LBP-12-08

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

William J. Froehlich, Chairman
Dr. Michael F. Kennedy
Dr. William E. Kastenberg

In the Matter of	Docket Nos. 50-352-LR, 50-353-LR
EXELON GENERATION COMPANY, LLC	ASLBP No. 12-916-04-LR-BD01
(Limerick Generating Station, Units 1 and 2)	April 4, 2012

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MEMORANDUM AND ORDER

(Ruling on Petition to Intervene and Request for Hearing)

Before this Atomic Safety and Licensing Board (Board) is a petition to intervene and request for a hearing (Petition) filed by the Natural Resources Defense Council (NRDC or Petitioner).[1] NRDC challenges the application filed by Exelon Generation Company, LLC (Exelon or Applicant) to renew its nuclear power reactor operating licenses for the Limerick Generating Station, Units 1 and 2 (Limerick) for an additional twenty years (i.e., until October 26, 2044 for Unit 1, and June 22, 2049 for Unit 2).[2] Limerick is a dual-unit nuclear power facility that is located on the east bank of the Schuylkill River in Limerick Township, Montgomery County, Pennsylvania, approximately four river miles downriver from Pottstown, 35 river miles

[1] Natural Resources Defense Council Petition to Intervene and Notice of Intention to Participate (Nov. 22, 2011) [hereinafter Petition].

[2] See Notice of Acceptance for Docketing of the Application and Notice of Opportunity for Hearing Regarding Renewal of Facility Operating License Nos. NPF-39 and NPF-85 for an Additional 20-Year Period; Exelon Generation Co., LLC, Limerick Generating Station, 76 Fed. Reg. 52,992, 52,992 (Aug. 24, 2011) [hereinafter Application Notice].

upriver from Philadelphia, and 49 river miles above the confluence of the Schuylkill with the Delaware River.[3]

NRDC has proffered four contentions. While Exelon and the NRC Staff concede that NRDC has established standing, they both assert that all of NRDC's four proposed contentions are inadmissible.

The Board finds that NRDC has established standing and has proffered at least one contention that is admissible pursuant to 10 C.F.R. § 2.309(f)(1). In accordance with 10 C.F.R. § 2.309(a), we therefore grant the request for public hearing and admit NRDC as a party to this proceeding. As limited by the Board, the adjudicatory proceeding for the admitted contention will be conducted under the procedures set forth in 10 C.F.R. Part 2, Subpart L.

I. Procedural Background

Exelon filed its license renewal application (LRA), which included an environmental report (ER) on June 22, 2011.[4] A notice was published in the Federal Register on August 24, 2011 stating that any person whose interests may be affected by this proceeding, and who wishes to participate as a party, must file a petition for leave to intervene within 60 days of the notice (i.e., by October 24, 2011) in accordance with 10 C.F.R. § 2.309.[5] On September 22, 2011, NRDC requested an extension of time for filing a Petition to Intervene until November 22,

[3] Applicant's Environmental Report – Operating License Renewal Stage, Limerick Generating Station, Units 1 and 2, at 2-3 (June 2011) (ADAMS Accession No. ML11179A104) [hereinafter ER].

[4] See Application Notice.

[5] Id. at 52,993.

2011.[6] On October 17, 2011, the Secretary of the Commission granted this request.[7]

On November 22, 2011, NRDC timely filed its Petition, proffering four contentions.[8] The Petition was supported by two Declarations – one jointly submitted by Thomas B. Cochran, Ph.D., Matthew G. McKinzie, Ph.D., and Christopher J. Weaver, Ph.D. (Joint Declaration),[9] and the second submitted by Christopher Paine (Paine Declaration).[10] Contention 1-E alleges that the Environmental Report (ER) supporting license renewal has not adequately considered new and significant information relating to severe accident mitigation alternatives (SAMAs).[11] Contention 2-E alleges that in relying on a Severe Accident Mitigation Design Alternatives (SAMDA) analysis from 1989, Exelon has failed to provide an adequate analysis of

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[6] NRDC Request for Extension of Time for Opportunity to Request a Hearing and Petition for Leave to Intervene in the NRC's Notice of Opportunity for Hearing Regarding Renewal of Facility Operating License Nos. NPF-39 and NPF-85 for an Additional 20-Year Period (Sept. 22, 2011).

[7] Commission Order (Granting Extension of Time) (Oct. 17, 2011) (unpublished).

[8] See Petition at 16-24.

[9] See Declaration of Thomas B. Cochran, Ph.D., Matthew G. McKinzie, Ph.D. and Christopher J. Weaver, Ph.D., on Behalf of the Natural Resources Defense Council (Nov. 22, 2011) [hereinafter Joint Declaration].

[10] See Declaration of Christopher E. Paine of the Natural Resources Defense Council (Nov. 22, 2011) [hereinafter Paine Declaration].

[11] Petition at 16. We use the term SAMA to refer to an additional feature or action that could prevent or mitigate the consequences of serious accidents. SAMA analysis includes consideration of (i) hardware modifications, procedure changes, and training program improvements; (ii) SAMAs that could prevent core damage as well as SAMAs that could mitigate severe accident consequences; and (iii) the full scope of potential accidents (meaning both internal and external events). In 1989, the NRC Staff performed a severe accident mitigation alternatives analysis in a Supplement to the Final Environmental Statement which it referred to as a SAMDA analysis. See Final Environmental Statement Related to the Operation of Limerick Generating Station, Units 1 and 2, NUREG-0974 Supplement (Aug. 1989) (ADAMS Accession No. ML11221A204) [hereinafter 1989 SAMDA Analysis].

alternatives.[12] Contention 3-E alleges that Exelon is not legally entitled to claim an exemption under 10 C.F.R. § 51.53(c)(3)(ii)(L) from the requirement to conduct a SAMA analysis, and that the ER is therefore inadequate for failure to include such an analysis.[13] Contention 4-E claims that the ER is deficient for its failure to provide an adequate analysis of a "no-action" alternative.[14]

On December 20, 2011, Exelon filed an answer opposing NRDC's Petition.[15] On December 21, 2011, the NRC Staff filed an answer opposing the Petition.[16] Although Exelon and the NRC Staff concede that NRDC has standing, both claim that none of NRDC's four proffered contentions is admissible.[17] NRDC filed a combined reply to the Exelon and the NRC Staff answers on January 6, 2012.[18] On January 17, 2012, Exelon and NRC Staff each filed motions to strike portions of NRDC's combined reply.[19] NRDC filed a brief in opposition of these motions on January 27, 2012.[20]

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[12] Petition at 19.

[13] Id. at 21.

[14] Id. at 23.

[15] Exelon Answer Opposing NRDC's Petition to Intervene (Dec. 20, 2011) [hereinafter Exelon Answer].

[16] NRC Staff's Answer to Natural Resources Defense Council's Petition to Intervene and Notice of Intention to Participate (Dec. 21, 2011) [hereinafter NRC Answer].

[17] Exelon Answer at 1; NRC Answer at 1.

[18] Natural Resources Defense Council ("NRDC") Combined Reply to Exelon and NRC Staff Answers to Petition to Intervene (Jan. 6, 2012) [hereinafter NRDC Reply].

[19] Exelon's Motion to Strike Portions of NRDC's Reply (Jan. 17, 2012) [hereinafter Exelon Motion to Strike]; NRC Staff's Motion to Strike Impermissible New Claims in Natural Resources Defense Council's Reply Brief (Jan. 17, 2012) [hereinafter NRC Motion to Strike].

[20] [NRDC] Combined Opposition to Motions to Strike (Jan. 27, 2012).

This Board heard oral argument on the petition to intervene and the motions to strike in Norristown, Pennsylvania, on February 21, 2012.[21]

II. Standing

A. Standards Governing Standing

As noted above, neither Exelon nor NRC Staff has challenged NRDC's assertion that it has standing to intervene in this proceeding.[22] However, NRC regulations state that "the Atomic Safety and Licensing Board designated to rule on the request for hearing and/or petition for leave to intervene, will grant the request/petition if it determines that the requestor/petitioner has standing . . . and has proposed at least one admissible contention."[23] As such, we proceed with an independent analysis of standing despite the lack of disagreement on the subject.

It is well established that the NRC applies "contemporaneous judicial concepts of standing."[24] In other words, "a petitioner must demonstrate that (1) it has suffered a distinct and palpable harm that constitutes injury-in-fact within the zone of interests arguably protected by the governing statute; (2) that the injury can fairly be traced to the challenged action; and (3) that the injury is likely to be redressed by a favorable decision."[25] The Commission has found that geographic proximity to a facility (i.e., living or working within 50 miles) is presumptively sufficient to meet these traditional standing requirements in certain types of proceedings,

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[21] See Tr. at 1-269.

[22] Exelon Answer at 1; NRC Answer at 1.

[23] 10 C.F.R. § 2.309(a).

[24] See, e.g., Calvert Cliffs 3 Nuclear Project, LLC, and Unistar Nuclear Operating Servs., LLC (Combined License Application for Calvert Cliffs, Unit 3), CLI-09-20, 70 NRC 911, 915 (2009) (quotation omitted).

[25] Yankee Atomic Elec. Co. (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1, 6 (1996).

including operating license renewal proceedings.[26] This is because a license renewal allows operation of a reactor over an additional period of time during which the reactor could be subject to the same equipment failures and personnel errors as during operations over the original period of the license.[27]

When the petitioner is an organization rather than an individual (as is the case here), it must demonstrate organizational or representational standing.

> An organization may base its standing on either immediate or threatened injury to its organizational interests, or to the interests of identified members. To derive standing from a member, the organization must demonstrate that the individual member has standing to participate, and has authorized the organization to represent his or her interests.[28]

B. Ruling on Standing

In its Petition, NRDC claims that it has the right to intervene "on behalf of [its] members;"[29] in other words, NRDC asserts representational standing. NRDC states it represents the interests of three of its members in this proceeding – Suzanne Day, Charles W. Elliott, and William P. White.[30] For NRDC to be granted representational standing, one or more

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[26] See Calvert Cliffs 3, CLI-09-20, 70 NRC at 915 n.15 (citing with approval Fla. Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-06, 53 NRC 138, 150 (2001), aff'd on other grounds, CLI-01-17, 54 NRC 3 (2001) (applying proximity presumption in reactor operating license renewal proceeding)).

[27] Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3), LBP-98-33, 48 NRC 381, 385 n.1 (1998).

[28] Ga. Inst. of Tech. (Ga. Tech Research Reactor, Atlanta, Ga.), CLI-95-12, 42 NRC 111, 115 (1995) (citations omitted).

[29] Petition at 5.

[30] Petition at 6; see also Declaration of Suzanne Day (Nov. 18, 2011) [hereinafter Day Declaration]; Declaration of Charles W. Elliott (Nov. 17, 2011) [hereinafter Elliott Declaration]; Declaration of William P. White (Nov. 16, 2011) [hereinafter White Declaration].

of its members must individually have standing, and must have authorized NRDC to represent them.[31]

Ms. Day, Mr. Elliott, and Mr. White have each submitted declarations indicating that they are members of NRDC, and that they live within 50 miles of Limerick.[32] As such, each would be able to claim individual standing to intervene in this proceeding based on the proximity presumption. In addition, each authorized NRDC to act on their behalf in this proceeding.[33] We, therefore, find that NRDC has met the elements required for representational standing.

III. Contention Admissibility

A. Standards Governing Contention Admissibility

To intervene in a proceeding, a petitioner must not only demonstrate that it has standing, but it must also put forward at least one admissible contention. 10 C.F.R. § 2.309(f)(1) requires that each proffered contention must meet all of the following requirements: (i) provide a specific statement of the issue of law or fact to be raised; (ii) provide a brief explanation of the basis for the contention; (iii) demonstrate that the issue raised is within the scope of the proceeding; (iv) demonstrate that the issue raised is material to the findings the NRC must make to support the action that is involved in the proceeding; (v) provide a concise statement of the alleged facts or expert opinions that support the petitioner's position and upon which the petitioner intends to rely at hearing; and (vi) show that a genuine dispute exists on a material issue of law or fact.[34]

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[31] Ga. Tech Research Reactor, CLI-95-12, 42 NRC at 115.

[32] Day Declaration at 1, 2 (stating she lives 35 miles from Limerick); Elliott Declaration at 1 (stating he lives 30 miles from Limerick); White Declaration at 1 (stating he lives 38 miles from Limerick).

[33] Day Declaration at 4; Elliott Declaration at 5; White Declaration at 4.

[34] 10 C.F.R. § 2.309(f)(1)(i)-(vi).

Although "[m]ere 'notice pleading' is insufficient" in NRC proceedings,[35] a petitioner need not prove its contentions at the admissibility stage,[36] and we do not adjudicate disputed facts at this juncture.[37] The Commission has recently reiterated that "contentions shall not be admitted if at the outset they are not described with reasonable specificity or are not supported by some alleged fact or facts demonstrating a genuine material dispute" with the applicant.[38] The factual support required to render a proposed contention admissible is "a minimal showing that material facts are in dispute."[39]

B. Relevant Regulatory Standards

The National Environmental Policy Act (NEPA) requires all Federal agencies, including the NRC, to prepare an Environmental Impact Statement (EIS) for every major federal action that may significantly affect the quality of the human environment.[40] The issuance of a renewed operating license for a nuclear power reactor is a major federal action under NEPA.[41] NEPA

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[35] Fansteel, Inc. (Muskogee, Okla., Site), CLI-03-13, 58 NRC 195, 203 (2003).

[36] Private Fuel Storage L.L.C. (Independent Spent Fuel Storage Installation), CLI-04-22, 60 NRC 125, 139 (2004).

[37] Miss. Power & Light Co. (Grand Gulf Nuclear Station, Units 1 & 2), ALAB-130, 6 AEC 423, 426 (1973).

[38] FirstEnergy Nuclear Operating Co. (Davis-Besse Nuclear Power Station, Unit 1), CLI-12-08, 75 NRC __, __ (slip op. at 4) (Mar. 27, 2012) (citing Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 335 (1995))

[39] Gulf States Utils. Co. (River Bend Station, Unit 1), CLI-94-10, 40 NRC 43, 51 (1994) (quotations omitted).

[40] See 42 U.S.C. § 4332(2)(C).

[41] See New York v. NRC, 589 F.3d 551, 553 (2d Cir. 2009).

requires the NRC to take a "hard look" at alternatives, including SAMAs, and to provide a rational basis for rejecting alternatives that are cost-effective.[42]

NRC regulations at 10 C.F.R. § 51.53 require a license renewal application to include an Environmental Report (ER) to assist the NRC Staff in preparing its EIS.[43] The ER must address both the impacts of the proposed renewal and alternatives to those impacts.[44] Applicants are further subject to the requirements of 10 C.F.R. § 51.53(c)(3), which lists the issues that an applicant must address in the ER, as well as those that it need not address.

In 1996, the NRC issued NUREG-1437, Generic Environmental Impact Statement for License Renewal of Nuclear Plants (GEIS).[45] The NRC also amended its environmental regulations at 10 C.F.R. Part 51 to reflect certain findings in the GEIS.[46] Part 51 divides the environmental requirements for license renewal into Category 1 and Category 2 issues.[47] Category 1 issues are those resolved generically by the GEIS and need not be addressed as part of license renewal. Category 2 issues require plant-specific review.[48] For each license renewal application, Part 51 requires that the NRC Staff prepare a plant-specific supplement to

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[42] Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 350 (1989) accord Limerick Ecology Action v. NRC, 869 F.2d 719, 737 (3d Cir. 1989).

[43] See 10 C.F.R. § 51.53(c)(1).

[44] See id. § 51.53(c)(2).

[45] Generic Environmental Impact Statement for License Renewal of Nuclear Plants, NUREG-1437, Vol. 1, (May 1996) (ADAMS Accession No. ML040690705) [hereinafter GEIS].

[46] See Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 61 Fed. Reg. 28,467 (June 5, 1996).

[47] See 10 C.F.R. Part 51, Subpt. A, App. B, Tbl. B-1.

[48] See 61 Fed. Reg. at 28,467; see also 10 C.F.R. Part 51, Subpt. A, App. B, Tbl. B-1 n.2.

the GEIS that adopts applicable generic impact findings from the GEIS and analyzes site-specific impacts.[49]

A license renewal applicant's ER is further required to consider any "new and significant" information that might alter previous environmental conclusions.[50] NEPA requires the agency to reevaluate any prior analysis if it is presented any new and significant information which would cast doubt on a previous environmental analysis.[51] With this background in mind, we consider the admissibility of each of NRDC's four contentions.

C. Contention 1-E

NRDC's proposed Contention 1-E reads as follows:

> Applicant's Environmental Report (§ 5.3) erroneously concludes that new information related to its severe accident mitigation design alternatives ("SAMDA") analysis is not significant, in violation of 10 C.F.R. § 51.53(c)(3)(iv), and thus the ER fails to present a legally sufficient analysis of severe accident mitigation alternatives.[52]

NRDC presents two distinct but related claims in this contention. First, NRDC asserts that Exelon has considered certain new information for its significance, but that it has done so inadequately. Second, NRDC contends that Exelon has omitted other new information that NRDC believes is significant.[53] NRDC's argument is predicated on 10 C.F.R. § 51.53(c)(3)(iv), which requires Exelon to consider any "new and significant" information that might alter a previously conducted SAMA analysis.[54] While Exelon and the NRC Staff seem to concede that

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[49] See 10 C.F.R. §§ 51.95(c), 51.71(d).

[50] Id. § 51.53(c)(3)(iv).

[51] Marsh v. Or. Natural Res. Council, 490 U.S. 360, 374 (1989).

[52] Petition at 16.

[53] See id. at 16-17.

[54] Id. at 3; 10 C.F.R. § 51.53(c)(3)(iv).

Exelon is required to consider new information for its significance,[55] both argue that NRDC may not challenge that consideration.[56] We consider, and ultimately reject, this argument below.

1. Litigability of New and Significant Information

Exelon makes the blanket assertion that its consideration of new and significant information is "not challengeable in [this] license renewal proceeding."[57] The NRC Staff agrees with this position, with the caveat that NRDC could challenge Exelon's analysis if NRDC sought a waiver from the Commission.[58] We first analyze this argument challenging the "litigability" of new and significant information before turning to the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1).

Exelon and the NRC Staff contend that SAMAs are a "Category 1 issue," or should be treated as such, for Limerick, and as such they may not be challenged absent a waiver from the Commission.[59] Exelon and the NRC Staff base their position on the Commission's holding that "[a]djudicating Category 1 issues site by site based merely on a claim of 'new and significant information,' would defeat the purpose of resolving generic issues in a GEIS."[60] In other words, a petitioner may not challenge in an adjudicatory proceeding an applicant's alleged failure to consider new and significant information relevant to a Category 1 issue, without seeking a

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[55] See Exelon Answer at 26; NRC Staff Answer at 16.

[56] See Exelon Answer at 26-27; NRC Staff Answer at 16-17.

[57] Tr. at 43-44.

[58] Id. at 52.

[59] See Exelon Answer at 27; NRC Staff Answer at 16-17.

[60] Entergy Nuclear Vt. LLC and Entergy Nuclear Operations, Inc. (Vt. Yankee Nuclear Power Station) et al., CLI-07-03, 65 NRC 13, 21 (2007).

waiver. The question before the Board is whether, as Exelon and the NRC Staff claim, SAMAs are a Category 1 issue for Limerick.

As an initial matter, the regulations clearly specify that the SAMA analysis is a Category 2 issue. Table B-1 of 10 C.F.R. Part 51 "summarizes the Commission's findings on the scope and magnitude of environmental impacts of renewing the operating license for a nuclear power plant."[61] Acknowledging that the risks posed by severe accidents are small for all plants, Table B-1 declares that "severe accidents" are a Category 2 issue, and provides that SAMAs "must be considered for all plants that have not considered such alternatives."[62] Exelon and NRC Staff would have it that these last six words ("that have not considered such alternatives"), which repeat the admonition in 10 C.F.R. § 51.53(c)(3)(ii)(L), transform SAMAs into a Category 1 issue for Limerick.[63]

In support of this argument, Exelon cites to rulings by two Licensing Boards in the Vermont Yankee and Pilgrim license renewal proceedings (and the affirmance of those decisions by the Commission).[64] In both of these proceedings, the Attorney General of Massachusetts challenged the applicant's failure to consider new and significant information

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[61] 10 C.F.R. Part 51, Subpt. A, App. B.

[62] Id. Part 51, Subpt. A, App. B, Tbl. B-1 (Postulated Accidents).

[63] Exelon Answer at 28, NRC Answer at 16.

[64] Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), LBP-06-23, 64 NRC 257 (2006); Entergy Nuclear Vt. Yankee, LLC (Vt. Yankee Nuclear Power Station), LBP-06-20, 64 NRC 131 (2006); Vt. Yankee, CLI-07-03, 65 NRC 13. We note also that Exelon relies on a decision of the United States Court of Appeals for the First Circuit upholding the Commission's decision in these proceedings. See Massachusetts v. United States, 522 F.3d 115 (1st Cir. 2008). While we ultimately find this line of decisions inapplicable to the proceedings now before the Board for reasons explained below, it is also worth noting that Limerick is located within the Third Circuit, and as such, decisions of the First Circuit Court of Appeals have no binding authority in this proceeding.

about a possible severe spent fuel pool fire.[65] Exelon also relies on the Commission's decision in the Turkey Point license renewal proceeding.[66] There, the Commission ruled on an appeal of a Licensing Board order denying a petition to intervene that presented contentions concerning release of radiological, chemical, and herbicidal materials and storage of spent fuel.[67]

It is readily apparent that the Pilgrim, Vermont Yankee, and Turkey Point decisions are inapplicable to the instant proceeding. All three of these cases involved petitioners submitting contentions regarding issues – spent fuel storage and the release of radiological, chemical and herbicidal materials – that Part 51 explicitly declares Category 1.[68] In contrast, the contention in this proceeding, challenging an analysis of new and significant information regarding SAMAs, raises a Category 2 issue. For this Board to be bound by these decisions, Exelon or the NRC Staff would need to establish that SAMAs are, indeed, Category 1 issues for Limerick. In an attempt to do just that, Exelon analogizes SAMAs for Limerick to the treatment afforded groundwater quality in license renewal proceeding environmental analyses:

> [C]onsider Section 51.53(c)(3)(ii)(D), which provides that a license renewal ER must include, "[i]f the applicant's plant is located at an inland site and utilizes cooling ponds, an assessment of the impact of the proposed action on groundwater quality." Because the South Texas and Turkey Point plants have cooling ponds in salt marshes, they are not subject to the requirements of Section 51.53(c)(3)(ii)(D). The GEIS is explicit that for these plants, "this is a Category 1 issue."[69]

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[65] Pilgrim, LBP-06-23, 64 NRC at 280; Vt. Yankee, LBP-06-20, 64 NRC at 152.

[66] Fla. Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3 (2001).

[67] Id. at 5-6.

[68] See 10 C.F.R. Part 51, Subpt. A, App. B, Tbl. B-1.

[69] Exelon Answer at 28 (citations omitted).

And indeed, Table B-1 bears this out – groundwater quality degradation for cooling ponds in salt marshes is a Category 1 issue.[70] But Exelon's argument merely serves to highlight the failure of its reasoning. The Commission was explicit in both the GEIS and Table B-1 that groundwater quality degradation for plants with cooling ponds in salt marshes was to be considered a Category 1 issue. In this case, however, Exelon requests that we find that the Commission implicitly intended SAMAs to be a Category 1 issue for those sites that had already performed an analysis.[71] We reject the proposition that 10 C.F.R. § 51.53(c)(3)(ii)(L) converts this Category 2 (site-specific) issue into a Category 1 issue. If the Commission intended SAMAs to be a Category 1 issue for Limerick and other plants that had previously considered SAMAs or SAMDAs, it would have said so explicitly, as it did when it found groundwater degradation to be a Category 1 issue for the South Texas and Turkey Point facilities. In addition, in Turkey Point, the Commission recognized that site-specific environmental issues are Category 2 issues, and made no suggestion that this was not the case for any specific plants.[72]

It is, of course, within the Commission's authority to declare an issue to be Category 1 for all plants or a sub-set of plants. However, this Board is unaware of any provision in our governing regulations that would transform an issue listed as a Category 2 issue into a Category 1 issue absent an explicit statement from the Commission.

Exelon has expressed concern that allowing a petitioner to challenge the analysis of new and significant information relevant to the 1989 SAMDA would "eviscerate" 10 C.F.R.

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[70] 10 C.F.R. Part 51, Subpt. A, App. B, Tbl. B-1 (Ground-water Use and Quality); see GEIS at 4-122.

[71] See Exelon Answer at 33.

[72] Turkey Point, CLI-01-17, 54 NRC at 11.

§ 51.53(c)(3)(ii)(L).[73] However, Exelon and NRC Staff concede that Exelon is required by regulation to consider new information relevant to the 1989 SAMDA for its significance.[74] This analysis of new and significant information is intended to help the NRC Staff in its preparation of an EIS.[75] Yet, at this stage of a proceeding, a petitioner must challenge the ER, which "acts as a surrogate for the EIS during the early stages of a relicensing proceeding."[76] Challenging the ER preserves the petitioner's right to challenge the EIS at a later stage of the proceedings.[77]

The Board's ruling recognizes the premise that when a petitioner identifies an omission in or a portion of an applicant's application with which it disagrees and meets the requirements of 10 C.F.R. § 2.309(f)(1), that petitioner shall be allowed to litigate its disagreement. Accordingly, we reject that claim of Exelon and the NRC Staff that SAMAs are a Category 1 issue and hence that NRDC's challenge to Exelon's consideration of new and significant information is not litigable. There is nothing in the NRC regulations or case precedent that leads us to any other conclusion. Indeed, beyond the Commission regulations is the obligation imposed by NEPA. Regulations cannot trump statutory mandates.[78] "NEPA requires that [the Commission] conduct [its] environmental review with the best information available today."[79]

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[73] Exelon Answer at 26; Tr. at 48, 106.

[74] See Tr. at 46, 50-51; ER at 5-4; NRC Staff Answer at 16.

[75] See ER at 5-2; Tr. at 51.

[76] Northern States Power Co. (Prairie Island Nuclear Generating Plant, Units 1 and 2), LBP-08-26, 68 NRC 905, 931 (2008).

[77] See Progress Energy Fla., Inc. (Levy County Nuclear Power Plant, Units 1 and 2), LBP-09-10, 70 NRC 51, 88 (2009), aff'd in part and rev'd in part on other grounds, CLI-10-02, 71 NRC 27 (2010).

[78] See Ramadan v. Chase Manhattan Corp., 229 F.3d 194, 201 (3d Cir. 2000).

[79] Luminant Energy Co. LLC (Comanche Peak Nuclear Power Plant, Units 3 and 4) et al., CLI-12-07, 75 NRC __, __ (slip op. at 14) (Mar. 16, 2012).

Therefore, relying upon Part 51, Subpart A, Appendix B, we find that SAMAs are a Category 2 issue and are not transformed into a Category 1 issue for sites such as Limerick for which a SAMA analysis has been previously performed. Exelon has argued, though, that even if we conclude SAMAs are not a Category 1 issue for Limerick, we should still find that its analysis of new and significant information relevant to SAMAs is not litigable in this proceeding.[80] Exelon argues that 10 C.F.R. § 51.53(c)(2)(iii)(L) exempts Limerick from performing a SAMA, and that this regulatory exception requires that SAMAs be treated as a Category 1 issue, even if they are categorized as a Category 2 issue.[81] We find no regulatory basis for such a wide-ranging argument. SAMAs are listed as Category 2 issues,[82] and we must treat them as such.

2. Admissibility Under 10 C.F.R. § 2.309(f)(1)

Our ruling that SAMAs are not a Category 1 issue for Limerick does not settle the admissibility of Contention 1-E. In order to be admitted, contentions must meet the requirements of 10 C.F.R. § 2.309(f)(1)(i)-(vi). NRDC has alleged facts and provided declarations to support the admissibility of Contention 1-E. We find that most of Contention 1-E fails to satisfy one or more of the requirements of Section 2.309(f)(1), for the reasons stated below.

a. New Population Data

NRDC argues that Exelon's ER "misinterprets and/or misuses new information regarding increased population in the area within 10 miles of the plant and thus fails to account for the significant increase in total person-rems of exposure that could occur in the event of a severe

[80] See Exelon Answer at 33; Tr. at 48.

[81] See Tr. at 48.

[82] 10 C.F.R. Part 51, Subpt. A, App. B, Tbl. B-1 (Postulated Accidents).

accident."[83] NRDC continues, "This population was substantially underestimated in the 1989 SAMDA analysis upon which the Applicant continues to rely."[84] Moreover, NRDC makes essentially the same claims regarding Exelon's treatment of population within 50 miles of the plant.[85]

Exelon contends first that the 1989 SAMDA is "simply not at issue in this proceeding," and therefore Contention 1-E is inadmissible as outside the scope of the proceeding insofar as it challenges that analysis.[86] We agree. While Exelon has pointed to the existence of the 1989 SAMDA to show that it meets a regulation exempting it from filing a new SAMA in its license renewal ER, the 1989 SAMDA is not part of the ER, nor is it incorporated by reference.[87] Therefore, any challenge to the 1989 SAMDA necessarily does not frame an appropriate challenge to Exelon's license renewal application because any challenge to the particulars of the 1989 SAMDA is outside the scope of this proceeding, thereby contravening 10 C.F.R. § 2.309(f)(1)(iii).[88]

NRDC also challenges Exelon's consideration of new post-1989 information regarding population data. NRDC argues that Exelon should have considered population estimates up to the year 2049 – when the license for Unit 2 would expire if Exelon succeeds in renewing its operating licenses – rather than 2030, as Exelon did in its ER.[89] While NRDC demonstrates

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[83] Petition at 16.

[84] Id.

[85] See id. at 17.

[86] Exelon Answer at 36.

[87] Id.

[88] 10 C.F.R. § 2.309(f)(1)(iii).

[89] Joint Declaration at par. 27.

that other plants have included population estimates in SAMAs up to the license expiration date,[90] Exelon notes that NRDC has not provided "any legal or technical support for its suggestion that population projections to the end of the license term are required."[91]

In this, Exelon is correct, as we find no legal requirement that an applicant consider such data. However, a petitioner could succeed in raising such a contention if it demonstrated that considering such data would be material to the proceeding.[92] NRDC has not demonstrated how consideration of population data through 2049 would change Exelon's analysis of new and significant information. As such, this aspect of Contention 1-E lacks the support required by 10 C.F.R. § 2.309(f)(1)(v)[93] and seeks to raise questions that have not been shown to be material to the findings the NRC must make.[94] It is therefore inadmissible.

b. Other Mitigation Alternatives

Next, NRDC argues that Exelon "ignores new and significant information regarding potential mitigation alternatives that have been considered for other BWR Mark II containment reactors that were not considered in the original SAMDA analysis and ignores new and significant information regarding additional plausible severe accident scenarios."[95]

Exelon responds that it need not consider "new" severe accident mitigation alternatives because 10 C.F.R. § 51.53(c)(3)(ii)(L) grants it an exemption from submitting a SAMA analysis

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[90] Id.

[91] Exelon Answer at 37.

[92] See 10 C.F.R. § 2.309(f)(1)(iv).

[93] Id. § 2.309(f)(1)(v).

[94] Id. § 2.309(f)(1)(iv).

[95] Petition at 17.

in its ER.[96] Essentially, Exelon argues that considering new mitigation alternatives in the context of a new and significant information analysis is fundamentally the same as performing an entirely new SAMA analysis, which it argues it is not required by law to perform.[97]

We do not agree. Determining whether information regarding SAMAs is "new" and "significant" does not involve the same analysis as performing an entirely new SAMA analysis, as Exelon suggests. Using a screening technique similar to the one performed in the 1989 Supplement to the Final Environmental Statement,[98] Exelon can determine the "significance" of new mitigation alternatives without performing a "new SAMA analysis." The NRC Staff performed such a screening in the preparation of the 1989 Supplement to the Final Environmental Statement,[99] and Exelon did so with regard to other new information in Section 5.3 of the ER (Significance of New Information).[100] To the extent that this aspect of Contention 1-E is a direct challenge to the 1989 SAMDA,[101] it is inadmissible. But, insofar as this contention challenges the ER's lack of consideration of new and significant information regarding potentially new, previously unanalyzed SAMAs, it is admissible.

NRDC states that the Limerick ER "fails to consider more than a very narrow group of mitigation measures identified in the 1989 SAMDA analysis."[102] NRDC continues that the ER

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[96] We consider Exelon's arguments regarding sub-section (L) in-depth in our analysis of Contention 3-E below. See infra at 30-33.

[97] See Tr. at 106.

[98] See 1989 SAMDA Analysis at v.

[99] Id.

[100] See ER at 5-7 to 5-9.

[101] See, e.g., Joint Declaration at par. 7, 8.

[102] Petition at 17.

"ignores new and significant information regarding potential mitigation alternatives that have been considered for other BWR Mark II containment reactors that were not considered in the original SAMDA analysis."[103]

NRDC has provided a specific statement, as well as an adequate basis, for the proffered contention.[104] Given that NRDC is challenging an omission in Exelon's ER of material that NRDC alleges is required to be there under 10 C.F.R. § 51.53(c)(3)(iv), this issue is within the scope of the proceeding.[105] Further, NRDC's Joint Declaration adequately demonstrates that this issue is material to the NRC's licensing decision, supported by alleged facts and expert opinion, and has raised a genuine dispute with Exelon.[106] NRDC's Declarant, Dr. Matthew G. McKinzie,[107] points out that the 1989 SAMDA considered a cost-benefit analysis for only seven mitigation alternatives.[108] In comparison, "the cohort of 27 U.S. BWR units at 18 sites that are undergoing license renewal reviews, or that have recently been granted license renewal, have on average considered 175 Phase I SAMA candidates and 35 Phase II SAMA candidates."[109] Given this information, we find that NRDC has provided adequate support under 10 C.F.R. § 2.309(f)(1)(v) for its claim that there exists new information that Exelon has not considered.

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[103] Id.

[104] 10 C.F.R § 2.309(f)(1)(i)-(ii).

[105] Id. § 2.309(f)(1)(iii).

[106] Id. § 2.309(f)(1)(iv)-(vi).

[107] Exelon and the NRC Staff have not challenged the bona fides of Dr. McKinzie, who received a Ph.D. in Physics from the University of Pennsylvania and a B.A. in Physics from Bard College. Joint Declaration, Attachment B, Curriculum Vitae for Matthew G. McKinzie.

[108] Joint Declaration at par. 7.

[109] Id. at par. 9.

NRDC has shown there are numerous new SAMA candidates which should be evaluated for their significance.

In advancing this contention, NRDC has alleged facts and provided expert testimony that other plants seeking license renewal have considered these "new" SAMA candidates and have found certain candidates to be cost-beneficial.[110] NRDC has demonstrated that among recent BWR applications for license renewal, applicants have found between two and eleven SAMA candidates to be cost-beneficial or potentially cost-beneficial.[111] NRDC has meticulously listed which SAMA candidates these plants found to be cost-beneficial.[112] This suggests to us that this contention is material, as consideration of new information regarding SAMA candidates could very well lead to a conclusion that this information is significant.[113] Further, we find that NRDC's analysis of recently-performed SAMAs at other plants provides support for its argument that the information that Exelon has failed to consider is not only new, but also significant.[114]

NRDC argues also that Exelon must consider "additional plausible severe accident scenarios."[115] Looking to NRDC's Joint Declaration, however, it is clear that NRDC is alleging that Exelon must consider information related to the March, 11, 2011 events at Fukushima, Japan.[116] The Commission has stated, "we do not know today the full implications of the Japan events for U.S. facilities. Therefore, any generic NEPA duty – if one were appropriate at all –

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[110] See id. at par. 13.

[111] Id.

[112] Id.

[113] 10 C.F.R. § 2.309(f)(1)(iv).

[114] Id. § 2.309(f)(1)(v).

[115] Petition at 17.

[116] See Joint Declaration at par. 16-17.

does not accrue now."[117] The Commission has also affirmed a Licensing Board's rejection of a contention in a license renewal proceeding based on an applicant's failure to consider alleged "new and significant information" arising from NRC's Fukushima Task Force Report.[118] Therefore, in the context of this proceeding, the events at Fukushima, and the ensuing NRC response, are not, at this point, to be considered "new and significant information" under NEPA.[119] Accordingly, we conclude that this aspect of Contention 1-E is inadmissible as beyond the scope of this proceeding.[120]

c. Core Damage Frequency

NRDC alleges that Exelon's analysis of new and significant information is based on a flawed core damage frequency (CDF).[121] NRDC argues that using "historical data" to calculate CDF leads to a higher value than the "theoretical value calculated by the applicant."[122] Essentially, NRDC calculates core damage frequency by looking at actual core damage events that have occurred at Three Mile Island Unit 2, Greifswald Unit 5, and Fukushima Units 1, 2, and 3.[123] However, NRDC goes on to note that "we do not argue that any of [these] CDF estimates

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[117] Union Elec. Co. d/b/a Ameren Mo. (Callaway Plant, Unit 2) et al., CLI-11-05, 74 NRC __, __ (slip op. at 30) (Sept. 9, 2011).

[118] Comanche Peak et al., CLI-12-07, 75 NRC at __ (slip op. at 15).

[119] Id.

[120] 10 C.F.R. § 2.309(f)(1)(iii).

[121] Petition at 18.

[122] Joint Declaration at par. 19-20.

[123] Id. at par. 19.

based on the historical evidence represent the most accurate CDFs for Limerick Units 1 and 2."[124]

This aspect of Contention 1-E is inadmissible. NRDC has not provided any alleged facts or expert opinion to support its position that the use of historical data is more appropriate than the plant-specific CDF calculated for Limerick.[125] Therefore, this aspect of Contention 1-E does not meet 10 C.F.R. § 2.309(f)(1)(v).

d. Economic Consequences

NRDC argues that in its analysis of new and significant SAMA-related information the ER "fails to evaluate the impact of a properly conducted economic analysis on the assessment of the environmental consequences of a severe accident at Limerick" by relying on data from an analysis conducted at Three Mile Island (TMI), "a site that involves a markedly different and less economically developed area than the area within 50 miles of Limerick."[126] NRDC also argues that Exelon's economic analysis is inadequate because it "ignores new and significant information regarding the likely cost of cleanup from a severe accident in a metropolitan area like Philadelphia."[127]

Exelon responds that what NRDC has put forth is a contention of omission that is inadmissible because in its ER, Exelon "did evaluate whether off-site economic cost risks qualified as new and significant information," by looking at data from TMI.[128] While NRDC

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[124] Id. at par. 21.

[125] Indeed, NRDC has admitted that a CDF calculated with this historical data is likely inaccurate. Joint Declaration at par. 21.

[126] Petition at 18.

[127] Id.

[128] Exelon Answer at 48; see ER at 5-8.

argues in part that Exelon's ER "does not remedy the lack of economic risk assessment in the 1989 SAMDA,"[129] this aspect of Contention 1-E challenges the adequacy of Exelon's consideration of new and significant information. NRDC states, "[Exelon] commits errors in the 2011 [ER] in an effort to claim that economic risk is not significant new information."[130] NRDC alleges further that Exelon's use of data from TMI is inappropriate because "the ratio of economic cost risk to exposure cost risk exhibits a wide variation," and because "TMI is a Pressurized Water Reactor (PWR) rather than a BWR, with correspondingly different accident scenario source terms, and Harrisburg near TMI is [a] smaller and less urban economic center than Philadelphia near Limerick."[131] NRDC has also provided a table showing the ratio of economic cost risk to exposure cost for nine recently renewed BWRs.[132]

These arguments and the alleged facts discussed above support NRDC's claim that Exelon's reliance on data from TMI was inappropriate in an analysis of economic cost risk for Limerick. NRC regulations require a petitioner to provide "a concise statement of the alleged facts or expert opinions which support" its position.[133] NRDC has done this, as its Joint Declaration provides a set of alleged facts regarding the ratio of economic cost risk to exposure cost risk at other BWR facilities. Dr. McKinzie submitted a declaration in which he challenges the appropriateness of using TMI data to analyze economic consequences for Limerick.[134] NRC regulations also require a petitioner to make reference to "specific sources and documents" on

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[129] Joint Declaration at par. 32.

[130] Id.

[131] Id. at par. 33.

[132] Id. at par. 34.

[133] 10 C.F.R. § 2.309(f)(1)(v).

[134] Joint Declaration at par. 32-34.

which it intends to rely.[135] NRDC has done this, as well, as it has drawn its analysis from and cited to SAMAs performed for other BWRs seeking license renewal.[136] NRDC has met its burden and provided the alleged facts and expert opinion required by 10 C.F.R. § 2.309(f)(1)(v).

We find also that the other requirements of Section 2.309(f)(1) are satisfied. NRDC raises a specific challenge to Exelon's use of TMI data. It provides a brief description of its basis by explaining the reasons why use of that data was inappropriate.[137] This constitutes a genuine dispute on a material issue because Exelon claims that its use of TMI data is appropriate[138] and NRDC has provided arguments to the contrary.[139] Lastly, we find that this aspect of Contention 1-E is within the scope of this proceeding because it challenges the adequacy of the ER. Thus, it satisfies Section 2.309(f)(1)(iii).

To the extent that Contention 1-E challenges Exelon's reliance on data from TMI to evaluate the significance of economic cost risks, it is admissible. In other words, we admit the following issue for hearing: whether Exelon's use of data from TMI in its analysis provides an adequate consideration of new and significant information regarding economic cost risk. However, to the extent the contention directly challenges the contents of the 1989 SAMDA, this portion of Contention 1-E is inadmissible.

Further, in the context of this contention we find that NRDC's assertion that Exelon must consider new information regarding cleanup costs does not meet the standards in 10 C.F.R. § 2.309(f)(1). NRDC simply notes that cleanup costs in Philadelphia "could be significantly

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[135] 10 C.F.R. § 2.309(f)(1)(v).

[136] Joint Declaration at par. 34.

[137] 10 C.F.R. § 2.309(f)(1)(i)-(ii); Joint Declaration at par. 33.

[138] Exelon Answer at 48.

[139] 10 C.F.R. § 2.309(f)(1)(iv), (vi); Joint Declaration at par. 33.

larger on a per capita basis than previously estimated."[140] This claim is not adequately supported, as required by 10 C.F.R. § 2.309(f)(1)(v), to warrant admission.[141] It contains no alleged facts or expert opinion that support the petitioner's position. As such, Contention 1-E is denied insofar as it challenges Exelon's consideration of new and significant information regarding cleanup costs.

e. Human Environment

NRDC asserts that "[t]he ER fails to include an analysis of the impacts to the quality of the human environment."[142] NRDC provides as examples of such impacts, "loss of family homestead, possessions, abandonment of livestock and domestic animals, pain and suffering, including that associated with loss of one's job or possessions, and uncertainties associated with the safety of the food supply."[143]

As Exelon points out, "[t]he Declarations attached to the Petition are silent on these issues."[144] As the Commission has directed in Duke Energy, "contentions shall not be admitted if at the outset they . . . are not supported by 'some alleged fact or facts' demonstrating a genuine material dispute."[145] Because NRDC and its Declarations do not include any legal or

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[140] Joint Declaration at par. 39.

[141] See 10 C.F.R. § 2.309(f)(1)(v).

[142] Petition at 19.

[143] Id.

[144] Exelon Answer at 50.

[145] Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334 (1999); see also NextEra Energy Seabrook, LLC (Seabrook Station Unit 1), CLI-12-05, 75 NRC __, __ (slip op. at 7) (Mar. 8, 2012).

technical support for this statement, we find that this aspect of Contention 1-E is inadmissible for failure to satisfy 10 C.F.R. § 2.309(f)(1)(v).[146]

3. Conclusion Regarding Contention 1-E

For the foregoing reasons, we admit that portion of Contention 1-E that challenges Exelon's failure to consider as part of its new and significant information analysis new severe accident mitigation alternatives not previously analyzed in the 1989 SAMDA for the facility. We also admit that portion of Contention 1-E that challenges Exelon's use of data from TMI in evaluating the significance of information regarding economic cost impacts. Contention 1-E thus is admitted, but is limited as follows:

> Applicant's Environmental Report (§ 5.3) erroneously concludes that new information related to its severe accident mitigation design alternatives ("SAMDA") analysis is not significant, in violation of 10 C.F.R. § 51.53(c)(3)(iv), and thus the ER fails to present a legally sufficient analysis in that:
>
> > 1. Exelon has omitted from its ER a required analysis of new and significant information regarding potential new severe accident mitigation alternatives previously considered for other BWR Mark II Containment reactors.
> >
> > 2. Exelon's reliance on data from TMI in its analysis of the significance of new information regarding economic cost risk constitutes an inadequate analysis of new and significant information.
>
> In all other respects, we find that Contention 1-E is inadmissible.

D. Contention 2-E

NRDC's proposed Contention 2-E reads as follows:

> Applicant's Environmental Report (§5.3) in relying on a SAMDA analysis from 1989 fails to comply with 10 C.F.R. §§ 51.45, 51.53(c)(2) and 51.53(c)(3)(iii) because it does not include an accurate or complete analysis of "alternatives available for reducing or avoiding adverse environmental effects," does not "contain sufficient data to aid the commission in its development of an independent analysis" of alternatives and does not contain an adequate

[146] 10 C.F.R. § 2.309(f)(1)(v).

> "consideration of alternatives for reducing adverse impacts . . . for all Category 2 license renewal issues.[147]

This contention alleges that the 1989 SAMDA analysis relies on inadequate and outdated data and methodologies, and as a result, the Limerick ER "fails to provide a reliable basis for the conclusion that there are no cost-beneficial SAMAs."[148] NRDC alleges that the Limerick ER does not comply with 10 C.F.R. §§ 51.45, 51.53(c)(2), and 51.53(c)(3)(iii).[149] These sections require an applicant to provide in its ER an analysis of "alternatives to the proposed action" that is "sufficiently complete to aid the Commission in developing and exploring" its own set of alternatives[150] and "an analysis that considers and balances 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."[151] NRDC maintains that this contention is within the scope of this proceeding because Exelon has "incorporate[d] and adopt[ed the 1989 SAMDA] as [its] analysis of alternatives to mitigate impacts of severe accidents at Limerick."[152]

Exelon and NRC Staff argue that this contention is not admissible.[153] NRC Staff asserts that "the 1989 Limerick SAMDA Analysis, and any claimed deficiencies in that analysis, is outside the scope of this proceeding . . . [because] the Applicant's ER does not incorporate and

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[147] Petition at 19.

[148] Id. at 21.

[149] Id. at 19-21.

[150] 10 C.F.R. § 51.45(b)(3).

[151] Id. § 51.45(c).

[152] Petition at 19 n.6.

[153] See Exelon Answer at 50-56; NRC Staff Answer at 19-20.

adopt the 1989 Limerick SAMDA Analyses as its analysis of severe accident mitigation alternatives."[154] Exelon concurs that Contention 2-E is outside the scope of this proceeding,[155] and argues further that 10 C.F.R. § 51.53(c)(3)(ii)(L) trumps the regulations cited by NRDC in this contention.[156]

NRDC responds by arguing that Exelon has adopted and incorporated the 1989 SAMDA as part of its license renewal ER,[157] and that Section 51.53(c)(3)(ii)(L) does not trump the regulations cited by NRDC.[158] NRDC claims that Exelon effectively adopted the 1989 SAMDA in its consideration of new information for significance in Section 5.3 of its ER.[159]

It is not necessary to interpret Section 51.53(c)(3)(ii)(L) in order to determine the admissibility of this contention.[160] Indeed, we find that this contention can be disposed of by looking solely to the ER.

Section 4.20 of the ER, entitled "Severe Accident Mitigation Alternatives (SAMA)," states that "no analysis of SAMAs for [Limerick] is provided in this License Renewal Environmental Report as none is required as a matter of law."[161] Exelon relies upon the exemption provided by

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[154] NRC Staff Answer at 19.

[155] Exelon Answer at 52.

[156] Id. at 51.

[157] Petition at 19 n.6.

[158] See Tr. at 139.

[159] Petition at 19 n.6; see also ER at 5-4 to 5-9.

[160] Contention 3-E presents this issue more clearly, so we withhold judgment at this juncture on the proper interpretation of sub-section (L).

[161] ER at 4-49.

10 C.F.R. § 51.53(c)(3)(ii)(L).[162] Section 5.3 of the ER addresses new and significant information relating to severe accident mitigation.[163] Throughout Section 5.3 of the ER, Exelon makes reference to the 1989 SAMDA.[164] Because of these references, NRDC argues that Exelon has incorporated the 1989 SAMDA by reference.[165] This Board does not find this argument persuasive. As Exelon states in Section 5.1 of the ER, it has identified new information relating to severe accident mitigation because it is required to do so by 10 C.F.R. § 51.53(c)(3)(iv), and because doing so "alert[s] NRC staff to such information, so the staff can determine whether to seek the Commission's approval to waive or suspend application of the rule with respect to the affected generic analysis."[166] By complying with 10 C.F.R. § 51.53(c)(3)(iv), Exelon has not submitted or resubmitted the 1989 SAMDA to the NRC Staff nor has it sought a determination by the NRC Staff that it satisfies the sub-section (L) exemption. Exelon has stated that it has operated under the assumption that it need not provide a SAMA analysis with its ER – either a new SAMA or the 1989 SAMDA.

Unlike most portions of Contention 1-E, which challenges Exelon's analysis of new and significant information, this contention is a direct attack on the 1989 SAMDA. The 1989 SAMDA is not a part of the Limerick license renewal ER. Therefore, Contention 2-E is inadmissible because NRDC has not raised a dispute with Exelon's application, contravening 10 C.F.R. § 2.309(f)(1)(vi), and because it is outside the scope of this proceeding.[167]

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[162] Id.

[163] Id. at 5-4 to 5-9.

[164] Id.

[165] Petition at 19, n.6.

[166] ER at 5-2.

[167] 10 C.F.R. § 2.309(f)(1)(iii), (vi).

E. Contention 3-E

NRDC's proposed Contention 3-E reads as follows:

> Applicant's Environmental Report erroneously concludes that the SAMDA analysis conducted in 1989 is a SAMA analysis within the meaning of 10 C.F.R. § 51.53(c)(3)(ii)(L) and thus the ER is deficient for its failure to include a SAMA analysis.[168]

10 C.F.R. § 51.53(c) sets forth requirements for environmental reports as part of license renewal. Applicants must submit "a consideration of alternatives to mitigate severe accidents."[169] However, this regulation provides that such consideration need only be provided "[i]f the staff has not previously considered severe accident mitigation alternatives for the applicant's plant in an environmental impact statement or related supplement or in an environmental assessment."[170] In other words, a license renewal applicant need not provide an analysis of SAMAs in its ER if the staff has already considered a SAMA analysis for that applicant's plant. NRDC argues that, while NRC Staff considered a 1989 document that it called a "SAMDA," this document was not a SAMA within the meaning of 10 C.F.R. § 51.53(c)(3)(ii)(L), and thus this exception would not apply to Exelon.[171]

Exelon and the NRC Staff oppose admission of this contention. Exelon maintains that the Commission clearly had Limerick in mind during the 10 C.F.R. § 51.53(c)(3)(ii)(L) rulemaking,[172] and that NRDC's contention amounts to a direct challenge to this regulation.[173]

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[168] Petition at 21.

[169] 10 C.F.R. § 51.53(c)(3)(ii)(L).

[170] Id.

[171] See Petition at 21-22; see also Tr. at 19, 126.

[172] Exelon Answer at 18-19.

[173] Id. at 19-20.

The NRC Staff concurs in these arguments.[174]

A brief history of 10 C.F.R. § 51.53(c)(3)(ii)(L) would be useful at this juncture. In 1974, Philadelphia Electric Company (PECO) was granted a license to construct Limerick Units 1 and 2.[175] In 1981, PECO applied to the NRC for a license under 10 C.F.R. Part 50 to begin operating Unit 1. A group called Limerick Ecology Action, Inc. (LEA) intervened in that proceeding and put forward a number of contentions regarding, among other topics not relevant here, severe accident risks.[176] Ultimately, PECO received its operating license, and LEA appealed the licensing decision to the United States Court of Appeals for the Third Circuit.[177] Part of LEA's appeal was a challenge to NRC's failure to consider SAMDAs in the Limerick operating license proceeding. Among other findings, the court ruled that careful consideration of SAMDAs is required under NEPA, and that the NRC's failure to consider SAMDAs was a violation of that Act.[178] Thus, in August 1989, the NRC Staff issued a Supplement to the Final Environmental Statement for Limerick containing a SAMDA analysis.[179]

In 1996, the Commission issued a final rule amending its regulations regarding license renewal.[180] These amendments were intended to streamline the license renewal process by

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[174] NRC Staff Answer at 32, 34.

[175] PECO became a part of Exelon Corporation in 2000.

[176] Philadelphia Elec. Co. (Limerick Generating Station, Units 1 and 2), LBP-84-31, 20 NRC 446, 550-572 (1984).

[177] See Limerick Ecology Action 869 F.2d 719.

[178] Id. at 741.

[179] See 1989 SAMDA Analysis.

[180] See Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 61 Fed. Reg. 28,467 (June 5, 1996).

setting forth a number of generic findings that would apply to all plants.[181] Among these was a finding that the risk of severe accidents is small for all plants.[182] The amendments also included the requirement that applicants perform a SAMA analysis, unless the NRC Staff had already considered one for that plant.[183]

In the Statement of Consideration accompanying this rulemaking, the Commission provided further explanation of this requirement. It noted:

> [i]n response to the [Third Circuit's] decision, an NRC staff consideration of SAMDAs was specifically included in the Final Environmental Impact Statement for the Limerick 1 and 2 and Comanche Peak 1 and 2 operating license reviews, and in the Watts Bar Supplemental Final Environmental Statement for an operating license.[184]

The Commission continued:

> a site-specific consideration of severe accident mitigation alternatives is required at license renewal for those plants for which this consideration has not been performed . . . . NRC staff considerations of severe accident mitigation alternatives have already been completed and included in an EIS or supplemental EIS for Limerick, Comanche Peak, and Watts Bar. Therefore, severe accident mitigation alternatives need not be reconsidered for these plants for license renewal.[185]

Despite this language, NRDC argues that the 1989 SAMDA does not qualify for the exception referenced in the quotation above and codified in 10 C.F.R. § 51.53(c)(3)(ii)(L).[186] This Board finds, however, that the intent of the Commission in promulgating 10 C.F.R. § 51.53(c)(3)(ii)(L) is clear – to exempt applicants from being required to submit SAMA analyses

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[181] Id. at 28,467-68.

[182] See 10 C.F.R. Part 51, Subpt. A, App. B, Tbl. B-1 (Postulated Accidents).

[183] Id.

[184] 61 Fed. Reg. at 28,481.

[185] Id.

[186] Petition at 21-22.

in the license renewal proceedings for Limerick, Watts Bar, and Comanche Peak. Because sub-section (L) cannot reasonably be construed any other way, Contention 3-E is not admissible for two reasons.

First, insofar as it asserts that Exelon must provide a SAMA analysis as part of its ER, Contention 3-E amounts to a direct challenge to sub-section (L), and is thus outside the scope of this proceeding. 10 C.F.R. § 2.335(a) states that "no rule or regulation of the Commission . . . is subject to attack . . . in any adjudicatory proceeding subject to this part."[187] Second, while a disagreement over the proper interpretation of NRC regulations may give rise to an admissible contention, NRDC's proposed interpretation of 10 C.F.R. § 51.53(c)(3)(ii)(L) is in direct conflict with the plain meaning of the regulation and its Statement of Consideration. We therefore find that NRDC has failed to present a genuine dispute of fact or law with Exelon, as required by NRC regulations.[188]

For these reasons, we find that Contention 3-E is not admissible.

F. Contention 4-E

NRDC's proposed Contention 4-E reads as follows:

> Applicant's Environmental Report (§7.2) fails to adequately consider the no action alternative in violation of 10 C.F.R. §§ 51.45(c), 51.53(c)(2) and 51.53(c)(iii).[189]

NRDC alleges that "[t]he ER violates 10 C.F.R. § 51.45(c) because it omits an analysis that 'considers and balances the environmental effects of the proposed action' and the alternative of No Action."[190] While this sounds like it is raising a contention of omission, NRDC

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[187] 10 C.F.R. § 2.335(a).

[188] See id. § 2.309(f)(1)(vi).

[189] Petition at 23.

[190] Id.

goes on to argue that Exelon's discussion of the no-action alternative is inadequate because it "unreasonably and arbitrarily limits its analysis of the No Action alternative in a manner that fails, 'to the fullest extent practicable, [to] quantify the various factors considered' and neglects discussion of 'important qualitative considerations or factors that cannot be quantified.'"[191] NRDC further argues that Exelon's ER is inadequate because it limits its discussion of the no-action alternative to "decommissioning impacts" and single-source power generation alternatives, and because it fails to consider "growth in demand side management and renewable energy sources."[192]

Exelon and the NRC Staff argue that this contention is inadmissible.[193] Exelon contends first that Contention 4-E is too vague and unsupported to pass muster under the NRC's contention admissibility rules.[194] Moreover, Exelon states that its ER does contain the exact information that NRDC claims is missing.[195] The NRC Staff agrees that Contention 4-E is fatally unsupported[196] and that Exelon's ER sufficiently addresses the no-action alternative.[197]

Before proceeding, we think it appropriate to outline exactly what the no-action alternative is. As a general matter, NRC regulations require that a license renewal applicant in its ER "shall discuss . . . the environmental impacts of alternatives."[198] An ER's "discussion of

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[191] Id.

[192] Id. at 23-24.

[193] Exelon Answer at 57-70; NRC Staff Answer at 40-53.

[194] Exelon Answer at 61.

[195] Id. at 62.

[196] NRC Staff Answer at 45-51.

[197] Id. at 46.

[198] 10 C.F.R. § 51.53(c)(2).

alternatives shall be sufficiently complete to aid the Commission in developing and exploring" its own set of alternatives in its EIS,[199] and NRC regulations require an EIS to consider the "alternative of no action."[200] Therefore, to satisfy the requirements of 10 C.F.R. § 51.45(b)(3), an applicant must provide a discussion of the no-action alternative in its ER.

But, the question remains, what is the no-action alternative? The agency's regulations appear to be silent on this matter, but NRC's GEIS discusses the issue. The GEIS states that the purpose of the no-action alternative is to enable the agency to consider "the environmental consequences of taking no action at all."[201] It goes on to state:

> The no-action alternative is the denial of a renewed license. In general, if a renewed license were denied, a plant would be decommissioned and other electric generating sources would be pursued if power were still needed. It is important to note that NRC's consideration of the no-action alternative does not involve the determination of whether any power is needed or should be generated. The decision to generate power and the determination of how much power is needed are at the discretion of state and utility officials.[202]

In essence, the no-action alternative is an analysis of what would be reasonably likely to happen were the Commission to deny the requested license renewal.

We note that Exelon's ER contains a section entitled "No-Action Alternative."[203] NRDC contends that this analysis is inadequate because it does not adequately consider "expected growth in demand side management and renewable energy sources,"[204] fails to "quantify the

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[199] Id. § 51.45(b)(3).

[200] Id. Part 51, Subpt. A, App. A.

[201] GEIS at 8-1.

[202] Id.

[203] ER at 7-3.

[204] Petition at 24.

various factors considered,"[205] and omits a discussion of "important qualitative considerations or factors that cannot be quantified."[206] NRDC further argues that Exelon:

> improperly and illogically narrow[ed its] discussion of the No Action alternative to consideration of (1) decommissioning impacts and (2) power generation alternatives that would 'equivalently satisfy the purpose and need for the proposed action' by 'replacing the generating capacity of [Limerick]' with 'single discrete generation sources.'[207]

NRDC's support for this contention is the Paine Declaration.[208] It cites no regulations or case law that require Exelon to explore the no-action alternative in the way Contention 4-E would require.[209] Exelon, citing the Commission's decisions in Hydro Resources and Louisiana Energy Services, has shown that the Commission requires only a brief discussion of the no-action alternative.[210] The Commission has stated, "[f]or the 'no action' alternative, there need not be much discussion. It is most simply viewed as maintaining the status quo."[211] The Commission has also held that "[t]he extent of the 'no-action' discussion is governed by a 'rule of reason.' It is clear that the discussion 'need not be exhaustive or inordinately detailed.'"[212]

As noted above, Exelon discusses the no-action alternative in Section 7.1 of its ER.[213]

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[205] Id. at 23.

[206] Id.

[207] Id. at 23-24, quoting Paine Declaration at par. 5-7.

[208] See generally Paine Declaration.

[209] See Exelon Answer at 60; NRC Staff Answer at 46.

[210] See Exelon Answer at 59 n.298.

[211] Hydro Res., Inc. (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-04, 53 NRC 31, 54 (2001) (citations omitted).

[212] La. Energy Servs., L.P. (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 97 (1998) (citations omitted).

[213] See ER at 7-3.

In this Section, Exelon discusses the impacts of decommissioning and cross-references a discussion of alternative means of providing energy along with their environmental impacts.[214] Exelon then discusses the environmental impacts of energy sources that could replace Limerick in the event that license renewal is denied, including gas-fired generation,[215] coal-fired generation,[216] purchased power,[217] new nuclear generation,[218] wind energy,[219] solar energy,[220] a combination of wind energy, solar energy, and gas-fired combined-cycle generation,[221] and a combination of wind energy and compressed air energy storage.[222] While NRDC would like to have seen a discussion of "Demand Side Management (DSM),[223] waste heat co-generation, combined heat and power, and distributed renewable energy resources,"[224] given the Commission's holdings that the no-action alternative discussion "need not be exhaustive,"[225]

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[214] Id.; see also ER at Section 7.2.2.

[215] Id. at Section 7.2.2.1.

[216] Id. at Section 7.2.2.2.

[217] Id. at Section 7.2.2.3.

[218] Id. at Section 7.2.2.4.

[219] Id. at Section 7.2.2.5.

[220] Id. at Section 7.2.2.6.

[221] Id. at Section 7.2.2.7.

[222] Id. at Section 7.2.2.8.

[223] We note that the ER does discuss DSM and determines that it is not a reasonable alternative. See ER at 7-16. Exelon noted at oral argument that it cross-referenced the impacts of DSM into its analysis of the no-action alternative. See Tr. at 180.

[224] Paine Declaration at par. 7.

[225] Claiborne, CLI-98-3, 47 NRC at 97.

and need only include "feasible, non-speculative alternatives,"[226] we conclude that NRDC has provided us with no support for the notion that Exelon's analysis of the no-action alternative is unreasonable under NEPA. Contention 4-E is inadmissible because it fails to provide "a concise statement of the alleged facts or expert opinions which support the … petitioner's position on the issue."[227]

IV. Motions to Strike

Exelon and the NRC Staff filed motions to strike portions of NRDC's reply brief for allegedly proffering arguments beyond the scope of NRDC's initial petition and the answers. The Commission has stated, "[w]e have long held that a reply may not contain new information that was not raised in either the petition or answers, but we have not precluded arguments that respond to the petition or answers, whether they are offered in rebuttal or in support."[228] Exelon and the NRC Staff assert that NRDC has raised new arguments or provided new factual support for its contentions in its reply,[229] while NRDC claims that it has merely responded to arguments made by either Exelon or the NRC Staff.[230]

Our review of the Table attached to Exelon's motion to strike and NRC Staff's "List of Statements to Be Stricken or Not Considered" reveals no "entirely new arguments, references or factual claims." It appears that NRDC's reply responds to arguments raised by the NRC Staff

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[226] Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), CLI-91-02, 33 NRC 61, 65 (1991) (quoting Piedmont Heights Social Club, Inc. v. Moreland, 637 F.2d 430, 436 (5th Cir. 1981)).

[227] 10 C.F.R. § 2.309(f)(1)(v).

[228] Entergy Nuclear Operations, Inc. (Indian Point Nuclear Generating Units 2 and 3), CLI-11-14, 74 NRC __, __ (slip op. at 10) (Dec. 22, 2011).

[229] Exelon Motion to Strike at 2; NRC Motion to Strike at 1-2.

[230] [NRDC] Combined Opposition to Motions to Strike at 2.

and Exelon in their answers. This approach is permissible and consistent with the Commission's decision in Indian Point.[231]

Because we have based our decision primarily on information presented in NRDC's petition to intervene, Exelon's answer, and the NRC Staff's answer, and because we find little over-reaching in NRDC's reply brief, we deny the motions to strike.

V. Conclusion

For the foregoing reasons, it is determined:

A. NRDC has demonstrated standing and submitted at least one admissible contention. NRDC is admitted as a party to this proceeding.

B. NRDC's Contention 1-E is admitted in part, as limited and reworded by the Board as follows:

> Applicant's Environmental Report (§ 5.3) erroneously concludes that new information related to its severe accident mitigation design alternatives ("SAMDA") analysis is not significant, in violation of 10 C.F.R. § 51.53(c)(3)(iv), and thus the ER fails to present a legally sufficient analysis in that:
>
> > 1. Exelon has omitted from its ER a required analysis of new and significant information regarding potential new severe accident mitigation alternatives previously considered for other BWR Mark II Containment reactors.
> >
> > 2. Exelon's reliance on data from TMI in its analysis of the significance of new information regarding economic cost risk constitutes an inadequate analysis of new and significant information.

C. In all other respects, we find Contention 1-E is inadmissible.

D. Contentions 2-E, 3-E and 4-E are not admitted.

E. Exelon's and the NRC Staff's motions to strike are denied.

F. A Subpart L hearing is granted with respect to the above-admitted Contention 1-E.

G. The Licensing Board will hold a telephone conference with the parties in which we

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[231] Indian Point, CLI-11-14, 74 NRC at __ (slip op. at 10).

will discuss a schedule of further proceedings in this matter.

H. This Order is subject to appeal to the Commission in accordance with the provisions of 10 C.F.R. § 2.311. Any petitions for review meeting applicable requirements set forth in that section must be filed within ten (10) days of service of this Memorandum and Order.

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD
/RA/

_____
William J. Froehlich, Chairman
ADMINISTRATIVE JUDGE

/RA/

_____
Dr. Michael F. Kennedy
ADMINISTRATIVE JUDGE

/RA/

_____
Dr. William E. Kastenberg
ADMINISTRATIVE JUDGE

Rockville, Maryland
April 4, 2012

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
Exelon Generation Company, LLC	)	Docket Nos. 50-352-LR and 50-353-LR
(Limerick Generating Station, Units 1 and 2)	)	
	)	ASLBP No. 12-916-04-LR-BD01
(License Renewal)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing MEMORANDUM AND ORDER (Ruling on Petition to Intervene and Request for Hearing) (LBP 12-08) have been served upon the following persons by Electronic Information Exchange.

U.S. Nuclear Regulatory Commission
Atomic Safety and Licensing Board
Mail Stop T-3F23
Washington, DC 20555-0001

William J. Froehlich, Chair
Administrative Judge
E-mail: william.froehlich@nrc.gov

Michael F. Kennedy
Administrative Judge
E-mail: michael.kennedy@nrc.gov

William E. Kastenberg
Administrative Judge
E-mail: William.kastenberg@nrc.gov

Matthew Flyntz
Law Clerk
E-mail: matthew.flyntz@nrc.gov

U.S. Nuclear Regulatory Commission
Office of the Secretary of the Commission
Mail Stop O-16C1
Washington, DC 20555-0001
Hearing Docket: hearingdocket@nrc.gov

Limerick Generating Station, Units 1 and 2, Docket Nos. 50-362-LR and 50-363-LR
MEMORANDUM AND ORDER (Ruling on Petition to Intervene and Request for Hearing) (LBP 12-08)

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

U.S. Nuclear Regulatory Commission
Office of the General Counsel
Mail Stop O-15D21
Washington, DC 20555-0001
Catherine Kanatas, Esq.
Maxwell Smith, Esq.
Mary Spencer, Esq.
Edward Williamson, Esq.
Lauren Woodall, Esq.
Brian Newell, Paralegal
catherine.kanatas@nrc.gov
maxwell.smith@nrc.gov
mary.spencer@nrc.gov
edward.williamson@nrc.gov
lauren.woodall@nrc.gov
brian.newell@nrc.gov

OGC Mail Center: OGCMailCenter@nrc.gov

Exelon Generation Company, LLC
Exelon Business Services Company
200 Exelon Way, Suite 305
Kennett Square, PA 19348
Donald Ferraro, Asst. General Counsel
donald.ferraro@exeloncorp.com

Exelon Generation Company, LLC
4300 Warrenville Road
Warrenville, IL 60555
J. Bradley Fewell, Dep. General Counsel
bradley.fewell@exeloncorp.com

Morgan, Lewis & Bockius, LLP
1111 Pennsylvania Avenue, N.W.
Washington, DC 20004
Alex Polonsky, Esq.
Kathryn Sutton, Esq.
Anna Jones, Esq.
Edwin Villarico, Sr. Paralegal
Lesa Williams Richardson, Legal Secretary
Mary Freeze, Legal Secretary
apolonsky@morganlewis.com
ksutton@morganlewis.com
anna.jones@morganlewis.com
evillarico@morganlewis.com
lrichardson@morganlewis.com
mfreeze@morganlewis.com

Morgan, Lewis & Bockius, LLP
1701 Market Street
Philadelphia, PA 19103-2921
Brooke Leach, Esq.
bleach@morganlewis.com

Limerick Generating Station, Units 1 and 2, Docket Nos. 50-362-LR and 50-363-LR
MEMORANDUM AND ORDER (Ruling on Petition to Intervene and Request for Hearing) (LBP 12-08)

Natural Resources Defense Council (NRDC)
1152 – 15th Street, N.W., #300
Washington, DC 20005
Geoffrey H. Fettus, Sr. Project Attorney
gfettus@nrdc.org

National Legal Scholars Law Firm, P.C.
241 Poverty Lane, Unit 1
Lebanon, New Hampshire 03766
Anthony Roisman, Managing Partner
aroisman@nationallegalscholars.com

[Original signed by Christine M. Pierpoint]
Office of the Secretary of the Commission

Dated at Rockville, Maryland
this 4th day of April, 2012