

Industry Proposals for Improved Environmental Regulatory Guidance and Training

Maximizing the efficiency and effectiveness of NRC environmental reviews will require further improvements in NRC regulatory guidance and simplified and innovative approaches to address environmental issues that typically consume time and resources in excess of their significance. Moreover, training to inform both industry and NRC personnel (including contractors and members of the Atomic Safety and Licensing Board or ASLB) on updated rules and guidance will be needed to assure a common understanding of NEPA purpose, scope and implementation in the context of new-plant licensing. These industry proposals are discussed below.

- Re-thinking the planned update to NRC Regulatory Guide (RG) 4.2

We understand that the NRC staff currently plans to initiate an update of RG 4.2, *Preparation of Environmental Reports for Nuclear Power Stations*, in 2009. Updating this comprehensive, 30-year-old guideline would consume substantial NRC staff, NRC contractor, and industry resources, and the update process would take years to complete. In our view, such an update would likely fail to produce a benefit to new applicants commensurate with the effort needed.

As mentioned at the NRC workshop, we suggest an alternative approach. While the NRC historically has maintained separate guidance for applicants (found in RG 4.2) and the NRC staff (found in NUREG-1555) on preparation and review of Environmental Reports, applicants have routinely consulted NUREG-1555 for insights on preparing ERs. This has been especially true in recent years because the ESRP was updated in 1999, while RG 4.2 has fallen further and further out of date. NEI therefore recommends that the NRC reassess the need to maintain separate guidance for applicants and NRC reviewers and take this opportunity to augment the ESRP so that it can provide guidance for both COL applicants and the NRC staff.

We believe this could be accomplished using a fraction of the time and resources it would take to update RG 4.2. For the ESRP to provide guidance for applicants as well as the staff, certain ESRP sections may need to be augmented with additional guidance. However, much of the ESRP may require little or no change at all. For example, existing ESRP sub-sections on "Review Areas" and "Acceptance Criteria" not only indicate the scope and criteria for the NRC's review, but also reflect the expected content of the applicant's ER. It would be clear to applicants that other typical ESRP sub-sections such as "Reviewer Interfaces" are intended for NRC use only.

As an alternative to relying solely on the ESRP, there was discussion during the December 6 workshop of retaining RG 4.2 in a more focused form. Rather than a comprehensive update of applicant guidance that would be largely redundant to the ESRP, RG. 4.2 could be revised to complement the updated ESRP. Under this alternative, it would be understood that applicants would continue to consult the ESRP as they do today. Instead of augmenting the ESRP to serve applicants as well as NRC reviewers, the augmenting guidance would go into the new and streamlined RG 4.2.

While we continue to prefer the proposal to focus solely on the ESRP and to reconsider any update to RG 4.2, we believe either of these alternatives would be helpful in ensuring that applicants have clear and complete guidance on preparing ERs. We recommend a public meeting later this year to discuss these alternatives further with the NRC staff.

- Generic Treatment of Certain Environmental Issues

We believe that certain environmental issues can and should be addressed generically for new plants. In the short term, this could be accomplished through development of regulatory guides, and in the longer term, through a generic EIS (GEIS) similar to that developed for license renewal. Efforts in this area may hold the greatest promise for substantially streamlining NRC environmental reviews.

We envision that at least two categories of environmental issues could be addressed generically to streamline environmental licensing reviews. The first would be environmental issues for which nuclear plants have consistently been demonstrated – in more than 90 ERs and EISs for plant sites coast-to-coast – to have small or negligible environmental impact. These issues include:

- Construction impacts
 - Surface water
 - Surface water quality
 - Avian mortality
- Operational impacts
 - Altered current patterns
 - Altered salinity gradients
 - Altered thermal stratification
 - Temperature effects on sediment transport
 - Bottom scouring
 - Avian mortality

We believe issues for which nuclear plants have consistently small environmental impacts can and should be addressed generically, so that time and resources need not be expended to address them specifically for each new plant site. To avoid such redundant consideration of these issues, we envision that industry would develop generic templates demonstrating that environmental impacts of a new nuclear plant are small for particular environmental issues, and that these templates would be endorsed in NRC regulatory guides that would be available for public comment prior to becoming final. Subsequent ERs could address these issues solely by reference to the regulatory guides. Applicants would provide supplemental information on such issues when significant new information exists indicating that, for a particular applicant, the environmental impact may be greater than “small.”

For other environmental issues, templates could be developed that would standardize the *methodologies* used to assess environmental impacts. These methodologies would be endorsed in NRC regulatory guides, following a public comment period, that would be referenced in ERs. Use of approved methodologies would conserve NRC time and

resources by allowing reviewers to focus on the applicant's data and results, not on methodology. Approved methodology templates could also draw on industry best practices, thereby achieving an overall higher quality of assessment in each application. Examples of environmental issues for which standardized methodologies could be developed include:

- Alternative energy source evaluations
- Cooling tower impacts
- Intake structure issues
- Physical impacts (socioeconomic) related to construction

We believe one or more public meetings would be helpful to identify environmental issues in each of these broad categories amenable to generic treatment in ERs and to discuss the optimal approach for doing so. As outlined above, these efforts would begin this year with development by the industry of generic templates and NRC regulatory guides for addressing a range of environmental issues. Once templates had been developed, one or more additional public meetings could be held to discuss the proposed templates in an open forum. Regulatory guides thus developed would lay the technical basis for proceeding over the longer term to develop and codify the generic conclusions and methodologies in a GEIS for new plants while providing a meaningful opportunity for the public to be involved in their development.

To maximize the benefits of generic treatment of certain environmental issues, it is vitally important for the agency to develop over the longer term a GEIS whose findings would be promulgated in NRC regulations. Promulgation of a GEIS would be an additional opportunity for the public to engage on treatment of these environmental issues and to participate in the agency's rulemaking process. NRC's use of a GEIS as part of its review of environmental issues for license renewal provides a useful model. In that context, the license renewal GEIS and related regulatory amendments defined both those environmental impacts for which a previously-performed generic analysis would be adopted in plant-specific reviews and those environmental impacts for which plant-specific analyses would be performed. As the NRC noted upon issuing the GEIS, this regulatory approach improved NRC regulatory efficiency in license renewal environmental reviews "by drawing on the considerable experience of operating nuclear power reactors to generically assess many of the environmental impacts that are likely to be associated with license renewal." See 61 FR 28,467. The NRC correctly predicted that such increased regulatory efficiency would result in lower costs for both the applicant preparing a renewal application and the NRC staff reviewing the application, while also allowing "a more focused and therefore a more effective NEPA review for each license renewal." (Id.) Additionally, efficiencies in license renewal adjudicatory proceedings have been recognized by the Atomic Safety and Licensing Board (ASLB). The GEIS approach also allowed flexibility for the NRC to address any unreviewed impacts at the site-specific stage of the review and thus allow full consideration of the environmental impacts of renewal.

- Improved Training

Given the recent changes in NRC regulations and guidance, turnover of experienced personnel, and the prospect of a sustained period of new plant licensing, a concerted effort is needed to provide updated environmental training for both industry and NRC staff personnel, including contractors and interested members of the ASLB. In the recent past, the industry, the NRC, the ASLB, and contractors for both the industry and the NRC have struggled with the scope of required environmental reviews. Consequently, we believe this training would be most beneficial if it focused on the purpose, scope, and implementation of NEPA. Members of the public could also benefit from additional information on the scope of NRC's required environmental reviews being included on the NRC website.

Last August, a similar joint workshop was held to instruct industry and NRC staff on the latest seismic requirements, guidance and analytical methodologies. We recommend that one or more joint workshops be held to provide the necessary training on updated environmental requirements and implementation of NEPA. We look forward to working with the NRC to make this important training available to industry, NRC personnel, and their contractors.

Proposed Enhancements to the NRC Licensing Hearing Process

In addition to the proposed improvements to the NRC's environmental review process discussed in the cover letter, NEI recommends that the NRC undertake additional initiatives to make its ESP and COL licensing hearing process more efficient and more timely while continuing to be appropriately rigorous and thorough.

From a broad perspective, enhancing the efficiency of the ESP and COLA licensing review process so as to facilitate completion of the technical review and issuance of NRC licensing documents in less time should also accelerate the NRC licensing hearing process. Acceleration of the licensing hearing should, in turn, accelerate the issuance of the Licensing Board's decision and the agency's decision on granting the ESP or COL. There are a number of measures the NRC can and should take to improve licensing hearing timeliness and efficiency independent of other aspects of the licensing review. NEI proposed several such actions and strategies at a December 6, 2007, NRC workshop; these are highlighted below. It is worth noting that none of the industry proposals would reduce the public's opportunity to raise questions or otherwise participate in the licensing process. A more comprehensive discussion of many of these proposed licensing process enhancements appears in NEI's August 10, 2007, comments on the Draft Policy Statement on Conduct of New Reactor Licensing Proceedings.

Finalize Policy Statement on Conduct of New Reactor Licensing Proceedings:

NRC should promptly issue a final Policy Statement on Conduct of New Reactor Licensing Proceedings. Given the submittal of four complete and one partial COL application in 2007, and the anticipated submittal of several additional COL applications in 2008, this guidance is needed immediately. In that regard, we urge the agency to consider and adopt in the final policy statement the proposed enhancements discussed in NEI's comments on the Draft Policy Statement on Conduct of New Reactor Licensing Proceedings. NEI's proposals are intended to support the draft policy's goal of "avoiding duplicative litigation through consolidation to the extent possible," as well as "the use of tools, such as the establishment of and adherence to reasonable schedules, intended to reduce the time for completing licensing proceedings while ensuring that hearings [are] fair and produce adequate records." See 72 Fed. Reg. 32,139, 32,140.

Initiate Rulemakings for Generic New Plant Licensing Issues to Minimize Duplicative Litigation:

NRC should promptly implement the Combined License Review Task Force's¹ recommendation that the Commission "consider rulemaking to resolve issues that are generic to combined license applicants." (Report, p. 12.) Candidate rulemaking topics identified by the Task Force include non-proliferation risks of nuclear power, need for power, long-term storage of spent fuel and fuel reprocessing, and we believe that additional issues might also lend themselves to rulemaking. Significantly, in approving this recommendation last summer, the Commission directed the NRC Staff to "propose to the Commission those rulemakings that will provide the greatest efficiencies" and to assess whether such rulemaking initiatives would hinder the Staff's

¹ The Combined License Review Task Force, led by former Commissioner Jeffrey Merrifield, was directed to "explore further efficiencies" in the NRC's environmental, technical and adjudicatory review process for new reactor license applications. On April 18, 2007, Chairman Klein and Commissioner Merrifield provided the resulting *Report of the Combined License Review Task Force* (hereafter, "Report") to Commissioners Jaczko, Lyons, and McGaffigan, urging that the Commission support "expeditious" implementation of all of the task force recommendations for process improvements.

ability to complete COLA reviews efficiently.² Further, the Commission suggested that, where appropriate, the NRC Office of General Counsel “be given the lead on completing these rulemaking activities with whatever support from the appropriate staff offices may be needed.” *Id.* Because the use of rulemakings to resolve generic issues clearly has the potential to reduce duplicative litigation in individual licensing hearings, we believe that the NRC should initiate and conclude such rulemakings promptly to maximize the benefit to COL applicants.

Use Hearing Orders and Tighten Schedule Milestones to Facilitate Efficient Licensing Hearings

The Commission should continue its existing practice of using hearing orders in individual licensing proceedings. For future COL and ESP proceedings, hearing orders can be used effectively to establish efficient hearing schedules,³ direct the prompt issuance of Licensing Board decisions, minimize the possibility of duplicative litigation, preclude litigation of generic policy and/or regulatory issues more appropriately handled through rulemaking or other generic treatment, and address other matters likely to arise. The issuance of such hearing orders clearly falls within the Commission’s inherent supervisory authority to oversee the agency’s administrative adjudications, and the Commission has exercised that authority for many years in NRC licensing proceedings.⁴ Hearing orders will continue to be essential tools for providing guidance to the NRC Staff, Atomic Safety and Licensing Board panels, applicants and interested members of the public.

In addition, some changes to the Model Milestones for NRC Adjudicatory Proceedings in 10 CFR Part 2 (see 70 Fed. Reg. 20,457) (April 20, 2005)), may be warranted to streamline the time typically allowed for completion of various hearing-related activities and for the issuance of Licensing Board decisions. For example, the model schedule for hearings on COL applications conducted under Part 2, Subpart L, states that licensing hearings should begin 175 days after issuance of the SER and NEPA document. We believe it need not and should not take six months to begin hearings following issuance of the SER and EIS. This time interval should be shortened appreciably, or better yet as recommended under the next heading, the parties should proceed to hearing on environmental matters based on the draft EIS. The model schedule also should shorten from 90 to 60 days the time for the presiding officer to issue an initial decision on a COLA. Such individual schedule efficiencies, particularly if implemented together, could significantly decrease overall hearing time.

² See Staff Requirements Memorandum COMDEK-07-0001/COMJSM-07-0001 – Report of the Combined License Review Task Force (June 22, 2007), p. 2 (the Commission specifically approves “rulemaking to resolve issues that are generic to COL applications.”).

³ See *Baltimore Gas & Electric Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-14, 48 NRC 39 (1998) and *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2 and 3), CLI-98-17, 48 NRC 123 (1998)(setting forth a 30-month overall review schedule for licensing renewal proceedings and a seven-month hearing schedule in the event of a contested hearing).

⁴ See *Baltimore Gas & Electric Co.*, 48 NRC 45, wherein the Commission emphasized that it “regularly” issues case-specific guidance to the Atomic Safety and licensing Boards “on both procedural and substantive issues.” For a more recent example, see *Dominion Nuclear North Anna LLC* (Early Site Permit for North Anna ESP Site), LBP-07-09, 65 NRC __ (slip op. at 91-107) (June 29, 2007) (identifying several novel and important issues where Commission guidance would be helpful).

Give Parties the Option to Proceed to Hearing Based on the DEIS

As we have proposed in other contexts,⁵ we believe the NRC should give Licensing Boards the option of commencing licensing hearings on environmental issues based on availability of the draft, rather than the final, Environmental Impact Statement (EIS), if the parties consent. Using an individual hearing order, the Commission has previously directed the presiding officers in two uranium enrichment proceedings to expedite those proceedings by conducting hearings on contentions prior to issuance of the final SER and final EIS, unless those hearings would adversely impact the Staff's ability to complete its evaluations in a timely manner. While the Commission declined, on the record before it, to authorize a merits hearing prior to issuance of the FEIS in the Vogtle Early site Permit proceeding,⁶ this decision does not foreclose this approach in future COL licensing proceedings.

The consideration of environmental issues based on the draft EIS could produce a more informed record overall, as the results of the review could be factored into the final environmental documents. It could also facilitate earlier completion of the licensing hearing, earlier issuance of the Board decision, earlier issuance of the license, and earlier initiation of construction. It would meet the NRC's stated goal of facilitating the prompt, efficient and complete resolution of contested issues. Alternatively, the Commission could direct that hearings commence more promptly after issuance of the final SER and final EIS, particularly if no additional contentions on the final SER or EIS are admitted.

In this regard, the Combined License Review Task Force Report stated (p. 7):

Contrary to the new reactor licensing program plan's assumption that the adjudicatory phase of COL proceeding takes place entirely after issuance of the staff's final safety evaluation report and final environmental impact statement, some adjudicatory activities (e.g., motion practice on contested issues) will likely occur in parallel with the NRC staff's safety and environmental reviews. The task force believes that experience with hearings in Part 50 licensing proceedings shows that many contested issues in a combined license proceeding can be resolved during finalization of the staff's safety evaluation report and environmental impact statement. Therefore, the task force believes that the 12 months allotted for adjudication after issuance of the final safety evaluation report and final environmental impact statement could be reduced to 6 to 9 months (i.e., savings of approximately 3 to 6 months) in the case of hearings on contested issues (assuming that there is no hearing on uncontested issues). Where there is instead a hearing on uncontested issues, the schedule savings from having the Commission conduct the hearing is approximately 8 to 10 months.

⁵ See NEI's August 10, 2007 comments on the Draft Policy Statement on the Conduct of New Reactor Licensing Proceedings, pp. 15-17 (included as Enclosure ___ to this letter).

⁶ *Southern Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), CLI-07-17, 65 NRC ___ (2007).

The Commission Should Conduct Mandatory Uncontested Hearings for COL Applications and Pursue a Statutory Amendment to Eliminate Such Hearings

NRC should promptly implement the Combined License Review Task Force's recommendation (Report, pp. 6-7) that the Commission, rather than the Atomic Safety and Licensing Board, should conduct all mandatory uncontested hearings for COL and ESP applications. The Commission has endorsed this recommendation.⁷ This change should be implemented so as to further the Task Force's goal of greater efficiency and timeliness in the conduct of mandatory uncontested hearings.

In this regard, the NRC also should consider conducting the mandatory hearing and the contested hearing in parallel,⁸ and should specify the use of informal, expedited hearing procedures for mandatory uncontested hearings.⁹ As a long-term solution, industry supports elimination of mandatory uncontested hearings by amending the Atomic Energy Act of 1954, (as urged by Combined License Review Task Force) and urges the NRC to seek legislation to do so.

⁷ See June 22, 2007, SRM COMDEK-07-0001/COMJSM-07-0001, p. 1.

⁸ See the comments of Commissioner McGaffigan on COMDEK-07-0001/COMJSM-07-0001, at 1.

⁹ See Commissioner McGaffigan's vote sheet for 10 CFR part 52 final rule ("The Commission, not the Boards, should handle mandatory hearings through paper or legislative style hearings."). This proposal is consistent with the Part 52 SRM, where the Commission instructs the Staff to amend 10 CFR 2.104 "to ensure that the Commission has maximum flexibility in the conduct of mandatory hearings."