.1. Plant-specific DCD, including proprietary and safeguards info from generic DCD		DCR IV.A.2.a & IV.A.3	
2.2. Report on departures from generic DCD		DCR IV.A.2.b	
2.3. Compliance w/DCR site parameters and interface requirements		DCR IV.A.2.d	
2.4. COL Items		DCR IV.A.2.e	
<b>3. Applicants who reference an ESP</b>			
3.1. Demonstrate the facility falls within the site characteristics			52.211(a)(1)(i)
3.2. Compliance with ESP terms and conditions			52.211(a)(1)(iii)

# NEI 04-01-- Special Topics

- Operational programs
- Completing DC ITAAC at COL
- Change processes for COL application info
- QA requirements
- Seismic requirements
- Emergency planning requirements
- Testing requirements for non-certified designs
- Modular plant licensing



# NEI 04-01 Development Plans and Schedule

- Continue frequent interactions with NRC staff
- Complete Rev. 0 by end of 2004, including resolution of key COL issues
  - Operational programs and ITAAC (COL-8)
  - ITAAC verification process (COL-4)
  - ITAAC hearing process (COL-5)
  - Transition to operation (COL-6)
  - ITAAC on emergency planning (COL-10)
  - Possibly others

# NEI 04-01 -- NRC Review

- Process envisioned similar to license renewal
  - NEI 95-10 LR application guidance endorsed by RG 1.188
- Provide Rev. 0 guidance for NRC review (12/04)
- Revise NEI 04-01 in 2005 to reflect
  - NRC staff comments on Rev. 0
  - Resolution of additional COL issues
- NRC endorsement of NEI 04-01, Rev. 1 (12/05)



# COL Application v. FSAR v. Plant-Specific DCD

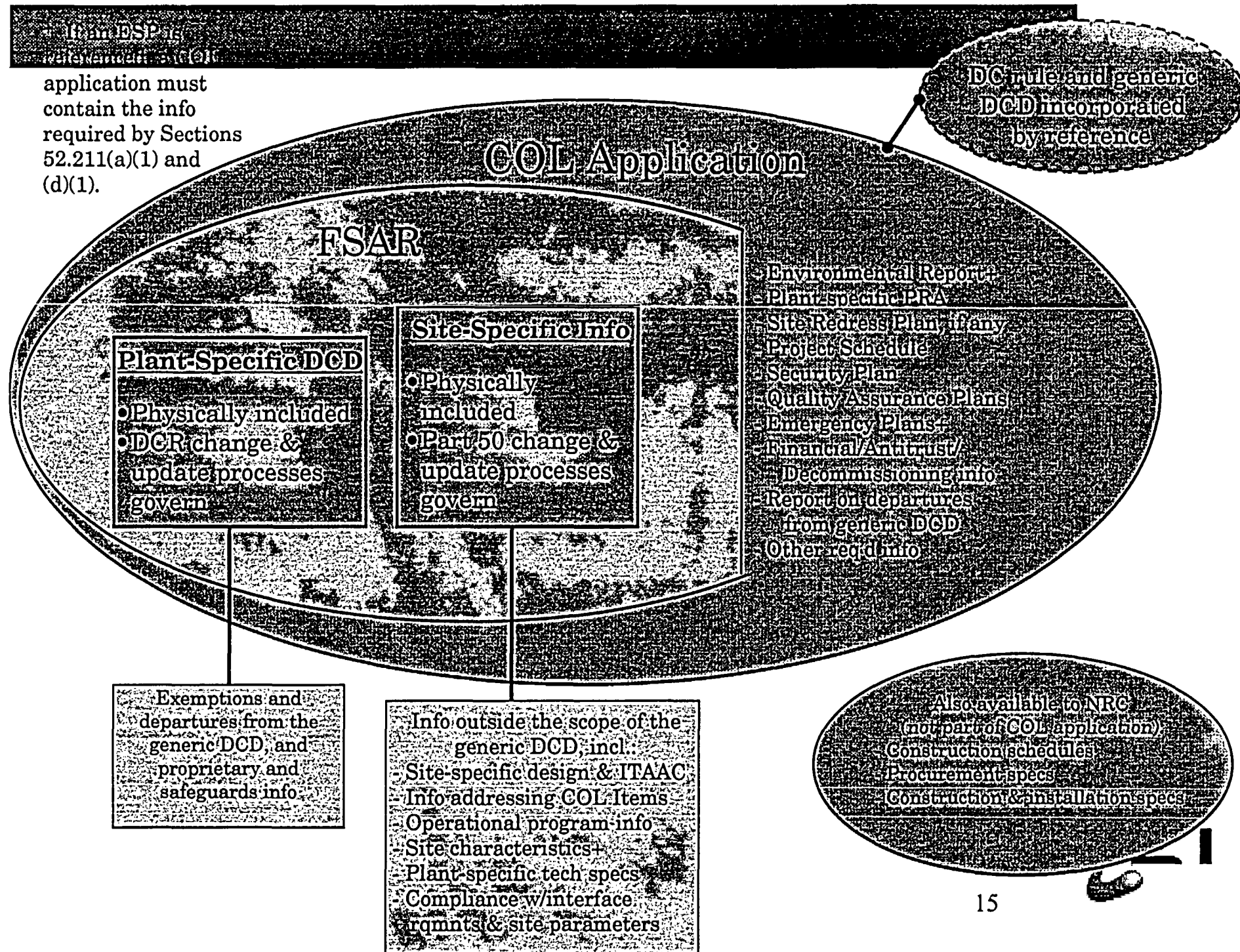
- Need to clarify Part 52 requirements and terminology
- Industry recommendations provided in September 30 response to NOPR
  - Section 52.211(b)(4)
  - Section IV.A of DCRs





From ESPs:  
with amendments (1)(1)

application must  
contain the info  
required by Sections  
52.211(a)(1) and  
(d)(1).



# COL Application Detailed Outlines

- Design-specific detailed COLA outlines being developed to complement NEI 04-01
  - AP1000
  - ABWR
- Emphasis on COL applicant scope of work and necessary inputs
- Primarily focused on FSAR

# COLA Outline Development Process

- Follow structure of generic DCD
- Identify interface requirements, COL Items, and “embedded commitments”
  - Necessary inputs
  - Suggested closure mechanism and timing
- Identify SRP review areas not otherwise addressed and whether they are COL or post-COL

# COLA Outline Development Process (cont.)

- Identify pertinent new (post-DC) information
  - Regulatory guidance
  - Generic communications
  - Industry initiatives
- Identify opportunities for improved processes, e.g., risk-informed approaches
- Identify site-independent areas amenable to development of standard COLA/FSAR content



# On Level of Detail

- Level of detail for plant-specific info should be consistent with
  - Generic DCD, if referenced
  - Analogous info in current FSARs
- In general, COL applicants will not add detail to the info approved in a generic DCD
- For many sections, info approved in the generic DCD is sufficient for approval of the COL



Standard Format for COL Application Section Outline Deliverables								NEI Draft - 11/20/03
		COL Applicant Scope of Info (Supplements approved DCD info)		(4) Engineering inputs or other resources necessary to develop COL applicant scope of info	Recommended timing and mechanism for closure of COL Item or Embedded Commitment			(8) Remarks, e.g., additional COL applicant scope SRP Review Areas, Tech Spec Bases consideration, etc.
(1) AP1000 or ABWR Generic DCD Section	(2) Interface requirement or COL Item (Identify corresponding ITAAC, if any)	(3) Embedded Commitment			(5) Closure Time Frame (COL issuance, fuel load, etc.)	(6) Corresponding SRP Section, if any	(7) Recommended closure mechanism	
Number	Title							
8.3.1.1.1	Onsite AC Power System	None	None	n/a	n/a	n/a	n/a	Example
8.3.1.1.6	Containment Building Electrical Penetrations	COL Item 8.3.3.5 – COL applicant will establish plant procedures for periodic testing of penetration protective devices	Class 1E protective devices are IAW IEEE-741	Penetration manufacturer recommendations	Post-COL		Plant procedures to be developed prior to plant operation	Example
8.3.1.1.8	Lightning Protection	COL Item 8.3.3.1b – COL applicant will address the design for lightning protection	None	Site-specific characteristics for lightning activity	COL		Design engineering specification and process	Example
8.3.1.3.3	Cable Derating and Cable Tray Fill	None	Cable tray fill in excess of 40% will be analyzed and the acceptability documented	Tray fill information	Post-COL		Design engineering specification and process	Example
<b>Table notes</b>								
* "None" in Column 2 means generic DCD contains all necessary and sufficient info for that section. COL applicant is responsible for verifying the validity of generic DCD info and identifying any departures or exemptions in the plant-specific DCD.								
Embedded commitments include things like the cable tray fill criterion in AP1000 DCD Section 8.3.1.3.3 and specification of codes, standards, regulatory guides, etc., to be used in developing COL applicant info.								
<b>Additional Requested Information</b>								
1) Identify anticipated NRC issues associated with the COL applicant scope of information or DCD interface-related issues (based on recent industry experience, generic communications, regulatory guidance, etc.).								
a.								
b.								
2) Identify any COL applicant scope of information that may be amenable to development of standard content, i.e., site-independent information, such as information to address a pending generic regulatory issue.								
a.								
b.								
3) Identify any opportunities for improved operational processes, including risk-informed approaches, and identify revisions to NRC requirements or deviations from existing regulatory guidance, and bases therefor, that might be necessary to implement the improved process.								
a.								
b.								

# On COL Items

- COL applications that refer to a DC must contain info that addresses COL Items
- COL Items are a significant – but not complete – set of items that a COL applicant must address
- Many types of COL Items:
  - Site-related items
  - Items that may be closed out at COL
  - Post-COL items
  - Items that correspond to specific ITAAC

# Addressing COL Items

- COL Items may be addressed at COL by
  - Referencing an ESP;
  - Providing specific info for NRC review; or
  - Committing in the COL application to provide necessary info when available
- COL Items to be addressed in the appropriate FSAR section
- A table like AP1000 Table 1.8-2 would list COL Items and where they are addressed





Table 1.8-2 (Sheet 1 of 6)

**SUMMARY OF AP1000 STANDARD PLANT  
COMBINED LICENSE INFORMATION ITEMS**

Item No.	Subject	Subsection
1.1-1	Construction and Startup Schedule	1.1.7
2.1-1	Geography and Demography	2.1.1
2.2-1	Identification of Site-specific Potential Hazards	2.2.1
2.3-1	Regional Climatology	2.3.6.1
2.3-2	Local Meteorology	2.3.6.2
2.3-3	Onsite Meteorological Measurements Program	2.3.6.3
2.3-4	Short-Term Diffusion Estimates	2.3.6.4
2.3-5	Long-Term Diffusion Estimates	2.3.6.5
2.4-1	Hydrological Description	2.4.1.1
2.4-2	Floods	2.4.1.2
2.4-3	Cooling Water Supply	2.4.1.3
2.4-4	Groundwater	2.4.1.4
2.4-5	Accidental Release of Liquid Effluents into Ground and Surface Water	2.4.1.5
2.4-6	Flood Protection Emergency Operation Procedures	2.4.1.6
2.5-1	Basic Geologic and Seismic Information	2.5.1
2.5-2	Site Seismic and Tectonic Characteristics Information	2.5.2.1
2.5-3	Surface Faulting	2.5.3
2.5-4	Site and Structures	2.5.4.6.1
2.5-5	Properties of Underlying Materials	2.5.4.6.2
2.5-6	Excavation and Backfill	2.5.4.6.3
2.5-7	Ground Water Conditions	2.5.4.6.4
2.5-8	Response of Soil and Rock to Dynamic Loading	2.5.4.6.5
2.5-9	Liquefaction Potential	2.5.4.6.6
2.5-10	Bearing Capacity	2.5.4.6.7
2.5-11	Earth Pressures	2.5.4.6.8
2.5-12	Static and Dynamic Stability of Facilities	2.5.4.6.10

# Summary

- Provide context for going forward
- Common understandings obtained
  - NEI 04-01 concept/plans
  - Form and content of COL application
    - ◆ Level of detail
    - ◆ Revision level of SRP
  - Method for addressing COL Items
  - NRC staff resources/schedule
- Next meeting

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**COL Process and Construction Inspection Program**  
**NEI-NRC Generic Discussion Topics**

COL/CIP Topic		Priority / Time Frame	Discussion/Resolution Vehicle	Interim Milestone(s)
COL-1	Identify most likely COL scenarios, develop nominal NRC review/hearing timeline(s) and identify opportunities to optimize the COL licensing process	2Q03/4Q04	TBD	TBD – Industry proposals
COL-2	Develop COL application format and content guidance, including detailed outline and generic material (NEI 04-01)	2Q03/4Q04	NEI COLA Guideline	<ul style="list-style-type: none"> <li>• 11/20/03 initial mtg w/NRC</li> <li>• 2Q04 – Detailed COLA outline</li> <li>• 4Q04 – Rev. 0 NEI 04-01</li> </ul>
COL-3	Establish a common understanding with NRC regarding the Engineering Design Verification process	2Q03/4Q03	<ul style="list-style-type: none"> <li>• NEI 11/01 white paper</li> <li>• Draft CIP Framework Doc</li> <li>• NRC Insp. Guidance</li> </ul>	<ul style="list-style-type: none"> <li>• August 27 NRC Workshop</li> <li>• Oct. 30 industry comments</li> <li>• 2Q04 – Rev. 0 Framework Doc</li> </ul>
COL-4	Establish a common understanding with NRC regarding the ITAAC Verification process	2Q03/4Q03		
COL-5	Establish a common understanding with NRC regarding the 10 CFR 52.103 ITAAC hearing process	2Q03/4Q03	TBD	TBD – NRC feedback on NEI 11/01 white paper
COL-6	Establish a common understanding with NRC regarding the process for assuring operational readiness and transition to operation under Part 52	2Q03/4Q03	<ul style="list-style-type: none"> <li>• NEI 11/01 white paper</li> <li>• CIP Framework Doc</li> <li>• NRC Insp. Guidance</li> </ul>	<ul style="list-style-type: none"> <li>• August 27 NRC Workshop</li> <li>• Oct. 30 industry comments</li> <li>• 2Q04 – Rev. 0 Framework Doc</li> </ul>
COL-7	Maximize the clarity and effectiveness of Part 52 requirements	2Q03/2Q04	<ul style="list-style-type: none"> <li>• NOPR</li> <li>• SECY on proposed Final Rule</li> <li>• SRM/Final Rule</li> </ul>	<ul style="list-style-type: none"> <li>• Sept. 16 &amp; 30 industry comments on Part 52 NOPR</li> <li>• 1Q04 – Proposed final rule</li> </ul>
COL-8	Determine the treatment of operational programs in a COL application	1Q04	<ul style="list-style-type: none"> <li>• SECY (due 3/04)</li> <li>• SRM</li> </ul>	<ul style="list-style-type: none"> <li>• August 25 NRC Workshop</li> <li>• Sept. 15 industry comments</li> </ul>
COL-9	Development of COLA guidance on ESP – COL interface issues	2003/04	NEI 04-01	
COL-10	Development of COLA guidance on the form and content for the emergency planning ITAAC required by Part 52	2003/04	NEI 04-01	

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COL/CIP Topic		Priority / Time Frame	Discussion/Resolution Vehicle	Interim Milestone(s)
COL-11	Development of COLA guidance for providing required plant-specific design information and associated ITAAC	2003/04	NEI 04-01	
COL-12	Identify and address "COL Items" from certified designs that can be addressed generically in advance of the first applications	2003/04	NEI 04-01	
COL-13	Define and address seismic-related issues that need to be resolved to support COL applications and reviews	2003/04	NEI 04-01	
COL-14	Development of COLA guidance on providing required plant-specific PRAs	2004	NEI 04-01	
COL-15	Development of COLA guidance on seeking Limited Work Authorizations (LWA-1 and LWA-2), including guidance on site redress plans	2004	NEI 04-01	
COL-16	Development of guidance for completion of design acceptance criteria (e.g., human factors, control room design, digital I&C) in certified designs	2004	TBD	
COL-17	Development of a human factors engineering plan to address plant staffing requirements (levels and qualifications) of personnel.	2005	TBD	
COL-18	Development of COL form and content, including NRC findings, license conditions, etc.	2005	TBD	
COL-19	Development of Emergency Action Levels appropriate to advanced reactor designs	2005	TBD	
COL-20	Development of guidance on plant-specific technical specifications, including evaluation of lessons learned since the issuance of the ALWR design certifications.	2005	TBD	
COL-21	Development of change process guidelines for control of various categories of COLA information (e.g., Tier 1, Tier 2, Tier 2*, severe accident related, plant specific, etc.)	2005	TBD	
COL-22	Modular plant licensing issues	TBD	TBD	
COL-23	Identify and assess issues peculiar to the no-ESP scenario and the adequacy of existing guidance to support that scenario	TBD	TBD	