

March 1, 2007

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of )  
 )  
DOMINION NUCLEAR NORTH ANNA, LLC ) Docket No. 52-008-ESP  
 )  
(Early Site Permit for North Anna ESP Site) )

NRC STAFF LEGAL BRIEF IN RESPONSE TO  
LICENSING BOARD'S ENVIRONMENT-RELATED QUESTIONS

INTRODUCTION

Pursuant to the Atomic Safety and Licensing Board ("Board") Order dated February 7, 2007, in this proceeding, the staff of the Nuclear Regulatory Commission ("Staff") hereby responds to the Board questions posed in that Order.<sup>1</sup> The Board's questions generally pertain to subjects discussed in NUREG-1811, "Environmental Impact Statement for an Early Site Permit (ESP) at the North Anna ESP Site," December 2006 ("FEIS"). The Board questions address both technical and legal matters, and the Board instructed the parties to submit their responses to the technical questions "in exhibit form, under oath or affirmation," and to submit their answers to the legal questions "separately and individually in a single brief or legal memorandum signed by counsel[.]" Order at 2. As the Board clarified at a prehearing conference on January 25, 2007 (concerning the Board's safety-related questions), in the event the Staff concluded that a particular question included both legal and technical elements, the Staff's response could be divided between the brief or accompanying exhibit, as appropriate. Tr. at 557-58, 568-69. In addition, by Order dated February 27, 2007, the Board

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<sup>1</sup> See Dominion Nuclear North Anna, LLC (Early Site Permit for North Anna ESP Site), unpublished Order (Issuing Environment-Related Questions) (Feb. 7, 2007) ("Order").

granted the Staff motion for reconsideration of Board Questions 2 and 82.<sup>2</sup> In accordance with the February 27 Order, the Staff intends to respond to Board Question 2 by March 7, 2007.

In addition, during a pre-hearing conference held on February 14, 2007, the Board invited the parties to propose topics for the evidentiary hearing. Tr. 590-91. The Staff has considered the Board's safety and environmental questions, as well as the topics discussed in the Application and the Staff review documents, and has not now identified any particular subject that needs correction or clarification at the evidentiary hearing. Accordingly, the Staff is not proposing any topic for the evidentiary hearing.

The Staff's responses to the Board's legal questions (or legal elements of technical questions) are addressed below. Attached as Exhibit B are the Staff's responses to the Board's technical questions (or technical elements of legal questions) in spreadsheet format, with the author, subject matter experts, and key documents identified. Also attached to Exhibit B are affidavits of the Staff witnesses identified as authors of the Staff responses, including their statements of professional qualifications.

### RESPONSES TO LEGAL QUESTIONS

#### Board Question 1 (Background):

The FEIS states that an ESP "applicant may elect to use a PPE approach instead of supplying specific design information," and that the PPE "should provide sufficient bounding parameters and characteristics of the reactor or reactors and the associated facilities so that an assessment of the site suitability can be made." However, the Staff acknowledges that, in numerous instances, Dominion Nuclear North Anna, LLC (Dominion) failed to provide the necessary PPE information or the specific design information. For example, the FEIS states "Dominion did not or was unable to provide information and analysis for certain issues sufficient to allow the NRC staff to complete its analysis. For such issues, Dominion did not offer, nor did the staff identify, bases for

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<sup>2</sup> See "NRC Staff Motion for Reconsideration," dated February 20, 2007; *Dominion Nuclear North Anna, LLC* (Early Site Permit for North Anna ESP Site), unpublished Order (Reconsideration of Two Environmental Questions and Grant of Extension) (Feb. 27, 2007).

assumptions that would allow resolution. The staff was unable to determine a unique significance level for such issues, and therefore, these issues are not resolved for the North Anna ESP site.” P 1-5. Some specific examples are listed on FEIS Appendix J.3. Under these circumstances:

Board Question 1B:

Legal Question: Given that the applicant has left many gaps in the PPE information, please explain why issuance of an ESP here does not violate the Commission’s prohibition on issuing “partial ESPs” and the Commission’s statement that “where adequate information is not available, early site permits will not be issued.” 54 Fed. Reg. 15372, 15378 n.3 (April 18, 1989).

Staff Response:

The Board notes that the Commission, in the Statements of Consideration for Part 52, stated that “partial” ESPs should not be issued and that ESPs should not be issued if “adequate information is not available.” Early Site Permits; Standard Design Certifications; and Combined Licenses for Nuclear Power Reactors, 54 Fed. Reg. 15,372, 15,378, 15,378 n.3 (Apr. 18, 1989) (“Final Part 52 SOC”). The Commission made these statements in response to comments that the proposed twenty-year term of an ESP could not be supported by adequate information. Specifically, the comments compared the twenty-year ESP term to the five-year term of partial site suitability decisions made pursuant to 10 C.F.R. § 2.606 and 10 C.F.R. Part 52, Appendix Q. See Final Part 52 SOC, 54 Fed. Reg. at 15,378. In response, the Commission noted that the 5-year term for partial decisions on site suitability under § 2.606 was not a function of the reliability of available information, but rather was limited because those decisions “may only resolve isolated site issues and anticipate site utilization in the very near term.” *Id.* Accordingly, the Commission’s statement that ESPs should not be issued if “adequate information is not available” appears directed to the information necessary to support analysis of an ESP term up to twenty years, and should not be taken as an instruction to deny an ESP

application whenever the Staff determines that the impact level for at least one environmental issue or resource (no matter how narrowly defined) is “unresolved.”

Similarly, the referenced statement concerning “partial” ESPs appears intended to reject the suggestion that Part 52 provide for a partial safety review of siting issues. That is, the context in which the Commission made this statement in the Final Part 52 SOC suggests that the Commission intended to reject the suggestion that it perform a review which would have allowed issuance of an ESP governing one or more – but not all – site safety issues. See *id.* at 15,378 n.3. The Staff has not performed such a partial review of the North Anna ESP application.<sup>3</sup> Further, the Final Part 52 SOC does not explain whether or how the concept of a “partial” ESP might apply in the context of an environmental review.

The Commission regulations governing the preparation of EISs for ESP applications provide that such EISs “focus on the environmental effects of construction and operation of a reactor, or reactors, which have characteristics that fall within the postulated site parameters[.]” See 10 C.F.R. §§ 52.17(a)(2), 52.18. These same regulations require that an EIS for an ESP application “must include an evaluation of alternative sites to determine whether there is any obviously superior alternative to the site proposed.” See *id.* These provisions codify the long-standing Commission decision to the effect that the essence of the environmental decision on siting is whether an alternative site is obviously superior to the site that the applicant has proposed. See *New England Coalition on Nuclear Pollution v. NRC*, 582 F.2d 87, 95 (1<sup>st</sup> Cir. 1978); *Public Serv. Co. of New Hampshire (Seabrook Station, Units 1 and 2)*, CLI-77-8, 5 NRC 503, 526 (1977).

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<sup>3</sup> The NRC Staff has previously analyzed this question with respect to its safety review and conclusions as set forth in the “NRC Staff Legal Brief in Response to Licensing Board’s Safety-Related Questions” dated February 8, 2007 (“Staff Safety Brief”), submitted in this proceeding. See Staff Safety Brief, Responses to Board Questions 116B and 116C, at 16-17.

With respect to the North Anna ESP application, the FEIS sets forth the Staff's findings on a wide range of environmental issues. The Staff's environmental conclusions in regard to the North Anna ESP application are not limited to isolated site issues. The breadth of the Staff's analysis is reflected in the Staff's conclusions on matters such as land use, meteorology and air quality, geology, radiological environment, hydrology, ecology, socioeconomics, historic and cultural resources, and environmental justice. See, e.g., FEIS at Tables 4-1 and 5-22. Although a subset of specific issues is designated as unresolved (see FEIS at Appendix J, Table J-3; see *also* the Staff's response to Board Question 5A) and will therefore need to be resolved at a later licensing stage (see 10 C.F.R. § 52.89 for combined licenses ("COLs")), the Staff has concluded that all required determinations – including that an environmentally preferable or obviously superior site has not been identified (see 10 C.F.R. § 52.17(a)(2)) – can be made based on available information. Furthermore, the Staff identified environmental permit conditions to be stated in any North Anna ESP that might be issued. Some of these conditions are formulated to ensure that necessary environmental information will be available if an application referencing the North Anna ESP (if issued) is submitted. See FEIS at Appendix J, Table J-4. In short, the scope of and support for the Staff's analysis of the North Anna ESP application does not implicate the concerns underlying the Commission's instructions about "adequate information" or "partial" ESPs, and, therefore, the Staff's recommendation is not inconsistent with the Final Part 52 SOC.<sup>4</sup>

Board Question 1C:

Legal Question: How should the NRC and this Board distinguish between ESP applications that should be denied because "adequate information is not available" and ESP applications that

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<sup>4</sup> A Staff determination that an issue is "unresolved" does not mean that no information was available on that issue. Rather, the available information was insufficient for the Staff to reach a conclusion on the issue with the degree of certainty necessary to afford the FEIS preclusive effect with respect to that issue pursuant to 10 C.F.R. § 52.39.

can still be granted, even though the applicant has failed to provide either the “specific design information” or the “sufficient bounding parameters” (i.e., the PPE)?

Staff Response:

The Commission’s instruction that “adequate information” be available to support an ESP acknowledges a practical limitation on the extent to which the Staff can determine issues to be unresolved at the ESP stage rather than simply deny the application. Further, the Commission stated in the Final Part 52 SOC that “[t]he Commission is confident that enough information on reactor design will be available in an early site permit proceeding to permit sound judgments about environmental impacts . . . to enable state and local agencies . . . to participate effectively in an [ESP] proceeding.” Final Part 52 SOC, 54 Fed. Reg. at 15,378. Neither of these statements alters the Commission decision criterion stated above that an alternative site must be obviously superior to the proposed site to reject the proposed site under the National Environmental Policy Act of 1969, as amended (“NEPA”). Rather, each statement reflects the Commission’s belief that information sufficient to implement that criterion and to permit effective public participation will be available. While the Commission stated that an ESP application would have to contain “projected emission[s], discharges, site impacts, safety factors and exact operational parameters” (*id.*), the Commission did not preclude the Staff from considering an ESP application lacking some of this information in accordance with the Council on Environmental Quality (“CEQ”) procedures for performing an environmental evaluation in the absence of perfect information.

Specifically, in the statements of consideration for 10 C.F.R. Part 51, the Commission regulations governing environmental reviews, the Commission addressed how environmental subjects on which complete information was not available should be treated. See Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions and Related Conforming Amendments, 49 Fed. Reg. 9352, 9353-4 (March 12, 1984)

(“Final Part 51 SOC”). The Commission stated therein its intention to follow the CEQ guidance on incomplete information. That guidance, in 40 C.F.R. § 1502.22, states that if there is incomplete or unavailable information, the agency “shall always make clear that such information is lacking” (§ 1502.22) and “if the incomplete information . . . is essential to a reasoned choice among alternatives and the overall costs of obtaining it are not exorbitant, the agency shall include the information in the [EIS]” (§ 1502.22(a)).<sup>5</sup>

With respect to consideration of alternative sites, the Commission stated that “reconnaissance-level information is adequate to assure that these alternatives are accorded substantial treatment.”<sup>6</sup> Final Part 51 SOC, 49 Fed. Reg. at 9354. This Commission statement recognizes the practical reality that an applicant will have studied its proposed site in greater detail than the alternative sites it considered. Nonetheless, while the Staff normally expects an application to present information at a far greater depth of detail for a proposed site, some issues regarding the proposed site may be evaluated for comparison with the alternative sites based on reconnaissance-level information. In addition, a narrow set of issues discussed in comparing the proposed site with alternative sites may be evaluated on the basis of generic

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<sup>5</sup> The CEQ guidance goes on to state that if the incomplete or unavailable information cannot be obtained because the overall costs of obtaining it are exorbitant:

the agency shall include within the [EIS]: (1) A statement that such information is incomplete or unavailable; (2) a statement of the relevance of the incomplete or unavailable information to evaluating reasonably foreseeable significant impacts[;] 3) a summary of existing credible scientific evidence which is relevant to evaluating the [impact]; and (4) the agency’s evaluation of such impacts based upon theoretical approaches or research methods generally accepted in the scientific community.

40 C.F.R. § 1502.22(b).

<sup>6</sup> “Reconnaissance-level information” is that available from literature searches and the like, which would include previously-documented field work at the site of an existing nuclear power reactor, but would not include new field work. See Exhibit B, Response to Board Question 1C. Such information is typically all that is available for an alternative site, but is sufficient for comparison with the more detailed information usually available for a proposed site. Nonetheless, reconnaissance-level information for a *proposed* site can be sufficient for comparison with alternatives. *Id.*

information or some other rationale that demonstrates that the environmental effects associated with such issues do not vary among the sites considered. It is this level of information that is “essential to a reasoned choice among alternatives,” as specified in § 1502.22(a). The Staff submits that in the absence of such information, the Commission would be unable to complete a meaningful EIS, and the application would have to be denied.

With respect to full disclosure of the environmental effects of construction and operation of a reactor or reactors at a proposed ESP site, however, the Staff submits that the Board should apply a “rule of reason” in determining whether the information in the Applicant’s environmental report (“ER”) and the Staff’s FEIS is so inadequate as to warrant rejection of the application. See, e.g., *Dep’t of Transp. v. Public Citizen*, 541 U.S. 752, 754 (2004) (“[I]nherent in NEPA and its implementing regulations is a ‘rule of reason,’ which ensures that agencies determine whether and to what extent to prepare an EIS based on the usefulness of any new potential information to the decisionmaking process.”); *Private Fuel Storage LLC* (Independent Spent Fuel Storage Installation), CLI-04-22, 60 NRC 125, 139 (2004) (citing *Public Citizen*); *Hydro Resources, Inc.* (P.O. Box 777, Crownpoint, New Mexico 87313), LBP-04-23, 60 NRC 441, 447 (2004). In applying a rule of reason to this inquiry, the Board would consider whether the application contains enough information to allow the Staff to document in the FEIS a reasonably complete description of the environmental effects of constructing and operating a reactor or reactors at the ESP site. In accordance with the CEQ guidance set forth above, this description need not be perfect, nor need it be precise as to the nature or extent of all environmental effects. Rather, this description should be sufficient to disclose a substantial number of environmental effects of reactor construction and operation, which will achieve the Commission’s goal of resolving environmental issues early through the ESP process. See Final Part 52 SOC, 54 Fed. Reg. at 15,373, 15,378.

With respect to the North Anna ESP application, the Staff has analyzed each issue, determined the associated impacts to the extent possible, and presented this analysis in the FEIS. With respect to the essential findings on alternative sites, the Applicant provided at least “reconnaissance-level” information, or the Staff was able to determine that the environmental effects (e.g., effects of gas-cooled reactor fuel cycle, see FEIS at 9-8) would be approximately the same at all the sites considered. The only other matters designated as “unresolved” relate to full disclosure of impacts—that is, the Staff has determined that the information available to evaluate the effects on certain resources is not sufficient to evaluate those effects in the depth specified by NUREG-1555, “Environmental Standard Review Plan” (“ESRP”)—and only a small number of matters were considered unresolved. As a practical matter, the design details needed for an evaluation of these matters to the depth called for by the ESRP may not be available until a later licensing stage, when the design has been selected and engineering work on that design substantially completed. Even for issues determined to be unresolved, the Staff analyzed the available information and explained not only why the issue was unresolved but what sort of information would be necessary to complete the analysis at the construction permit (“CP”) or COL stage.

In view of the above, given the significant number of applicable issues and impact categories assessed in the review of the North Anna ESP application, the Staff submits that the information available is sufficient to give a reasonable estimate of the environmental effects of construction and operation of a reactor or reactors at the North Anna ESP site. Accordingly, the information is not so inadequate as to warrant rejection of the application.

Board Question 1D:

Legal Question: If an applicant fails to provide either specific design information or sufficient PPE information relating to its two proposed gas cooled nuclear reactors, leaving NRC unable to “resolve” numerous environmental and safety issues relating to the site (and given that 10 C.F.R. Part 51 Tables S-3 and S-4 and

10 C.F.R. Part 50 Appendix I do not cover gas cooled nuclear reactors), is it not more appropriate to simply exclude gas cooled reactors from the coverage of the ESP rather than to issue a “partial” ESP with so many unresolved issues?

Staff Response:

While the Staff’s analysis in the North Anna FEIS does not resolve several issues because of limited information on gas-cooled reactors, certain impacts of those designs can be appropriately bounded and disclosed by the analysis of available information at the ESP stage using the plant parameter envelope (“PPE”) approach. The ESP-stage evaluation of the environmental impacts associated with the selected PPE values does not depend on verifying that any particular design will fall within any or all of those values; rather, the Staff need only determine that the PPE values are not unreasonable in light of the range of designs that could plausibly be chosen for a future CP or COL application.

The North Anna ESP application PPE (like that of other recent ESP applications) was based on a composite of a range of potential reactor designs, including gas-cooled reactors. However, the conclusions the Staff reached concerning most of the environmental impacts discussed in the FEIS were based on an analysis of the impacts from the composite PPE values, not from specific values associated with any single design.<sup>7</sup> Therefore, although information related to gas-cooled reactors was insufficient to fully resolve certain issues with respect to the impacts of those designs, the Staff had sufficient information to determine that the PPE values were not unreasonable baselines for analysis of the broader array of reactor designs discussed in the application. In any event, at the CP or COL stage, if the associated values for the selected design (whether a gas-cooled reactor or not) deviate from the values

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<sup>7</sup> Notable exceptions include, as the Board has pointed out, analyses involving Tables S-3 and S-4 in Part 51 and design basis accidents.

analyzed in the FEIS, they may constitute new and significant information and require the Staff to perform a new analysis. See 10 C.F.R. § 51.92.

In short, by analyzing the impacts associated with the PPE values, the Staff in the FEIS identified likely impacts on a full spectrum of environmental resources, both at the North Anna ESP site and at alternative sites. Sufficient information about the range of reactor designs informed the PPE, such that the Staff was able to determine that the proposed PPE was not unreasonable and also was able to make the necessary determination that none of the alternative sites was environmentally preferable (or obviously superior) to the proposed North Anna ESP site. Consequently, the fact that certain environmental impacts associated with the gas-cooled reactor designs are not resolved does not imply that this would be a “partial” ESP. Instead, it simply acknowledges that for these designs, a certain subset of impacts cannot be bounded, given the limited design information available at the ESP stage. While these specified analyses would need to be performed at the CP or COL stage if a gas-cooled reactor design is selected, this is no reason to deny the ESP with respect to gas-cooled reactors. Denying the ESP would result in a failure to resolve a significant portion of the environmental effects associated with the construction and operation of such reactors. As explained above in the Staff response to Board Question 1C, such a result would, in part, frustrate the Commission’s purpose in providing for ESPs, *i.e.*, to resolve environmental issues early in the licensing process. See Final Part 52 SOC, 54 Fed. Reg. at 15,373, 15,378.

Board Question 1E:

Legal Question: NEPA requires that the EIS be complete and available to the decision-maker before the decision is made, *i.e.*, the ESP is issued. See 40 C.F.R. § 1500.1; Private Fuel Storage LLC (Independent Spent Fuel Storage Installation), CLI-02-25, 56 NRC 340 (2002). In addition, the EIS must be adequate. Please discuss whether, given the unresolved issues and information gaps in ER and EIS, the FEIS is complete and adequate as required by NEPA.

Staff Response:

The Staff's FEIS is complete and adequate as required by NEPA. The Commission, in its *Private Fuel Storage* decision cited by the Board, stated that "NEPA's 'dual purpose' is to ensure that federal officials fully take into account the environmental consequences of a federal action before reaching major decisions, and to inform the public, Congress, and other agencies of those consequences." *PFS*, CLI-02-25, 56 NRC at 348. The Commission made this statement in the context of discussing why information concerning the potential impact of a terrorist attack was not appropriate to include in an EIS, and why actions considered to be "far removed" from the consequences of agency action did not warrant further study. Accordingly, the *PFS* decision did not directly address the level of detail necessary as a general matter for an action (or associated sub-issue) to be considered fully disclosed in an EIS.<sup>8</sup>

The Commission in *PFS* reiterated the baseline NEPA requirement that an agency take a "hard look" at the consequences of the proposed action. See *PFS*, CLI-02-25, 56 NRC at 352 (citing *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 356 (1989)). The *PFS* decision, however, does not stand for the proposition that the unavailability of any piece of relevant environmental information (or the existence of other practical limitations on the Staff's ability to define and disclose all potential impacts) would, solely for that reason, prevent the agency from satisfying NEPA by taking a "hard look" at the proposed action and adequately informing the public of the likely consequences of that action. Such a position would be inconsistent with the understanding that an agency's NEPA analysis is to be informed by a

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<sup>8</sup> The procedures the NRC follows to ensure compliance with NEPA are defined primarily in 10 C.F.R. Part 51. Although the NRC considers CEQ guidelines, to the extent the guidelines substantively impact how the NRC performs its regulatory functions the NRC is not bound by them except where it has explicitly incorporated them under Part 51 (see, e.g., 10 C.F.R. § 51.10). See *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), LBP-98-33, 48 NRC 381, 389-90 (1998) (referencing 43 Fed. Reg. 55978 (Nov. 29, 1978), 49 Fed. Reg. 9352 (Mar. 12, 1984)).

“rule of reason,”<sup>9</sup> as explained above in the Staff response to Board Question 1C. This practical standard is especially appropriate with respect to NEPA analysis of early site permits, in which comparison of the proposed site to the alternative sites must be complete (because that determination will not be revisited at a later stage), but complete reactor-design-level information need not be provided if it is unavailable. Such design information, if not available during review of the ESP application, will be considered new at the CP or COL stage. NRC regulations expressly contemplate that new information at these later licensing stages, if significant, will be included in the application referencing the ESP, and will be subject to re-analysis. See 10 C.F.R. §§ 51.92, 52.17(a)(2), 52.79(a)(1).<sup>10</sup>

In short, for an ESP, the Staff’s required “hard look” must focus on and disclose the reasonably foreseeable environmental impacts of issuing the ESP and must provide an adequate basis to support a finding that no obviously superior site has been identified. *Cf.* 10 C.F.R. § 52.17(a)(2). As discussed in response to earlier Board questions [see the Staff’s response to Board Question 1B], the NRC review of the North Anna ESP application included a thorough evaluation of a wide range of issues and associated environmental impacts. From a NEPA perspective, the Staff has analyzed each issue, determined the associated impacts to the extent possible, and presented this analysis in the FEIS. However, even for issues determined to be unresolved, the Staff analyzed the available information and explained not only why the

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<sup>9</sup> See, e.g., *Public Citizen*, 541 U.S. at 754 ([I]nherent in NEPA and its implementing regulations is a “rule of reason,” which ensures that agencies determine whether and to what extent to prepare an EIS based on the usefulness of any new potential information to the decisionmaking process.”); *PFS*, CLI-04-22, 60 NRC at 139 (citing *Public Citizen*); *Hydro Resources, Inc.*, LBP-04-23, 60 NRC at 447.

<sup>10</sup> As discussed above in the Staff response to Board Question 1C, CEQ guidelines provide for evaluation of matters as to which there is “incomplete or unavailable information.” 40 C.F.R. § 1502.22. Consistent with the “rule of reason” concept, the CEQ guidelines acknowledge that relevant information may not be available with respect to all environmental impacts of a proposed action, and provide that the agency’s responsibility in such circumstances is to determine whether the information is essential to its decision and, if so, whether the costs of obtaining the unavailable information (if that is possible at all) would be justified. *Cf. id.* at § 1502.22(a), (b).

issue was unresolved but also what sort of information would be necessary to complete the analysis at the CP or COL stage.<sup>11</sup>

A recent decision of the 7<sup>th</sup> Circuit U.S. Court of Appeals upheld the NRC's approach, confirming that NEPA permits deferral of certain ESP issues as long as they can be appropriately resolved at the CP or COL stage. In upholding the deferral of the "need for power" analysis, the Court of Appeals stated:

Because an ESP does not authorize construction, the evaluations conducted at the ESP stage are intended to provide early resolution to some--but not all--of the environmental issues. 10 C.F.R. §§ 52.79(a)(1) and 52.89 (stating that "any significant environmental issue not considered" at the ESP stage must be addressed when the holder of an ESP applies to commence construction). ... [T]he agency regulations at issue are not inconsistent with the environmental law, because all relevant issues will eventually be considered. Courts have permitted agencies to defer certain issues in an EIS for a multistage project when detailed useful information on a given topic is not "meaningfully possible" to obtain, and the unavailable information is not essential to determination at the earlier stage.

*Environmental Law and Policy Center v. NRC*, 470 F.3d 676, 684 (7th Cir. 2006) (emphasis added). While this decision relates to the narrow question of the benefits (need for power) of the construction and operation of a reactor or reactors at a site, the rationale behind the decision, as stated above, applies equally to Board Question 1E. As discussed above, for the North Anna ESP application, the Staff found that the available information was sufficient for it to make its determination as to whether any of the alternative sites was environmentally preferable (or obviously superior) to the proposed site. Consequently, the Staff's FEIS is complete and adequate for the purposes of both the agency's regulations and of NEPA.

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<sup>11</sup> Moreover, as stated previously, the subset of issues unresolved in the FEIS (see FEIS at Appendix J, Table J-3; see *also* the Staff's response to Board Question 5A) is small in the context of the range of issues analyzed in connection with the application.

Board Question 3:

Legal Question: Please provide a regulatory definition of the following two terms: “plant parameter envelope” and “postulated site parameters.” 10 C.F.R. § 52.17(a)(2), states that the environmental report must focus on the effects of “construction and operation of a reactor or reactors which have the characteristics that are within the postulated site parameters,” implying that the PSP concerns the characteristics of the reactors. Please explain.

Staff Response:

The Staff defines a PPE as a set of values of plant design parameters that an ESP applicant expects will bound the design characteristics of the reactor or reactors that might be built at a selected site. See FEIS at xxiii-xxiv, 1-3. For the purposes of the environmental analysis, a PPE can serve as a surrogate for the actual reactor design information of a nuclear power plant and its associated facilities. See FEIS at 1-3, 3-3. The PPE reflects the value of each parameter that it encompasses rather than the characteristics of any specific reactor design. See FEIS at 3-3.<sup>12</sup>

The term “site parameters” was not specifically defined in the current Part 52. However, the Staff understands the term to refer the actual features of a proposed ESP site as determined at the ESP stage. This information is defined at the ESP stage and included in any permit issued (these features are denoted as “site characteristics” in NUREG-1835, “Safety Evaluation Report for an Early Site Permit (ESP) at the North Anna ESP Site,” dated September 2005 (“SER”), and are set forth as Appendix A.3 therein). The site parameter values relate to the safety of the design in that the design bases depend on such values. For example, structures must be designed to accommodate the effects of natural phenomena, such as tornadoes and the like, without loss of capability to perform their safety functions. See 10 C.F.R. Part 50,

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<sup>12</sup> The term “plant parameter envelope” is not defined by regulation. However, the definition of the PPE in the North Anna EIS is consistent with that provided in RS-002, Change Notice, § 4.6 at 16. [ADAMS Accession No. ML040700236.]

Appendix A, General Design Criteria, Criterion 2 (“GDC 2”). GDC 2 also requires that the design bases reflect the most severe of the natural phenomena that have been historically reported for the site and surrounding area, with sufficient margin for the limited accuracy, quantity, and period of time in which the historical data have been accumulated. *Id.*

Accordingly, if a CP or COL applicant seeks approval to construct a particular design on a site for which an ESP has been issued, the CP or COL applicant must demonstrate that the design bases of its proposed facility fall within the site characteristics (parameter values) established at the ESP stage. This relates to the environmental review as follows: Section 52.17(a)(2) requires the ESP applicant to prepare an ER that analyzes the effects of construction and operation of a reactor or reactors that satisfy this safety requirement, *i.e.*, a reactor that has design characteristics that would allow it to be built at the site in accordance with NRC safety requirements and the values of site parameters established in the applicant’s site safety analysis report (“SSAR”).<sup>13</sup>

In the proposed revisions to Part 52, the Commission has expressed its intent to clarify the regulations’ use of the terms “site characteristics,” “site parameters,” “design characteristics,” and “design parameters,” as follows:

Design characteristics are defined as the actual features of a reactor or reactors. Design characteristics are specified in a standard design approval, a standard design certification, or a combined license application. Design parameters are defined as the postulated features of a reactor or reactors that could be built at a proposed site. Design parameters are specified in an early site permit. Site characteristics are defined as the actual physical, environmental and demographic features of a site. Site characteristics are specified in an early site permit or in a final safety analysis report for a combined license. Site parameters are

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<sup>13</sup> A COL applicant referencing an ESP is required to demonstrate that the “design of the facility falls with the parameters specified in the early site permit[.]” 10 C.F.R. § 52.79(a)(1). Since this provision is not limited to site parameters, it implies that design parameters may be included in the ESP, and the demonstration required by § 52.79 will enable the Staff to determine whether the environmental effects of constructing and operating the facility proposed by the COL applicant fall within those evaluated at the ESP stage. To the extent that such effects are not encompassed by the earlier ESP evaluation, the Staff will be able to consider their significance.

defined as the postulated physical, environmental and demographic features of an assumed site. Site parameters are specified in a standard design approval, standard design certification, or a manufacturing license.

See Licenses, Certifications, and Approvals for Nuclear Power Plants, 71 Fed. Reg. 12,782, 12,786 (proposed March 13, 2006); see also Licenses, Certifications, and Approvals for Nuclear Power Plants; Supplemental Proposed Rule, 71 Fed. Reg. 61,330, 61,354 (proposed Oct. 17, 2006). With respect to the provisions requiring that a combined license application referencing an ESP contain information sufficient to demonstrate that the design of the facility falls within the parameters specified in the permit, the proposed rule would clarify that parameters in this context refers to the site characteristics and design parameters postulated at the ESP stage, which could be part of a PPE, based on the clarifying definitions above. See, e.g., 71 Fed. Reg. at 12,786.

Board Question 4 (Background):

The FEIS states that the Staff relied on the information in the ER and that if the Staff ultimately determines that a representation or an assumption has not been satisfied at the CP/COL stage, “that information would be considered new and potentially significant, and the affected area could be subject to re-examination.” However, 10 C.F.R. § 52.39(a)(i) specifies that, at the CP or COL stage, “a contention that a reactor does not fit within one or more of the site parameters included in the site permit may be litigated.”

Board Question 4A:

Legal Question: Please discuss how the FEIS statement comports with the regulation. Are you proposing the threshold for admission of a contention at the CP or COL stage also requires that the petitioner show that the failure of the reactor to fit the site parameters is “new and significant?” Please explain.

Staff Response:

The statements referenced by the Board refer to two different issues involving safety and environmental matters that an intervenor may seek to raise in a contention. The question of whether a reactor falls within the site parameters included in the ESP is a safety matter,

as discussed above in the Staff's response to Board Question 3, and is unrelated to the question of whether "new and significant" information exists with respect to the set of representations and assumptions specifically identified in the FEIS. Such an issue may be able to support an admissible contention, but the threshold for admission of a safety contention at the CP or COL stage does not require a petitioner to make some separate showing that the failure of the reactor to fit the site parameters is based on "new and significant" information.

Regarding potential environmental contentions, issues are treated as follows: If the Staff has discussed an issue in the FEIS in sufficient detail to determine an impact level or reach a conclusion, the issue is considered to have been finally resolved at the ESP stage pursuant to 10 C.F.R. § 52.39. Such an issue may not be relitigated at the CP or COL stage based solely on a petitioner's disagreement with the Staff's analysis as documented in the ESP FEIS. Nonetheless, an applicant's ER submitted as part of a CP or COL application referencing an ESP must identify any information that is both new and significant in relation to the review that was performed at the ESP stage. See 10 C.F.R. § 52.79. Likewise, the Staff may identify new and significant information as part of its audit process or review of the CP or COL application. Whether the information is raised in the ER, by the Staff, or by some other source, the Staff is required to evaluate any such new and significant information in its CP or COL environmental review. See 10 C.F.R. §§ 51.92, 52.89. Because the ESP proceeding did not consider such information in determining environmental impacts, 10 C.F.R. § 52.39 does not apply to that information, and proposed contentions concerning such information would be litigable if such contentions meet the standards of 10 C.F.R. § 2.309(f).

As noted in the statement cited by the Board, the representations and assumptions mentioned in the FEIS are part of the basis for the Staff's conclusions. Moreover, as discussed above, to the extent an environmental issue resting on these representations and assumptions relate was resolved in the FEIS, that issue cannot be relitigated unless the CP/COL applicant,

the Staff, or some other source identifies information with respect to that issue that is new and significant. While these representations and assumptions are documented in the FEIS as part of the Staff's analysis, they do not "bound" the site analysis, nor are they incorporated into the permit as requirements or permit conditions. Rather, as noted in the FEIS, departure from them would be considered at the CP or COL stage to be new information, which may or may not be significant. Only if such information is significant would it need to be addressed in the ER and evaluated in the EIS. If such information is not significant, the ESP-stage analysis would not be revisited and may not be relitigated.

Accordingly, as these representations and assumptions are not documented as permit conditions and do not require analysis absent new and significant information, they are not included in the site permit. They are therefore not governed by the reference cited by the Board in 10 C.F.R. § 52.39(a)(i), which only addresses claims that "a reactor does not fit within one or more of the site parameters included in the site permit." 10 C.F.R. § 52.39(a)(i) (emphasis added). In short, while both issues referenced by the Board may be litigable under certain circumstances, only contentions concerning non-compliance with a site parameter (a site characteristic established at the ESP stage in the safety review) are specifically identified by regulation as litigable in a CP or COL proceeding.

Board Question 4B:

Legal Question: The cited regulation refers to "site parameters included in the site permit." Are all ER representations relied on by the Staff included within this category or only those that are specifically listed in FEIS Appendix I (ESP Site Characteristics and Plant Parameter Envelope) and Appendix J (Dominion Nuclear North Anna, LLC Permit Conditions, Commitments, Assumptions and Unresolved Issues). Please explain.

Staff Response:

Of the items listed by the Board, the only ones that would be included in an early site permit for the North Anna site are the plant parameter values defined in Table I-2 of Appendix I to the FEIS, and the permit conditions identified in Table J-4 of Appendix J to the FEIS.<sup>14</sup> The site characteristics in Table I-1 of Appendix I to the FEIS would be included in the permit only to the extent they are redundant to the site characteristics set forth in Table A-2 of Appendix A to NUREG-1835 (the Staff FSER). To the extent these site characteristics are not included in the permit, they would be treated at the CP or COL stage in the same manner as any other matter documented in the FEIS, *i.e.*, the Staff would consider whether any new information had been developed with respect to such characteristics, and, if so, whether such information was significant. Similarly, the other components of Appendix J – the commitments, assumptions, and unresolved issues – are not included in the permit because their treatment at the CP or COL stage is already determined by regulation. As explained in the FEIS, should a CP or COL applicant reference the ESP, and the Staff ultimately determine that a representation or assumption has not been satisfied at the CP/COL stage, that information would be considered new, and potentially significant, and the affected impact area could be subject to re-examination. See FEIS, Appendix J, at J-1; 10 C.F.R. § 52.89. Similarly, issues not resolved at the ESP stage are not subject to the issue preclusion provisions of § 52.39 and must be considered in any subsequent CP or COL proceeding. See 10 C.F.R. § 52.39(a)(2). [See also the Staff response to Board Questions 3 and 4A.]

Board Question 35:

Legal Question: The FEIS states that “These systems would process radioactive liquid, gaseous and solid effluents to maintain

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<sup>14</sup> The recommended permit conditions listed in Table J-4 are not “site parameters” because they do not themselves define values associated with features of the site. However, as permit conditions they are nevertheless among the “terms and conditions” of the ESP and would be included in the permit.

releases within regulatory limits.” Please list all of the regulatory limits, with citations, specifying whether they apply on a per reactor, per unit, per facility, per license, or per NAPS and ESP site basis. Please specify which, if any, of these regulatory limits are expressly stated in, or conditions of, the proposed ESP.

Staff Response:

The Staff believes that Board Question 35 is more appropriately addressed as a technical question, and has listed the requested provisions in the table of Staff responses attached as Exhibit B. Counsel has reviewed that response, and has not identified any legal error. With respect to the portion of the Board’s question concerning which of the identified limits would be included in the permit, the Staff notes that because these limits are governed by regulation (and are not site-specific), they would not be included in the terms or conditions of the permit. See Staff Safety Brief, Responses to Board Questions 77 and 79.

Board Question 45:

Legal Question: In order to maintain the environmental health of the North Anna River, the North Anna Dam is operated to maintain a minimum discharge of 40 cfs. However, when the level of water in Lake Anna drops below 248 MSL the “Lake Level Contingency Plan” (LLCP) is triggered and the dam discharges only 20 cfs. This adversely impacts the river below the dam. The Staff’s water budget analysis “assumed the NAPS Units 1 and 2 and the proposed Unit 3 would operate continuously” P 5-8, and that the “existing NAPS units are the largest users of water in the region.” P 5-9. The FEIS states that the incremental effect of “operation of Unit 3 would approximately double the duration of periods during drought conditions when the LLCP would be applied. P 5-11. Specifically, the Staff estimated that if Unit 3 were added to Units 1 and 2, then the amount of time that water discharges to the downstream river would be cut to 20 cfs would increase from 5.7% of the time to 11% of the time. P 5-10. Given the cumulative impact of Units 1, 2, 3, and 4, should the EIS alternatives analysis specified in Section 8 of the FEIS include alternatives analysis of Dominion trading more stringent water saving measures on Dominion’s existing Units 1 and 2 in mitigation or return for the incremental water losses caused by Unit 3? Why isn’t this a “reasonable” alternative or mitigation measure requiring consideration? Please explain.

Staff Response:

The Staff believes that the first portion of Board Question 45 is more appropriately addressed as a technical question, and has provided a response in the table of Staff responses attached as Exhibit B. The legal component of the response follows.

The fact that a possible alternative is beyond the Commission's power to implement does not absolve the Commission of any duty to consider it, but that duty is subject to a "rule of reason." See *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-471, 7 NRC 477, 486 (1978) (citing *NRDC v. Morton*, 458 F.2d 827 (D.C. Cir. 1972)); see also *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 97 (1998) (citing *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 195 (D.C. Cir. 1991), *cert. denied*, 502 U.S. 994 (1991)) ("rule of reason" applies to agency's discussion of "no-action alternative"). Agencies need only discuss those alternatives that are reasonable and "will bring about the ends" of the proposed action. See *Hydro Resources, Inc.*, CLI-01-4, 53 NRC 31, 55 (2001) (citing *Citizens Against Burlington, Inc.*, 938 F.2d at 195).

As discussed in the technical portion of the Staff's response, the impacts (on fish and other aquatic resources) of increased durations of Lake Level Contingency Plan ("LLCP") application will be better understood based on the results of the In-stream Flow Incremental Methodology ("IFIM") study. Moreover, imposing more stringent water-saving measures on existing Units 1 and 2 would likely result in derating the plants, thereby reducing generating capacity.

Particularly when more specific information (the IFIM study) will be available at a later stage to confirm the appropriateness of water-saving mitigation measures, the Staff did not find it reasonable to consider measures that would interfere with existing operations of reactors other than those that are the subject of the proposed action, and that would potentially implicate additional "backfit" or jurisdictional hurdles. In short, an evaluation of water-saving measures

involving Units 1 and 2 would require postulating some derating of these existing units, and such an alternative was not considered reasonable because it would decrease existing generation in order to add additional generation. Other strategies, which would not involve derating, would likely be more effective pending the outcome of studies that are to be conducted as a condition of ESP issuance. [See also Staff's response to Board Question 112B.]

Board Question 69:

Legal Question: It would appear possible to meet the general public dose requirements of 10 C.F.R. § 20.1301 while simultaneously exceeding the dose limitations of 40 C.F.R. Part 190. Is it your position that the Part 190 doses are ALARA recommendations or that they are regulatory limits?

Staff Response:

The provisions of 40 C.F.R. Part 190 doses are regulatory limits for NRC power reactor licensees.<sup>15</sup> The Environmental Protection Agency ("EPA") regulations in 40 C.F.R. Part 190 establish limits on exposure to any member of the public from uranium fuel cycle operations, including operation of light-water-cooled nuclear power plants. See 40 C.F.R. §§ 190.2, 190.10. A CP or COL applicant's compliance with these objectives is governed directly by those regulations and by 10 C.F.R. Part 20, which requires "a licensee subject to the provisions of EPA's generally applicable environmental radiation standards in 40 CFR Part 190 [to] comply with those standards." See 10 C.F.R. §§ 20.1301(e), 52.81, 52.83.<sup>16</sup> Pursuant to 10 C.F.R. § 20.1301(e), NRC power reactor licensees are required to comply with the dose standards of 40 C.F.R. Part 190, and these standards (under which annual total body dose to any member of the public may not exceed 25 millirem) are more restrictive than the 100 mrem/yr limit set forth

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<sup>15</sup> Section 20.1301(a) applies to NRC licensees other than those who operate power reactors, such as persons administering nuclear materials for medical reasons, who are not subject to § 20.1301(e) and 40 C.F.R. Part 190.

<sup>16</sup> Further, the NRC has established reporting requirements for those licensees subject to 40 C.F.R. Part 190 who exceed those standards. See 10 C.F.R. § 20.2203(a)(4).

in 10 C.F.R. § 20.1301(a). Moreover, as mentioned in the Statements of Consideration for § 20.1301, the NRC considers a demonstration of compliance with the 40 C.F.R. Part 190 limits to be sufficient to demonstrate compliance with § 20.1301 for most licensed facilities. See Standards for Protection Against Radiation, 56 Fed. Reg. 23,360, 23,374 (May 21, 1991). Thus, compliance with the Part 190 doses is a regulatory requirement for reactor licensees. As noted by the Board, licensees must also follow ALARA principles, which may result in radiation doses even further below Part 190 limits. See Staff Safety Brief, Staff Responses to Board Safety Questions 79, 80, and 84, at 7-9.

Board Question 98:

The FEIS states that the Staff relied upon the “feasible and adequate measures/controls” specified in Table 5.10-1 in the ER. Do these constitute “terms of the ESP” and/or “acceptance criteria” within the meaning of 10 C.F.R. § 52.39(a)(2)? If not, how do they relate to this regulation?

Staff Response:

Although not labeled as a legal question, the Staff has determined to treat it as such, in accordance with a Staff colloquy with the Board at the prehearing conference held on January 25, 2007. See Tr. at 557-58, 568-69.

No, the items discussed in ER Table 5.10-1 do not constitute “terms of the ESP” or “acceptance criteria” within the meaning of 10 C.F.R. § 52.39(a)(2). Section 5.11 of the FEIS references ER Table 5.10-1. FEIS Table J-1 lists as an assumption “Mitigation of Operational Impacts” and states that “[a]n applicant referencing this EIS will demonstrate the application contains the mitigation measures contained in section 5.11 of the FEIS.” As explained in the Staff’s response to Board Question 4B, except for the permit conditions identified in Table J-4, the components of Appendix J are not included in the permit because their treatment at the CP or COL stage is already determined by regulation. As explained in the FEIS, should a CP or COL applicant reference the ESP, and the Staff ultimately determine that a representation or

assumption has not been satisfied at that stage, that information would be considered new, and potentially significant, and the affected impact area could be subject to re-examination. See FEIS, Appendix J, at J-1; 10 C.F.R. §§ 51.92, 52.89.

Board Question 112 (Background):

In the section on "Cumulative Impacts" the FEIS states "There are three basic approaches considered by the staff to mitigate water conflicts including (1) alternative design of the Unit 3 cooling system, (2) alternative operation of the proposed Unit 3, and (3) alternative operating procedures for the North Anna Dam."

Board Question 112B:

Legal Question: Even if the imposition of such modifications related to Units 1 and 2 might be considered beyond the Commission's jurisdiction, if it is a reasonable alternative, shouldn't the NRC consider it? See *NRDC v. Morton*, 458 F.2d 827, 834-36 (D.C. Cir. 1972) and 10 C.F.R., Part 51, Appendix A, Section 5 ("An otherwise reasonable alternative will not be excluded from discussion solely on the ground that it is not within the jurisdiction of the NRC.").

Staff Response:

As the Board noted in its overview of Question 112, the Staff considered multiple water use alternatives in the FEIS, all of which related to either Unit 3 or operation of the North Anna Dam. FEIS at 7-3. The Staff did not consider the possibility of additional equipment or operating procedures on existing Units 1 and 2 that could compensate or mitigate against the incremental adverse environmental impacts of proposed Units 3 and 4 to be a reasonable alternative. The Board correctly notes that the fact that a possible alternative is beyond the Commission's power to implement does not absolve the Commission of any duty to consider it, but that duty is subject to a "rule of reason." See *Seabrook*, ALAB-471, 7 NRC at 486 (citing *NRDC v. Morton*, 458 F.2d 827); see also *LES*, CLI-98-3, 47 NRC at 97 (citing *Citizens Against Burlington, Inc.*, 938 F.2d at 195) ("rule of reason" applies to agency's discussion of "no-action alternative"). For the North Anna ESP FEIS, the Staff concluded, based on the alternatives that

it did analyze, that water-use impacts would be SMALL, except in drought years, when impacts could be MODERATE; under those circumstances, the Commonwealth of Virginia may determine that Dominion must derate or cease operation.

Particularly where, as here, the Staff's evaluation of a given issue determines that impacts would be generally SMALL, and a viable mitigation approach has been identified with respect to the limited potential for higher impacts, the Staff considers it reasonable to limit the FEIS discussion to a set of reasonable alternatives that would not require interference with existing operations of reactors other than those that are the subject of the proposed action, and that would not potentially implicate additional "backfit" or jurisdictional hurdles. Agencies need only discuss those alternatives that are reasonable and "will bring about the ends" of the proposed action. See *Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 55 (2001) (citing *Citizens Against Burlington, Inc.*, 938 F.2d at 195). Because the Staff evaluated multiple alternatives associated with this impact area, because those alternatives focus on the potential reactors that are the subject of the proposed action (and would thus minimize potential conflicts with the objectives of other projects, including existing reactor operations), and because the Staff concluded that the evaluated alternatives would likely result in minimal impacts, the Staff does not believe that NEPA necessitates consideration of additional alternatives.<sup>17</sup>

Board Question 114:

In the FEIS the Staff includes discussions of certain socioeconomic benefits of the proposed ESP. Is it permissible for the Staff to consider the benefits (or lack thereof)? If so, is it permissible for the Board to consider benefits (or the lack thereof) in its NEPA decision - making on this proposed ESP?

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<sup>17</sup> In any event, NEPA imposes no obligation to select the most environmentally benign alternative. See *Hydro Resources, Inc.*, CLI-01-4, 53 NRC at 55 (citing *Robertson*, 490 U.S. at 350).

Staff Response:

Although not labeled as a legal question, the Staff has determined to treat Board Question 114 as such, in part, in accordance with a Staff colloquy with the Board at the prehearing conference held on January 25, 2007. See Tr. at 557-58, 568-69. While the Staff has responded to Board Question 114 in the table in Exhibit B, the legal analysis pertinent to this question is set forth below.

The Commission regulations in 10 C.F.R. Part 52 provide that an ER submitted in support of an ESP application and an EIS prepared on such an application “need not include an assessment of the benefits (for example, need for power) of the proposed action[.]” See 10 C.F.R. §§ 52.17(a)(2), 52.18 (emphasis added). The Staff submits that the words “need not” in the regulations commit the assessment of benefits to an applicant’s discretion. That is, if the applicant chooses to assess the benefits, then the Staff is not merely free to do so, but must evaluate the applicant’s assessment in the EIS.<sup>18</sup> The applicant’s assessment and the Staff evaluation in the EIS would then be properly before the Board for decision. Conversely, an applicant’s decision not to assess the benefits of the proposed action (*i.e.*, construction and operation of a reactor or reactors on the proposed ESP site) would preclude the Staff from evaluating such benefits in the EIS, and such matters would not be before the Board for decision. See *generally Environmental Law and Policy Center*, 470 F.3d 676 (discussing the topic of benefits in an ESP EIS).

In this proceeding, the Applicant assessed the socioeconomic benefits identified in Board Question 114, and the Staff evaluated them in the FEIS. Such benefits, therefore, are appropriately before the Board for decision. Nonetheless, these benefits, standing alone, are insufficient for a judgment on the overall weighing of benefits against environmental and other

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<sup>18</sup> This should not be taken to mean that such an applicant assessment will always be adequate for the Staff to reach a conclusion with respect to benefits.

costs of construction and operation of a reactor or reactors at the North Anna ESP site pursuant to 10 C.F.R. § 51.105(a)(3). That judgment must await a CP or COL application that references the North Anna ESP, if issued, and includes an assessment of need for power and energy alternatives.

Respectfully submitted,

*/RA/*

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Dated at Rockville, Maryland  
this 1<sup>st</sup> day of March, 2007

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of )  
 )  
DOMINION NUCLEAR NORTH ANNA, LLC ) Docket No. 52-008-ESP  
 )  
(Early Site Permit for North Anna ESP Site) )

CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF LEGAL BRIEF IN RESPONSE TO LICENSING BOARD'S ENVIRONMENT-RELATED QUESTIONS," with attachments, have been served on the following through deposit in the NRC's internal mail system, with copies by electronic mail, as indicated by an asterisk, or by deposit in the U.S. Postal Service, as indicated by double asterisk, with copies by electronic mail this 1<sup>st</sup> day of March, 2007:

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