



NUCLEAR ENERGY INSTITUTE

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September 27, 2004

Dr. William D. Beckner
New, Research and Test Reactor Program
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation
US Nuclear Regulatory Commission
Washington, DC 20555-0001

Project 689

Dear Dr. Beckner,

We appreciated the opportunity to meet with you and others of the NRC staff on September 9, 2004, to discuss generic issues associated with the three ongoing ESP applications. To permit tracking and close-out of these issues consistent with our previous process for ESP generic issues, we have identified them as follows:

ESP-3a – Part 21 applicability to ESP applicants and holders

ESP-16a – NRC review of emergency planning information

ESP-22a – Treatment of design parameters identified in ESPs

The enclosure to this letter summarizes key points from our September 9 discussions of these issues and clarifies remaining questions to be addressed in follow-up public meetings.

We understand that the staff will provide a letter to NEI regarding its views on finality of emergency planning information approved in an ESP. We look forward to reaching a common understanding on finality and other EP-related issues during our follow-up discussions.



Enclosure

September 9, 2004, ESP Common Understandings and Points for Further Discussion on Part 21 applicability, NRC review of emergency planning information and Treatment of design parameters identified in ESPs

ESP-3a – Part 21 applicability

A. Common understandings reached:

1. The staff affirmed that Part 21 would apply to ESP holders, as identified in its June 22 letter to NEI.
2. The staff indicated that ESP applicants must have a Part 21 program in place prior to issuance of the ESP. As a practical matter, the staff further stated that the Part 21 program would need to be in place to support issuance of the SER. The staff will verify by inspection or via the RAI process that a Part 21 program is in place.
3. The staff indicated it planned to modify the ESP template based in part on the September 3, 2004, comment letter from NEI. In particular, Item 1 of the template will be modified to additionally reflect that the ESP applicant complies with the requirements of Part 21.
4. Part 21 applies only to safety-related activities, as defined in the regulation. Determination of which ESP-related activities (if any) are safety-related will be made on an applicant-specific basis.
5. There can be no potential for a substantial safety hazard prior to the referencing of an ESP in a construction permit (CP) or combined license (COL) application (COLA). Thus, conditions that would require Part 21 reports to NRC will not exist prior to that time.
6. To the extent safety-related activities are performed by contractors in support of the ESP, Section 21.21(b) requires that any such errors be identified to the ESP applicant or holder, even if the error is identified after the completion of work. ESP holders are subject to Part 21 recordkeeping requirements and would be expected to retain and provide this information for future evaluation by a CP or COL applicant and reporting to NRC as appropriate. The NRC staff indicated that clarification of Part 21 recordkeeping requirements in this regard was being considered.

Further discussion needed:

1. *The extent to which Part 21 implementation is to be addressed in ESP applications.*
2. *The need for a separate item (Item 7) in the ESP template on Part 21 applicability.* Our view is that no separate item on Part 21 applicability is necessary.

ESP-16a – NRC review of emergency planning information

A. Common understandings reached:

1. At a minimum to obtain an early site permit, Section 52.17(b)(1), ESP applications must identify “physical characteristics ... that could pose a significant impediment to the development of emergency plans.” It is understood that for ESP sites proximate to an operating nuclear facility licensed under 10 CFR Part 50, the existence of approved emergency plans demonstrate that the subject site would not be expected to have physical characteristics that “could pose a significant impediment to the development of emergency plans” for a new facility at that site. Therefore, the identification of existing approved emergency plans in an ESP application for the site would be acceptable to the NRC staff as sufficient to comply with Section 52.17(b)(1). Under the “impediments only” option, the ESP applicant must also provide a “description of contacts and arrangements made with state, local and federal governmental agencies” [Section 52.17(b)(3)].
2. A preliminary analysis of evacuation time is not required to support the “impediments only” option; however, it is one acceptable way to identify any physical characteristics that could pose a significant impediment to developing emergency plans. The staff identified a possible definition of a preliminary ETE as one that does not yet integrate specific traffic control measures or similar details. A preliminary ETE would be most useful in the case of a “greenfield” or other site where approved emergency plans do not exist.

To allow an appropriate use of applicant and NRC staff resources, the NRC staff will consider clarifying whether ETE-related RAIs pertain to compliance with the Section 52.17(b)(1) (“impediments only” review) or 52.17(b)(2)(i) (“major features” review).

B. Further discussion needed:

1. *The need for a full ETE to be provided to support a major features review based on NUREG-0654, Revision 1, Supplement 2, Section V.J.3 (Protective Response).*

2. *The need for RAIs on emergency plans when the plans are part of an existing FEMA/NRC approved plan.* Further discussion is necessary based on NRC staff consideration of the following:
 - a. The Commission's policy as stated in its October 3, 2003, denial of petition for rulemaking PRM-52-1 concerning reference to existing licensing information in new licensing actions: The Commission stated the NRC staff's review of an ESP application located at an existing nuclear site "will draw upon, and be informed by, the body of information that has already been amassed for that site as part of the previous licensing review." Further, the commission stated that the NRC's review should be focused on whether there is significant new information, new methodologies, or new regulations. 68 Fed. Reg. 57383, 57385-86 (October 3, 2003).
 - b. The NRC letter to NEI dated December 18, 2002, on generic issue ESP-20, Use of Existing Site/Facility Information. In that letter, the staff stated "applicant identification of existing information is expected to result in more efficient NRC reviews by allowing the staff to focus on changes since the existing information was previously reviewed and approved, new information and confirming the applicability and acceptability of existing information for ESP purposes."
3. *The generation of RAIs on off-site emergency plans is especially problematic for ESP applicants.* State and local emergency response agencies control these plans and have expressed confusion and reluctance concerning the need to expend limited public resources to provide the additional information requested, or to make changes to existing NRC/FEMA approved plans, to support ESPs, which may or may not result in future unit construction. Likewise, it is not prudent for ESP applicants to invest resources in this particular area until more is understood about the degree of finality that will be provided (see Item 8, below).
4. *The use of interface requirements to facilitate NRC review of EP major features.* Further discussion is needed on refocusing the review of EP major features on applicant-controlled elements of emergency plans. Consideration of off-site elements for purposes of ESP reviews could be accomplished through use of interface requirements. The concept of interface requirements was used effectively to facilitate design certification reviews. This approach would provide for review and approval, with finality, of applicant-controlled elements of emergency plans, subject to demonstration at COL that interface requirements specified in a referenced ESP are met.

In addition to addressing applicant-controlled EP elements and off-site interface requirements, ESP applications may also incorporate applicable portions of existing approved state and local off-site plans, including specific interfaces with the owner controlled on-site plans. Consistent with the

Commission policy summarized, above, all EP information submitted in support of the ESP would be potentially subject to hearing. However, we believe that NRC staff RAIs should be limited to issues related to the potential addition of new units on the site. We would not expect RAIs to seek changes in, or additional details about, existing approved state and local off-site plans.

We consider NRC assessment of the integration of off-site emergency plans with applicant controlled elements to be beyond the scope of major features type reviews for ESP. It is more appropriate for NRC to focus on interface requirements for off-site plans and to assess integration of on- and off-site elements when complete and integrated plans are submitted in a CP or COL application.

5. *Need for lessons-learned revision of NUREG-0654, Revision 1, Supplement 2.* This supplement defines EP major features for purposes of Section 52.17(b)(2)(i) in terms of planning Supplement standards and associated ESP-specific evaluation criteria. Supplement 2 was issued in draft form for comment in 1996, and the draft guidance is being applied for the first time during the current ESP application reviews. Based on the experience of the three ESP applicants, potential modifications to Supplement 2 that were discussed on September 9 included:
 - a. Elimination of the State and Local columns from the table of evaluation criteria in Section V – This would ensure an NRC staff focus for ESP on applicant-controlled emergency plan elements and requirements for interface with off-site plans
 - b. Allow approval of EP major features even when Supplement 2 planning standards are not fully met – Approval of EP major features based on satisfaction of discrete evaluation criteria in whole or part should be allowed. The SER would document the extent to which an evaluation criterion has been met (in whole or part) and the basis for the approval. The SER would also identify incomplete or open items that must be addressed by a COL applicant who references the ESP.
 - c. Replace the tailored-for-ESP evaluation criteria in Section V with the evaluation criteria for all 16 planning standards from NUREG-0654, Revision 1 – Using a single set of evaluation criteria would promote clarity regarding the extent to which evaluation criteria are satisfied at ESP by approved EP major features and the actions and information that remain to be addressed at COL.

In connection with such modifications, EP “major features” could be defined as any information beyond the minimum required for the “impediments only” review, but less than required for a complete and integrated emergency plan. Such a definition is consistent with Part 52. The major features information submitted and ultimately approved by the NRC in the ESP would be applicant-specific. It is suggested that Supplement 2, modified as suggested

above, or NUREG-0654, Revision 1, itself, could be used as reviewer guidance under this approach. Major features information ultimately approved in the ESP would have finality in a future CP or COL proceeding in accordance with Section 52.39.

When approving EP major features under this approach, NRC would specify, in the SER and/or ESP, interface requirements that must be met at COL and incomplete/open items corresponding to the additional EP information (scope and/or level of detail) that must be provided in a COL application, i.e., EP-related "COL Items."

6. *Inconsistencies between Supplement 2 and the regulations, and within Supplement 2 itself.* For example, consistent with Section 52.17(b)(3), Section I.E of Supplement 2 states, "For the mandatory requirement and Option 1, the application must include a description of contacts and arrangements made with local, State, and Federal agencies with emergency planning responsibilities." However, the more detailed evaluation criteria in Section V of Supplement 2 (A.3 and B.2) lead the NRC reviewer to seek descriptions of contacts and arrangements with non-governmental supporting entities.

Another example is the statement in Section I.C that "emergency plans submitted in support of a COL application, including those incorporated by reference [e.g., in an ESP], meet the existing emergency planning standards and requirements" This statement appears to suggest the potential for re-review of approved EP information at COL to later standards, in direct conflict with the finality provisions of Section 52.39.

7. *Finality accorded under Section 52.39 to EP major features approved in an ESP, regardless of their ultimate definition.* The industry's view of finality at COL of EP information approved at ESP is as follows:
 - a. If complete and integrated plans are approved as part of an ESP application, a COL applicant may incorporate such plans by reference in its COL application, and the plans would be accorded finality within the meaning of Section 52.39.
 - b. A COL application that references a complete plan or major features plan must include updates and identify changes to the information approved in the ESP.
 - c. An ESP application may, by reference or duplication, include applicable portions of existing emergency plans that are currently in use for the site. To the extent that this information forms the basis for the ESP approval, 10 CFR 52.39 is applicable, i.e., the NRC at COL may not impose new emergency planning requirements unless the criteria specified in §52.39 are met. During the period of time between ESP issuance and its reference in a COL application, the existing emergency plans may have

been changed in accordance with 10 CFR 50.54(q). The finality established by §52.39 is applicable to such changes provided the COL applicant evaluates each change in the context of the proposed new unit(s) and demonstrates that the 10 CFR 50.54(q) “no reduced effectiveness” determination remains valid. This is consistent with the finality accorded plant specific Tier 2 changes in accordance with Section VI.B.6 of the design certification rules.

- d. “Significant” changes to the plans approved at ESP would be subject to NRC approval and hearing at COL. (The “significance” threshold for NRC review is a current rulemaking issue. The industry recommends that changes would be considered significant if they decrease the effectiveness of existing plans (based on Section 50.54(q)), while the NRC staff proposed in the Part 52 NOPR that changes be considered significant if they “materially change the bases for compliance.”)
 - e. COL applications will address interface requirements and EP-related “COL Items” (if any) specified in the referenced ESP.
 - f. EP information provided at COL that was not addressed by the major features approved for ESP would be subject to NRC review and hearing at COL.
 - g. Additional information (details) provided at COL associated with implementation of major features approved at ESP would be subject to NRC approval and hearing.
 - h. Except to address significant changes or new information, EP major features approved at ESP would not be subject to NRC approval or hearing at COL.
8. *Re-review of existing FEMA/NRC approved emergency plans at COL.* As discussed on September 9, the industry is concerned that reference to existing FEMA/NRC approved emergency plans at COL could result in extensive RAIs, just as there have been extensive RAIs on existing approved emergency plans referenced for ESP. Consistent with Item 2 above, we believe such RAIs would be unnecessary and inconsistent with Commission policy. We would not expect questions regarding existing approved plans referenced for COL, except as they specifically concern incorporation of the proposed new unit(s) into the existing plans. We agree that the resolution of this issue for ESP would also be applied during COL reviews.

ESP-22a – Treatment of design parameters identified in ESPs

Further discussion needed:

1. *Need to distinguish between site characteristics and design parameters in the SER/ESP.* In a June 22, 2004, letter, the staff proposed to identify in Table 2 of the proposed ESP template both site characteristics determined as part of the

site safety analysis and design parameters important to assessing environmental impacts. As discussed in our September 16, 2003, response to the Part 52 NOPR, only site characteristics (and not design parameters) need be identified in the ESP itself.

If design parameters important in assessing environmental impacts are to be identified in either the ESP or the EIS, it is important to make clear the distinction between design parameters and site characteristics. Separate listings of assumed design parameters and actual site characteristics used to support the required site safety and environmental findings may be appropriate.

2. *Nature of site characteristics.* Site characteristics are individually determined for the site and approved by the NRC staff, with finality under Section 52.39, as part of the site safety review. These are "hard and fast" numbers that completely and accurately describe the site. At COL, the actual design of the facility must fall within the site characteristics. Where this is not the case, the COL application must provide additional analysis to demonstrate that the proposed plant would nonetheless comply with NRC requirements concerning site suitability. The additional analysis would be subject to NRC review and public hearing.
3. *Nature of design parameters.* In contrast with site characteristics, design parameters used to assess environmental impacts are not individually reviewed and approved by the staff, and they are not "hard and fast" numbers that must be bounded by the design characteristics of the proposed plant. Rather, these design parameters are used collectively to assess the environmental impact of building and operating one of more nuclear plants on the site. It is the resulting environmental impact that is found acceptable; another set of similar design parameters that results in an equivalent or lesser environmental impact should also have finality under §52.39.

At COL, one way to show compliance with a referenced ESP would be to provide a comparison of design characteristics for the proposed facility versus the design parameters assumed in the environmental review for ESP. But unlike the situation for site characteristics, further analysis and NRC approval is not always required when the design of the facility does not fall within a design parameter assumed for ESP. Consistent with Sections 51.92 and 52.79(a)(1), further analysis and NRC approval would only be required when the unbounded characteristic results in a significant adverse change in environmental impact or otherwise represents a significant new environmental issue.

4. *Value of separately listing design parameters in an ~~ESP~~^{ESP SER}.* We agreed with the staff that if characterized properly, a separate list of design parameters important in assessing environmental impacts would be helpful to the extent it facilitates comparison at COL with actual design characteristics. Moreover, providing such a list of design parameters and other inputs important to

environmental analyses would clearly establish the set of parameters/inputs to be used in supplemental environmental analyses performed at COL.

5. *Interpretation of Section 52.89.* This section states, “the environmental review [at COL] must focus on whether the design of the facility falls within the parameters specified in the ESP...” We are concerned that this requirement could be interpreted to require all design characteristics to be bounded by their corresponding design parameters assumed for ESP. As discussed above, treatment of ESP design parameters as “hard and fast” numbers that must be bounded would be inconsistent with Sections 51.92 and 52.79(a)(1).
6. *Interpretation of Section 52.39(b).* This section provides for a CP or COL applicant to seek a variance from one or more “elements” of the permit. We would like to confirm that we have a common interpretation that for purposes of Section 52.39(b), “elements” may include any term, condition, limitation or other specification of the permit, including a site characteristic.

In summary, common understandings are needed on the following ESP-22a issues:

- The differing nature and purpose of site characteristics versus design parameters within an ESP;
- The differing implications at COL when comparison with actual design characteristics results in unbounded site characteristics versus unbounded design parameters;
- The importance that ESPs clearly distinguish between site characteristics and design parameters and properly characterize any list of design parameters such as that proposed by the staff; and
- Because not all design parameters identified in ESP applicant PPEs were important, or even used, in assessing environmental impacts for the site,
 - 1) Which design parameters get listed, i.e., what are the criteria for identifying design parameters important in assessing environmental impacts? and,
 - 2) What is the approval status of design parameters and ER information not included in the list?
- Interpretation of Sections 52.89 and 52.39(b)

Dr. William D. Beckner
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If you have any questions regarding the common understandings or discussion points in the enclosure, please contact me (202-739-8094 or aph@nei.org) or Russ Bell (202-739-8087 or rjb@nei.org).

Sincerely,

A handwritten signature in black ink, appearing to read "Adrian Heymer". The signature is written in a cursive style with a prominent horizontal stroke at the end.

Adrian Heymer

Enclosure

c: Michael Scott, NRC/NRR