

RAS 10202

UNITED STATES OF AMERICA
 NUCLEAR REGULATORY COMMISSION **DOCKETED 07/28/05**

ATOMIC SAFETY AND LICENSING BOARD **SERVED 07/28/05**

Before Administrative Judges:

Dr. Paul B. Abramson, Chairman
 Dr. Anthony J. Baratta
 Dr. David L. Hetrick

In the Matter of

EXELON GENERATION COMPANY, LLC

(Early Site Permit for Clinton ESP Site)

Docket No. 52-007-ESP

ASLBP No. **04-821-01-ESP**

July 28, 2005

MEMORANDUM AND ORDER

(Ruling on Motion for Summary Disposition Regarding Contention 3.1
 and Petition for Admission of Amended Contention)

I. INTRODUCTION

On September 25, 2003, Exelon Generation Company, LLC ("EGC" or "Applicant") submitted an application to the Nuclear Regulatory Commission (the "Agency") for a 10 C.F.R. Part 52 early site permit ("ESP"), seeking approval of its site in DeWitt County, Illinois (approximately six miles east of Clinton, Illinois, and commonly referred to as the "Clinton Site") for the possible construction of one or more new nuclear reactors in addition to those already licensed and operating thereon. This decision presents the Licensing Board's rulings in respect of: (1) Applicant's motion to dismiss the single admitted environmental contention regarding energy alternatives jointly proffered by intervenors Environmental Law and Policy Center, Blue Ridge Environmental Defense League, Nuclear Information and Resource Service, Nuclear Energy Information Service, and Public Citizen (collectively, "Intervenors"); and (2) Intervenors' motion to amend that contention in light of information made available since the filing of the original Environmental Report ("ER") by the Applicant.

Contention 3.1, the Clean Energy Alternatives Contention, as admitted, states:

The Environmental Review fails to rigorously explore and objectively evaluate all reasonable alternatives. In Section 9.2 of the Environmental Report, Exelon claims to satisfy 10 C.F.R. § 51.45(b)(3), which requires a discussion of alternatives that is “sufficiently complete to aid the Commission in developing and exploring” “appropriate alternatives . . . concerning alternative uses of available resources,” pursuant to the National Environmental Policy Act. However, Exelon’s analysis is premised on several material legal and factual flaws that lead it to improperly reject the better, lower-cost, safer, and environmentally preferable wind power and solar power alternatives, and fails to address adequately a mix of these alternatives along with gas-fired generation and “clean coal” resource alternatives. Therefore, Exelon’s ER does not provide the basis for the rigorous exploration and objective evaluation of all reasonable alternatives to the ESP that is required by NEPA.¹

By letter dated September 23, 2004, the Applicant submitted additional information to the NRC Staff in response to Requests for Additional Information (“RAI”), copies of which were sent to the Intervenors.² That information, among other things, addressed alleged shortcomings in the ER by providing analyses of combinations of wind and solar generation with natural gas and/or clean coal-fired generation and by providing substantial new data, including responses incorporating material portions of the information Intervenors alleged in Contention 3.1 to be missing from the ER. Based in part on its RAI responses, on March 17, 2005, the Applicant moved for summary disposition of Contention 3.1, arguing, *first*, the original contention involved an asserted omission that has since been cured and therefore should now be dismissed as moot,³ and, *second*, in light of the new analyses, and examination and weighing of updated information, there remains no genuine issue of material fact regarding

¹ LBP-04-17, 60 NRC 229, 252 (2004).

² See Exelon’s Motion for Summary Disposition of Contention 3.1 (Mar. 17, 2005) at 2 n.3 [hereinafter Summary Disposition Motion].

³ See *id.* at 2, 13-15 (arguing contention moot because RAI response provides allegedly missing analyses, and incorporates and evaluates new and updated information, including that referred to by Intervenors).

wind and solar power and/or combinations thereof.⁴

In response, following a prehearing conference call⁵ and several exchanges of motions, responses, and orders among the Board and the Parties,⁶ on April 22, 2005, the Intervenors moved to amend the original contention to address the new or differing information now incorporated into the Applicant's documents and/or appearing in the Staff's Draft Environmental Impact Statement ("DEIS") regarding the Clinton ESP.⁷ These proposed amendments make three general assertions: *first*, notwithstanding this Board's original Order of August 6, 2004 rejecting an essentially identical challenge raised in Intervenors' initial petition to intervene,⁸ Intervenors repeat their contention that the ER, and now the DEIS, are flawed because they improperly accept a project purpose of baseload⁹ power production (thereby excluding, *ab initio*, consideration of energy efficiency alternatives); *second*, Intervenors contend that, because of the Applicant and/or Staff's use of erroneous and/or outdated data, the negative environmental effects of clean energy alternatives as well as those of combinations of wind, solar, and fossil

⁴ See *id.* at 2.

⁵ See Tr. at 450-71 (Apr. 4, 2005 Conference Call).

⁶ See, e.g., Intervenors' Response to Exelon's Motion for Summary Disposition of Contention 3.1 (Apr. 6, 2005) [hereinafter Intervenors' Response to Summary Disposition Motion]; Licensing Board Memorandum and Order (Denying, Following Reconsideration, Filing Extension Request) (Mar. 30, 2005) (unpublished) [hereinafter March 30 Order]; Licensing Board Memorandum and Order (Denying Filing Extension Request) (Mar. 23, 2005) (unpublished) [hereinafter March 23 Order].

⁷ See Intervenors' Motion to Amend Contention 3.1 (Apr. 22, 2005) [hereinafter Motion to Amend].

⁸ See LBP-04-17, 60 NRC at 245-46.

⁹ "Baseload" power plants are designed to operate continuously at a constant power level, as opposed to plants whose output is variable (either unintentionally because of variations in the energy source (e.g., solar, wind), or intentionally, where the equipment is capable, to follow the system load). System-wide fluctuations in demand are satisfied by peaking plants, which can respond to variable demand, including those caused by variations in power supplied by wind, solar, and other power suppliers whose power output varies with the natural conditions.

are overestimated while those for nuclear are underestimated, leading to an incorrect weighing of the alternatives vis-a-vis the proposed nuclear reactor(s); and, *third*, Intervenors contend that, also because of the use of erroneous and/or outdated data, the cost of power generated by wind and solar is inaccurately overestimated while that for new nuclear is underestimated, leading to an incorrect weighing of the alternatives.¹⁰

Before the Board, therefore, are two closely related motions whose resolution we herein treat concurrently:

- (a) the March 17, 2005 Motion for Summary Disposition of Contention 3.1 submitted by the Applicant, Exelon Generation Company, LLC; and
- (b) the April 22, 2005 Motion to Amend Contention 3.1 submitted by Intervenors.

For the reasons set forth in detail below, we find: (1) Intervenors' proposed Amended Contention 3.1 is inadmissible (primarily because, as discussed in depth below, they were impermissible challenges to our regulations which had been previously considered and rejected by this Board, the facts offered in support of the proposed amendment either did not differ at all or differed insignificantly from those considered by the Applicant, and because Intervenors have shown no genuine issue of material fact or law in the amended contention); (2) no genuine issue of material fact remains regarding Contention 3.1 as admitted, and the contention is

¹⁰ Regarding the examination of the "mix" of generation sources, EGC argues that the RAI response considers in detail these alternatives both separately and in a mix with gas-fired and coal resource alternatives. See Summary Disposition Motion at 13. EGC also continues to argue, however, that its goal is the generation of "baseload" power, and that the Board has ruled that it need only consider alternatives which can provide "baseload." See id. at 9-10. To be sure, the Board said "it is appropriate for the Applicant fully to consider its own business objectives and status as an independent power provider -- as opposed to a public utility -- as it analyzes alternatives." See LBP-04-17, 60 NRC at 246 (emphasis added). While these are EGC's stated goals and we have held that it is appropriate for EGC fully to consider its business objectives, independent of what is appropriate for the applicant, the NRC, as the agency taking the relevant "federal action," must satisfy the National Environmental Policy Act requirements to look at reasonable alternatives; thus the content of the DEIS can appropriately be examined to assure, in the context of Contention 3.1 as amended by Intervenors, that it addresses reasonable combinations. These matters are examined in depth in the body of this decision.

resolved in favor of the Applicant as moot; and (3) because no outstanding contention remains to be litigated in this proceeding, the contested portion of this proceeding is terminated.

II. BACKGROUND

Following the September 25, 2003 submission by EGC of its ESP application pursuant to Subpart A of Part 52 for an Early Site Permit for the possible construction of one or more new nuclear reactors at the Clinton Site, on December 8, 2003, the Commission issued a notice of hearing and opportunity to intervene in the EGC application, which was subsequently published in the Federal Register.¹¹ Under the Part 52 regulations, an application for an ESP allows the applicant and the Staff (and other interested parties) to address certain key site-related environmental, safety, and emergency planning issues before the applicant has made the decision to build or selected the specific design of a potential facility on that site.¹² The Intervenors responded to the Federal Register notice, filing with the Commission a joint request for a hearing and petition to intervene in the proceeding on the ESP application,¹³ which the Commission then referred to the Atomic Safety and Licensing Board Panel for consideration.¹⁴ On March 8, 2004, the Panel's Chief Administrative Judge issued an initial prehearing order which, among other things, established a May 3, 2004 deadline for filing contentions in this proceeding and permitted petitioners to supplement their initial petitions with additional

¹¹ 68 Fed. Reg. 69,426 (Dec. 12, 2003).

¹² See 10 C.F.R. Part 52, Subpart A.

¹³ See Hearing Request and Petition to Intervene By [the Intervenors] (Jan. 12, 2004). During this same time period, two other companies, Dominion Nuclear North Anna, LLC ("North Anna") and System Energy Resources, Inc. ("Grand Gulf"), also filed ESP applications. See LBP-04-17, 60 NRC at 235.

¹⁴ See CLI-04-08, 59 NRC 113 (2004).

standing-related information.¹⁵ Thereafter, a Licensing Board (“Standing/Contentions Board”) was constituted to adjudicate preliminary matters, including contention admissibility, in this proceeding.¹⁶

On March 22, 2004, the Standing/Contentions Board issued a Memorandum and Order scheduling an Initial Prehearing Conference for June 21, 2004.¹⁷ On May 3 and May 28, 2004, respectively, the Intervenor filed their contentions/supplemental petitions, and EGC and the Staff their responses.¹⁸ On June 21-22, 2004, the Standing/Contentions Board held a two-day prehearing conference at which the Intervenor, the Applicant, and the NRC Staff gave oral presentations regarding the standing of each of the Intervenor (then Petitioners) and the admissibility of proffered contentions.¹⁹

In an August 6, 2004 Memorandum and Order, the Standing/Contentions Board issued its ruling on standing and contention admissibility, finding that each of the Intervenor in the Clinton application had shown standing to intervene, but admitting only one of the several proffered contentions.²⁰ Specifically, the Standing/Contentions Board admitted a revised

¹⁵ See Licensing Board Panel Memorandum and Order (Initial Prehearing Order) (Mar. 8, 2004) at 2-3 (unpublished).

¹⁶ See 69 Fed. Reg. 15,910 (Mar. 26, 2004). To ensure efficiency and uniformity among the three ESP proceedings, three Licensing Boards, each with the same membership, were established to consider jointly preliminary matters in the ESP proceedings. See LBP-04-17, 60 NRC at 235, 236 n.3. For simplicity’s sake, we will hereafter refer to this first Board in the EGC ESP proceeding as the Standing/Contentions Board. All other references to the Licensing Board in this proceeding (e.g., the Board, this Board, we) refer to the Licensing Board as reconstituted on August 6, 2004. See 69 Fed. Reg. 49,916 (Aug. 12, 2004).

¹⁷ See Licensing Board Memorandum and Order (Scheduling Initial Prehearing Conference) (Mar. 22, 2004) (unpublished).

¹⁸ See LBP-04-17, 60 NRC at 236-37.

¹⁹ See *id.* at 237-38.

²⁰ See *id.* at 238-40, 245-46.

version of Environmental Contention (“EC”) 3.1 – The Clean Energy Alternatives Contention, finding that contention admissible only to the extent that it alleged: (a) a failure by the Applicant in its evaluation of energy resource alternatives in its power generation mix adequately to address a combination of wind, solar, natural gas-fired, and “clean coal” power generation; and (b) Applicant’s use of potentially flawed and/or outdated information regarding wind and solar power generation methods.²¹ This revision narrowed the scope of EC 3.1 (now referred to simply as Contention 3.1) to a considerable degree,²² as discussed further below. That same day, following its rulings on standing and contention admissibility, the membership of the Board was reconstituted, forming the current Board in this proceeding.²³

On August 23, 2004, the Intervenors filed with the Commission a petition for interlocutory review of the Standing/Contentions Board’s rejection of that portion of Contention 3.1 pertaining to energy efficiency issues.²⁴ The Commission issued a ruling on November 10, 2004, denying Intervenors’ petition for review, and expressing no view on the merits of the claim that the Standing/Contentions Board improperly excluded energy efficiency issues.²⁵

In the interim, the NRC Staff issued to the Applicant RAI E9.2-1, asking that EGC provide information to address the admitted contention. The Applicant responded to the RAI in

²¹ See id. at 246.

²² See id. at 252; supra p. 2. Specifically, the Standing/Contentions Board rejected portions of the Intervenors’ proffered Contention 3.1 pertaining to the “need for power” and “demand side management,” or energy conservation, as outside the scope of the proceeding and/or an impermissible challenge to Commission’s regulations, see LBP-04-17, 60 NRC at 245, and found that the Applicant need not consider alternative energy generation methods not typically used by an independent power provider, as such an analysis would essentially equate to a “need for power” analysis. See id.

²³ See 69 Fed. Reg. 49,916.

²⁴ See Petition of [Intervenors] for Interlocutory Review of the Licensing Board Panel’s Rejection of Energy Efficiency Alternatives Contention (Aug. 23, 2004).

²⁵ See CLI-04-31, 60 NRC 461 (2004).

a letter to the Staff dated September 23, 2004, providing an analysis of solar and wind power and combinations of wind and solar with coal and natural gas-fired facilities that, in combination, could generate baseload power equivalent to the proposed nuclear facility.²⁶ Following the circulation of the Applicant's response, on October 19, 2004, this Board held a prehearing conference call to discuss, among other things, the RAI response. During that call, the Staff advised the Board that it required time to review the response in order to determine whether to issue additional RAIs, and the Intervenors stated their position that, even taking into account the RAI response, the application was still deficient relative to the claims set out in Contention 3.1.²⁷

On March 2, 2005, the Staff issued its Draft Environmental Impact Statement ("DEIS") regarding the Applicant's ESP for the Clinton Site.²⁸ Chapter 8 of the DEIS contains an evaluation of the various alternative sources of power generation such as wind and solar, including combinations of alternatives that could generate baseload power equivalent to what would be generated by the Applicant's proposed ESP facility.²⁹ The Staff concluded, based in part on its review of the Applicant's ER and its RAI response, that wind and solar power, alone or in combination with other alternatives, are not reasonable alternatives to the proposed ESP facility.³⁰ In addition, the Staff concluded that a new nuclear unit at the Clinton Site is

²⁶ See Letter from S. Frantz, Counsel for EGC, to Licensing Board (Sept. 24, 2004), Encl. 2, at 4 [hereinafter RAI Response]. Though the Applicant provided the RAI responses to the Staff on September 23, those responses were not provided to the Board or parties (or, for that matter, added to the record in this proceeding) until September 24.

²⁷ See Tr. at 430-449; Licensing Board Memorandum and Order (Establishing Hearing Schedule) (Oct. 27, 2004) at 1 (unpublished).

²⁸ See Draft Environmental Impact Statement for an Early Site Permit (ESP) at the Exelon ESP Site, NUREG-1815 (Feb. 2005) [hereinafter DEIS].

²⁹ See *id.* at ch. 8.

³⁰ See *id.* at 8-16 to 8-18.

environmentally equivalent or preferable to a coal or natural gas-fired facility, or a reasonable combination of power generation alternatives.³¹

Following the Staff's issuance of its DEIS, on March 17, 2005, the Applicant filed a motion for summary disposition of Contention 3.1 and requested that, because no other contention has been admitted in this proceeding, the Intervenors be dismissed from the proceeding.³² Specifically, the Applicant argues that: (1) Contention 3.1 is a contention asserting an omission and, by providing the information sought by the Intervenors in that contention, the Applicant has cured the alleged omission;³³ (2) even if Contention 3.1 is not a contention of omission subject to cure, there is no genuine issue of material fact regarding wind or solar power or combinations thereof, and the Board should therefore dispose of the contention; and (3) should the Board grant summary disposition of Contention 3.1, we should also dismiss the Intervenors from the proceeding on this application given that no further contested issues will remain between the parties.³⁴ On April 6, 2005, the Intervenors and the Staff each submitted responses to the Applicant's motion. For their part, the Intervenors assert that neither of the Applicant's grounds for dismissal is supported by the record, in that: (1) Contention 3.1 is not a contention of omission subject to cure, and, even if the contention is so construed, those omissions have not been cured; and (2) genuine disputes of material fact remain between the parties regarding the environmental impacts and economic costs of new

³¹ See id. at 8-21 to 8-22.

³² See Summary Disposition Motion.

³³ Following the Applicant's motion, but prior to receiving responses from the Intervenors and the Staff, we issued two orders, each of which repeated our earlier finding that Contention 3.1 is indeed a contention of omission subject to cure, and further stated that any challenge to the substance of information supplied by the Applicant in its RAI response or the Staff in its DEIS must take the form of a motion to amend Contention 3.1 or to file a new contention. See March 30 Order at 2-3; March 23 Order at 1-4.

³⁴ See Summary Disposition Motion at 1-3.

nuclear power versus clean energy alternatives.³⁵ The Staff agreed with the Applicant to the extent that it avers that Contention 3.1 is a contention of omission which has been cured and is therefore moot, and that there is no genuine issue of material fact with respect to this contention.³⁶

Thereafter, on April 22, 2005, the Intervenors filed a motion to amend Contention 3.1, alleging that: (1) the energy alternatives discussions by the Applicant and the Staff wrongly accept as a project purpose the creation of baseload power, thereby improperly excluding reasonable energy efficiency alternatives; (2) the Applicant and the Staff underestimate the environmental impacts of a new nuclear facility and overestimate the impacts of clean energy alternatives, thereby incorrectly concluding that those alternatives are not preferable to new nuclear power; (3) the Applicant, on whose filings the DEIS heavily relies, improperly concludes that new nuclear power would be less costly than clean energy alternatives; and (4) the Applicant and Staff fail to adequately analyze combinations of clean energy sources, providing only an analysis that unfairly favors nuclear power.³⁷

On May 6, 2005, the Applicant and the Staff each responded to the Intervenors' motion. The Applicant contends that the Board should reject amended Contention 3.1 in that Intervenors motion: (1) does not satisfy the late-filing criteria or the general contention admissibility standards set out, respectively, at 10 C.F.R. §§ 2.309(c) and (f); (2) raises issues previously rejected by this Board; (3) improperly challenges certain Commission rules and/or regulations; and (4) fails to demonstrate that a genuine dispute of a material issue of law or fact

³⁵ See Intervenors' Response to Summary Disposition Motion at 1-2.

³⁶ See NRC Staff Answer to Exelon's Motion for Summary Disposition of Contention 3.1 (Apr. 6, 2005) at 1-2 [hereinafter Staff Response to Summary Disposition Motion]. The Staff, however, is silent on the issue of whether the Board should dismiss Intervenors from the proceeding on this Application.

³⁷ See Motion to Amend at 2-3.

exists relative to issues raised in the amended contention.³⁸ For its part, the Staff submits that each issue in the amended contention fails in some way to satisfy the Section 2.309(f) admissibility standards.³⁹ Finally, pursuant to a Board order,⁴⁰ on May 20, 2005, the Intervenors filed a reply in support of the motion to amend, asserting that, with regard to issues of environmental impacts, economic costs, and combinations of clean energy alternatives, the Applicant and the Staff have each failed to show that there is no genuine dispute of material fact.⁴¹

III. ANALYSIS OF INTERVENORS' MOTION TO AMEND CONTENTION 3.1

Before this Board are issues arising under the National Environmental Policy Act of 1969⁴² ("NEPA"), including one of first impression⁴³ generally originating from the restructuring (deregulation) of the electric industry since the last time the Agency considered an application

³⁸ See Exelon's Answer to Intervenors' Motion to Amend Contention 3.1 (May 6, 2005) at 1-2 [hereinafter Applicant Response to Motion to Amend].

³⁹ See NRC Staff Answer to Intervenors' Motion to Amend Contention 3.1 (May 6, 2005) [hereinafter Staff Response to Motion to Amend].

⁴⁰ See Licensing Board Order (Schedule for Intervenors' Reply) (May 10, 2005) (unpublished).

⁴¹ See Intervenors' Reply In Support of Motion to Amend Contention 3.1 (May 20, 2005) at 11.

⁴² See 42 U.S.C. §§ 4321 *et seq.*

⁴³ Though the Standing/Contentions Board, in its August 6, 2004 ruling on contention admissibility, said that it is appropriate for an Applicant to consider, in its analysis of alternatives, its own business objectives (*i.e.*, generation of baseload power), see LBP-04-17, 60 NRC at 245-46, that Board did not address the separate issue of what the Staff must appropriately examine in the context of its NEPA alternatives analysis. See *supra* note 10. This is the question we discuss at length in Part III.A., *infra*, of this ruling.

for construction of a new nuclear power plant. Our role here, vis-a-vis NEPA,⁴⁴ is to ensure that the agency has taken the requisite “hard look” at the potential environmental effects of the proposed action and its reasonable alternatives (within the general limitations and guidance discussed herein),⁴⁵ and “to ensure that the agency has adequately considered and disclosed the environmental impact of its actions”⁴⁶ Toward this end, the DEIS, and eventually the final environmental impact statement (“FEIS”), must contain a thorough, reasoned discussion of the relevant environmental considerations.⁴⁷

The Applicant here is not the parent holding company whose subsidiaries are engaged in the whole panoply of electric industry functions; rather, it is a subsidiary that is an independent power producer (“IPP”) whose sole business is that of the generation of electricity and the sale of energy and capacity (and other associated sellable generation-related commodities) at wholesale.⁴⁸ Like other IPPs, and unlike the fully integrated electric utilities that were applicants for previous nuclear power plant construction permits, the Applicant has no transmission or distribution system of its own and no direct link to the ultimate consumer.⁴⁹

In addition, the Applicant unequivocally asserts that it is dissimilar to many other IPPs in

⁴⁴ As stated in the hearing notice for this proceeding, see 68 Fed. Reg. at 69,427, the Board also must conduct a “mandatory hearing” in this proceeding regarding matters that were not the subject of admitted contentions, including matters relative to the Agency’s NEPA obligation.

⁴⁵ See Louisiana Energy Services, L.P. (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 87-88 (1998).

⁴⁶ Coalition on Sensible Transp., Inc. v. Dole, 826 F.2d 60, 66 (D.C. Cir. 1987) (citation omitted).

⁴⁷ See, e.g., Tongass Conservation Soc’y v. Cheney, 924 F.2d 1137, 1140 (D.C. Cir. 1991).

⁴⁸ See, e.g., Environmental Report for the Exelon Generation Company, LLC, Early Site Permit (Sept. 25, 2003) at 9-2.1, ADAMS Access. No. ML032721602 [hereinafter ER].

⁴⁹ See DEIS at 8-2 to 8-3.

that its sole business purpose is the generation of baseload power.⁵⁰ Thus, while other IPPs might well include in their business purposes the ownership and operation of wind or solar or geothermal powerplants, whose capability to generate energy varies with natural elements, EGC states its business purpose does not include generation technologies that cannot generate at full design capacity on a continuous basis. A significant issue in this proceeding, therefore, is the question of the extent to which the NEPA analysis should (or must) consider alternative power generation methodologies that cannot generate baseload power.

Intervenors' proffered Amended Contention 3.1 reads as follows:

Amended Contention 3.1: The Clean Energy Alternatives Contention

The Draft Environmental Impact Statement and Additional Filings by Exelon Fail To Rigorously Explore and Objectively Evaluate All Reasonable Alternatives. **Basis:** There are several serious shortcomings in the discussions of alternatives provided in the Draft EIS and Exelon filings. First, the discussions are flawed because they accept a project purpose – the creation of baseload power – that has not been evaluated and that improperly excludes reasonable energy efficiency alternatives. Second, the Draft EIS and Exelon filings overestimate the environmental impacts of clean energy alternatives and underestimate the impacts of new nuclear power to incorrectly conclude that clean energy alternatives are not environmental [sic] preferable to nuclear power. Third, the Exelon filings, which the Draft EIS heavily relies on, improperly conclude that new nuclear power would be less costly than clean energy alternatives. Fourth, the Draft EIS and Exelon filings fail to adequately analyze alternative clean energy sources in combination and instead provide an analysis that is unfairly biased in favor of nuclear power and overstates the impacts of combinations of alternatives. Each of these points demonstrates that this Amended Contention 3.1 is admissible because there continues to be “a germane [sic] dispute . . . on a material issue of law or fact” regarding the adequacy of the analysis of alternatives in this proceeding. 10 C.F.R. 2.309(f)(1)(vi).⁵¹

The challenges of the Intervenors can accordingly be divided into two fundamental categories:

- (1) those that challenge the narrowing of the scope of alternatives which must be examined;
- and (2) those that challenge particular data or assumptions employed by the Applicant in

⁵⁰ See, e.g., ER at 9.2-1; RAI Response at 14.

⁵¹ Motion to Amend at 2-3.

preparation of its ER and its responses to the Staff's RAIs and/or by the Staff in preparation of the DEIS.

The first set of challenges by the Intervenors is to the Applicant and Staff eliminating consideration of demand side management ("DSM"), or energy conservation, and to narrowing the scope of the NEPA alternatives analysis. The admissibility of these challenges hinges upon a determination of the appropriate scope of alternatives to be evaluated for an IPP whose sole business purpose is the ownership and operation of baseload power plants, and is considered in light of the body of law defining the necessary and appropriate scope of the alternatives examination.

The remaining challenges by the Intervenors reduce, at their core, to questions of the degree of precision required for, or the weight to be placed upon, analyses involving uncertain assumptions which affect certain specific elements of the environmental impacts of wind power and nuclear power, and of the relative financial costs (as opposed to environmental costs/impacts) of power generated by alternative sources when compared to the proposed new nuclear plant. Admissibility of these challenges is considered in light of the Commission precedents and regulations regarding contention admissibility, admissibility of a proposed amendment to an existing contention, and the required content of an ER or DEIS. Many of these factors are comparative in nature, requiring evaluation of whether a factor raises a genuine issue regarding a material fact, or uses or relies upon data (or makes conclusions) that differ significantly from that previously presented by the Applicant. They cannot, therefore, be evaluated in a vacuum, and must be considered against the background of the underlying analyses presented by the Applicant and by the Staff.

A. Challenges to Elimination of Demand Side Management and to Narrowing the Scope of Alternatives to Baseload Generation

1. NEPA and 10 C.F.R. Part 51 Regulations

The environmental contention at issue here arises under NEPA and the NRC regulations implementing the agency's responsibilities pursuant to that Act.⁵² NEPA and the Agency's 10 C.F.R. Part 51 regulations require the Staff to consider the potential environmental effects of any proposed "major Federal action significantly affecting the quality of the human environment," as defined by NEPA.⁵³ In this instance, the "major Federal action" which falls under the umbrella of NEPA is the determination by the NRC to issue, to deny, or to issue with conditions, the applied-for ESP. Additional guidance on implementing NEPA is available to federal agencies in regulations adopted by the Council on Environmental Quality ("CEQ").⁵⁴ These CEQ regulations are not, however, binding on the NRC because the Agency has not expressly adopted them; nevertheless, they have been considered and relevant concepts adopted by the NRC through its own Part 51 regulations.⁵⁵

⁵² See 42 U.S.C. §§ 4321 et seq.; 10 C.F.R. Part 51.

⁵³ NEPA requires that "all agencies of the Federal Government shall . . . include in every recommendation or report on . . . major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on (i) the environmental impact of the proposed action, (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented, (iii) alternatives to the proposed action, (iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented." See 42 U.S.C. § 4332(2)(C).

⁵⁴ See 40 C.F.R. Part 1500.

⁵⁵ The United States Court of Appeals for the Third Circuit has found, in this regard, that "the CEQ guidelines are not binding on an agency that has not expressly adopted them. The NRC has acknowledged its obligation to comply with NEPA, however, by issuing regulations governing the consideration of the environmental impact of the licensing and regulatory actions of the agency." Limerick Ecology Action, Inc. v. NRC, 869 F.2d 719, 725 (3d Cir. 1989) (citations omitted).

The NRC's Part 52, Subpart A regulations require an ESP applicant to file with its application an Environmental Report pursuant to the relevant portions of Part 51.⁵⁶ This ER must contain "a description of the proposed action, a statement of its purposes, and a description of the environment affected"⁵⁷ Generally, an ER must also, among other things, discuss: (1) the impact of the proposed action on the environment, with impacts "discussed in proportion to their significance",⁵⁸ and (2) alternatives to the proposed action, with that discussion being "sufficiently complete to aid the Commission in developing and exploring, pursuant to Section 102(2)(E) of NEPA, 'appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources.'"⁵⁹ The analysis in the ER must consider and balance "the environmental effects of the proposed action, the environmental impacts of alternatives to the proposed action, and alternatives available for reducing or avoiding adverse environmental effects . . . includ[ing] consideration of the economic, technical, and other benefits and costs of the proposed action and of alternatives. . . ."⁶⁰ Notwithstanding this general guidance, for an ESP the ER "need not include an assessment of the benefits (for example, need for power)"⁶¹ Finally, with regard to uncertainties in data or assumptions, while the analysis "shall, to the fullest extent practicable, quantify the various factors considered[, t]o the extent that there are . . . factors that

⁵⁶ See 10 C.F.R. § 52.17.

⁵⁷ Id. § 51.45(b).

⁵⁸ Id. § 51.45(b)(1).

⁵⁹ Id. § 51.45(b)(3).

⁶⁰ Id. § 51.45(c).

⁶¹ Id. § 52.17(a)(2) (emphasis added).

cannot be quantified, those . . . factors shall be discussed in qualitative terms. . . .”⁶²

In addition, the regulations require the Staff to review the ER and to prepare a draft environmental impact statement pursuant to the applicable provisions of Part 51.⁶³ While the Staff may rely on the ER in preparation of its EIS, it must also “independently evaluate and be responsible for the reliability of all information used in the [DEIS].”⁶⁴ As with the ER, generally a DEIS “should also include consideration of the economic, technical, and other benefits and costs of the proposed action and alternatives and indicate what other interests and considerations of Federal policy, including factors not related to environmental quality if applicable, are relevant to the consideration of environmental effects of the proposed action”⁶⁵ In the particular case of an application for an early site permit, however, as with the ER, the EIS “need not include an assessment of the benefits (for example, need for power) of the proposed action”⁶⁶

2. Board Ruling

As noted above, the Intervenors have presented challenges both to the Standing/Contentions Board’s exclusion of demand side management (energy efficiency) alternatives and to the Applicant and Staff narrowing the scope of alternatives considered to those that can produce baseload power. We treat these issues in reverse order.⁶⁷

⁶² Id. § 51.45(c).

⁶³ Id. § 52.18.

⁶⁴ Id. § 51.70(b).

⁶⁵ Id. § 51.71(d).

⁶⁶ Id. § 52.18.

⁶⁷ As an initial matter, for the reasons discussed in Part III.B.1., infra, we need not address issues relative to the timeliness of these proffered challenges.

a. Narrowing the Scope of Alternatives to Baseload Generation

Regarding narrowing the scope of alternatives to baseload generation technologies, Intervenor's first proposed amendment to the original contention alleges that it is improper for the DEIS to accept the project purpose as "baseload power for sale on the wholesale market," and that "reliance on such a purpose is arbitrary and capricious" ⁶⁸ Because no authority is proffered for this proposition, we begin by noting NEPA's requirement that federal agencies, when considering the environmental impacts of their proposed actions in their decision-making process, must take a "hard look" at the environmental impacts of a proposed action, and at reasonable alternatives to that action. ⁶⁹ The inquiry is, however, more focused than this guidance might at first glance appear, as the Agency "need only discuss those alternatives that are reasonable and 'will bring about the ends' of the proposed action."⁷⁰ Toward that end, where, as here, "a federal agency is not the sponsor of the project, 'the Federal government's consideration of alternatives may accord substantial weight to the preferences of the applicant . . . in the . . . design of the project."⁷¹ The Commission has determined that the Agency "may take into account the economic goals of the project's sponsor,"⁷² and has further recognized

⁶⁸ Motion to Amend at 8-9 (citations omitted). It should be noted that the Applicant's project purpose is distinct from the NRC's purpose. The NRC's purpose is shaped by its function as a regulatory agency and, from its perspective, the purpose and need for the proposed action (issuance of the ESP) "is to provide stability in the licensing process by addressing safety and environmental issues before plants are built, rather than after construction is completed." See DEIS at 1-6.

⁶⁹ See, e.g., Claiborne, CLI-98-3, 47 NRC at 87-88.

⁷⁰ Hydro Resources, Inc. (P.O. Box 15910, Rio Rancho NM 87174), CLI-01-4, 53 NRC 31, 55 (2001) (quoting Citizens Against Burlington v. Busey, 938 F.2d 190, 195 (D.C. Cir.), cert. denied, 502 U.S. 994 (1991)).

⁷¹ City of Grapevine v. Dep't of Transp., 17 F.3d 1502, 1506 (D.C. Cir. 1994) (quoting Citizens Against Burlington, 938 F.2d at 197-98).

⁷² HRI, CLI-01-4, 53 NRC at 55 (emphasis added) (quotation marks and citation omitted).

that it “should take into account the needs and goals of the parties involved in the application.”⁷³

NEPA “does not require that the agency select any particular options . . . [it] ‘simply prescribes the necessary process.’”⁷⁴

Furthermore, in urging that the NRC should look at energy conservation and a broader scope of other alternatives to the proposed nuclear facility, the Intervenor are, in essence, contending that the NEPA alternatives study should address the broad and general goal of satisfying the electricity needs toward which the proposed nuclear facility is directed.

Intervenor are misguided in that belief: an agency need not consider alternative ways to achieve a general goal (such as, in the instant case, balancing the electricity supply and demand); it should, instead, focus upon evaluating the alternative means by which a particular applicant reaches its goals.⁷⁵

Thus, in the instant case, NEPA and the decisions interpreting it advise us quite clearly that the Staff should take into account the Applicant’s business purpose (goals and needs) of owning and operating baseload power plants at the Clinton Site. The Staff has indeed adopted that viewpoint, indicating that the proposal at issue is one of baseload power generation via

⁷³ Id. at 55-56 (emphasis added) (citation omitted).

⁷⁴ Id. at 44 (citation omitted).

⁷⁵ As stated by the United States Court of Appeals for the District of Columbia Circuit:

In commanding agencies to discuss “alternatives to the proposed action,” however, NEPA plainly refers to alternatives to the “major *Federal* actions significantly affecting the quality of the human environment,” and not to alternatives to the applicant’s proposal. An agency cannot redefine the goals of the proposal that arouses the call for action; it must evaluate the alternative ways of achieving *its* goals, shaped by the application at issue and by the function that the agency plays in the decisional process. Congress did expect agencies to consider an applicant’s wants when the agency formulates the goals of its own proposed action. Congress did not expect agencies to determine for the applicant what the goals of the applicant’s proposal should be.

Citizens Against Burlington, 938 F.2d at 199 (emphasis in original) (citation omitted).

nuclear power, to which there are a variety of alternatives, such as via fossil fuel or a combination of varying power sources, including solar or wind with a storage device or, as discussed above, in combination with a fossil-fired plant. Those alternatives, and only those alternatives, are addressed in the DEIS.⁷⁶ In the current context, “reasonable” alternatives may be limited to those which involve power generation (as opposed to demand side management efforts such as conservation), and to those technologies which can, singly or in combination, generate baseload power.⁷⁷ Moreover, in seeking to pose an admissible challenge to the ER or DEIS discussion regarding alternatives, the burden is upon the Intervenor to propose reasonable alternatives by which baseload power could be generated,⁷⁸ and in this case the

⁷⁶ See DEIS Sections 8.2.2, 8.2.3. The Staff takes the position that only alternatives that can generate baseload power must be considered, asserting that “any feasible alternative to the proposed action would also need to generate baseload power.” Staff Response to Motion to Amend at 10. In fact, the Staff argues persuasively that “[t]he DEIS rejects clean energy alternatives [without storage devices] because they are not a viable, stand-alone alternative source of baseload power.” *Id.* at 11. Therefore, the Staff argues, the environmental impacts of wind power, for example, by itself “are immaterial because, based on the intermittent nature of the wind resource, wind power is not a suitable source of baseload capacity.” *Id.* (citing DEIS at 8-17).

⁷⁷ NEPA analysis may be restricted to alternatives that are “reasonable,” so long as the analysis does not reduce the set of alternatives to a null set. See *infra* note 84. The Intervenor cites *Simmons v. United States Army Corps of Eng’rs*, 120 F.3d 664, 669 (7th Cir. 1997), for the proposition that an agency need not rely on an applicant’s definition of the project’s purpose when defining reasonable alternatives. See Intervenor’s Response to Summary Disposition Motion at 3; Motion to Amend at 8. The Commission, however, adopting the approach of the District of Columbia Circuit, has directed consideration of an applicant’s definition of a project purpose when formulating NEPA alternatives. *HRI*, CLI-01-04, 53 NRC at 55 (holding that when a project is sponsored by a private applicant, the federal agency may “accord substantial weight to the preferences of the applicant” and “take into account the ‘economic goals of the project’s sponsor’”) (citing *Citizens Against Burlington*, 938 F.2d at 197; *City of Grapevine*, 17 F.3d at 1506). We do not view these two approaches as incompatible here, given the facts that: (a) there are several alternative ways to generate baseload power which have been examined by the Applicant; (b) the Staff has examined a multitude of alternatives, including some which cannot generate baseload power; and (c) Intervenor has failed to show that any of its proposed alternatives are even arguably competitive baseload alternatives.

⁷⁸ Cf. *Vermont Yankee Nuclear Power Corp. v. Natural Res. Def. Council, Inc.*, 435 U.S. 519, 553 (1978); see also, e.g., *Morongo Band of Mission Indians v. Fed. Aviation Admin.*, 161

only additional reasonable alternatives suggested by Intervenor and previously admitted to this proceeding are the combinations of wind and solar with fossil, all of which have now been examined.⁷⁹

b. Demand Side Management

The Intervenor also repeat their challenge to the Standing/Contentions Board's earlier ruling that neither the Applicant nor the Staff need examine DSM as an alternative in the NEPA analysis, in that it allegedly "constrains the alternatives in the analysis in violation of NEPA by improperly rejecting reasonable energy efficiency alternatives."⁸⁰ This argument challenging elimination of DSM from the scope of alternatives to be examined has already been determined by the Standing/Contentions Board as it relates to the ER,⁸¹ with the Commission declining to consider Intervenor's petition for interlocutory review of that determination.⁸²

Two fundamental factors caused this challenge to fail when it was first raised by the Intervenor, and hold true for our instant analysis: first, demand side management, no matter how it is characterized, remains an alternative to generation of power, and examination of such an option is nothing more than a surrogate for examination of the "need" for power which is

F.3d 569, 576 (9th Cir. 1998) (implying that burden is on party challenging agency action to offer feasible alternatives); Olmsted Citizens for a Better Community v. United States, 793 F.2d 201, 209 (8th Cir. 1986) (same).

⁷⁹ Accordingly, any challenge by the Intervenor alleging that the Staff must analyze alternatives other than those with the capability to produce baseload power is inadmissible as outside the scope of this proceeding. See infra, Part III.B.1.; see also LBP-04-17, 60 NRC at 241.

⁸⁰ Motion to Amend at 9.

⁸¹ See LBP-04-17, 60 NRC at 245-46.

⁸² See CLI-04-31, 60 NRC 461. In declining the Intervenor's petition for interlocutory review of the Standing/Contentions Board's determination, the Commission expressed no view on the merits of the Intervenor's claim.

expressly not required pursuant to Sections 52.17(a)(2) and 52.18;⁸³ and, second, in the current context, because the Applicant has no business connection to the end users of its electricity and therefore no ability to implement DSM, DSM is not a “reasonable alternative” and NEPA itself, therefore, does not require its examination.⁸⁴

Intervenors present no argument, and nothing else presented to us suggests, that the additional information submitted by the Applicant since its original ER or the content of the DEIS should, in any manner whatsoever, alter this conclusion.⁸⁵ Therefore, we repeat and confirm the earlier holding by the Standing/Contentions Board that demand side management need not be considered. This is the case for the ER, the DEIS, and the Staff’s forthcoming FEIS.

For the foregoing reasons, we find: (a) no merit in the Intervenors’ argument that it is

⁸³ In this vein, any challenge by the Intervenors alleging a failure of the Applicant or Staff to consider DSM as an alternative constitutes an impermissible challenge to Commission regulations and is therefore inadmissible. See infra Part III.B.1; see also LBP-04-17, 60 NRC at 241.

⁸⁴ The mere elimination of this one alternative does not so narrow the scope of alternatives being examined as to run afoul of the line of cases standing for the proposition that the scope of alternatives cannot be so narrowed as to result in no alternative but the proposed action. See Citizens Against Burlington, 938 F.2d at 196 (“an agency may not define the objectives of its action in terms so unreasonably narrow that only one alternative from among the environmentally benign ones in the agency’s power would accomplish the goals of the agency’s action, and the EIS would become a foreordained formality”); City of New York v. Dep’t of Transp., 715 F.2d 732, 743 (2d Cir. 1983) (“an agency will not be permitted to narrow the objective of its action artificially and thereby circumvent the requirement that relevant alternatives be considered”).

⁸⁵ Specifically, the project’s purpose is set forth in the EGC filings and DEIS as the production of “baseload power for sale on the wholesale market,” and neither the information contained in the responses to RAIs nor that contained in the DEIS in this regard use data or reach conclusions that are “materially different” or “differ significantly” from what is stated in the Applicant’s ER. Section 9.2.2 of the ER states that the “ESP application is premised on the installation of a facility that would primarily serve as a large base-load generator and that any feasible alternative would also need to be able to generate base-load power,” and Section 1.1 of the Administrative Information portion of EGC’s ESP Application states that the purpose of the Application is “to set aside the proposed site for future energy generation and sale on the wholesale energy market.” In this regard, we note that neither the DEIS nor the subsequent EGC filings present new information – they merely repeat information set out clearly in the ESP Application, including the ER, which was filed in September 2003.

improper for the Agency to consider the business goals of the Applicant in establishing the scope of alternatives the Agency will examine; and (b) that elimination of DSM and of generation methodologies that cannot generate baseload power was fully appropriate in the instant circumstances. Those portions of Intervenors' proposed amendment are therefore inadmissible.

B. Challenges to Allegedly Erroneous and/or Outdated Data

1. Legal Standards for Contention Admissibility

Under the Commission's 10 C.F.R. Part 2 rules of practice, requests for hearings or petitions to intervene and proposed contentions must be filed within a period of time specified in 10 C.F.R. § 2.309(b). A request that should have been filed within such a time period, but was not, constitutes a "nontimely" filing which, pursuant to 10 C.F.R. § 2.309(c), will not be considered by a Licensing Board absent a showing that, based upon a balancing of eight factors, the request should be entertained. In addition to the requirement that a contention be filed within a specified period of time (or be shown to satisfy the criteria for admissibility if it is "nontimely"), a contention must satisfy the substantive admissibility criteria set out in 10 C.F.R. § 2.309(f)(1).

In addition to these general provisions, 10 C.F.R. § 2.309(f)(2) provides the process for determining the admissibility of contentions based upon information which was not available at the time the "petition was filed," and, impliedly, also deals with situations in which "new" information is added to the record. Section 2.309(f)(2) contains provisions for addressing two substantively different situations: *first*, it addresses issues arising under NEPA, providing that "[t]he petitioner may amend [previously admitted] contentions or file new contentions if there are data or conclusions in the NRC draft or final environmental impact statement, environmental assessment, or any supplements relating thereto, that differ significantly from the data or

conclusions in the applicant's documents" (*i.e.*, contentions based upon the content of the Staff's NEPA review document(s)); and, *second*, it focuses on contentions arising out of other new information, providing that:

Otherwise, contentions may be amended or new contentions filed after the initial filing only with leave of the [Board] upon a showing that--

- (i) The information upon which the amended or new contention is based was not previously available;
- (ii) The information upon which the amended or new contention is based is materially different than information previously available; and
- (iii) The amended or new contention has been submitted in a timely fashion based on the availability of the subsequent information.⁸⁶

The provisions of Section 2.309(f)(2) prescribe the process for considering, among other things, the "timing" of submission of a contention; they do not eliminate the substantive requirements for the content of a new contention, or an amendment to an existing contention. Should the petitioner (or, as here, intervenor) make a sufficient showing as to the relevant portion of Section 2.309(f)(2), the proffered new or amended contention still must meet the standard admissibility requirements of Section 2.309(f)(1). Because the Standing/Contentions Board discussed the Section 2.309(f)(1) general standards for contention admissibility in a previous decision in this case, we will not repeat that discussion in depth here.⁸⁷ We note, however, that Sections 2.309(f)(1)(iv) and (vi) are particularly pertinent to the issues currently before us, the former requiring the Intervenors to demonstrate that the issue(s) raised in the contention are material to the findings the NRC must make to support the applied-for ESP, and the latter requiring the Intervenors to show that a genuine dispute as to a material issue of law or fact exists between them and the Applicant sufficient to warrant further inquiry.

⁸⁶ 10 C.F.R. §§ 2.309(f)(2)(i)-(iii) (emphasis added).

⁸⁷ See LBP-04-17, 60 NRC at 240-43.

As an initial matter, prior to the Intervenor's filing of the motion to amend, the Board made two rulings regarding procedural matters relating to the filing of that motion. First, in a March 30, 2005 memorandum and order, we found that, based on prior agreement of the Parties, it was appropriate that new information provided by the Applicant in its RAI response need not be addressed (including by the Intervenor's via a motion to admit a new or amended contention, should they so desire) until after issuance of an EIS.⁸⁸ In other words, we found it appropriate following the issuance of the Staff's DEIS that the Parties "address all additional information provided since release of the ER," including that supplied in the RAI response, and that any timeliness determinations would therefore be based upon the date the DEIS was issued.⁸⁹ Second, in a subsequent conference call, as memorialized in an April 6, 2005 memorandum, we ruled (upon a request by Intervenor's) that a filing regarding a new or amended contention relative to the DEIS and/or new information provided by the Applicant would not be untimely if filed within forty-five days of issuance of the DEIS, i.e., on or before April 22, 2005.⁹⁰

In the instant case, the Intervenor's filed an amended contention that raises issues regarding both parts of Section 2.309(f)(2) discussed above: as it relates to the Staff's DEIS, the contention falls under the first part of this Section, and as it relates to the Applicant's RAI response, the contention falls under the second part. The first part of Section 2.309(f)(2) is not

⁸⁸ See March 30 Order at 3-4.

⁸⁹ See id. at 5. Therefore when addressing, infra, the questions of whether data or conclusions in the DEIS "differ significantly," or new information is "materially different," the new information/data/conclusions will be compared with that found in the Applicant's original ER, *i.e.*, prior to submitting any RAI responses or other additional information.

⁹⁰ See Tr. at 460; Licensing Board Memorandum (Clarifying March 30 Memorandum and Order; Memorializing April 4 Conference Call) (Apr. 6, 2005) at 3 (unpublished). Though the Staff issued its DEIS on March 2, 2005, it was not circulated to the Intervenor's until March 8, 2005; we therefore held the forty-five day clock began on March 8. See Tr. at 456.

a new regulation; in fact, under the Commission's old Part 2 rules of practice, it appeared at 10 C.F.R. § 2.714(b)(2)(iii).⁹¹ The Commission has stated, on more than one occasion, that the phrase "differ significantly" neither adds to or takes away from any of the admissibility requirements in either Section 2.309(c)⁹² or Section 2.309(f)(1).⁹³ Instead, "information regarding the applicant's environmental report and the Staff's environmental review documents is relevant to the 'good-cause' factor" found at Section 2.309(c)(1)⁹⁴ which may be satisfied, generally, by a showing that (1) the information on which the contention is based is new so that the petitioner could not have **presented it at an** earlier time; and (2) the petitioner filed the contention promptly after learning of the new information.⁹⁵

The second part of Section 2.309(f)(2) is, however, newly-enacted and therefore has not been the subject of prior Commission interpretation. Nonetheless, the substance of this part of Section 2.309(f)(2) bears a striking resemblance to the Commission's interpretation of the first

⁹¹ The Part 2 rules of practice were revised on January 14, 2004, see 69 Fed. Reg. 2,182, and the new rules apply to all proceedings noticed on or after February 13, 2004. Although the instant proceeding was noticed prior to the effectiveness date of the new Part 2, the Commission found that applying the new rules would not result in any unwarranted delay, added burden, or unfairness, and thus determined that the new Part 2 rules would apply to this proceeding. See CLI-04-08, 59 NRC at 118-19.

⁹² Formerly found, in relevant part, at 10 C.F.R § 2.714(a)(1).

⁹³ Formerly found, in relevant part, at 10 C.F.R. § 2.714(b). In this regard, the Commission expressly has held that, in promulgating the change which adopted the "differ significantly" requirement for the predecessor to Section 2.309(f)(2), it was neither establishing an additional criterion for, nor eliminating any of the criteria set out in, the provisions of 2.714(a) [now, in relevant part, Section 2.309(c)]; rather, it held that "a showing that the Staff's environmental review documents significantly differ from the applicant's environmental report, although ordinarily sufficient to show good cause for lateness, is not by itself sufficient to make an environmental contention admissible, because the petitioner must still meet the other criteria in section 2.714(a)." Sacramento Municipal Utility District (Rancho Seco Nuclear Generating Station), CLI-93-12, 37 NRC 355, 362, 363 (1993).

⁹⁴ See id. at 362.

⁹⁵ See Texas Utilities Electric Co. (Comanche Peak Steam Electric Station, Units 1 and 2), CLI-92-12, 36 NRC 62, 69-73 (1992).

part of that Section. In the Board's view, the two requirements for a good cause showing, "new information" and "promptly filed," are analogous to the requirements of Sections 2.309(f)(2)(i) (information not previously available) and (f)(2)(iii) (submitted in a timely fashion).⁹⁶

This leaves for interpretation what is intended by Section 2.309(f)(2)(ii) (based on "materially different" information) and how that requirement relates to the Section 2.309(f)(2) requirement that data or conclusions in the Staff's environmental review document "differ significantly" from data or conclusions in the applicant's ER. As noted above, under the old Part 2 rules, the "differ significantly" requirement appeared at 10 C.F.R. § 2.714(b)(2)(iii). Section 2.714(b)(2)(iii) also contained additional substantive requirements, including that the intervenor provide "[s]ufficient information . . . to show that a genuine dispute exists with the applicant on a material issue of law or fact," which is incorporated under the new rules in Section 2.309(f)(1)(vi).⁹⁷ In addition, our new rules contain a second "materiality" requirement in Section 2.309(f)(1)(iv), stating that, for a contention to be admissible, it must be "material to the findings the NRC must make to support the action that is involved in the proceeding." This latter requirement also appears to have its roots in the former Section 2.714(b)(2)(iii). In the Board's judgment, therefore, these correlations clearly advise that the requirement of Section 2.309(f)(2) that data or conclusions "differ significantly" is inextricably intertwined with the requirements that the newly supplied information be material to the outcome of the proceeding.⁹⁸ In other words, data or conclusions cannot be significantly different if they are not

⁹⁶ In fact, in the Commission's only substantive ruling related to Sections 2.309(f)(2)(i)-(iii), in citing those subsections, the Commission also provided a citation to the "good cause" prong of the late-filing standards found at Section 2.309(c)(1). See Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 NRC 631, 636 n.5 (2004).

⁹⁷ Compare 10 C.F.R. § 2.714(b)(2)(iii) (repealed 2004) with 10 C.F.R. § 2.309(f)(1)(vi).

⁹⁸ See id. §§ 2.309(f)(1)(iv), (vi).

material to the determination the Staff must make under NEPA. And new information, found here in the RAI response, cannot be “materially different” than that found in the original ER if it does not raise a genuine dispute on a material issue of law or fact. Thus, there is a clear analogy between the requirement that data or conclusions “differ significantly,” as required by Section 2.309(f)(2), and the requirement that information be “materially different,” as required by Section 2.309(f)(2)(ii).

Because of these analogies between the first and second parts of Section 2.309(f)(2), the Board analyzes Intervenors’ challenges with regard to the DEIS and to the RAI response in the same manner. First, because Intervenors filed the motion to amend within that forty-five day “safe harbor” established by the Board in our April 6 Order, we need not address any issues of timeliness (or untimeliness), either in the context of “good cause” or Section 2.309(f)(2)(iii). Second, because we have held that the baseline for judgment of the newness of information is the original ER, and the proffered amended contention is based on information supplied since then, we find that these contentions are based upon “new information” that was “not previously available.”⁹⁹

This leaves for the Board the question of materiality: whether the Intervenors’ challenges, presented in the form of an amended contention, pose matters material to the outcome of this proceeding. And, of course, in addition to such a determination is the requirement that each portion of the amended contention must meet the other general Section 2.309(f)(1) requirements for contention admissibility. Accordingly, an assessment of the Intervenors’ challenges to allegedly erroneous and/or outdated data relative to the issue of

⁹⁹ The information challenged was not available at the time Intervenors filed their original intervention petition and contentions; indeed, the fact that the information later provided by the Applicant in the RAI response was lacking in the original application forms the basis for Contention 3.1 as admitted, and, given that the DEIS was issued approximately nine months following the Intervenors’ petition, this information is also “new” as compared to the ER.

materiality and those other requirements set forth at Section 2.309(f)(1) follows.

2. Board Ruling

Issues raised by challenges to the data can only be understood in the context of the underlying analyses presented by the Applicant in its ER and responses to RAIs and by the Staff in the DEIS. We examine those analyses below.

In its ER, the Applicant analyzed the environmental impacts of the proposed 2180 megawatt (“MW”) nuclear facility, whose specific design has not yet been selected, but whose overall characteristics are within certain parameters defined in the ER. The Applicant then examined a set of alternative ways to generate the desired 2180 MW, including: wind power coupled with energy storage mechanisms (the Applicant concluded that energy storage mechanisms are too expensive to make the combination a practical baseload generation alternative);¹⁰⁰ solar power also coupled with energy storage mechanisms (also determined by the Applicant to be too expensive to be a practicable alternative);¹⁰¹ fuel cells (technology insufficiently matured);¹⁰² geothermal power (unavailable in Illinois);¹⁰³ hydropower (no suitable sites in Illinois);¹⁰⁴ burning wood waste or other biomass (insufficient “fuel” supplies in Illinois);¹⁰⁵ burning municipal solid waste (high capital costs and lack of environmental advantages when compared to coal fired plants);¹⁰⁶ burning “energy crops” (high capital costs and lack of

¹⁰⁰ ER at 9.2-7.

¹⁰¹ Id. at 9.2-8.

¹⁰² Id. at 9.2-10 to 9.2-11.

¹⁰³ Id. at 9.2-8.

¹⁰⁴ Id.

¹⁰⁵ Id. at 9.2-9.

¹⁰⁶ Id. at 9.2-9 to 9.2-10.

environmental advantages);¹⁰⁷ oil-fired (high fuel costs and lack of environmental advantages as compared to coal);¹⁰⁸ coal-fired (deemed a competitive alternative);¹⁰⁹ and natural gas-fired (deemed a competitive alternative).¹¹⁰

In response to the admission of Contention 3.1 and RAIs from the Staff, the Applicant revised its analysis of wind and solar energy, including the impacts comparison, and its analysis of alternatives, to which it added an analysis of combinations of either a clean coal or natural gas-fired plant to a wind and solar combination.¹¹¹ It is of particular import to note that, in analyzing this last alternative, the Applicant had, as a premise, that the combined plant must be able to generate 2180 MW at all times.¹¹² This led to the inevitable conclusion that the fossil-fired portion of the combination must have the full 2180 MW capacity, because there are undoubtedly times at night (no solar power production) when the wind will not be blowing.¹¹³ In assessing the environmental impacts of this combination, the Applicant noted that it had already determined that the environmental impacts from a natural gas-fired plant are less than those of

¹⁰⁷ Id. at 9.2-10.

¹⁰⁸ Id.

¹⁰⁹ Id. at 9.2-11.

¹¹⁰ Id. at 9.2-11 to 9.2-12.

¹¹¹ See RAI Response.

¹¹² See id. at 14.

¹¹³ See id. at 15. Wind resources are generally characterized by wind power density classes, meaning that at a height of fifty meters (approximately 164 feet) each class produces a particular average windspeed ranging from Class 1 (less than 12.5 miles per hour (mph)) to Class 7 (greater than 19.7 mph). See Summary Disposition Motion at 18. Class 4 wind sites (15.7-16.8 mph), the highest class found in Illinois, are regarded as potentially economical as a source of energy production, and Class 3+ sites may, with advances in technology and financial support, also be economical. See id.

a clean coal-fired plant.¹¹⁴ It then noted that a natural gas-fired plant would be better able to provide the varying power needs to fill shortfalls in power from wind and solar, and therefore concluded that the better combination would be natural gas with wind and solar.¹¹⁵ Therefore, for the purpose of computing environmental impact, it considered the natural gas-fired combination. However, because coal has been estimated to produce lower-cost power than natural gas, for its economic comparison, EGC considered a combination with a coal-fired plant.¹¹⁶ This split evaluation, while clearly an inaccurate representation of any particular combination, puts an alternative combined facility in the best possible light by minimizing both environmental impacts and costs of power production. Even with this “spin,” the Applicant concluded that the combined plant would have environmental impacts that are equal to or greater than the proposed nuclear facility,¹¹⁷ and that the cost of power produced by the combined plant would not be competitive with the proposed nuclear facility.¹¹⁸

In Section 8.2.2 of the DEIS, the Staff presented analyses of coal-fired and natural gas-fired generation. Stating that it reviewed the Applicant’s analyses and conducted its own evaluation, the Staff also presented brief discussions and conclusions regarding wind, geothermal, hydro, solar, wood waste, municipal solid waste, other biomass-derived fuels, fuel cells, and oil-fired generation.¹¹⁹ In addition, the Staff examined, as one of many possible combinations of alternatives, a combination of three 550 megawatts electric (“MW(e)”) natural

¹¹⁴ RAI Response at 15.

¹¹⁵ Id.

¹¹⁶ Id.

¹¹⁷ Id. at 17.

¹¹⁸ Id. at 17-18.

¹¹⁹ See DEIS at 8-15 to 8-21.

gas-fired turbines with 60 MW(e) of wind, hydropower, or pumped storage, 90 MW(e) from biomass, and 400 MW(e) of purchased power, conservation, and DSM.¹²⁰ The Staff concluded that the environmental impacts of the proposed new nuclear facility were either equivalent to, or preferable to, the reasonable alternatives, which it found to be natural gas-fired, coal-fired, or the combination mentioned above.¹²¹

It is against this background that we consider the admission (or rejection) of the portions of Contention 3.1 and of Intervenors' proposed amendments thereto that focus on specific alleged errors in data or assumptions. These portions of the challenges raised by Intervenors are, in essence, a number of specifically alleged errors in assumptions and/or data used in the Applicant's and/or the Staff's analyses of the environmental impacts of the proposed nuclear facility or in alternatives thereto, or in analysis of the relative cost of power produced thereby.

As we discussed above, for an amendment to a contention based upon such challenges to be admissible, those alleged errors must be in data or assumptions that are significantly different from those challenged in the original ER, meaning that the alleged differences would lead to definitively and materially different results, either in the assessment of the environmental impact of a particular generation option or of the "benefits" which such an option creates. And, as we earlier noted,¹²² with respect to certain challenges to cost-related analyses used in the "benefits" side of the balance, the NRC's regulations expressly provide that, in an ESP case, both the ER and the DEIS "need not include an assessment of the benefits . . . of the proposed action";¹²³ *i.e.*, Agency regulations expressly permit exclusion of

¹²⁰ See *id.* at 8-21 to 8-22.

¹²¹ See *id.* at 8-22; tbl. 8-4.

¹²² See *supra* pp. 16-17.

¹²³ See 10 C.F.R. §§ 52.17(a)(2) and 52.18.

analysis of benefits.¹²⁴ Therefore, there may be no legal foundation for a challenge to an alleged error in that cost-related analysis.

With the foregoing as background for our analysis, we begin by noting that intervenors' specific challenges fall into two general classes which, because of the portion of the balancing analysis they address, are examined differently: (1) those that challenge an assumption or data which was employed by the Applicant or the Staff in making the environmental impact analysis; and (2) those that challenge a financial aspect of the cost analyses, which is clearly not part of the environmental impact portion of the analysis, but, because one methodology could be found preferable over another because of its lower cost, falls on the "benefits" side of the balance.

In examining these specific challenges, we are cognizant of the fact that a NEPA analysis often must rely upon imprecise and uncertain data, particularly when attempting to forecast future markets and technologies, and Boards (and parties) must appreciate the fact that such forecasts "provide no absolute answers," and must be "judged on their reasonableness."¹²⁵ NEPA analyses are subject to a "rule of reason" which teaches that an environmental impact statement need only discuss "the significant aspects of the probable environmental impact of the proposed agency action."¹²⁶ In weighing the potential

¹²⁴ This point is made clear by the provisions of Section 52.18 that expressly require an analysis of the environmental effects of a nuclear facility whose characteristics are within the postulated site parameters, but expressly exclude the benefits analysis. We note, however, that this is an exclusion that is unique to applications for ESPs, and, further, should the ESP be issued for this site, a consideration of the benefits "will be considered in the EIS for any construction permit (CP) or combined license (COL) application that references such an ESP." DEIS at 8-1. Therefore, the fact that challenges relative to an analysis of benefits are, at this stage, inadmissible would not preclude challenges to the benefits analysis in the context of any future application for a construction permit or combined license at the Clinton ESP site.

¹²⁵ See Louisiana Energy Services (Claiborne Enrichment Center), LBP-96-25, 44 NRC 331, 355 (1996), rev'd on other grounds, CLI-97-14, 46 NRC 294 (1997).

¹²⁶ Long Island Lighting Co. (Shoreham Nuclear Power Station), ALAB-156, 6 AEC 831, 836 (1973).

environmental harm of a proposed project against the “benefits,” we find compelling the test enunciated by the United States Court of Appeals for the Fifth Circuit in considering challenges to the accuracy of economic assumptions underlying the analysis of a Federally-owned project, which is “whether the economic considerations . . . were so distorted as to impair fair consideration of those environmental consequences.”¹²⁷ In the instant case of a privately-sponsored project¹²⁸ in which the agency’s role is that of the grantor (or denier) of a Federally-issued license, alleged errors or discrepancies in underlying data should not be subjected to a more strict test than the “not so distorted as to impair fair consideration” test enunciated above for a Federally-owned project. We thus would adopt this benchmark for both the examination of economic effects and for application to uncertainties in the environmental impact analyses in our analysis of admissibility of an intervenor’s proposed contentions.

Additionally, we note that challenges in this instance by Intervenors to the financial elements of the Applicant and Staff analyses relate to the “benefit” side of the balancing of the project’s environmental impacts against its benefits, an aspect of the analysis that, because NEPA is an environmental protection measure, is not of the same significance as the NEPA-mandated balancing of environmental impacts of the proposed new nuclear power plant against

¹²⁷ South Louisiana Env’t Council, Inc. v. Sand, 629 F.2d 1005, 1011 (5th Cir. 1980) (emphasis added). We note that, in South Louisiana Env’t Council, the agency had attempted to actually compute a dollar value of the “economic benefits” and weigh them against a computed dollar value of the environmental cost through the use of a numerical cost/benefit ratio, id. – a practice we eschew because it would create the impression of accuracy despite a process for deriving the numbers potentially so fraught with uncertainty and error that the actual numerical results could be meaningless. In its analysis of a similar situation, the South Louisiana Env’t Council Court observed that NEPA “permits, at most, a narrowly focused, indirect review [of the agency analysis] of the economic assumptions underlying a federal project described in an impact statement.” Id.

¹²⁸ As opposed to the Federally-owned project at issue in South Louisiana Environmental Council, supra note 127.

those of the reasonable alternatives.¹²⁹ Thus, even if Agency regulations required a benefits analysis to be included in the ER or an EIS (which they expressly do not), in this context, in which the challenge is to financial estimates underlying the estimated cost of power expected to be produced by the proposed new nuclear facility or by one or more of the alternatives to that facility, the weight assigned in the balancing analyses should be further reduced. Thus, disputes about the financial cost of certain components of generation by wind or solar or nuclear, or about other aspects of the analysis that require speculation (such as what efficiency will be achieved in future wind or solar technologies), cannot, where there is, as here,¹³⁰ great uncertainty, have a material role in the examination, and, if they are to be treated at all, are more properly treated qualitatively rather than quantitatively.¹³¹

We apply these principles as we address below each specific alleged shortcoming.

a. Alleged Errors Associated with Estimating the Environmental Effects of Combinations of Wind and Solar Power With Natural Gas

First, we address the challenge to the fact that the Applicant and the Staff have examined a combination of wind generation and solar generation with a natural gas-fired power

¹²⁹ Although the Intervenor challenge financial estimates related to the “cost” of power, these costs are not the same costs that are required to be analyzed under NEPA at this juncture. “NEPA is generally regarded as calling for some sort of a weighing of the environmental costs against the economic, technical, or other public benefits of a proposal.” Claiborne, CLI-98-3, 47 NRC at 88 (emphasis added). The relative cost of nuclear power, which is unrelated to the environmental costs of the proposal, will only become ripe for challenge when the economic benefits of the project are later addressed at the construction permit or combined license stage.

¹³⁰ The Parties have acknowledged that the estimated cost at which new nuclear power can be produced is highly uncertain, see, e.g., Summary Disposition Motion, Joint Affidavit of William D. Maher and Curtis L. Bagnall (Mar. 17, 2005) at pt. IV [hereinafter Maher/Bagnall Aff.]; Intervenor’s Response to Summary Disposition Motion, Affidavit of Bruce Biewald (Apr. 6, 2005) at pt. IV.B. [hereinafter Biewald Aff.], and have similarly indicated the large potential uncertainties regarding the cost of production of power from either solar or wind generation, see, e.g., Maher/Bagnall Aff. at pt. V.A.2., pts. V.B.1. and 2.; Biewald Aff. at pt. IV.B.

¹³¹ See supra note 62 and accompanying text.

plant whose capacity is equal to the full capacity of the proposed new nuclear plant instead of a smaller capacity designed to give an aggregate capacity (when added to an “averaged” capacity assigned to the wind and solar generation) equal to the proposed nuclear facility’s 2180 MW. The Intervenors insist that there is a fundamental flaw in the overall analysis rooted in the assumption that the combined facility must contain a full 2180 MW gas-fired plant. They specifically challenge the “benefits” side of the balance, arguing, in essence, that the Applicant and the Staff have failed to examine the potential additional income the Applicant would receive because the natural gas plant would not only run to bring the overall generation up to 2180 MW at any particular time (as assumed by the Applicant and Staff in their analyses), but would also run when it can profitably do so, even if the solar and/or wind generation were simultaneously running.¹³²

We note first that Intervenors have not challenged the “environmental impact” side of the Applicant’s or the Staff’s analysis, which assumed, for the purposes of assessing the environmental impacts of such a combination, that the 2180 MW natural gas-fired plant would not be running at full capacity when the solar and/or wind power portions are generating, and therefore not contributing to the environmental impact at those times. This assumption used by the Applicant and Staff clearly reduces the computed environmental impact of the natural gas-fired portion of the combination, and therefore minimizes the computed overall environmental impact of the combination for the purposes of the comparison to the environmental impact of the proposed new nuclear plant. This minimization is particularly clear for the DEIS analyses where it was assumed that the solar and wind portions of the combined facility had no

¹³² See Motion to Amend at 20. But, in estimating the cost of power from the combination, Intervenors have assumed that the capacity of the gas-fired portion will be only 1691 MW instead of the 2180 MW to which the combination is to be compared. See Biewald Aff. at tbl. 6. This selective inconsistent approach to its presentation distorts and misrepresents the situation and is not constructive to enabling the Board to weigh the arguments and the facts.

environmental impacts -- all of the environmental impacts of the combination were assumed to be associated with the natural gas generation.¹³³

We agree with the Staff, therefore, that, as it relates to evaluation of the combination, the DEIS did not overstate the impacts of wind power in favor of nuclear power;¹³⁴ in fact, if anything, it did just the opposite because the DEIS found the nuclear option to be environmentally preferable even though it both assumed no adverse environmental impact from the solar and wind generation and minimized the contribution from the natural gas component by assuming that it would run only when necessary to bring the total generation at any time up to the 2180 MW (*i.e.*, the gas-fired generation would generate the difference between the desired 2180 MW and the power being generated by solar and wind at that time). If the natural gas-fired plant were to run during additional periods as proposed by the Intervenors, the environmental impact of the combination would be correspondingly increased, and, while there would be some clear economic benefit to the Applicant, we see no reason to require a comparison of such a scenario when it is apparent that the environmental impacts would indeed be greater than those already estimated for the combination and found less preferable than the proposed nuclear power plant. In addition, as we have noted earlier, 10 C.F.R. §§ 52.17(a)(2) and 52.18 expressly exclude a requirement to assess benefits at all in this case, and therefore this challenge fails for the reasons mentioned above in this regard. Thus this portion of the

¹³³ See Staff Response to Summary Disposition Motion at 12 (citing DEIS at 8-22, 8-23). The Staff points out that all of the environmental impact was therefore attributable to the portion associated with natural gas generation, and refers to the DEIS at 8-22 wherein it is stated: “The impacts associated with the combined-cycle natural-gas-fired units would be the same as shown in Table 8-2 [“Summary of Environmental Impacts of Natural Gas-Fired Power Generation - 2200 MW(e)”] with magnitudes scaled for reduction in capacity from 2200 MW(e) to 1650 MW(e).”

¹³⁴ See Staff Response to Summary Disposition Motion at 10-11, where the Staff responded to alleged deficiencies raised by the Intervenors in their motion to amend, see Motion to Amend at 12-14.

contention contained in the Intervenor's proposed amendment is inadmissible in that it constitutes an impermissible challenge to Commission regulations and fails to raise a material legal or factual issue.¹³⁵

b. Alleged Errors in Underlying Facts

Intervenors claim the Applicant used flawed and outdated information in its original ER and continues, despite the new information, to use flawed and outdated information in its ER and that the Staff similarly uses flawed and outdated information in the DEIS. EGC's updated information (supplied in its responses to RAIs) referenced 24 reports issued between 2001 and 2004, including a number of reports on wind and solar power issued by the U.S. Department of Energy ("DOE") in 2004, together with references to a number of the Intervenor's exhibits.¹³⁶ Similarly, Chapter 8 of the DEIS provides recent references. Both the Applicant and the Staff argue that these updates "cure" the omissions alleged by Intervenor as to admitted Contention 3.1¹³⁷ and, as is relevant here, that the Intervenor has raised no material issue with regard to the new information provided in the RAI response and/or DEIS.

The remaining sections of this Part of our analysis consider, point-by-point, each specific shortcoming alleged by the Intervenor in amended Contention 3.1 relative to the Applicant's documents as amended through April 22, 2005 and/or the DEIS. The analyses set out in earlier portions of this ruling contribute materially to our evaluation below of the specific alleged instances of use by the Applicant and the Staff of outdated and erroneous data in the assessment of the potential environmental effects of various alternatives and in the assessment of the estimated cost of power generated by the proposed nuclear facility or one of the

¹³⁵ See 10 C.F.R. § 2.309(f)(1)(vi); see also LBP-04-17, 60 NRC at 241, 242-43.

¹³⁶ See Summary Disposition Motion at 14.

¹³⁷ See *infra* Part IV.

alternative generation possibilities.

i. Intervenors' General Arguments in the Proposed Amendment Regarding Errors

First, Intervenors make a generalized contention that: (a) the use by the Staff of the categorizations of SMALL, MODERATE, and LARGE based on Appendix B to 10 C.F.R. Part 51 is not mandatory and, therefore, the Board may ignore those classifications, and (b) the assignment of particular categories to natural gas generation when examining combinations and the concurrent assignment of no category to wind or solar was the cause for the Staff's finding that the combination was not preferable from an environmental impact perspective to nuclear.¹³⁸ The Staff, however, points out that it assigned no negative environmental impacts to wind or solar in assessing the environmental impacts of the combination, and therefore (a) of course no such category was assigned, and (b) as discussed above,¹³⁹ it is evident that the analysis performed and reflected in the DEIS is based upon assumptions that minimize the estimated environmental impact from the combination. Furthermore, Intervenors offer no specific evidence to support any different finding. Additionally, even if the Staff had used such categorizations, that use is permissible under the NRC's regulations.¹⁴⁰ Therefore, we find inadmissible -- as lacking the requisite degree of specificity under 10 C.F.R. § 2.309(f)(1)(vi) and lacking adequate expert support under 10 C.F.R. § 2.309(f)(1)(v)¹⁴¹ -- this portion of Intervenors' proposed amendment. In addition, we find that, insofar as this is a component of Intervenors' motion to amend Contention 3.1, it is inadmissible as it is not based upon data or conclusions which differ significantly from those in the Applicant's documents (prior to

¹³⁸ See Motion to Amend at 10-11, 11 n.3.

¹³⁹ See supra notes 127 and 128 and accompanying text.

¹⁴⁰ See 10 C.F.R. Part 51, App. B.

¹⁴¹ See also LBP-04-17, 60 NRC at 241-43.

responding to the RAIs).¹⁴²

Second, Intervenors contend, generally, that the estimated environmental impacts in the DEIS and in the Applicant's documents overestimate impacts of clean energy and underestimate impacts of nuclear power.¹⁴³ This generalized portion of the proposed amended contention is inadmissible because it is a bare assertion lacking any support and the requisite specificity.¹⁴⁴

Third, Intervenors contend that "the most fundamental flaw" in the DEIS and the Applicant's environmental analysis is that EGC has identified numerically more areas that would be impacted by nuclear power than by wind or solar, and that fact alone should make wind and/or solar preferable.¹⁴⁵ This portion of the contention also is a bare assertion; Intervenors have presented no impact analyses whatsoever to support their proposition that because one or another alternative has numerically more areas impacted, the overall environmental impact is greater. One could easily construct hypothetical examples where only one area was adversely impacted but the impact was so severe that the overall environmental impact was considerably worse than an alternative proposal which had dozens of areas impacted minimally. This contention is, therefore, inadmissible.¹⁴⁶

Fourth, Intervenors contend that the Applicant and the Staff analyses use too small a portion of wind and solar in the combination that was analyzed, speculating that the environmental impact of the fossil-fired portion would be reduced if the wind and solar

¹⁴² See 10 C.F.R. § 2.309(f)(2); see also supra Part III.B.1.

¹⁴³ See Motion to Amend at 11.

¹⁴⁴ See 10 C.F.R. §§ 2.309(f)(1)(v)-(vi); see also LBP-04-17, 60 NRC at 241-42.

¹⁴⁵ See Motion to Amend at 11.

¹⁴⁶ See 10 C.F.R. § 2.309(f)(1)(v); see also LBP-04-17, 60 NRC at 241-42.

components were increased,¹⁴⁷ thereby decreasing overall environmental impacts of the combination and making the combination more attractive vis-a-vis nuclear. While this assertion appears on its face to have merit and has support in the Applicant's responses to RAIs, it is clear that the sun will not shine at night and certainly the wind will not be blowing at all times at night,¹⁴⁸ so the fossil-fired component will certainly have some minimum amount of run time. In addition, the "cost analysis" portion of the balance would clearly be impacted because the capital cost of additional wind and solar capacity would increase while the capital required to be invested in the fossil-fired component could not decrease because of the need to generate the minimum baseload power generated by the proposed nuclear plant. Nothing is presented by the Intervenor to indicate that any of these effects have been even superficially analyzed by them to support this assertion. Absent a specific analysis of the actual wind potential and the actual solar potential and the respective costs of increased capacity for both, this portion of the contention also amounts to speculation without support; *i.e.*, it is a bare assertion and is therefore inadmissible.¹⁴⁹

In addition to the foregoing general portions of the proposed amendment to the contention, the Intervenor proposed amendment presents a number of specific challenges.

ii. Specific Challenges Set Out in the Proposed Amended Contention 3.1

The specific challenges (which, if properly supported, could be viewed as "bases" in the parlance of our regulations) fall into two general categories: (1) those that challenge assumptions or data used in the environmental impact assessments, and (2) those that

¹⁴⁷ See Motion to Amend at 20. The Intervenor cites to the Biewald Affidavit to support this claim; however, the cited part III.B. offers no support for that proposition other than to cite to, and characterize as having "no real meaning," a statement in the Applicant's RAI response to this general effect. See Biewald Aff. at 3-4.

¹⁴⁸ See supra note 113 and accompanying text.

¹⁴⁹ See 10 C.F.R. § 2.309(f)(1)(v); see also LBP-04-17, 60 NRC at 241-42.

challenge economic assumptions and data underlying the “benefit” side of the balancing. We address these in that order.

(1) Specific Facts Affecting Environmental Impact Assessment

In the proposed amendment to Contention 3.1, Intervenor raise six specific matters regarding environmental impacts. *First* is an argument that the ER has assumed an erroneously low capacity factor for wind energy (using between 17% and 29% instead of 35%), leading to an overestimate of the land necessary for a comparable wind farm and, at the same time, in considering the nuclear option has ignored the land to be used in mining uranium and storing waste, and has also ignored the fact that land used for waste storage is used for a longer period of time.¹⁵⁰ These challenges regarding land use for the mining and waste storage associated with nuclear power are, however, an impermissible challenge to the Commission’s regulations;¹⁵¹ EGC is permitted by 10 C.F.R. §§ 51.51 and 51.23, respectively, to rely upon Table S-3 to evaluate the effects of the uranium fuel cycle, and the Waste Confidence Rule (“WCR”) for its findings regarding waste disposal.¹⁵² Therefore, these portions of this challenge are inadmissible.

As to the land use by wind power, in addressing the alleged errors in capacity factor, the Applicant points out that any projected change in capacity factor depends upon future developments of technology. Assessment of such errors is therefore, in our view, clearly

¹⁵⁰ See Motion to Amend at 12-13. We note that, while Intervenor focus upon the environmental effects of processes ancillary to the nuclear power plant construction and operation, no party has even mentioned the ancillary environmental impacts associated with manufacturing solar cells or wind turbines.

¹⁵¹ See LBP-04-17, 60 NRC at 241.

¹⁵² A previous decision in this proceeding held, in response to Intervenor’s original contention EC 3.2 asserting that the Waste Confidence Rule does not apply to this proceeding, that the contention impermissibly challenged Commission’s regulatory requirements and was therefore inadmissible. See id. at 246-47. For this same reason, newly raised arguments in the amended contention which challenge long term disposal of waste are rejected.

speculative.¹⁵³ Furthermore, the change that this difference could make is only upon the land used by the wind power facility, a small portion of the environmental impact which plays a correspondingly smaller role in the environmental impact assessment.¹⁵⁴ Thus we find that, even if correct, the minor change this could make in the (already small) projected environmental impact of the wind portion of a combination facility or of a wind/energy-storage facility, is such that this portion of the contention neither raises a genuine dispute on a material issue nor is based upon data or conclusions that differ significantly from those in the Applicant's documents (prior to responding to the RAIs). Therefore, this portion of the proposed amendment is inadmissible under 10 C.F.R. §§ 2.309(f)(1)(vi) and (f)(2).

The *second* specific environmental impact portion of the proposed amendment is an assertion that the environmental impact on bird deaths is erroneously computed; Intervenors argue that wind turbines have historically only killed 2 birds per year while there is data from the Susquehanna nuclear power plant to the effect that 1500 birds were killed over an 8 year period (*i.e.*, somewhat less than 200 bird deaths per year).¹⁵⁵ Intervenors' statement, however, misrepresents the number of bird deaths per year to be expected from a wind farm; both the Intervenors' expert and the Applicant (who cited the same study) state that the number of avian deaths from a wind farm is 2 birds per year per turbine.¹⁵⁶ Thus, when one considers that a current state-of-the-art large wind turbine generates approximately 2 MW, a 2000 MW wind farm would have 1000 wind turbines and would therefore cause 2000 bird deaths per year. This portion of the proposed amendment to Contention 3.1 is inadmissible because it fails to

¹⁵³ See Applicant Response to Motion to Amend at 25-26.

¹⁵⁴ The DEIS, in fact, assigned zero environmental impact to the wind portion of a combined facility. See supra note 133 and accompanying text.

¹⁵⁵ See Motion to Amend at 13.

¹⁵⁶ Biewald Aff. at 4; Applicant Response to Motion to Amend at 23.

raise a genuine dispute and is not based upon data or conclusions that differ significantly from those in the Applicant's documents (prior to responding to the RAIs).¹⁵⁷

The *third* specific environmental impact portion of the proposed amendment is a contention that the noise from a wind farm (alleged to be in the range of 35-45 decibels acoustic ("dB(A)")) is incorrectly weighed against that of a nuclear plant (alleged to be approximately 55 dB(A)).¹⁵⁸ These numbers, cited by the Intervenor, are precisely those used by the Applicant; *i.e.*, this portion of the proposed amendment is not based upon any data or conclusions that differ at all (let alone "significantly") from those in the Applicant's documents (prior to responding to the RAIs). In addition, the Applicant pointed out in its response that the ER states that, because noise level varies with distance from the source, the noise from a wind farm would be SMALL. Moreover, as mentioned above, the Staff assigned zero environmental effects to the wind power portion of the combined facility. Therefore, the ER and the DEIS have already weighed these relative effects favorably to the Intervenor's position, and there is no genuine dispute over any material fact. Thus, this portion of the proposed amended contention is inadmissible under 10 C.F.R. §§ 2.309(f)(1)(vi) and (f)(2).

The *fourth* specific environmental impact portion of the proposed amendment is a contention that the air quality impacts computed for nuclear are erroneous because they ignore the effects of the uranium fuel cycle,¹⁵⁹ while the *fifth* specific portion of the proposed amendment is a contention that the Applicant's filings and the DEIS improperly evaluate the impacts of exposure to radioactive wastes from mining and disposal.¹⁶⁰ As we noted earlier,

¹⁵⁷ See 10 C.F.R. §§ 2.309(f)(1)(vi) and (f)(2).

¹⁵⁸ See Motion to Amend at 13.

¹⁵⁹ See id.

¹⁶⁰ See id. at 14.

these portions of the proposed amendment are inadmissible because they are impermissible challenges to the Commission's regulations;¹⁶¹ EGC is permitted by 10 C.F.R. § 51.51 to rely upon Table S-3 of that Section to evaluate the effects of the uranium fuel cycle.¹⁶²

The *sixth* specific environmental impact portion of the proposed amendment is a contention that the DEIS understates the risks presented by serious accidents at the proposed nuclear plant, particularly the risk posed by terrorist attacks.¹⁶³ This portion of the proposed amendment is inadmissible in that the Intervenors fail to provide adequate factual support or expert opinion regarding accidents,¹⁶⁴ and because the specific issue of risks from terrorist attacks is outside the scope of the proceeding.¹⁶⁵

(2) Specific Facts Affecting Economic Assessment

The remainder of the specific portions of the proposed amendment all relate, in one way or another, to the economic portions of the comparison. Admissibility of these portions of the contention, which rest on a challenge to assumptions that are used in the "benefits" analyses, is

¹⁶¹ See LBP-04-17, 60 NRC at 241.

¹⁶² Section 51.51(a) states that Table S-3, "Table of Uranium Fuel Cycle Environmental Data," shall be taken

as the basis for evaluating the contribution of the environmental effects of uranium mining and milling, the production of uranium hexafluoride, isotopic enrichment, fuel fabrication, reprocessing of irradiated fuel, transportation of radioactive materials and management of low level wastes and high level wastes related to uranium fuel cycle activities to the environmental costs of licensing the nuclear power reactor . . . and may be supplemented by a discussion of the environmental significance of the data set forth in the table as weighed in the analysis for the proposed facility.

10 C.F.R. § 51.51(a) (emphasis added).

¹⁶³ See Motion to Amend at 14.

¹⁶⁴ See 10 C.F.R. § 2.309(f)(1)(v); see also LBP-04-17, 60 NRC at 241-42.

¹⁶⁵ See 10 C.F.R. § 2.309(f)(1)(iii); see also LBP-04-17, 60 NRC at 241.

affected by the plain language of Sections 52.17(a)(2) and 52.18, which expressly eliminate any requirement that Applicant consider benefits in its ER or that the Staff consider benefits in its DEIS and FEIS. In fact, the Staff asserted that it does not (and need not) consider economic costs at all in assessing alternatives (or combinations of alternatives) to new nuclear power plants for early site permits.¹⁶⁶ While we do not consider the cited reference suitable authority for the proposition the Staff asserts, there is sound authority for that position in the plain language of Section 52.18. Thus Intervenors' challenges in these matters are singularly directed at the content of the Applicant's documents. Analysis of this portion of the proposed amendment to Contention 3.1 must weigh the fact that NEPA places obligations on the NRC, not upon the Applicant, and the purpose of the NRC's requirement that the Applicant submit an ER, the required content of which is spelled out generally in 10 C.F.R. § 52.17(a)(2), is to provide essential information to the Commission so that it can be adequately informed in preparation of its environmental assessment. But any discussion of benefits included in the Applicant's documents is purely voluntary,¹⁶⁷ and was, in the end, used by the Applicant to assist in its business decision regarding which method of power generation might be least costly, and it is clear that the NRC does not involve itself with the business decisions of an

¹⁶⁶ See Staff Response to Motion to Amend at 11 (citing NRR Review Standard RS-002, Attachment 3 "Early Site Permit Scope and Associated Review Criteria for Environmental Report" (May 3, 2004) at 13, ADAMS Accession No. ML040700772). Intervenors also observe, in their motion to amend, that the DEIS does not discuss costs in its analysis of various clean energy alternatives. See Motion to Amend at 15.

¹⁶⁷ Although 10 C.F.R. § 52.17(a)(2) states at the outset that the Applicant must submit an ER as required by 10 C.F.R. § 51.45, it goes on to expressly eliminate the requirement for a benefits assessment. This express provision supercedes the general requirement of Section 51.45 that would otherwise require such an analysis. Thus the implication by Intervenors that there is such a requirement is based upon a faulty premise: the lesson here is, to paraphrase Ayn Rand's John Galt, the law abhors a contradiction - if you believe there is a contradiction, check your premises.

Applicant.¹⁶⁸ Although the Staff is to review the ER, the content and accuracy of the DEIS and FEIS are the sole responsibility of the Agency.¹⁶⁹ Examination of costs of the various alternatives would clearly be, if it were required to be included, a *de minimis* portion of the alternatives investigation. The cost to build or own, or generate power from, any of the particular technologies plays no role whatsoever in the NEPA balance required by our regulations for an application for an ESP; the balance focuses singularly upon the environmental impacts. In these circumstances, the allegation that the Applicant's cost calculations are erroneous neither rises to the level of significance required by Section 2.309(f)(2) for admissibility of a contention amendment, nor does it raise a genuine dispute on a material legal or factual issue.¹⁷⁰

With these principles in mind, we turn to the specific cost-related errors alleged by Intervenors.

The *seventh* portion of the proposed amendment contends that the cost of wind power is overestimated, stating that EGC has estimated the cost of wind power at 5.7 cents per kilowatt hour ("c/kWh") while Northern States Power ("NSP"), a Minnesota energy company, purchases wind power at 3.5 c/kWh.¹⁷¹ This bare statement, however, fails to note that the principal underlying reason that NSP can purchase wind power at 3.5 c/kWh is that the IPP that sells power to NSP gets a Production Tax Credit ("PTC") of approximately 2 c/kWh that offsets most of the gap,¹⁷² and fails to note that the PTC is currently available only for wind plants

¹⁶⁸ See, e.g., HRI, CLI-01-04, 53 NRC at 48 ("The NRC, however, is not in the business of regulating the market strategies of licensees.").

¹⁶⁹ See supra note 64 and accompanying text.

¹⁷⁰ See 10 C.F.R. §§ 2.309(f)(1)(vi), (f)(2); see also LBP-04-17, 60 NRC at 243.

¹⁷¹ See Motion to Amend at 15.

¹⁷² See Applicant Response to Motion to Amend at 28-29; Biewald Aff. at 18.

placed in service prior to 2006.¹⁷³ In addition, Intervenor's own expert indicated that the cost of production for wind power will be in the range of 4.5 to 6.0 c/kWh,¹⁷⁴ which does not disagree at all with the Applicant's estimate. Intervenor has offered no evidence or expert testimony that the PTC will be available to an IPP placing a wind power facility into service after 2006. Furthermore, Intervenor apparently overlooks the Applicant's statement in its RAI response that a wind generating facility can "produce power at a levelized rate of \$.049/kWh,"¹⁷⁵ which is close to the low end of the range suggested by Intervenor's expert. Therefore the challenge to cost estimates for wind power is inadmissible because: (a) regarding the PTC and the estimated cost of wind power after inclusion of the Applicant's responses to the RAIs, there is no genuine dispute over any material fact and therefore it fails to satisfy the requirements of 10 C.F.R. §§ 2.309(f)(1)(iv) and (vi);¹⁷⁶ and (b) it is not based upon data or conclusions which differ significantly from those in the Applicant's documents prior to responding to the RAIs and therefore fails to satisfy the requirements of 10 C.F.R. § 2.309(f)(2). Therefore, we find that this portion of the proposed amended contention is inadmissible.

The *eighth* portion of the proposed amendment contends that the cost estimates for new nuclear generated power are erroneous because: (1) they generally ignore statements by the DOE, the Energy Information Administration ("EIA"), and other entities to the effect that new nuclear will not be economic;¹⁷⁷ (2) they use overly optimistic assumptions, such as that capital cost will be only \$1200/kW, and the "learning rate" will be 10%, when the actual costs of

¹⁷³ See Applicant Response to Motion to Amend at 29.

¹⁷⁴ Biewald Aff. at 22, tbl. 6.

¹⁷⁵ RAI Response at 6.

¹⁷⁶ See also LBP-04-17, 60 NRC at 242-43.

¹⁷⁷ See Motion to Amend at 16.

constructing the 75 existing plants was more than 200% above estimates;¹⁷⁸ and (3) a recent Massachusetts Institute of Technology study estimates that the cost of future nuclear power will be 6.7 c/kWh, whereas EGC is estimating 5.5 c/kWh.¹⁷⁹ The Applicant points out that the study referenced by the Intervenor as the source for the \$2000 per kW(e) capital cost estimate itself stated that cost could be reduced by 25% (*i.e.*, to \$1500 per kW(e)) “to match optimistic but plausible forecasts.”¹⁸⁰ In point of fact, however, the relative capital cost estimates set out in the particular study cited by Intervenor vary from a low of \$1080 per kW for a mature technology to a high of \$1980 for a new design.¹⁸¹ The foregoing clearly indicate that projecting costs is an uncertain endeavor, and should, as a result of the uncertainties, be given less weight by the agency.¹⁸²

Given the uncertain nature of the results of this part of the analysis, the fact that it falls on the non-environmental side of the balance, and the fact that cost would only come into the analytical balancing if the environmental impact balancing indicates that a reasonable alternative is environmentally preferable to the proposed project,¹⁸³ we find that these portions

¹⁷⁸ See id.

¹⁷⁹ Id. at 17.

¹⁸⁰ See Applicant Response to Motion to Amend at 30.

¹⁸¹ See Biewald Aff. at 15, tbl. 3.

¹⁸² Finally, we note that, in addition, this portion of the proposed amendment to Contention 3.1 posits that the cost for a combination of wind and natural gas generation would be able to produce power in a range of 4.6-5.0 c/kWh, but that estimate is based upon the premise that the gas-fired plant will have only 1691 MW generation capability (as opposed to the 2180 MW for the nuclear plant), thus underpredicting the capital cost and other costs related to the gas-fired portion of the combination for the situation being examined (which is that the gas-fired portion of the combination must have the full capacity of the nuclear plant). This inaccurate comparison cannot be deemed to create a genuine dispute and is therefore inadmissible. 10 C.F.R. § 2.309(f)(1)(vi); see also LBP-04-17, 60 NRC at 243.

¹⁸³ See Applicant Response to Motion to Amend at 27; see also, e.g., Virginia Electric and Power Company (North Anna Nuclear Power Station, Units 1 and 2), ALAB-584, 11 NRC

of the proposed amendment: (a) do not raise a genuine dispute over a material legal or factual issue; and (b) are not based upon data or conclusions which differ significantly from those in the Applicant's documents (prior to responding to the RAIs).¹⁸⁴ Furthermore, because the cost information provided by the Applicant was voluntarily included and expressly not required by the regulations governing the content of the ER, the DEIS, or the FEIS, these particular portions of Intervenors' proposed amendments are an improper challenge to NRC regulations and outside the scope of this proceeding, given there was no requirement for such an analysis by the Applicant or the Staff in the first instance.¹⁸⁵

IV. ANALYSIS OF APPLICANT'S MOTION FOR SUMMARY DISPOSITION OF CONTENTION 3.1

A. Legal Standard for Summary Disposition

Pursuant to the NRC's 10 C.F.R. Part 2 regulations governing procedure, a Licensing Board may grant summary disposition as to all or any part of a proceeding if the Board finds that "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."¹⁸⁶ It is well established that summary disposition motions under the

451, 458 (1980); Consumers Power Company, ALAB-458, 7 NRC 155, 162-63 (1978); Public Service Company of Oklahoma (Black Fox Station, Units 1 and 2), LBP-78-26, 8 NRC 102, 161-62 (1978).

¹⁸⁴ See 10 C.F.R. §§ 2.309(f)(1)(vi), (f)(2); see also LBP-04-17, 60 NRC at 243.

¹⁸⁵ See LBP-04-17, 60 NRC at 241.

¹⁸⁶ See 10 C.F.R. § 2.710(d)(2). As we have noted on prior occasions, this proceeding is a Subpart L proceeding (*i.e.*, is governed by the procedural rules found at 10 C.F.R. Part 2, Subpart L); 10 C.F.R. § 2.1205 is therefore the applicable section on summary disposition, which itself directs this Board to apply the standards set forth in Subpart G of this Part, or

Commission's Part 2 rules are held to the same standards by which the Federal courts evaluate Federal Rule of Civil Procedure 56 summary judgment motions.¹⁸⁷

The party seeking summary disposition bears the burden of showing that there is no genuine issue as to any material fact,¹⁸⁸ and 10 C.F.R. § 2.710 requires that this be shown through a statement of material facts not at issue and any supporting materials, such as affidavits, discovery responses, and documents, accompanying the motion.¹⁸⁹ Nevertheless, a party opposing the motion must put forth specific facts showing that there is a genuine issue of material fact to be litigated,¹⁹⁰ and any material facts set forth in the movant's statement not controverted by a like statement of an opposing party are deemed admitted.¹⁹¹

The Board's function in considering summary disposition is only to decide whether genuine issues of material fact remain between the parties, not to substantively seek to resolve material factual issues that do exist.¹⁹² To support a finding that there is a genuine issue of material fact, the factual record, when considered in its entirety, must be in doubt to such a

Section 2.710.

¹⁸⁷ See, e.g., Advanced Med. Sys., Inc. (One Factory Row, Geneva, Ohio 44041), CLI-93-22, 38 NRC 98, 102 (1993).

¹⁸⁸ See id.

¹⁸⁹ See, e.g., Statement of Material Facts on Which No Genuine Issue Exists in Support of Exelon's Motion for Summary Disposition of Contention 3.1 (Mar. 17, 2005); Statement of Disputed Facts in Support of Intervenors' Response to Exelon's Motion for Summary Disposition of Contention 3.1 (Apr. 6, 2005).

¹⁹⁰ 10 C.F.R. § 2.710(b).

¹⁹¹ 10 C.F.R. § 2.710(a).

¹⁹² See Sequoyah Fuels Corp. and General Atomics (Gore, Oklahoma Site Decontamination and Decommissioning Funding), LBP-94-17, 39 NRC 359, 361 (1994) (citing Weiss v. Kay Jewelry Stores, Inc., 470 F.2d 1259, 1261-62 (D.C. Cir. 1972).

degree that it is necessary to hold a hearing to aid in resolving the factual dispute.¹⁹³ It is, nevertheless, appropriate to look into the substance of the contention to the degree necessary to make the determination whether a genuine dispute about a factual issue exists, and whether, if one does, that dispute is indeed over a “material” fact.¹⁹⁴ In other words, summary disposition should not be used to decide genuine issues of material fact that warrant an evidentiary hearing,¹⁹⁵ but is appropriate if the moving party makes a properly supported showing as to the absence of any genuine issue of material fact and the opposing party fails to show that such an issue does exist.

B. Board Ruling

We preface our analysis by further clarifying the scope and subject matter of Contention 3.1 as admitted. While formulated as a general contention that the ER fails to rigorously explore and objectively evaluate all reasonable alternatives (and the Intervenors have moved to include the DEIS in this challenge), the substance is most properly addressed by focusing upon the details of the challenge and upon the Standing/Contentions Board’s prior ruling in admitting it, wherein the contention, as rewritten, was admitted only:

to the degree it allege[d] (a) a failure by EGC in its evaluation of the alternatives that could be used by an independent power provider in its power generation mix adequately to address a combination of wind power, solar power, natural gas-fired generation, and “clean coal” technology []; and (b) the Applicant’s use of potentially flawed and outdated information regarding wind and solar power generation methods [].¹⁹⁶

The admitted contention must therefore be read and construed in light of these statements. In

¹⁹³ See, e.g., Cleveland Electric Illuminating Company (Perry Nuclear Power Plant, Units 1 and 2), LBP-83-46, 18 NRC 218, 223 (1983).

¹⁹⁴ Cf. Anderson v. Liberty Lobby, 477 U.S. 242, 248 (1986).

¹⁹⁵ See Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), LBP-01-39, 54 NRC 497, 509 (2001).

¹⁹⁶ LBP-04-17, 60 NRC at 246.

addition, while the text of the contention is quite general, it is interpreted and has meaning only to the extent of the “bases,” or specific flaws identified in the Intervenor’s submittals, which define its scope.¹⁹⁷

As discussed above, Intervenor’s claim the Applicant used flawed and outdated information in its original ER and continue, despite new information, to use flawed and outdated information in its RAI response,¹⁹⁸ which was produced in the form of revisions to relevant sections of the ER. The Applicant argues, however, and the Staff agrees, that these updates to the information provided in the original ER “cure” the alleged omissions and that Contention 3.1, as a contention of omission, is now moot.¹⁹⁹ The Intervenor’s, on the other hand, continue to assert that Contention 3.1, as admitted, is not a contention of omission, but is instead a challenge to the substance of the Applicant’s discussion of alternatives in the ER. In fact, the original contention contains two separate challenges by the Intervenor’s. First, it presented an alleged omission from the ER of analyses of certain combinations of generation technologies. Second, the Intervenor’s proffer an allegation that the ER used potentially flawed and outdated information relative to wind and solar power, which we take, in light of the Intervenor’s detailed

¹⁹⁷ See, e.g., Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 379 (2002) (appropriate to refer to the bases provided in support of a contention to define the scope of that contention); Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-899, 28 NRC 93, 97 (1988) (“The reach of a contention necessarily hinges upon its terms coupled with its stated bases.”), aff’d sub nom. Massachusetts v. NRC, 924 F.2d 311 (D.C. Cir. 1991), cert. denied, 502 U.S. 899 (1991).

¹⁹⁸ See Intervenor’s Response to Summary Disposition Motion at 5.

¹⁹⁹ See Summary Disposition Motion at 13-15; Staff Response to Summary Disposition Motion at 4-5. In this regard, we must bear in mind that at issue here (with regard to the mootness of Contention 3.1) is only information regarding wind and solar - not information regarding nuclear, as none of the bases upon which Contention 3.1 was admitted alleged any error in data underlying the analysis of the nuclear power option. Thus, to the extent that the Intervenor’s now seek to challenge information regarding nuclear power, it must be based upon new information or there must have been a request to admit a late filed contention as to those matters.

pleadings, to mean an allegation that newer data was not examined (*i.e.*, failure to consider newer data) and that certain data was erroneous (*i.e.*, “flawed”).

We do not need, however, to resolve the issue of whether admitted Contention 3.1 should be viewed simply as one of “omission,” as we find, as discussed below, that the Applicant in its responses to the RAIs has (a) supplied the allegedly omitted analysis of combinations of generation technologies, and (b) addressed the allegedly outdated and erroneous information by considering (i) the information identified by the Intervenors in support of Contention 3.1, and (ii) other information not previously identified by the Intervenors.

As noted above, the Applicant seeks summary disposition of the original contention, while the Intervenors have sought to amend that contention in light of additional information provided by the Applicant in its responses to the RAIs, as well as information contained in the DEIS. We considered in Part III, supra, point-by-point, the Intervenors’ proposed amendments to that contention, including each specific alleged shortcoming in the ER and, as specified in the Intervenors’ response to the summary disposition motion (and as further elaborated on in its motion to amend), each specific alleged shortcoming in the Applicant’s documents included in the RAI response as well as shortcomings in the DEIS. Based on that analysis, we found no portion of the proposed amendment admissible. Thus, we have remaining before us the original Contention 3.1, which the Applicant asserts is amenable to summary disposition in its favor.

As to the original contention’s alleged omissions from the ER of analyses of certain combinations of generation technologies, we find summary disposition appropriate because those omissions have been cured by the Applicant’s consideration, in its RAI responses, of the allegedly-omitted combinations, making this Intervenor claim moot so as to be resolved in the Applicant’s favor. As to the allegation that certain data in the ER relative to wind and solar

power are outdated or flawed, we find summary disposition appropriate because the Applicant has considered (1) the information provided or cited by the Intervenors in support of that portion of Contention 3.1, which the Intervenors themselves impliedly assert provides an adequate foundation for an analysis of wind and solar alternatives; and (2) other new information not considered in the original ER, to which Intervenors have not posited an admissible challenge. Intervenors having failed to demonstrate that a disputed genuine issue of material fact exists relative to the adequacy of the Applicant's supporting data, the Applicant is entitled to judgment as a matter of law on that portion of the contention as well.

Based on the preceding, we find that: (1) there being no genuine issue as to any material fact relative to the Applicant's demonstration that it has adequately addressed the NEPA analysis deficiencies claimed in Contention 3.1 as originally admitted such that the Applicant is entitled to judgment as a matter of law, summary disposition of this contention is granted in favor of the Applicant; and (2) there being no remaining matter at issue in the contested portion of this proceeding, the contested portion of this proceeding is terminated.²⁰⁰

²⁰⁰ As was noted in the Standing/Contentions Board's initial ruling, see LBP-04-17, 60 NRC at 250 n.10, the Board also must conduct a "mandatory hearing" in this proceeding regarding matters that were not the subject of admitted contentions.

V. CONCLUSION

For the reasons set forth above, we find that the Intervenors have failed to proffer any admissible amendment in their proposed amendment to Contention 3.1. We further find that, there being no genuine issue of material law or fact in dispute with regard to Contention 3.1 as originally admitted, summary disposition in favor of the Applicant is granted. Finally, there being no admitted contention remaining to be litigated in this proceeding, the contested portion of this proceeding is terminated.

For the foregoing reasons, it is this twenty-eighth day of July 2005, ORDERED, that:

1. The Intervenors' April 22, 2005 motion to amend is denied.
2. The Applicant's March 17, 2005 motion for summary disposition of Contention 3.1 is granted.
3. As there remain no admitted issues to be litigated in this proceeding, the contested portion of this proceeding is terminated.
4. Any party wishing to file a petition for review on the grounds specified in 10 C.F.R. § 2.341(b)(4) must do so within fifteen (15) days after service of this memorandum and order. The filing of a petition for review is mandatory in order for a party to have exhausted its administrative remedies before seeking judicial review. Within ten (10) days after service of a petition for review, parties to the proceeding may file an answer supporting or opposing

Commission review. Any petition for review and any answer shall conform to the requirements of 10 C.F.R. § 2.341(b)(2)-(3).

THE ATOMIC SAFETY
AND LICENSING BOARD²⁰¹

/RA/

Paul B. Abramson
ADMINISTRATIVE JUDGE

/RA/

Anthony J. Baratta
ADMINISTRATIVE JUDGE

/RA by G. P. Bollwerk, III for:/

David L. Hetrick
ADMINISTRATIVE JUDGE

Rockville, Maryland
July 28, 2005

²⁰¹ Copies of this memorandum and order were sent this date by Internet e-mail transmission to counsel for (1) applicant EGC; (2) the Intervenor; and (3) the NRC Staff.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)
)
EXELON GENERATION COMPANY, LLC) Docket No. 52-007-ESP
)
)
(Early Site Permit for Clinton ESP Site))

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing LB MEMORANDUM AND ORDER (RULING ON MOTION FOR SUMMARY DISPOSITION REGARDING CONTENTION 3.1 AND PETITION FOR ADMISSION OF AMENDED CONTENTION) (LBP-05-19) have been served upon the following persons by deposit in the U.S. mail, first class, or through NRC internal distribution.

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Docket No. 52-007-ESP
LB MEMORANDUM AND ORDER (RULING ON
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CONTENTION 3.1 AND PETITION FOR ADMISSION
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[Original signed by Evangeline S. Ngbea]

Office of the Secretary of the Commission

Dated at Rockville, Maryland,
this 28th day of July 2005