

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of)
)
NUCLEAR INNOVATION NORTH)
AMERICA LLC) Docket Nos. 52-012 & 52-013
)
(South Texas Project, Units 3 & 4))

NRC STAFF PETITION FOR REVIEW OF THE LICENSING BOARD'S DECISION
IN LBP-11-07 DENYING THE NRC STAFF MOTION FOR SUMMARY DISPOSITION

Michael A. Spencer
Counsel for NRC Staff

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INTRODUCTION

Pursuant to 10 C.F.R. § 2.341(b), the NRC staff (Staff) hereby petitions the Commission for review of the Atomic Safety and Licensing Board's (Board's) decision denying the Staff Motion for Summary Disposition of Contention CL-2. *Nuclear Innovation North America LLC* (South Texas Project Units 3 & 4), LBP-11-07, 73 NRC __ (Feb. 28, 2011) (slip op.).¹ In LBP-11-07, the Board rejected the Staff's argument that all environmental issues concerning severe accident mitigation design alternatives (SAMDA)² in this proceeding have been resolved by NRC rule. The Board's determination was erroneous. The Commission should take review of, and reverse, LBP-11-07 because the Board decision makes necessary legal conclusions without governing precedent, is contrary to established law, and raises important questions of law and policy. 10 C.F.R. § 2.341(b)(4)(ii)-(iii).

¹ On January 21, 2011, STP Nuclear Operating Company informed the Board that effective January 24, 2011, Nuclear Innovation North America LLC (NINA) will be the lead applicant for South Texas Project, Units 3 and 4. See *South Texas Project Nuclear Operating Co.* (South Texas Project Units 3 & 4), (LBP Feb. 7, 2011) (unpublished order). Throughout the pleading, the Staff will refer to the relevant lead applicant as "Applicant," whether that is STP Nuclear Operating Company or NINA.

² SAMDAs are safety enhancements intended to reduce the risk of severe accidents. As explained in Section II.A., *infra*, SAMDA analyses involve a comparison of the cost of implementing the SAMDA with the benefit provided by the SAMDA in terms of decreasing the probability-weighted consequences of the analyzed severe accident sequences.

STATEMENT OF THE CASE

On September 20, 2007, the Applicant, pursuant to the Atomic Energy Act of 1954, as amended (AEA) and the Commission's regulations, submitted an application for combined licenses (COLs) for two Advanced Boiling Water Reactors (ABWRs) to be located adjacent to the existing South Texas Project, Units 1 and 2 near Bay City, Texas (Application). The Application references the ABWR design certification rule, which was issued based upon the design certification application submitted by General Electric Nuclear Energy (GE). See STP COL Application, Part 1, General and Financial Information, at 1.0-1 (Rev. 5) (Jan. 31, 2011) (ML110340538) (incorporating Appendix A to 10 C.F.R. Part 52 by reference). The proposed units are known as STP Units 3 and 4 (STP).

On April 21, 2009, the Intervenors filed an intervention petition. Petition for Intervention and Request for Hearing (Apr. 21, 2009) (Intervention Petition). On August 27, 2009, and September 29, 2009, the Board ruled on the Intervenors' proposed contentions, admitting contentions 8, 9, 14, 16, and 21. *South Texas Project Nuclear Operating Co.* (South Texas Project Units 3 & 4), LBP-09-21, 70 NRC 581 (2009); *South Texas Project Nuclear Operating Co.* (South Texas Project Units 3 & 4), LBP-09-25, 70 NRC 867 (2009). Contention 21 stated that, "[i]mpacts from severe radiological accident scenarios on the operation of other units at the STP site have not been considered in the Environmental Report." Intervention Petition at 46.

On November 11, 2009, the Applicant notified the Board and the parties of an amendment to the Environmental Report (ER) relating to Contention 21. Letter from Stephen J. Burdick to Members of the Licensing Board, Notification of Filing Related to Contention 21, (Nov. 11, 2009). Attached to this letter was an Applicant submission to the NRC dated November 10, 2009, which contained an attached supplement to the ER in the form of a new ER Section 7.5S. Section 7.5S is now incorporated into the STP ER. See ER § 7.5S (Rev. 5) (Jan. 31, 2011) (ML110340945). Subsequently, the Applicant filed a motion to dismiss Contention 21 as moot. Applicant's Motion to Dismiss Contention 21 As Moot (Nov. 30, 2009)

(Motion to Dismiss). In their answer to the Motion to Dismiss, the Intervenors proposed that Contention 21 be amended. Intervenors' Response to Applicant's Motion to Dismiss Contention 21 as Moot (Dec. 14, 2009). Additionally, the Intervenors filed four new contentions regarding co-location issues. Intervenors' Contentions Regarding Applicant's Proposed Revision to Environmental Report Section 7.5S and Request for Hearing (Dec. 22, 2009) (Co-location Contentions). The Applicant and Staff opposed the admission of all of the new contentions.

Subsequently, on March 26, 2010, the Environmental Protection Agency (EPA) issued a notice of availability for NUREG-1937, "Draft Environmental Impact Statement for Combined Licenses (COLs) for South Texas Project Electric Generating Station Units 3 and 4," (DEIS).³ Environmental Impacts Statements; Notice of Availability, 75 Fed. Reg. 14,594, 14,595 (Mar. 26, 2010). On July 2, 2010, the Board dismissed all of the formerly admitted contentions as moot and denied all of the pending contentions on the ER except for Co-location Contentions CL-2 to CL-4. *South Texas Project Nuclear Operating Co.* (South Texas Project Units 3 & 4), LBP-10-14, 72 NRC __ (July 2, 2010) (slip op.). The Board admitted, in part, Intervenors' Co-location Contentions CL-2, CL-3, and CL-4 and combined them into a single admitted Contention CL-2. *Id.* at __ (slip op. at 2). Contention CL-2 is stated as follows:

The Applicant's calculation in ER Section 7.5S of replacement power costs in the event of a forced shutdown of multiple STP Units is erroneous because it underestimates replacement power costs and fails to consider disruptive impacts, including ERCOT market price spikes.

Id. at __ (slip op. at 30). Contention CL-2 challenges the Applicant's SAMDA analysis. *South Texas Project*, LBP-11-07, 73 NRC at __ (slip op. at 3).

On July 22, 2010, the Staff filed a motion for summary disposition of Contention CL-2. NRC Staff Motion for Summary Disposition (July 22, 2010) (Staff Motion). The Applicant supported the Staff Motion, but the Intervenors opposed it. STP Nuclear Operating Company's

³ The DEIS is contained in two volumes. Volume 1 (ML100700327) provides coverage through Chapter 7. Volume 2 (ML100700333) provides coverage from Chapter 8 through Appendix J.

Answer Supporting the NRC Staff Motion for Summary Disposition of Contention CL-2 (July 29, 2010) (Applicant Answer); Intervenors' Response to Staff Motion for Summary Disposition (Aug. 11, 2010) (Intervenors Answer). On September 14, 2010, the Applicant filed a "Motion For Summary Disposition of Contention CL-2," urging the Board to grant summary disposition in its favor on grounds different from the Staff Motion. Oral Argument on both motions was held on October 21, 2010. Subsequently, the Staff completed the STP Final EIS. See NUREG-1937, "Environmental Impact Statement for Combined Licenses (COLs) for South Texas Project Electric Generating Station Units 3 and 4; Final Report," (FEIS) (Feb. 2011).⁴

On February 28, 2011, the Board denied both the Applicant's and the Staff's motions for summary disposition of Contention CL-2. *South Texas Project*, LBP-11-07, 73 NRC ___ (slip op.). Additionally, the Board rejected all proposed contentions before it, except for a need for power contention on the DEIS that the Board admitted as reformulated. *Id.*

SUMMARY OF THE BOARD'S DECISION

In LBP-11-07, the Board denied the Staff's motion for summary disposition, rejecting the Staff's position that all environmental issues concerning SAMDAs are resolved by rule pursuant to 10 C.F.R. Part 52, Appendix A, Section VI.B.7 because the STP site was bounded by the site parameters in the "Technical Support Document for the ABWR," Rev. 1 (TSD).⁵ *South Texas Project*, LBP-11-07, 73 NRC at ___ (slip op. at 23-25). The Board ruled on grounds other than those raised by the Intervenors. *Id.* In support of its decision, the Board attached an "Appendix Concerning NRC Staff Motion for Summary Disposition of Contention CL-2" (Appendix) containing the Board's independent site parameter evaluation. *Id.* at ___ (slip op., App.).

⁴ The FEIS is contained in two volumes. Volume 1 (ML11049A000) contains the body of the FEIS. Volume 2 (ML11049A001) contains the Appendices. The EPA notice of availability was published on March 4, 2011. Environmental Impacts Statements; Notice of Availability, 76 Fed. Reg. 12,108, 12,108 (Mar. 4, 2011).

⁵ The ABWR TSD contains the design certification applicant's SAMDA evaluation. NEPA/SAMDA Submittal for the ABWR from J.F. Quirk to R.W. Borchardt, attach. 1 (Dec. 21, 1994) (ML100210563).

In its motion, the Staff explained that the probability-weighted population dose risk is the correct site parameter for comparison, that the STP value for this site parameter was bounded by the ABWR TSD value, and that all environmental SAMDA issues were resolved by 10 C.F.R. Part 52, Appendix A, Section VI.B.7. Staff Motion at 11-13. The Board rejected this argument on two grounds. First, the Board concluded that because the ABWR TSD does not contain a specific list of site parameters, it is impossible to apply 10 C.F.R. Part 52, Appendix A, Section VI.B.7 to resolve SAMDA issues by rule. *South Texas Project*, LBP-11-07, 73 NRC at ___ (slip op. at 24). Second, the Board concluded that the Staff did not correctly identify the ABWR TSD site parameters. The Board, in the body of its opinion, stated that the population dose risk does not encompass the onsite costs considered in the ABWR TSD and that the Staff had not explained why onsite costs were not relevant to determining the site parameters. *Id.* However, in an Appendix to the Order, the Board performed a detailed evaluation of the site parameter question and did not conclude that onsite costs were site parameters. *Id.* at ___ (slip op., App. at 4). Rather, the Board concluded that there were three site parameters in the TSD: offsite exposure, the number of reactors on site, and offsite economic costs. *Id.* The Board considered onsite costs to be relevant to determining that the number of reactors on site is a site parameter. *Id.* at ___ (slip op., App. at 3-4). Significantly, the first site parameter identified by the Board, offsite exposure, is identical to the site parameter identified by the Staff. For the reasons set forth below, the Board's ruling constitutes reversible error.

ISSUES PRESENTED

In LBP-11-07 the Board committed legal error in denying the Staff Motion. The following issues are raised for the Commission's review:

1. Whether the Board should have granted the Staff motion for summary disposition on Contention CL-2 given the absence of any dispute among the parties over the material facts surrounding the motion.
2. Whether the Board committed legal error by interpreting 10 C.F.R. Part 52, Appendix A, Section VI.B.7 in such a way that the regulation could never be given effect.

3. Whether the Board, in identifying ABWR TSD site parameters in addition to the one identified by the Staff, committed legal errors contrary to the SAMDA finality provisions of 10 C.F.R. Part 52.

Issue 1 involves the factual matters and legal authorities set out in the Staff Motion, the answers of the other parties to the Staff Motion, and points made at oral argument. Issues 2 and 3 involve matters raised by the Board on its own, although many of the points made by the Staff in its motion and at oral argument pertain to the Board's decision.

DISCUSSION

I. Legal Standards

A. Standards Governing Petitions for Review

Appeals of partial initial decisions must be filed under 10 C.F.R. § 2.341(b). While the Board did not caption LBP-11-07 as a partial initial decision, the decision is a *de facto* partial initial decision because the Board made a decision on the merits rejecting the position taken in the STP DEIS, which was subsequently included in the FEIS, concluding as a matter of law that SAMDA issues in this proceeding cannot be resolved by rule and ruling on the merits that the Staff's identification of site parameters is incorrect. *South Texas Project*, LBP-11-07, 73 NRC at ___ (slip op. at 24-25 and App. at 4). The Staff position, however, is that SAMDA issues are resolved by rule in this proceeding. See STP FEIS at 5-113 (“[T]he NRC staff concludes that the STP site characteristics are bounded by the site parameters considered during the ABWR design certification, and that the environmental issues related to the SAMDAs have been resolved by rule”).⁶ While some cases have held that denials of summary disposition motions are interlocutory, and not immediately appealable, those cases are inapposite. Here, because the Board's Order resolved the adequacy of the FEIS on the merits, it is in essence a

⁶ The STP FEIS does disclose that the Applicant performed a site-specific SAMDA analysis in ER Section 7.5S and that the increase in monetized risk due to explicitly considering impacts on other units at the site does not lead to the identification of a cost-beneficial SAMDA. *Id.* at 5-112. However, the Staff's position on SAMDAs was based on applying the results of the ABWR SAMDA evaluation to STP. See *id.* (“The NRC staff has limited its review to a determination of whether or not the STP site characteristics are within the site parameters specified in the ABWR technical support document (GE 1994)”).

partial initial decision. The fact that an issue remains regarding the Applicant's SAMDA analysis does not indicate that the Board's ruling is interlocutory. According to the Commission, "NRC hearings on NEPA issues focus entirely on the adequacy of the NRC Staff's work." *Southern Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), CLI-07-17, 65 NRC 392, 395 (2007). See also *Progress Energy Florida, Inc.* (Levy County Nuclear Power Plant, Units 1 and 2), CLI-10-02, 71 NRC __, __ (Jan. 7, 2010) (slip op. at 9) (stating that "the ultimate burden with respect to NEPA lies with the NRC Staff"). In this proceeding, the Board has decided on the merits that the basis for the Staff's EIS SAMDA analysis is incorrect, and the EIS has been issued as a *final* EIS. In these circumstances, the Board's order is, in fact, a partial initial decision, and review under 10 C.F.R. § 2.341(b) is appropriate.

A petition for review filed under section 2.341(b) may be granted "in the discretion of the Commission, giving due weight to the existence of a substantial question with respect to the following considerations:

- (i) A finding of material fact is clearly erroneous or in conflict with a finding as to the same fact in a different proceeding;
- (ii) A necessary legal conclusion is without governing precedent or is a departure from or contrary to established law;
- (iii) A substantial and important question of law, policy, or discretion has been raised;
- (iv) The conduct of the proceeding involved a prejudicial procedural error; or
- (v) Any other consideration which the Commission may deem to be in the public interest."

10 C.F.R. § 2.341(b)(4). The Commission has stated that "[r]eview is particularly appropriate where the Board's ruling may have made a clear error as to a material fact, where the ruling turns on a legal conclusion that is without precedent or conflicts with existing precedent, or where the ruling raises an important policy issue that the Commission itself should consider." *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-05-8, 61 NRC 129, 132 (2005).

On appeal, the Commission reviews legal issues *de novo*, and generally defers to the Boards' findings of fact, unless they are clearly erroneous. *Entergy Nuclear Vermont Yankee,*

L.L.C. (Vermont Yankee Nuclear Power Station), CLI-10-17, 72 NRC __, __ (July 8, 2010) (slip op. at 11). The Commission has discretion to review all underlying factual issues *de novo*, but is “disinclined to do so where a Board has weighed arguments presented by experts and rendered reasonable, record-based factual findings.” *Pa’ina Hawaii, LLC* (Materials License Application), CLI-10-18, 72 NRC __, __ (July 8, 2010) (slip op. at 19) (internal quotation marks omitted).

B. Standards Governing Summary Disposition Motions

The standards for summary disposition under 10 C.F.R. § 2.1205 are the same as those under 10 C.F.R. § 2.710. 10 C.F.R. § 2.1205(c). A party is entitled to summary disposition as to all or any part of the matters involved in the proceeding “if the filings in the proceeding, depositions, answers to interrogatories, and admissions on file, together with the statements of the parties and the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a decision as a matter of law.” 10 C.F.R. § 2.710(d)(2). Where a contention presents essentially a legal issue, summary disposition may be “the appropriate vehicle for resolution” of the contention. *U.S. Dept. of Energy* (High-Level Waste Repository), CLI-09-14, 69 NRC 580, 591 n.65 (2009).

The movant bears the initial burden of showing that there is no genuine issue as to any material fact, which it attempts to do by means of a required statement of material facts not at issue and any supporting materials that accompany its dispositive motion. *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-99-23, 49 NRC 485, 491 (1999). If the movant “fails to make the requisite showing, the Board must deny the motion—even if the opposing party chooses not to respond or its response is inadequate.” *Advanced Medical Systems, Inc.* (One Factory Row, Geneva, Ohio 44041), CLI-93-22, 38 NRC 98, 102 (1993). However, “when the movant has satisfied its initial burden and has supported its motion by affidavit, the opposing party must either proffer rebutting evidence or submit an affidavit explaining why it is impractical to do so.” *Id.* at 103; see also 10 C.F.R. § 2.710(b). In addition,

“[t]he opposing party must controvert any material fact properly set out in the statement of material facts that accompanies a summary disposition motion or that fact will be deemed admitted.” *Advanced Medical Systems*, CLI-93-22, 38 NRC at 102-03; see also 10 C.F.R. § 2.710(a). “[T]he mere existence of some alleged factual dispute between the parties will not defeat an otherwise properly supported motion for summary judgment; the requirement is that there be no *genuine issue of material fact*.” *Anderson v. Liberty Lobby*, 477 U.S. 242, 247-48 (1986) (emphasis in original). Also, “the judge’s function is not himself to weigh the evidence and determine the truth of the matter but to determine whether there is a genuine issue for [hearing].” *Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station)*, CLI-10-11, 71 NRC ___, ___ (Mar. 26, 2010) (slip op. at 13) (quoting *Liberty Lobby*, 477 U.S. at 249). Finally, “[o]nly disputes over facts that might affect the outcome’ of a proceeding would preclude summary disposition.” *Id.* at ___ (slip op. at 12) (quoting *Liberty Lobby*, 477 U.S. at 248).

II. Argument

The Board’s decision should be reversed. As explained below, the Staff Motion was properly supported in accordance with NRC regulations, and none of the parties disputed the material facts put forward by the Staff, either through a contention on the DEIS or in answers to the Staff Motion. Because none of the material facts were contested and the Staff was entitled to a decision as a matter of law, the Board was required to render a decision in favor of the Staff. The Board’s ruling that it is impossible to apply the SAMDA finality regulation in the ABWR rule is legal error because it gives the regulation no effect and frustrates the regulation’s very purpose. The Board also committed legal error in ruling that the Staff incorrectly identified the ABWR SAMDA site parameters. The Board’s ruling amounts to an impermissible challenge to the ABWR SAMDA evaluation, contrary to the finality provisions of the ABWR rule.

The Commission should take review of LBP-11-07 under 10 C.F.R. § 2.341(b)(4)(ii), (iii). Review under § 2.341(b)(4)(ii) is appropriate because there is no precedent for rulings regarding the identification of site parameters in the ABWR design certification. In addition, the Board’s

determination that it is impossible to give effect to 10 C.F.R. Part 52, Appendix A, Section VI.B.7 is contrary to Section VI.B.7 and the Commission's intent behind Section VI.B.7. Also, the Board's analysis for identifying site parameters is inconsistent with the ABWR design certification rule. The Commission should also take review under § 2.341(b)(4)(iii) because important and novel legal and policy issues are raised here. Specifically, the Board's Order raises questions about how to identify the site parameters in the ABWR SAMDA evaluation, whether the ABWR SAMDA evaluation is only valid for a single unit site, and whether design certification finality extends only to the analyses explicitly included in the ABWR SAMDA evaluation, as opposed to additional analyses that could have been included but were not.⁷

A. SAMDA Analyses and the ABWR Design Certification

Severe Accident Mitigation Alternatives or SAMAs are safety enhancements intended to reduce the risk of severe accidents. *Pilgrim*, CLI-10-11, 71 NRC at ___ (slip op. at 3). A SAMA analysis examines the extent to which implementation of the SAMA would decrease the probability-weighted consequences of the analyzed severe accident sequences. *Id.* "NRC SAMA analyses are not a substitute for, and do not represent, the NRC NEPA analysis of potential impacts of severe accidents." *Id.* at ___ (slip op. at 37). Rather, SAMA analyses are rooted in a cost-beneficial assessment:

SAMA analysis is used for determining whether particular SAMAs would sufficiently reduce risk – e.g., by reducing frequency of core damage or frequency of containment failure – for the SAMA to be cost-effective to implement. . . . If the cost of implementing a particular SAMA is greater than its estimated benefit, the SAMA is not considered cost-beneficial to implement.

⁷ The Board's Order also has implications that extend beyond the ABWR design. The Staff notes that the AP1000 design certification also does not contain a specific list of SAMDA site parameters. See AP1000, App. 1B (Nov. 11, 2005) (applicant's SAMDA evaluation) (ML053460409) (begins on p. 1098 of PDF file); "Environmental Assessment By The U.S. Nuclear Regulatory Commission Relating To The Certification Of The AP1000 Standard Plant Design" (Jan. 24, 2006) (ML053630176) (AP1000 EA). In addition, the AP1000 SAMDA evaluation did not address multiple units on a site. See AP1000 App. 1B; AP1000 EA.

Id. at ___ (slip op. at 3). For a SAMA analysis, the “goal is *only* to determine what safety enhancements are cost-effective to implement.” *Id.* at ___ (slip op. at 39) (emphasis added). SAMDAs are a subset of SAMAs that focus on design alternatives. See Licenses, Certifications, and Approvals for Nuclear Power Plants; Final Rule, 72 Fed. Reg. 49,352, 49,426 (Aug. 28, 2007). Therefore, SAMA analysis principles apply to SAMDA analyses.

A SAMDA analysis was performed for the ABWR design certification, and SAMDA analyses have been performed for all other certified designs. The design certification applicant’s (GE’s) SAMDA evaluation is contained in the ABWR TSD. To support the ABWR design certification, the NRC reviewed the TSD and performed an independent evaluation of SAMDAs in its environmental assessment for the ABWR design and concluded that there were no cost-beneficial SAMDAs. See SECY-96-077, Certification of Two Evolutionary Designs, attach. 2 (Apr. 15, 1996) (ML003708129) (ABWR EA) (begins on p. 83 of PDF file). The ABWR design certification rule statements of consideration (SOC) reflect the results of this evaluation. Standard Design Certification for the U.S. Advanced Boiling Water Reactor Design, 62 Fed. Reg. 25,800, 25,827 (May 12, 1997) (ABWR Rule). The ABWR Rule SOC also reflect the Commission’s specific finding that the TSD evaluation provided a sufficient basis for concluding that there are no additional cost-beneficial SAMDAs, whether considered during the design certification or in connection with the licensing of a future facility referencing the ABWR, if the facility is located on a site whose site parameters are within those specified in the TSD.

Id. The Commission considered these issues resolved for the ABWR design. *Id.*

Resolution of SAMDA issues is reflected in 10 C.F.R. Part 52, Appendix A:

B. The Commission considers the following matters resolved within the meaning of 10 CFR 52.63(a)(5) in subsequent proceedings for issuance of a combined license . . . involving plants referencing this appendix:

7. All environmental issues concerning severe accident mitigation design alternatives associated with the information in the NRC's final environmental assessment for the U.S. ABWR design and Revision 1 of the technical support document for the U.S. ABWR, dated December 1994, for plants referencing this

appendix whose site parameters are within those specified in the technical support document.

10 C.F.R. Part 52, App. A, Section VI.B & VI.B.7 (emphases added). Because the STP COL application references the ABWR design certification, *all environmental issues concerning SAMDAs* are resolved within the meaning of 10 C.F.R. § 52.63(a)(5) if the STP site parameters are within those specified in the TSD. Section 52.63(a)(5) provides that in making its COL findings, the Commission will treat as resolved those matters resolved in the issuance of a design certification rule, “[e]xcept as provided in 10 CFR 2.335.” 10 C.F.R. § 52.63(a)(5). According to 10 C.F.R. § 2.335, NRC rules and regulations are not subject to attack in an adjudicatory proceeding unless a party submits a petition for waiver or exception.

10 C.F.R. § 2.335. No petition under section 2.335 has been submitted in this proceeding.

The degree of finality accorded to the resolution of environmental issues concerning SAMDAs is the same as the degree of finality afforded to the design itself. See 10 C.F.R. Part 52, App. A, Section VI.B (providing finality within the meaning of 10 C.F.R. § 52.63(a)(5) for a host of issues, including Tier 1 and Tier 2 information in the design control document (DCD), in addition to environmental issues concerning SAMDAs). The nature of this resolution is explained in the rule, which provides, “A conclusion that a matter is resolved includes the finding that additional or alternative structures, systems, components [SSCs], design features, design criteria, testing, analyses, acceptance criteria, or justifications are not necessary for the U.S. ABWR design.” 10 C.F.R. Part 52, App. A, Section VI.A. In the SOC for the ABWR Rule, the Commission explained its reasoning for this broad scope of finality as follows:

Inherent in the concept of design certification by rulemaking is that all these issues which were addressed, or could have been addressed, in this rulemaking are resolved and therefore, may not be raised in a subsequent NRC proceeding. If this were not the case and one could always argue in a subsequent proceeding that an additional, alternative, or modified system, structure or component of a previously-certified design was needed, or additional justification was necessary, or a modification to the testing and acceptance criteria is necessary, there would be little regulatory certainty and stability associated with a design certification. The underlying benefits of certification of individual designs by rulemaking, e.g., early Commission consideration and resolution of design issues and early

Commission consideration and agreement on the methods and criteria for demonstrating completion of detailed design and construction in compliance with the certified design, would be virtually negated.

ABWR Rule, 62 Fed. Reg. at 25,802. Given the broad scope of finality applied to the certified design, and the determination that no additional or alternative SSCs, design features, analyses, or justifications are necessary, it is clear that the Commission intended that the proper time to determine whether there were any cost-beneficial severe accident mitigation *design alternatives* was at the design certification rulemaking.

B. Because There Was No Dispute Among the Parties About Whether the STP Site Is Bounded By the ABWR TSD Site Parameter, the Board Erred in Not Granting the Staff Motion for Summary Disposition of Contention CL-2

The Board erred in not granting the Staff motion for summary disposition on Contention CL-2 because there was no dispute among the parties over whether the STP site was bounded by the site parameters in the ABWR TSD. This fact, once established, necessarily results in the resolution of all environmental issues concerning SAMDAs in this proceeding. See 10 C.F.R. Part 52, App. A, Section VI.B.7. Accordingly, the Board erroneously denied the Staff Motion.

The Staff Motion set out, step-by-step, the basis for the Staff's conclusion that the STP site was bounded by the ABWR TSD site parameter. The Staff explained that the probability-weighted population dose risk is based on the characteristics of sites, such as population distribution and meteorological conditions, and "includes all of the site-specific information used in the evaluation of SAMDAs in the TSD." Staff Motion, Staff Aff. ¶ 9 (Staff Attachment 2). The Staff also explained how it determined the value for probability-weighted population dose risk for the STP site and how this value is less than the ABWR TSD value for probability-weighted population dose risk. *Id.*, Staff Aff. ¶¶ 12-13. The Staff's position was supported by sworn affidavits from qualified experts whose qualifications were set out in the affidavit. *Id.*, Staff Aff. ¶¶ 1(a), 1(b) & Attached Statements of Professional Qualifications. The Staff also attached to its motion a "Statement of Material Facts on Which No Genuine Dispute Exists," (Statement of Material Facts) which set out the material facts supporting the Staff Motion. *Id.*, (Staff

Attachment 1). The Statement of Material Facts included the Staff's position on the identification of the ABWR TSD site parameter, the Staff's evaluation of the STP site, and the Staff's conclusion that the STP site was bounded and that all SAMDA issues were resolved.

See generally *id.*⁸

The other parties did not contest the Staff's Statement of Material Facts or the Staff's conclusion that the STP site was bounded by the ABWR TSD site parameter. The Applicant supported the Staff Motion. Applicant Answer at 1. The Intervenor's opposed the Staff Motion on legal grounds, but did not contest the material facts set out in the Staff Motion or the Staff's conclusion that the STP site is bounded by the ABWR TSD site parameters.⁹ The Intervenor's also did not file any contention on the DEIS evaluation of SAMDAs, which drew the same

⁸ The Staff notes that, although this was not the case at the time the Staff filed its motion, the STP Application now incorporates by reference a proposed amendment to the ABWR design certification to address the requirements of 10 C.F.R. § 50.150, "Aircraft impact assessment." See STP Final Safety Analysis Report (FSAR), Rev. 5, Tier 2, Section 19S (Jan. 31, 2011) (ML110340836). The NRC has issued a proposed rule to certify the proposed amendment. "U.S. Advanced Boiling Water Reactor Aircraft Impact Design Certification Amendment; Proposed Rule," 76 Fed. Reg. 3540 (Jan. 20, 2011) (ABWR Proposed Rule). The NRC prepared a draft environmental assessment in support of the proposed rule and concluded that "the proposed design changes would not alter the original SAMDA evaluation and would not change the conclusions reached in the EA issued for the original U.S. ABWR design certification rule." Draft Environmental Assessment by the U.S. Nuclear Regulatory Commission Relating to the Certification of the STP Nuclear Operating Company Amendment to the U.S. ABWR Standard Plant Design, at 6 (Jan. 11, 2011) (ML103470203). The proposed amendment to the ABWR, therefore, has no impact on the Staff Motion. See *South Carolina Electric and Gas Co.* (Virgil C. Summer Nuclear Station, Units 2 and 3), CLI-10-01, 71 NRC __, __ (Jan. 7, 2010) (slip op. at 17 n.68) (concluding that a challenge to the AP1000 SAMDA analysis was impermissible in a case where the COL applicant referenced both the AP1000 certified design and a proposed amendment to the AP1000 and the petitioner did not specifically challenge the proposed amendment).

⁹ The Intervenor's characterized their position in the following manner: "The Intervenor's do not controvert the factual basis for the Staff Motion for summary disposition because the issue raised by the Staff is limited to the legal argument concerning the scope of issues that are deemed 'resolved' by the ABWR design rule." Intervenor's Answer at 2; see also *id.* at 2 n.2 (asserting that while the STP site parameters may be within those specified in the TSD, the factual basis for the Staff Motion is irrelevant). The Intervenor's argued that the ABWR design rule does not preclude the consideration of "issues that are outside the ABWR environmental assessment and Revision 1 of the Technical Support Document," and that their contention was based on the Applicant's ER rather than the ABWR EA or TSD. *Id.* at 3. The Intervenor's also argued that contentions on replacement power costs should not be precluded because replacement power costs are subject to change over time. *Id.* at 4. Finally, the Intervenor's asserted that the ABWR EA and TSD did not resolve replacement power costs projections. *Id.* at 5.

conclusions set out in the Staff Motion. See STP DEIS at 5-109 to 5-111. In addition, no one submitted a comment regarding the STP DEIS SAMDA evaluation.

The Commission has stated that “[t]he opposing party must controvert any material fact properly set out in the statement of material facts that accompanies a summary disposition motion or that fact will be deemed admitted.” *Advanced Medical Systems*, CLI-93-22, 38 NRC at 102-03. This rule is also set out in NRC regulations. 10 C.F.R. § 2.710(a) (“All material facts set forth in the statement required to be served by the moving party *will be considered to be admitted* unless controverted by the statement required to be served by the opposing party”) (emphasis added). The Staff supported its motion in accordance with NRC regulations, and because no party disputed the Staff’s statement of material facts, these facts should have been deemed to be admitted.¹⁰

The only issue remaining for resolution would then have been the legal consequences of the conclusion that the STP site parameters are bounded by the ABWR TSD site parameters. These legal consequences are clear. The ABWR SAMDA evaluation was intended to resolve all environmental issues concerning SAMDAs. See 10 C.F.R. Part 52, App. A, Section VI.B.7. The only issue relevant for a SAMDA analysis is whether there is a cost-beneficial SAMDA.

¹⁰ The Board, however, performed its own independent evaluation as support for its order. A material fact is deemed to be admitted if it is not opposed. 10 C.F.R. § 2.710(a). In addition, the Board’s function is not to weigh the evidence and determine the truth of the matter at summary disposition. *Pilgrim*, CLI-10-11, 71 NRC at ___ (slip op. at 13). Given this, the Commission’s summary disposition standards do not contemplate a Board creating its own independent evaluation to prove that a movant’s statements of fact are incorrect, especially when they are not disputed by the other parties. In addition, the Board’s reliance on its own detailed evaluation did not give the Staff an adequate opportunity to address all of the bases for the Board’s decision. Boards should not perform independent basic research or duplicate Staff analyses. *Exelon Generation Co.* (Early Site Permit for Clinton ESP Site), CLI-05-17, 62 NRC 5, 45 & n.99 (2005) (citing *Consumers Power Co.* (Midland Plant, Units 1 and 2), ALAB-123, 6 AEC 331, 335 (1973)). When licensing boards rely on such independent research, it deprives the parties of an opportunity to address it. *Metropolitan Edison Co.* (Three Mile Island Nuclear Station, Unit 1), LBP-81-32, 14 NRC 381, 557-58 (1981); *Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant, Units 1, 2, 3, and 4), LBP-78-4, 7 NRC 92, 139 (1978). Similarly, the rules for evidentiary hearings provide that when presiding officers take official notice of a fact, that fact “must be specified in the record with sufficient particularity . . . and each party adversely affected by the decision shall be given opportunity to controvert the fact.” 10 C.F.R. § 2.337(f)(1). The Commission’s rules and case law favor all parties having an opportunity to respond to legal and factual arguments that adversely affect them. Accordingly, even if it were proper for the Board to perform an independent evaluation, the Board should have afforded the parties an opportunity to respond to it.

See *Pilgrim*, CLI-10-11, 71 NRC at ___ (slip op. at 3). As the Staff explained at oral argument, because the ABWR SAMDA evaluation concluded that there were no cost-beneficial SAMDAs, the only relevant SAMDA issue was resolved, and all other potential subsidiary issues in the evaluation are also resolved. See Oral Argument Tr. at 1040-41 (Oct. 21, 2010). Also, 10 C.F.R. § 51.107(c) provides that if a COL application references a design certification, contentions regarding SAMDAs will not be admitted unless the contention demonstrates that the site characteristics fall outside the design certification site parameters.¹¹ This regulation necessarily provides that all SAMDA issues are resolved if the characteristics for a particular site are bounded by the site parameters in the design certification SAMDA evaluation.¹² In addition, the issues raised in Contention CL-2 concern replacement power costs, and replacement power costs were specifically addressed in the ABWR TSD and consequently resolved in the ABWR rulemaking. See ABWR TSD at 32-33; 10 C.F.R. Part 52, App. A,

¹¹ The Staff did not rely on 10 C.F.R. § 51.107(c) in opposing contention admissibility because the Intervenor submitted their contention on a site-specific SAMDA analysis in ER Section 7.5S that did not rely upon the issue finality provision in 10 C.F.R. Part 52, Appendix A, Section VI.B.7. The Applicant's evaluation also did not address the question of whether the STP site was bounded by the ABWR TSD site parameters. The factual predicate for asserting finality, therefore, was not established, and the Intervenor had not had an opportunity to challenge such a factual predicate. In addition, the Staff had not yet completed its own review. However, as noted above, the DEIS did rely upon the SAMDA finality provisions and establish that the STP site was bounded by the ABWR TSD site parameter, and the Intervenor did not challenge the Staff's DEIS evaluation.

¹² The Board disagreed with the Staff's position that the Intervenor should have filed a contention on the DEIS SAMDA evaluation if they disagreed with the Staff's SAMDA evaluation. *South Texas Project*, LBP-11-07, 73 NRC at ___ (slip op. at 25). Regardless, however, the Intervenor never contested the factual underpinnings of the Staff's position at any point. Moreover, it appears that the Board misunderstood the Staff's position. The Board apparently understood the Staff's position to be that the Intervenor had a duty to file a contention on the DEIS based on the DEIS neglecting to address the issues raised by Contention CL-2. *Id.* However, the Staff's position is that 10 C.F.R. § 2.309(f)(2) expressly provides for the filing of contentions based on significant differences between the ER and the DEIS. The DEIS SAMDA evaluation was significantly different from the ER evaluation and, if not properly contested, the DEIS SAMDA evaluation resolves *all* issues concerning SAMDAs, including the issues raised in Contention CL-2. In these circumstances, the Intervenor should have filed a contention challenging the DEIS SAMDA evaluation if they disagreed with it. See *Southern Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), LBP-08-2, 67 NRC 54, 63-64 (2008) (stating that contentions on the ER may be considered as challenges to the DEIS "only so long as the DEIS analysis or discussion at issue is essentially *in para materia* with the ER analysis or discussion that is the focus of the contention." If it is not, the intervenor may need to amend the contention or submit a new one). The Intervenor filed other contentions on the DEIS but never challenged the Staff's SAMDA evaluation.

Section VI.A. Finally, to the extent the Intervenor raise issues not considered in the ABWR TSD, consideration of these issues is precluded because a conclusion that a matter is resolved in a design certification necessarily includes a determination that additional or alternative analyses and justifications are not necessary. 10 C.F.R. Part 52, App. A, Section VI.A.

For the above reasons, there was no genuine issue of material fact and the Board erred by not granting the Staff Motion. Also, as explained below, the reasons given by the Board for denying the Staff Motion are contrary to law. Therefore, the Board's decision should be reversed and a decision should be entered in favor of the Staff.

C. The Board Erroneously Concluded That the Lack of a Specific List of Site Parameters in the TSD Makes Resolving SAMDA Issues By Rule Impossible

The first ground cited by the Board for denying the Staff Motion is that the ABWR TSD lacks a specific listing of site parameters. *South Texas Project*, LBP-11-07, 73 NRC at ___ (slip op. at 24). The Board considered such a list to be a prerequisite for resolving SAMDA issues by rule. *Id.* For this reason, the Board concluded that it is impossible to apply 10 C.F.R. Part 52, Appendix A, Section VI.B.7 to resolve SAMDA issues by rule. *Id.* As explained below, the Board's ruling constitutes legal error because the Board's interpretation of the regulation gives it no effect and frustrates the Commission's purpose in crafting the rule.

As the Commission explained in the *Hydro Resources* proceeding, "[a] basic tenet of statutory construction, equally applicable to regulatory construction, [is] that a statute should be construed so that effect is given to all its provisions" *Hydro Resources, Inc.* (P.O. Box 777, Crownpoint, New Mexico 87313), CLI-06-11, 63 NRC 483, 491 (2006) (quoting *Silverman v. Eastrich Multiple Investor Fund, L.P.*, 51 F.3d 28, 31 (3d Cir. 1995)). The Commission also held that a regulation should be interpreted "to effectuate the intent of the enacting body," with the intent being determined by the regulation's language and "overall purpose" and after considering the "practical effect of the possible interpretations." *Id.* Administrative history and other guidance may serve as background information and to resolve regulatory ambiguities. *Id.*

The relevant regulatory language and history show that the Commission clearly intended to resolve all environmental issues concerning SAMDAs during the ABWR design certification and apply that resolution to later COL proceedings. The Commission specifically considered and resolved environmental SAMDA issues for the ABWR design during the design certification rulemaking. ABWR Rule, 62 Fed. Reg. at 25,827. The Commission also specifically concluded that the TSD evaluation provided a sufficient basis for concluding that there are no additional cost-beneficial SAMDAs, whether considered during the design certification or in connection with the licensing of a future facility referencing the ABWR, if the facility is located on a site whose site parameters are within those specified in the TSD. *Id.* In addition, the ABWR design certification rule contains a specific provision for applying the design certification's resolution of environmental SAMDA issues to COL applications referencing the ABWR design. 10 C.F.R. Part 52, App. A, Section VI.B.7. Furthermore, in issuing the ABWR design certification, the Commission concluded that no additional or alternative SSCs, design features, analyses, or justifications are necessary for the design and intended that design issues not be revisited during future COL application reviews. See 10 C.F.R. Part 52, App. A, Section VI.A; ABWR Rule, 62 Fed. Reg. at 25,802. Finally, general regulations in 10 C.F.R. Part 51 that are not specific to the ABWR design certification also evince the Commission's intent to preserve the resolution accorded to design certification SAMDA evaluations in later COL proceedings. See, e.g., 10 C.F.R. § 51.107(c) (a SAMDA contention will not be admitted unless the contention demonstrates that the site characteristics fall outside the design certification site parameters).

The Board ruled that it is impossible to give effect to 10 C.F.R. Part 52, Appendix A, Section VI.B.7 because the ABWR TSD does not contain a specific list of site parameters. *South Texas Project*, LBP-11-07, 73 NRC at ___ (slip op. at 24). However, the regulatory language and history make it clear that the overall purpose of the regulation was to apply the resolution of SAMDA issues in the ABWR design certification to future COL applications, and the practical effect of the Board's interpretation is to make this purpose impossible to achieve.

In addition, the SAMDA evaluation for the ABWR design certification was created contemporaneously with, and in support of, the ABWR design certification rulemaking. See ABWR Rule, 62 Fed. Reg. at 25,827. This necessarily means that the Commission found that the site parameters were sufficiently described in the ABWR TSD, even though no explicit list of site parameters was included, to afford finality to subsequent COL applicants. To make any other finding would frustrate the purpose of the rule. For this reason, the Board's interpretation necessarily aligns with the view that the Commission intended to craft a regulation that would have no effect despite the Commission's clear desire to resolve design issues generally, and SAMDA issues specifically, during the design certification review. The Board's ruling, therefore, is contrary to the canons of regulatory construction set out in *Hydro Resources* because it fails to give effect to the rule in light of its overall purpose. *Hydro Resources*, CLI-06-11, 63 NRC at 491. For this reason, the Commission should conclude that the Board committed legal error in ruling that it is impossible to apply 10 C.F.R. Part 52, Appendix A, Section VI.B.7 to resolve SAMDA issues by rule.

D. The Board Erroneously Ruled That the ABWR TSD Contains Site Parameters In Addition to Those Identified By the Staff

The second ground cited by the Board for denying the Staff Motion is that the Staff did not demonstrate that the probability-weighted population dose risk is the correct site parameter for comparison. *South Texas Project*, LBP-11-07, 73 NRC at ___ (slip op. at 24). In the body of its opinion, the Board asserted that the TSD contained other "site-specific information used in the evaluation of SAMDAs." *Id.* Specifically, the Board raised concerns about whether "onsite costs including economic losses, replacement power costs and direct accident costs" are relevant to determining the appropriate site parameters. *Id.* (internal quotation marks omitted). However, the Board, in an Appendix, performed its own independent evaluation of the site parameter question. In the Appendix the Board developed a separate list of site parameters that did not include onsite costs as a site parameter:

The appropriate site specific parameter list that should have been present in the TSD, and against which the Staff should have judged the applicability of the ABWR SAMDA evaluation should have been:

Offsite exposure	Less than 4.5×10^{-3} person-rem/yr
No. of reactors on site	one ABWR
Offsite economic cost	negligible

Id. (slip op., App. A at 4) (internal footnote omitted). Significantly, the “offsite exposure” site parameter identified by the Board is the same as the “probability-weighted population dose risk” site parameter that the Staff identified in its analysis. See Staff Motion, Staff Attachment 1 at 2-3 (Material facts 5 and 7 stating that the probability-weighted population dose risk is the appropriate site parameter and that the TSD value for this is 4.5×10^{-3} person-rem/yr.).

Therefore, the Board’s site parameter list disagrees with the Staff’s in that the Board would add the following parameters: number of units on site and offsite economic costs.

As explained below, the Board erroneously determined that the ABWR TSD contained site parameters in addition to the probability-weighted population dose risk. However, the site parameter identified by the Staff is a feature of the ABWR SAMDA evaluation that can appropriately be considered a site parameter. As explained in the Staff Motion, for a component of the SAMDA analysis to be a site parameter, it should be based on the characteristics of sites. Staff Motion at 13. This approach accords with the regulatory definition of “site parameter”:

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

10 C.F.R. § 52.1(a). In its evaluation of SAMDAs, the design certification applicant made a set of assumptions about the atmospheric dispersion and population distribution for a generic ABWR site. Staff Motion, Staff Aff. ¶ 4. These assumptions were used to calculate dose risk to the population within 50 miles of the generic site. *Id.*; see *also* ABWR TSD at 31. As explained in the ABWR TSD, “Five representative US regions were evaluated for selected individual ABWR sequences by the CRAC2 code. The regional results were then averaged to determine the exposures.” See ABWR TSD at 31. The probability-weighted population dose risk is the

probability-weighted dose to the population within fifty miles of the site, and is based, in part, on meteorological conditions and population distribution. Staff Motion, Staff Aff. ¶¶ 3, 9. Therefore, the probability-weighted population dose risk is a site parameter because it is the feature of the ABWR TSD analysis that is based on the postulated environmental and demographic features of an assumed site. See 10 C.F.R. § 52.1(a) (definition of “site parameter”).

1. Onsite Costs Are Not ABWR TSD Site Parameters.

In the body of its opinion, the Board raised the issue of whether “onsite costs including economic losses, replacement power costs and direct accident costs” were relevant to determining the site parameters. *South Texas Project*, LBP-11-07, 73 NRC at ___ (slip op. at 24) (quoting ABWR TSD at 32). The Board does not appear to believe that onsite costs are, themselves, site parameters because onsite costs are not included in the site parameter list in the Appendix to the Board’s order. *Id.* (slip op., App. at 4). Instead, the Board considered onsite costs to be the reason for including the number of reactors on site as a site parameter. *Id.* (slip op., App. at 3-4). As discussed below, onsite costs are not site parameters.

The calculation of onsite costs in the ABWR TSD appears to use fixed values that are related to the design or to economic factors rather than the “postulated physical, environmental and demographic features of an assumed site” See 10 C.F.R. § 52.1(a). In the ABWR TSD, onsite costs are included in the SAMDA calculation as a credit against the cost of some of the SAMDAs. ABWR TSD at 32. Onsite costs included “replacement power costs, direct accident costs (including onsite cleanup) and the economic loss of the facility.” *Id.* at 33. According to the ABWR TSD, onsite costs were based on the following considerations:

...

- (2) Replacement power was based on a rate of \$.013.kW-h differential as bar cost. The differential rate was assumed to be constant over the remaining life of the plant.
- (3) The economic value of the facility at the time of the accident was based on a straight line depreciated value. The initial invested cost was taken at \$1.4 Billion based on DOE cost guidelines.

- (4) Accident costs for onsite cleanup and facility were evaluated based on escalated costs to the time of the accident. Reference accident costs to the facility were assumed to be \$2 Billion.

.....

Id. Thus, the onsite costs calculation used fixed values, and there is no indication in the ABWR TSD that the onsite costs were based on postulated features of sites.

The replacement power cost is not a site parameter because it is an economic factor rather than a physical, environmental, or demographic feature of an assumed site. The economic value of the facility is also not a site parameter because it is an economic factor tied to reactor design rather than site features. In addition, onsite accident costs for the reactor where the accident occurs are related to facility design rather than site-specific physical, environmental, or demographic features. Finally, as explained above, the onsite costs calculation appears to be based on fixed values rather than postulated features of sites. Fixed values should not be considered site parameters for comparing an actual site to a postulated site because they are fixed features of the analysis. For the above reasons, onsite costs are not site parameters.

2. The Number of Reactors On Site and Offsite Economic Costs Are Not ABWR TSD Site Parameters.

In the Appendix of its Order, the Board performed its own independent evaluation and determined that there were two site parameters in addition to the site parameter identified by the Staff. These additional site parameters are the number of reactors on site, for which the value is “one ABWR,” and offsite economic costs, for which the value is “negligible.” *South Texas Project*, LBP-11-07, 73 NRC at ___ (slip op., App. A at 4). Neither item is a site parameter.

The Board’s concern with the number of reactors onsite is the relationship between the number of reactors and the evaluation of onsite costs. *Id.* at ___ (slip op., App. A at 3-4). The Board believes that a SAMDA evaluation needs to consider costs to other units on site that might occur because of an accident at one of the units. *See id.* Because the ABWR SAMDA

evaluation is based on the costs for a single ABWR unit, i.e., the unit where the accident occurs, the Board believes that the ABWR SAMDA evaluation is only valid for sites with one ABWR and no other units. *See id.*

The Board's conclusion is erroneous, however, because it, in effect, challenges the ABWR SAMDA analysis. The effect of a severe accident on units where the accident *does not* occur is a different analysis from the effect of the severe accident on the unit where the accident *does* occur. For instance, in addressing effects on other units in its supplemental SAMDA analysis, the Applicant addressed additional considerations, such as how long the other units would be shut down, which involves the question of whether the other units would be shut down only for cleanup and refurbishment or whether the units would be shut down a longer period of time for policy reasons. *See* STP ER at 7.5S-6 (Rev. 5). An analysis of severe accident effects on other units at a site was simply not included in the ABWR TSD, and there is no indication that this was considered to be a limitation on the design certification SAMDA evaluation. According to the ABWR design certification rule, "[a] conclusion that a matter is resolved includes the finding that *additional or alternative . . . analyses . . . or justifications* are not necessary for the U.S. ABWR design." 10 C.F.R. Part 52, App. A, Section VI.A (emphasis added). As the Commission explained in issuing the rule, "[i]nherent in the concept of design certification by rulemaking is that all these issues which were addressed, *or could have been addressed*, in this rulemaking are resolved and therefore, may not be raised in a subsequent NRC proceeding." ABWR Rule, 62 Fed. Reg. at 25,802 (emphasis added). Otherwise, the underlying benefits of certifying a standard design by rule "would be virtually negated." *Id.*

A bedrock principle of design certification finality, therefore, is that matters not considered in the evaluation were determined not to be necessary. This means that the finality that attaches to the ABWR SAMDA evaluation excludes consideration of additional matters that could have been considered, but were not. This conclusion is strengthened in the SAMDA context by the fact that a SAMDA evaluation does not have to address every conceivable factor

to be valid. For a SAMA analysis, the “goal is *only* to determine what safety enhancements are cost-effective to implement.” *Pilgrim*, CLI-10-11, 71 NRC at ___ (slip op. at 39) (emphasis added). Therefore, “[u]nless it looks genuinely plausible that inclusion of an additional factor or use of other assumptions or models may change the cost-benefit conclusions for the SAMA candidates evaluated, no purpose would be served to further refine the SAMA analysis.” *Id.*¹³

Furthermore, the Board’s ruling would severely limit the finality of the ABWR and AP1000 design certification SAMDA evaluations because many of the pending COL applications either involve a proposal to locate multiple new units on a site or to locate a new unit on a site with existing units. Such an outcome should not have been unexpected during the design certification rulemakings because the majority of existing sites contain multiple units. Given the Commission’s intent to finally resolve all design issues in a design certification, determining that a single-unit site is a site parameter in a SAMDA evaluation would negate the Commission’s purpose in performing a SAMDA evaluation during a design certification.

The Board also erroneously determined that offsite economic costs is a site parameter. As the Board correctly recognized, the ABWR TSD explicitly excludes offsite economic costs from consideration in the analysis. *South Texas Project*, LBP-11-07, 73 NRC at ___ (slip op., App. A at 3-4) (“The offsite costs for other items such as relocation of local residents, elimination of land use and decontamination of contaminated land were not considered”) (quoting ABWR TSD at 32). The design certification applicant used the \$1000 per person-rem-averaged standard as a surrogate for *all* offsite consequences. See ABWR TSD at 9, 10; see also Staff Motion, Staff Aff. ¶ 5. The fact that offsite economic costs were not considered in the ABWR TSD means that offsite economic costs cannot be a site parameter specified in the TSD. See 10 C.F.R. Part 52, App. A, Section VI.B.7 (stating that the site parameters are specified in

¹³ It bears noting that in the ABWR EA, the Staff evaluated whether a number of additional or alternative inputs and methods might lead to a different result and concluded that they would not. See, generally, ABWR EA.

the ABWR TSD). The exclusion of offsite economic costs as a site parameter is also accorded finality by the ABWR design certification rule. See 10 C.F.R. Part 52, App. A, Section VI.A (stating that a conclusion that a matter is resolved includes the finding that additional or alternative analyses or justifications are not necessary); see *also* ABWR Rule, 62 Fed. Reg. at 25,802. Therefore, the Board's ruling that offsite economic costs is a site parameter is incorrect as a matter of law because it constitutes a challenge to the ABWR design certification rule.¹⁴

For the above reasons, the Commission should reverse the Board's ruling on the Staff Motion and dismiss Contention CL-2.

CONCLUSION

The Board's decision in LBP-11-07 is based on erroneous legal conclusions that are without governing precedent and contrary to established law. The Board's decision also raises important and novel legal and policy issues. For these reasons, the Commission should take review of and reverse LBP-11-07.

Respectfully submitted,

/Signed (electronically) by/

Michael A. Spencer
Counsel for NRC Staff
U.S. Nuclear Regulatory Commission
Mail Stop O-15 D21
Washington, DC 20555-0001
(301) 415-4073
Michael.Spencer@nrc.gov

Dated at Rockville, Maryland
This 15th day of March 2010

¹⁴ The Staff points out that the ABWR EA included a consideration of whether accounting for offsite property damage would lead to a different conclusion regarding the identification of cost-beneficial SAMDAs, and the Staff concluded that it would not. See ABWR EA at 13. The Staff also notes that in accounting for offsite property costs, the ABWR EA relied upon a \$3000 per person-rem standard. See *id.* This means that the ABWR EA estimate of offsite property costs was directly related to an estimate of population dose risk (in person-rem), and the site parameter identified by the Staff is the ABWR TSD probability-weighted population dose risk.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

In the Matter of)
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NUCLEAR INNOVATION NORTH)
AMERICA LLC) Docket Nos. 52-012 & 52-013
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(South Texas Project, Units 3 & 4))

CERTIFICATE OF SERVICE

I hereby certify that copies of the "NRC Staff Petition for Review of the Licensing Board's Decision in LBP-11-07 Denying the NRC Staff Motion for Summary Disposition" have been served upon the following persons by Electronic Information Exchange this 15th day of March 2011:

Administrative Judge
Michael M. Gibson
Atomic Safety and Licensing Board Panel
Mail Stop – T-3 F23
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001
(E-mail: Michael.Gibson@nrc.gov)

Office of Commission Appellate
Adjudication
Mail Stop O-16C1
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
E-mail:OCAAmail@nrc.gov

Administrative Judge
Gary S. Arnold
Atomic Safety and Licensing Board Panel
Mail Stop – T-3 F23
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001
(E-mail: Gary.Arnold@nrc.gov)

Office of the Secretary
ATTN: Docketing and Service
Mail Stop: O-16C1
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
E-mail: HEARINGDOCKET@nrc.gov

Administrative Judge
Randall J. Charbeneau
Atomic Safety and Licensing Board Panel
Mail Stop – T-3 F23
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001
(E-mail: Randall.Charbeneau@nrc.gov)

Robert V. Eye, Esq.
Brett A. Jarmer, Esq.
Counsel for the Intervenor
Kauffman & Eye
Suite 202
112 SW 6th Ave.
Topeka KS 66603
bob@kauffmaneye.com
brett@kauffmaneye.com

Steven P. Frantz, Esq.
Stephen J. Burdick, Esq.
Alvin Gutterman, Esq.
John E. Matthews, Esq.
Counsel for the Applicant
Morgan, Lewis & Bockius, LLP
1111 Pennsylvania Ave., NW
Washington, DC 20004
E-mail:
sfrantz@morganlewis.com
sburdick@morganlewis.com
agutterman@morganlewis.com
jmatthews@morganlewis.com

/signed (electronically) by/
Michael A. Spencer
Counsel for the NRC Staff
U.S. Nuclear Regulatory Commission
Mail Stop O-15 D21
Washington, DC 20555-0001
(301) 415-4073
Michael.Spencer@nrc.gov